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June 3, 2022

Mr. Aaron Yue
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Subject: *First Quarter 2022 Quarterly Progress Report, PG&E Topock Compressor Station, Needles, California* (PGE20180115A)

Dear Mr. Yue:

Enclosed is the First Quarter 2022 Quarterly Progress Report for the Pacific Gas and Electric Company (PG&E) Topock Compressor Station located in Needles, California (the Site). In December 2021, startup began for Phase 1 of the groundwater remedy system, including start of National Trails Highway in-situ reactive zone (IRZ) system operation, maintenance, and monitoring to address hexavalent chromium in groundwater. Startup (i.e., energization of the IRZ injection and extraction wells and initiation of the ethanol injection process) continued in First Quarter 2022 (January through March 2022). Groundwater and surface water monitoring was performed to evaluate the performance of the groundwater remedy to attain the remedial action objectives and comply with Applicable or Relevant and Appropriate Requirements.

In accordance with the reporting requirements outlined in the Basis of Design Report/Final (100%) Design Submittal and Construction/Remedial Action Work Plan for the Final Groundwater Remedy, this quarterly progress report presents an overview of the groundwater remedy and remedial action objectives; a summary of First Quarter 2022 communications, operations, and performance; and recommendations and planned activities for the next reporting period.

Please contact me at 760.791.5884 if you have any questions about the quarterly progress report.

Sincerely,

Curt Russell
Topock Remediation Project Manager

Cc: Chris Guerre/DTSC
Pam Innis/DOI
Ken Foster/CA-SLC
Bruce Campbell/AZ-SLD

Topock Project Executive Abstract

Document Title:	First Quarter 2022 Quarterly Progress Report, PG&E Topock Compressor Station, Needles CA
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Date of Document:	June 3, 2022
Who created this document?: (i.e. PG&E, DTSC, DOI, Other)	PG&E
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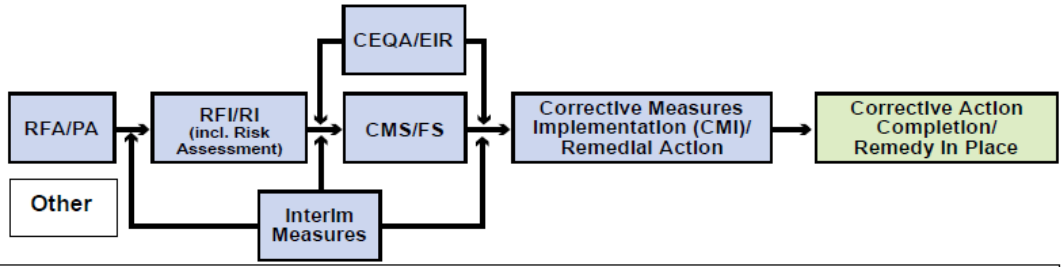
Is this time critical?	☐ Yes ☒ No
Type of Document:	☐ Draft ☒ Report ☐ Letter ☐ Memo ☐ Other / Explain:
Action Required:	☒ Information Only ☐ Review & Comment Return to: _____ By Date: _____ ☐ Other / Explain:
What does this information pertain to?	☐ Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA) ☐ RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment) ☐ Corrective Measures Study (CMS)/Feasibility Study (FS) ☒ Corrective Measures Implementation (CMI)/Remedial Action ☐ California Environmental Quality Act (CEQA)/Environmental Impact Report (EIR) ☐ Interim Measures ☐ Other / Explain:
Is this a regulatory requirement?	☒ Yes ☐ No If no, why is the document needed?
What is the consequence of NOT doing this item? What is the consequence of DOING this item?	Submittal of this report is a compliance requirement under DTSC and DOI requirements.
Other Justification/s:	☐ Permit ☐ Other / Explain:
Brief Summary of Attached Document:	In December 2021, startup began for Phase 1 of the groundwater remedy system, including start of National Trails Highway in-situ reactive zone (IRZ) system operation, maintenance, and monitoring to address hexavalent chromium in groundwater. Startup (i.e., energization of the IRZ injection and extraction wells and initiation of the ethanol injection process) continued in First Quarter 2022 (January through March 2022). Groundwater and surface water monitoring was performed to evaluate the performance of the groundwater remedy to attain the remedial action objectives and comply with Applicable or Relevant and Appropriate Requirements. In accordance with the reporting requirements outlined in the Basis of Design Report/Final (100%) Design Submittal and Construction/Remedial Action Work Plan for the Final Groundwater Remedy, this quarterly progress report presents an overview of the groundwater remedy and remedial action objectives; a summary of First Quarter 2022 communications, operations, and performance; and recommendations and planned activities for the next reporting period Written by: PG&E
Recommendations:	None.
How is this information related to the Final	This report is required by DTSC and DOI as part of the Basis of Design Report/Final (100%) Design

Remedy or Regulatory Requirements?:	Submittal and Construction/Remedial Action Work Plan for the Final Groundwater Remedy.
Other requirements of this information?:	None.
Related Reports and Documents:	Click any boxes in the Regulatory Road Map (below) to be linked to the Documents Library on the DTSC Topock Web Site (www.dtsc-topock.com).  **Legend** RFA/PA – RCRA Facility Assessment/Preliminary Assessment RFI/RI – RCRA Facility Investigation/CERCLA Remedial Investigation (including Risk Assessment) CMS/FS – RCRA Corrective Measure Study/CERCLA Feasibility Study CEQA/EIR – California Environmental Quality Act/Environmental Impact Report

Pacific Gas and Electric Company

First Quarter 2022 Quarterly Progress Report

Topock Compressor Station

Needles, California

June 3, 2022

First Quarter 2022 Quarterly Progress Report

Topock Compressor Station

Needles, California

June 3, 2022

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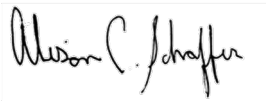

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Acronyms and Abbreviations

µg/L	microgram per liter
Agencies	Department of the Interior and the California Department of Toxic Substances Control
ARAR	Applicable or Relevant and Appropriate Requirements
BOD SMP	Basis of Design Sampling and Monitoring Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPC	constituent of potential concern
Cr3	trivalent chromium
Cr6	hexavalent chromium
C/RAWP	Construction/Remedial Action Work Plan
DOI	U.S. Department of the Interior
DQO	data quality objectives
DTSC	California Department of Toxic Substances Control
Final BOD	Basis of Design Report/Final (100%) Design Submittal and Construction/ Remedial Action Work Plan for the Final Groundwater Remedy
GREM	Green Remediation Evaluation Matrix
IRZ	in-situ reactive zone
MCL	Maximum Contaminant Level
mg/L	milligram per liter
MS/MSD	matrix spike/matrix spike duplicate
NRWQC	national recommended water quality criteria
NTH	National Trails Highway
O&M	operation and maintenance
ORP	oxidation-reduction potential
PAP	Perimeter Assessment Plan
PARCC	precision, accuracy, representativeness, comparability, and completeness
PG&E	Pacific Gas and Electric Company
Phase 1 Monitoring Plan	Groundwater Remedy Phase 1 Interim Monitoring Plan
Phase 1 Monitoring Program	Groundwater Remedy Phase 1 Monitoring Program
QAPP	Quality Assurance Project Plan
RAO	remedial action objective

RCRA	Resource Conservation and Recovery Act
RPWC	remedy-produced water conditioning
Site	PG&E Topock Compressor Station, located in eastern San Bernardino County, 15 miles southeast of the City of Needles, California
SMP	Sampling and Monitoring Plan
SOP	Standard Operating Procedure
TCS	Topock Compressor Station
TDS	total dissolved solids
TOC	total organic carbon
USEPA	United States Environmental Protection Agency

Executive Summary

Startup of the Phase 1 groundwater remedy system began in December 2021 including the start of National Trails Highway (NTH) in-situ reactive zone (IRZ) system operation, maintenance, and monitoring to address hexavalent chromium (Cr6) in groundwater. Startup (i.e., energization of the IRZ injection and extraction wells and initiation of the ethanol injection process) continued in First Quarter 2022. For the first portion of the quarter, the system was operated during daytime hours on workdays using a generator. On March 10, continuous operations using a generator began. On March 24, the system transitioned to continuous operation on Topock Compressor Station (TCS) power. There were periods of downtime throughout the quarter as detailed herein.

In January and February, ethanol injection into operational injection wells occurred twice weekly in accordance with the Basis of Design Report/Final (100%) Design Submittal and Construction/Remedial Action Work Plan for the Final Groundwater Remedy (Final BOD) Operation and Maintenance (O&M) Plan (Appendix L, Volume 1; CH2M Hill 2015a). On March 7, ethanol injection frequency at the IRZ injections wells was reduced from two doses per week to one dose per week due to an elevated manganese concentration observed in one dose response monitoring well (MW-31-060).

Groundwater and surface water monitoring was performed in First Quarter 2022 in accordance with the Groundwater Remedy Phase 1 Interim Monitoring Plan (Phase 1 Monitoring Plan; Arcadis 2021), Standard Operating Procedures presented in Appendix B of the Phase 1 Monitoring Plan, and the PG&E Program Quality Assurance Project Plan (QAPP; CH2M Hill 2014; Critigen 2020) to evaluate the performance of the groundwater remedy to attain the Remedial Action Objectives (RAOs) and comply with Applicable or Relevant and Appropriate Requirements (ARARs). The system was not in full operation in First Quarter 2022; therefore, the monitoring data collected in First Quarter 2022 represent groundwater and surface water conditions during remedy startup when system operations were intermittent. Key observations of First Quarter 2022 remedy performance are highlighted below:

- The process control monitoring results indicated that initial Cr6 treatment was observed at dose response monitoring wells MW-31-060, MW-78-070, MW-26, and MW-51. Cr6 treatment was generally observed at dose response wells located closest to the IRZ injection wells (within 10 to 50 feet).
- Cr6 concentrations in the downgradient monitoring wells are evaluated to determine if concentrations are within expectations provided in the Final BOD (CH2M Hill 2015a). In First Quarter 2022, Cr6 concentrations were below 32 micrograms per liter (µg/L), except at MW-77-158 (52 µg/L; March 1, 2022). Cr6 concentrations at MW-77-158 and downgradient wells will continue to be monitored. The sampling frequency at select downgradient monitoring wells will be increased to monthly to better evaluate changes in Cr6 concentrations over time in response to system operation; this modification will be implemented in Second Quarter 2022.
- In-situ byproduct (dissolved arsenic, dissolved iron, and dissolved manganese) concentrations at the dose response and downgradient monitoring wells were below the action levels, except for the dissolved manganese concentration at MW-31-060, located 10 feet from injection well IRZ-18, collected on February 1, 2022 (7.8 milligrams per liter [mg/L]); see table below.
- On the northern end of the NTH IRZ, the Cr6 plume was controlled, as evidenced by Cr6 concentrations in the NTH IRZ extraction monitoring wells and surface water monitoring locations (below 32 µg/L), even though extraction wells IRZ-9 and IRZ-13 were operated briefly in First Quarter 2022.

- Remedy compliance monitoring data were collected in First Quarter 2022 to evaluate progress towards achievement of RAOs 2, 3, and 4. RAO progress is anticipated to be evaluated throughout the duration of the remedy; data collected each quarter will contribute to the overall evaluation.
- Constituents of Potential Concern (COPC) Perimeter Assessment Plan (PAP) monitoring results were below the trigger levels, except for the nitrate as nitrogen (N) concentration at MW-90-031 collected on March 4, 2022 (0.66 mg/L N); see table below.

The table below provides a summary of in-situ byproduct action level and COPC PAP trigger level exceedances from First Quarter 2022 and associated response actions.

Program	Well	Constituent	Action Level or Trigger Level	First Quarter 2022 Result	Response Actions
Process Control Monitoring	MW-31-060	Dissolved manganese	Action Level: 5 mg/L	7.8 mg/L (February 1, 2022)	Decreased ethanol dosing frequency for all IRZ injection wells Re-sampled on March 4, 2022 (2.2 mg/L) No further actions needed
COPC Monitoring	MW-90-031	Nitrate as N	Trigger Level: 0.22 mg/L (nitrate/nitrite as N)	0.66 mg/L nitrate as N (March 4, 2022)	Trigger level exceedance likely due to a change in analytical method (nitrate vs. nitrate/nitrite) Notified Agencies on April 29, 2022 Verification sampling planned for May 2022

1 Introduction

Pacific Gas and Electric Company (PG&E) is implementing a final groundwater remedy to address hexavalent chromium (Cr6) 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 Site). PG&E is implementing the groundwater remedy at the TCS in conformance with the requirements of the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The U.S. Department of the Interior (DOI) and the California Department of Toxic Substances Control (DTSC), collectively known at the 'Agencies,' executed a Memorandum of Understanding on November 22, 2011 establishing coordination guidelines for overseeing implementation of a groundwater response action at the TCS (DTSC and DOI 2011). In a coordinated effort, the DOI and DTSC selected the final groundwater remedy to address chromium in groundwater, which is presented in the Record of Decision (DOI 2010).

In November 2015, PG&E submitted a Basis of Design Report/Final (100%) Design Submittal and Construction/ Remedial Action Work Plan for the Final Groundwater Remedy (Final BOD), which presents the final design basis, design criteria, drawings, specifications, and operation and maintenance (O&M) requirements for the groundwater remedy (CH2M Hill, Inc. [CH2M Hill] 2015a). The infrastructure for the groundwater remedy is being constructed following the plans and procedures documented within the Construction/Remedial Action Work Plan (C/RAWP; CH2M Hill 2015b). Construction and startup of the groundwater remedy is proceeding in phases.

Construction of Phase 1 began in October 2018 and was completed in December 2021 sufficient for initial system startup. The design was modified during construction to accommodate conditions encountered, including a plume footprint smaller than documented in the Final BOD. Modifications included changes to the remediation and monitoring well networks and associated infrastructure including deferral of wells to Phase 2. The design of the maintenance systems (in particular, the system for conditioning of remedy-produced water) was modified to accommodate the demands of the Phase 1 remedy, which are smaller than those for the full groundwater remedy (Phase 1 and Phase 2) planned in the Final BOD. These modifications were documented in Work Variance Request #5 (DTSC and DOI 2019), and overall Phase 1 as-built conditions will be documented and subsequently amended as Phase 2 is completed. Construction of the Phase 2a remedy was initiated in First Quarter 2022; construction of Phase 2b is anticipated to begin in 2023 and be completed in 2026.

In December 2021, startup began for Phase 1 of the groundwater remedy system, including the start of National Trails Highway (NTH) in-situ reactive zone (IRZ) system operation, maintenance, and monitoring. O&M are being performed in accordance with the O&M Plan (Appendix L, Volume 1; CH2M Hill 2015a). Monitoring is being performed in accordance with the Sampling and Monitoring Plan (BOD SMP), with modifications, provided in the Final BOD O&M Manual (Appendix L, Volume 2; CH2M Hill 2015a) to evaluate the performance of the groundwater remedy to attain the Remedial Action Objectives (RAOs) and comply with Applicable or Relevant and Appropriate Requirements (ARARs). Because the groundwater remedy is being constructed in phases, a modified SMP was needed to suit the as-built Phase 1 of the groundwater remedy. PG&E submitted the Groundwater Remedy Phase 1 Interim Monitoring Plan (Phase 1 Monitoring Plan; Arcadis 2021) to the Agencies on October 1, 2021.

In accordance with the BOD SMP reporting requirements (CH2M Hill 2015a), this quarterly progress report provides a summary of the following elements for First Quarter 2022 (January through March 2022; the reporting period):

- Overview of the groundwater remedy and RAOs;

- Communications Summary. Summary of remedy-related communications with the DTSC, DOI, PG&E, Tribes, and other project stakeholders, which have been distributed as part of community outreach efforts;
- Operations Summary. Description of routine and non-routine downtime, operational data, and process monitoring data; utilities and consumables used and waste handling/disposal; issues encountered with system operation; system optimizations and maintenance performed; and material deviations from design documents and the O&M Plan;
- Performance Summary. Description of the monitoring events performed during the current reporting period, the monitoring results and interpretation of results, evaluation of Cr6 plume control, interpretation of progress towards the RAOs, and material deviations from design documents and the O&M Plan;
- O&M Green Remediation Evaluation Matrix (GREM) Summary;
- Recommendations and planned activities for the next reporting period.

1.1 Remedial Action Objectives

As stated in the Final BOD (CH2M Hill 2015a), the RAOs for the groundwater remedy are to:

1. Prevent ingestion of groundwater as a potable water source exhibiting Cr6 concentrations that exceed the regional background concentration of 32 micrograms per liter (µg/L).
2. Prevent or minimize migration of total dissolved chromium and Cr6 in groundwater to ensure that concentrations in surface water do not exceed water quality standards that support the designated beneficial uses of the Colorado River (11 µg/L Cr6; United States Environmental Protection Agency [USEPA] 2022).
3. Reduce the mass of total dissolved chromium and Cr6 in groundwater at the Site to achieve compliance with ARARs in groundwater. This RAO will be achieved by meeting the cleanup goal of the regional background concentration of 32 µg/L of Cr6.
4. Ensure that the geographic location of the target remediation area does not permanently expand following completion of the remedial action.

1.2 Phase 1 Remedy Overview

Per the C/RAWP, Phase 1 of the groundwater remedy comprises the creation of an IRZ along NTH using a line of injection and extraction wells to circulate groundwater and distribute an organic carbon source to promote reduction of soluble Cr6 to the insoluble form: trivalent chromium (Cr3). The groundwater remedy is being constructed in two phases in accordance with the C/RAWP (CH2M Hill 2015b).

The infrastructure for the Phase 1 remedial system consists of the following components (**Figure 1.1**):

- A line of remedial wells along the NTH that comprise the NTH IRZ (18 remediation wells);
- A treatment system compound, situated on the MW-20 bench, that includes infrastructure for organic carbon amendment and system maintenance;
- A remedy-produced water conditioning (RPWC) system situated on the compressor station;
- Conveyance lines among the NTH IRZ remedials wells, the MW-20 bench treatment compound, and the RPWC system;

- A monitoring well network composed of monitoring wells that existed before the groundwater remedy (174 monitoring locations) and monitoring wells constructed for Phase 1 of the groundwater remedy (69 newly constructed monitoring locations; a total of 243 monitoring locations; see Section 3);
- Riverbank Extraction Wells (four extraction wells). The riverbank extraction wells are not currently plumbed into the remedial system, and were, therefore, not operated in First Quarter 2022.

The NTH IRZ system is operated by extracting groundwater from the NTH IRZ extraction wells, amending the water with carbon substrate (ethanol), then injecting the amended water into the NTH IRZ injection wells. **Figure 1.2** shows a process flow diagram of the treatment compound at the MW-20 bench, including the carbon amendment infrastructure. As discussed in the Final BOD (CH2M Hill 2015a), the intent of the ethanol injections is to drive microbially mediated conditions for reduction of Cr6 to Cr3. The generated reducing conditions will also drive reduction of other compounds such as iron, manganese, sulfate, nitrate, and arsenic. These compounds form the basis of the Groundwater Remedy Phase 1 Monitoring Program (Phase 1 Monitoring Program), particularly the process control monitoring and remedy compliance monitoring programs (see Section 1.3). The groundwater and surface water monitoring data collected as part of the Phase 1 Monitoring Program are used to assess how biogeochemical conditions are changing in the subsurface in response to NTH IRZ system operations, inform system operational adjustments as needed, and evaluate overall remedy effectiveness.

During Phase 1, the NTH IRZ system is planned to operate for a period of time, nominally for 6 months, followed by a period of downtime, nominally 18 months. Actual duration of the operational and rest periods will be determined based on the amount of active operation runtime each month and data collected in the process control monitoring program (see Section 1.3).

1.3 Phase 1 Monitoring Program Overview

The BOD SMP detailed monitoring programs for the groundwater remedy and developed Data Quality Objectives (DQOs) that guided the design of sampling locations, constituents and frequencies, and the methodology for evaluating the data to inform operations (Appendix L, Volume 2; CH2M Hill 2015a). The relevant programs from the BOD SMP, as described in the Phase 1 Monitoring Plan (Arcadis 2021), include:

- *Process control monitoring*. This program assesses the extent to which the NTH IRZ is functioning as designed according to the NTH IRZ DQOs presented in the BOD SMP (CH2M Hill 2015a) and listed below. The DQOs guide data collection and establish decision rules that outline how the data collected will be used to adjust system operations. The NTH IRZ decision rules and operational framework are provided in Figure 2.2-2 of the BOD SMP (Appendix L, Volume 2; CH2M Hill 2015a).
    - The carbon substrate amendment system must be working to amend the organic carbon substrate into the recirculated groundwater (NTH IRZ DQO 1).
    - The NTH IRZ must be complete and maintain Cr6 treatment over time (NTH IRZ DQO 2).
    - In-situ byproduct (dissolved arsenic, dissolved manganese, dissolved iron, and dissolved barium) generation and migration from the NTH IRZ must be controlled (NTH IRZ DQO 3).
    - Extraction on the north end of the NTH IRZ will be conducted to control Cr6 with the NTH and riverbank extraction systems (NTH IRZ DQO 4).
    - Extraction will be conducted to minimize extraction of organic carbon and reduced metal byproducts (iron and manganese; NTH IRZ DQO 5).

The process control monitoring program consists of five components: dose response monitoring, downgradient well monitoring, northern NTH IRZ extraction monitoring, extraction well monitoring, and carbon amendment system monitoring. The process control monitoring network is shown on **Figure 1.3**. The carbon amendment monitoring locations are shown on **Figure 1.2;** these samples are collected from sampling ports located downstream of each in-line static mixer. Results are presented in Sections 2.1 and 3.2.1.

- *Remedy compliance monitoring*. This program consists of surface water and groundwater sampling to evaluate achievement of RAOs 2, 3, and 4, as defined in Section 1.1. Note that RAO 1, which involves prevention of the ingestion of water with elevated Cr6 concentrations, requires no action within the remedy compliance monitoring program because institutional controls are being implemented to achieve this RAO. The remedy compliance groundwater monitoring and surface water monitoring network is shown on **Figure 1.4**. Results are presented in Section 3.2.2.
- *Constituent of potential concern (COPC) monitoring*. The DTSC and DOI consider selenium, molybdenum, and nitrate as COPCs potentially related to site activities and have directed that these constituents be monitored throughout remediation. The RAOs defined in Section 1.1 are not applicable to the COPCs. The COPC monitoring program consists of surface water and groundwater sampling to monitor COPC concentrations during Phase 1 of remedy startup. The COPC monitoring network is shown on **Figure 1.5.** Results are presented in Section 3.2.3.
- *Water level monitoring*. The purpose of this program is to assess changes in hydraulic gradients in the floodplain affected by system operations. The pressure transducer monitoring network is shown on **Figure 1.6.** The system was operated in several different configurations during First Quarter 2022 interspersed with downtime, creating changing hydraulic gradients. As such, “representative” groundwater elevation maps were not prepared for this reporting period and will be prepared in Second Quarter 2022 as the system is operated more consistently.
- *RPWC system monitoring*. The purpose of this program is to monitor the quality of water at the RPWC system. The primary objective is to evaluate effluent water quality as it affects the reuse options. During Phase 1, the planned reuse is re-injection to the NTH IRZ wells. Results are presented in Section 2.2.
- *Former IM-3 injection area monitoring*. The purpose of this program is to evaluate the change in conditions in the IM-3 injection area following the end of injection associated with IM-3 operations. Former IM-3 injection area monitoring is performed annually; therefore, it is not discussed in this quarterly progress report.
- *Domestic well sampling*. Per direction from the DTSC, domestic/private wells are sampled to evaluate the potential effects the remedy could impart to domestic wells chemically and hydraulically. Domestic well sampling is performed biennially; therefore, it is not discussed in this quarterly progress report.

The Phase 1 Monitoring Program is intended to evaluate the first 2 years of remedy operation; the monitoring program will be re-evaluated and updated (as needed) after 2 years of operation of Phase 1.

1.4 First Quarter 2022 Communications

This section summarizes key PG&E communications in First Quarter 2022 associated with Phase 1 of the groundwater remedy:

- On January 18, 2022, the DTSC, with support from the DOI and PG&E, mailed an annual Community Update/ Factsheet to provide information to the interested public regarding the progress of work at the PG&E Topock

Compressor Station. The 2022 Community Update included the end of the Interim Measure and the beginning of the final groundwater remedy.

- On January 26, 2022, PG&E presented the initial operations of Phase 1 of the groundwater remedy at the Consultative Working Group meeting.
- PG&E submitted the Fourth Quarter 2021 Quarterly Progress Report (Arcadis 2022a) to the DTSC and DOI on March 31, 2022.
- On April 29, 2022, PG&E submitted a notification to the DTSC and DOI about a First Quarter 2022 COPC Perimeter Assessment Plan (PAP) trigger level exceedance at monitoring well MW-90-031; the sample was collected on March 4, 2022 (Arcadis 2022b).

2 First Quarter 2022 Operations Summary

This section provides a summary of the O&M tasks performed at the Site in First Quarter 2022.

Startup of Phase 1 of the groundwater remedy, including the line of remedial wells along the NTH, associated conveyance lines, and the treatment system compound for carbon amendment, continued in January 2022. During First Quarter 2022, operation can be divided into three periods of time depending on system operation status, as summarized below. This reflects ongoing startup of the Phase 1 system and transition from generator to permanent power supply. System runtime, ethanol and recirculated groundwater injection volumes and flowrates, and average flowrates are summarized in **Tables 2.1** and **2.2**. An IRZ system operations and non-routine maintenance log is presented as **Table 2.3**.

1. Partial system operation during working hours Monday through Friday on generator power pending power supply from the TCS. During this period, the generator was only operated for either the north or south leg of wells. Remedial wells are plumbed into a north leg (IRZ-21 and north) and south leg (IRZ-23 and south) as depicted in Figure 1.1.
   - December 2021: Startup and initial operation of the northern IRZ injection wells began in December 2021. This included operation of extraction well IRZ-23 and injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, and IRZ-27.
   - January 17, 2022: Startup and initial operation of extraction well IRZ-9 began on January 17, 2022.
   - January 26, 2022 through January 30, 2022: All injection and extraction wells were shut down to test system energization using TCS station power. The testing tripped circuit breakers that required additional troubleshooting and prevented the system from transitioning to TCS power. IRZ system operation resumed using generators on January 31, 2022.
   - January 31, 2022: Operation of the northern set of wells ended, and startup and initial operation of the southern IRZ injection wells began. This included operation of extraction well IRZ-23 and injection wells IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-37.
   - February 9, 2022: Functional testing and startup and initial operation of injection well IRZ-39 began.
2. Full and continuous system operation on generator power.
   - February 22, 2022: All injection and extraction wells were shut down to transition to a larger, centralized generator for full-time operation. The generator was approved to operate overnight, allowing for 24-hour operation. System operation resumed using the larger generator on February 28, 2022. Wells operating included extraction well IRZ-23 and injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, and IRZ-27. The southern IRZ wells remained offline pending the commissioning of the final transformer needed for operation.
   - March 10, 2022: The additional transformer was approved for operation. Extraction wells IRZ-9 and IRZ-13 and injection wells IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39 were brought online.
3. Full and continuous system operation on TCS power.
   - March 22, 2022: All injection and extraction wells were shut down to test system energization using TCS station power.

- March 24, 2002: The transfer to station power was successful, and continuous full Phase 1 system operation on TCS power began. Injection wells IRZ-15, IRZ-21, and IRZ-25 remained off-line due to their proximity to an extraction well; extraction well IRZ-9 remained offline for flow balancing of the wells in operation.
- March 29, 2022: Stormwater flooding caused all wells to shut down. All well vaults were inspected for equipment functionality.
- March 30, 2022: Partial system operation resumed while inspections of remaining IRZ well equipment continued. Wells operating include extraction well IRZ-23 and injection wells IRZ-16, IRZ-17, and IRZ-20.

2.1 Ethanol Injections and Carbon Amendment System Monitoring Results

In January and February 2022, ethanol was generally injected into operational injection wells twice weekly. On March 7, 2022, ethanol injection frequency was reduced from two doses per week to one dose per week due to an observed dissolved manganese concentration above the action level in one dose response monitoring well (Section 3.2.1). The intent of the reduced ethanol injection frequency was to minimize dissolved manganese generation while providing high enough concentrations to achieve lateral distribution of ethanol in the subsurface. A total of 516.8 gallons of ethanol was injected in First Quarter 2022. The breakdown of ethanol injected per month and per individual well is provided in **Tables 2.1** and **2.2**.

In First Quarter 2022, carbon amendment system monitoring was performed to verify that the carbon amendment system was injecting at the target dose (NTH IRZ DQO 1). The carbon substrate is fed into two forcemains, one conveying amended water to northern injection wells and one conveying amended water to the southern injection wells, each equipped with an in-line static mixer. Samples were collected from two sampling ports (CAB_MIXER_606 and CAB_MIXER_607) located immediately downstream of each in-line static mixer (**Figure 1.2**).

Total organic carbon (TOC) samples were collected in January, February, and March (see **Table 2.4**, below). The January and February results did not meet anticipated TOC concentrations (540 mg/L TOC in the biweekly injection pulses), initially indicating that the carbon amendment system may not be achieving the targeted ethanol dose. To troubleshoot, both TOC and ethanol were analyzed in March 2022. The March ethanol results indicated that the carbon amendment system did inject ethanol at the target dose, suggesting that the TOC analytical method was not accurately measuring TOC (**Table 2.4**). Verification of the TOC analytical method and continued ethanol analysis will be performed in Second Quarter 2022. Specifically, TOC method 5310C listed in the QAPP is particularly targeted for low TOC concentrations and has experienced matrix interference as reported by the lab; therefore, an additional sample will be analyzed by alternative method 5310B, in parallel with 5310C and ethanol, to assess if it is less susceptible to matrix interference and/or TOC concentration sensitivity. If Second Quarter 2022 results indicate that the target ethanol dose is regularly achieved, then the sampling frequency will be reduced to semi-annually per the BOD SMP.

Table 2.4 Carbon Amendment System Monitoring Results

Location ID	Sample Date	Sample Type	Total organic carbon (mg/L) SM 5310C	Ethanol (µg/L) SW 8260B
CAB_MIXER_606	1/6/2022	N	5.9	--
CAB_MIXER_606	1/24/2022	N	3	--
CAB_MIXER_606	2/7/2022	N	ND (5.0)	--
CAB_MIXER_606	3/18/2022	N	230	1,400,000 (700 mg/L TOC equivalent)
CAB_MIXER_607	1/6/2022	N	8	--
CAB_MIXER_607	1/24/2022	N	3.7	--
CAB_MIXER_607	3/18/2022	N	9.3	1,300,000 (650 mg/L TOC equivalent)

2.2 Well Fouling Monitoring and Prevention

The potential for well fouling as the result of carbon injection, either at IRZ injection wells or extraction wells, is monitored during system operations (NTH IRZ DQO 5). This monitoring includes measuring TOC and metal byproducts at the extraction wells for conditions that may generate well fouling and specific capacity of the IRZ injection wells. Routine backwashing of the IRZ injection wells is performed proactively to minimize the potential for well fouling. The First Quarter 2022 Well Performance Report (Arcadis, in progress), to be submitted under separate cover, provides an evaluation of overall well performance; however, the extraction well monitoring analytical results are provided herein.

Table 2.5, below, shows the baseline and monthly analytical results from extraction wells IRZ-9, IRZ-23, IRZ-13S, and IRZ-13D. Extraction well IRZ-23 was actively operated approximately 20 to 83 percent of the time each month; thus far, there is no evidence of increasing TOC or metal byproducts concentrations at this extraction well. Extraction wells IRZ-13S and IRZ-13D were not operated in January or February and were minimally operated in March, and IRZ-9 was not operated in First Quarter 2022. The First Quarter 2022 analytical results from extraction wells IRZ-9, IRZ-13S, and IRZ-13D represent baseline conditions, which will be used to evaluate changing conditions over time.

The extraction wells will continue to be monitored monthly in Second Quarter 2022 as extraction operations are initiated or continue.

Backwashing of the IRZ injection wells and processing of the backwash water was initiated on January 5, 2022. Injection wells were backwashed weekly when they were operating. The backwash water was stored in frac tanks at the MW-20 bench while the RPWC system was being finalized. Before re-injection into the IRZ injection wells, the backwash water was analyzed for field parameters and select constituents (Cr6, total chromium, dissolved iron, and dissolved manganese). A summary of field parameters and analytical results from the backwash water is provided in **Table 2.6**. The data demonstrate that the water met the conditions specified in the BOD SMP for re-injection into IRZ injection wells (pH between 6.5 and 8.5).

Table 2.5. Extraction Well Monitoring Results

Extraction Well	Sample Date	Active Time Operating (percent)	TOC (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)
IRZ-9	Baseline: January 2022	9	<1	< 0.02	<0.02	0.0027
IRZ-9	March 2022	Not operating	<1	0.081	0.022	0.0016
IRZ-23	Baseline: December 2021	8	< 10	0.69	0.091 J	< 0.0005
IRZ-23	January 2022	20	<1	0.13	<0.02	<0.0005
IRZ-23	February 2022	23	<20	<0.02	<0.02	<0.0005
IRZ-23	March 2022	83	<1	0.11	<0.02	<0.0005
IRZ-13S	Baseline: March 2022	53	<1	0.06	<0.02	<0.0005
IRZ-13D	Baseline: March 2022	53	<50	<0.02	0.059	0.062

Construction and functional testing of the RPWC system continued in First Quarter 2022; the system will be turned on when functional testing is completed.

2.3 Waste Management

In First Quarter 2022, general construction waste generated from remedy construction was hauled off site for disposal.

IRZ backwash water, purge water from well sampling, and stormwater pumped from vaults was stored in frac tanks at the MW-20 Bench. The water was filtered and used for re-injection into IRZ injection wells.

3 First Quarter 2022 Performance Summary

This section describes the groundwater and surface water monitoring performed in First Quarter 2022 and summarizes the First Quarter 2022 monitoring results. Startup of Phase 1 of the groundwater system began on December 22, 2021 and continued through First Quarter 2022. The system was not in full operation in First Quarter 2022; therefore, the monitoring data collected in First Quarter 2022 represent groundwater and surface water conditions during remedy startup, when system operations were intermittent.

Table 3.1 provides a summary of the Phase 1 Monitoring Program including monitoring locations, monitoring frequencies, and constituents. Remediation well and monitoring well construction details are provided in **Tables 3.2** and **3.3**, respectively.

3.1 Summary of First Quarter 2022 Monitoring Performed

Groundwater and surface water monitoring was performed in First Quarter 2022 in accordance with the Phase 1 Monitoring Plan (Arcadis 2021), Standard Operating Procedures (SOPs) presented in Appendix B of the Phase 1 Monitoring Plan, and the PG&E Program Quality Assurance Project Plan (QAPP; CH2M Hill 2014; Critigen 2020). The elements of the Phase 1 Monitoring Program performed in First Quarter 2022 are listed below. Note that the monitoring wells included in each monitoring program vary by quarter; **Table 3.1** and **Figure 3.1** show the monitoring wells and surface water monitoring locations that were monitored in First Quarter 2022.

- Process control monitoring;
- Remedy compliance monitoring;
- COPC monitoring; and
- Water level monitoring.

The following monitoring wells and extraction wells were not sampled in First Quarter 2022 for the reasons noted below:

- TW-02D/S and TW-03D: In February 2022, the wells were disconnected due to construction and could not be sampled; the wells were sampled in March 2022.
- IRZ-09: Extraction operations at IRZ-9 were not performed in First Quarter 2022. Samples were collected in January 2022 and March 2022; the extraction well was not sampled in February 2022.
- IRZ-13S/D: Extraction operations at these extraction wells were not initiated until March 2022. The extraction wells were not sampled in January or February 2022; samples were collected in March 2022.

Field parameters (temperature, pH, specific conductivity, oxidation-reduction potential [ORP], turbidity, total dissolved solids [TDS], and salinity) were measured before groundwater and surface water sample collection. Samples were sent to Asset Laboratories in Las Vegas, Nevada for laboratory analysis. Samples collected from monitoring wells in Arizona were sent to EMAX Laboratories, Inc. in Torrance, California. Nitrite was inadvertently not analyzed for the dose response monitoring wells in First Quarter 2022; nitrite will be analyzed in Second Quarter 2022.

3.1.1 Data Validation and Completeness

Analytical results were validated in accordance with the QAPP (CH2M Hill 2014; Critigen 2020). Analytical results were evaluated using the criteria of precision, accuracy, representativeness, comparability, and completeness (PARCC) to demonstrate that a sufficient number of representative samples was collected, and the resulting analytical data can be used to support the decision-making process as measured by the PARCC findings. The following summary highlights the PARCC findings:

- Precision of the data was verified through the review of the laboratory data quality indicators that include matrix spike/matrix spike duplicate (MS/MSD) and field duplicate relative percent differences. Precision was generally acceptable for all analytes with some exceptions; data validation qualifiers were applied for results that did not meet quality control criteria.
- Accuracy of the data was verified through the review of the calibration, laboratory control samples, MS/MSDs, as well as the evaluation of method/field blank data. Accuracy was acceptable for all analyses with some exceptions; data validation qualifiers were applied for results that did not meet quality control criteria. A large quantity of the dissolved iron and dissolved arsenic data is considered estimated results due to matrix interference.
- Representativeness of the data was verified through the samples' collection, storage, and preservation procedures and the verification of holding-time compliance. The laboratory did not note any problems with the samples' collection, holding time, and storage. Chain-of-custody issues were minor, were resolved, and were documented in the data packages.
- Comparability of the data was ensured using standard analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.
- Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as all data that are not rejected for project use and flagged "R" for rejected during validation. All data are considered valid. The completeness goal of 90 percent was well met for all method/analyte combinations.

3.2 Summary of First Quarter 2022 Monitoring Results

The First Quarter 2022 monitoring results represent groundwater and surface water conditions during remedy startup. Field parameter monitoring results are presented in **Appendix A**. Analytical results for all monitoring wells and surface water monitoring locations in the Phase 1 Monitoring Program from January 2020 to March 2022 are provided in **Appendix B**. Laboratory reports from First Quarter 2022 are provided in **Appendix C**.

The following sections summarize the First Quarter 2022 process control monitoring, remedy compliance monitoring, and COPC monitoring results.

3.2.1 Process Control Monitoring Results

This section summarizes the First Quarter 2022 process control monitoring results and describes how the results are used to assess the NTH IRZ DQOs 2, 3, and 4 (Section 1.3). The First Quarter 2022 process control monitoring results are presented in **Table 3.4**.

3.2.1.1 Dose Response and Downgradient Well Monitoring Results

Cr6 and in-situ byproduct results from the dose response and downgradient monitoring wells are used to determine development of NTH IRZ treatment (NTH IRZ DQO 2) and if in-situ byproduct generation and migration from the NTH IRZ is controlled (NTH IRZ DQO 3). The decision rules and operational framework for evaluating IRZ effectiveness and in-situ byproduct generation and migration are provided on Figure 2.2-2 of the BOD SMP (Appendix L, Volume 2; CH2M Hill 2015a). Although the remedial system operated intermittently in First Quarter 2022, the decision rules provided on Figure 2.2-2 of the BOD SMP were used to assess initial remedy performance and adjust operations as needed. The following sections provide a First Quarter 2022 performance summary of the dose response and downgradient monitoring wells based on the decision rules outlined on Figure 2.2-2 of the BOD SMP.

3.2.1.1.1 NTH IRZ Treatment Results

Dose response well monitoring results, including changes in TOC, Cr6 concentrations, and dissolved iron concentrations, are used to determine establishment of the NTH IRZ and Cr6 treatment. **Table 3.5** provides a performance summary for these parameters for the dose response wells in First Quarter 2022. The performance summary is based on the decision rules and operational framework provided on Figure 2.2-2 of the BOD SMP.

As indicated in **Table 3.5**, initial Cr6 treatment, based on declining Cr6 concentrations and increasing dissolved iron concentrations, was observed at the following monitoring wells:

- MW-31-060;
- MW-78-070;
- MW-26; and
- MW-51.

TOC was sampled at the dose response wells, but concentrations were non-detect; this could reflect the periodic ethanol dosing or organic carbon consumption before reaching the dose response wells, as reducing conditions were initially being established. The non-detect results may also be subject to the matrix interference noted for the carbon amendment system sampling in Section 2.1 but is less likely in the anticipated concentration range of the dose response wells.

Cr6 treatment was generally observed at dose response wells located closest to the IRZ injection wells (within 10 to 50 feet) and demonstrates treatment established by ethanol injections. Additional treatment at dose response wells further from the IRZ injection wells is anticipated as injections continue. Based on these Cr6 treatment results, no operational changes to the remedial system were made in First Quarter 2022. Based on operation to date, continued NTH IRZ system operation is warranted to further generate sustained conditions for Cr6 reduction.

3.2.1.1.2 Downgradient Hexavalent Chromium Results

In the floodplain (i.e., downgradient of the NTH IRZ), Cr6 concentrations in downgradient monitoring wells are anticipated to decrease to below 32 µg/L within 2 to 10 years based on the results of solute transport modeling (refer to Table 2.2-1 of the BOD SMP; Appendix L, Volume 2; CH2M Hill 2015a). Within the first 6 months of system operation, Cr6 concentration trends are expected to be variable: concentrations at some downgradient monitoring wells may increase, whereas concentrations at other wells may remain stable or decrease. Table 2.1-4

of the BOD SMP (Appendix L, Volume 2; CH2M Hill 2015a) describes the anticipated changes in Cr6 concentrations at specific monitoring wells during the first 6 months to 1 year of system operation.

Table 3.6 provides a performance summary of the downgradient monitoring wells in First Quarter 2022 to evaluate Cr6 distribution and changes in Cr6 concentrations downgradient of the NTH IRZ. **Figure 3.2** shows the distribution of Cr6 in downgradient monitoring wells in First Quarter 2022 for wells monitoring Layers 1 through 5**.** Cr6 concentrations were below 32 µg/L at all monitoring wells, except at MW-77-158 (52 µg/L; March 1, 2022). Although the March Cr6 concentration at MW-77-158 exceeded 32 µg/L, concentrations at monitoring wells further downgradient of MW-77-158 (MW-28 and MW-46) remained below 32 µg/L (between <0.2 µg/L and 5.4 µg/L). Cr6 concentrations at MW-77-158 and downgradient wells will continue to be monitored to determine if concentrations are within anticipated expectations. In addition, the sampling frequency at select downgradient monitoring wells (MW-34-080, MW-36-100, MW-39-100, MW-45-095a, MW-77, MW-81, and MW-82) will be increased to monthly to better evaluate changes in Cr6 concentrations over time in response to system operation; this modification will be implemented in Second Quarter 2022.

3.2.1.1.3 In-Situ Byproduct Results

In-situ byproduct (dissolved arsenic, dissolved manganese, dissolved iron, and dissolved barium) generation and migration from the NTH IRZ are evaluated using results from the dose response and downgradient monitoring wells. The BOD SMP (CH2M Hill 2015a) provides maximum concentrations (i.e., action levels) for dissolved arsenic, dissolved manganese, and dissolved iron, which are presented in **Tables 3.5 and 3.6**. Barium is also monitored as part of the process control monitoring program, but action levels for barium are not specified in the BOD SMP; dissolved barium monitoring results from First Quarter 2022 are presented in **Table 3.4**. If an individual monitoring well exhibits a natural baseline concentration above the given maximum, then the baseline concentration is used as the action level. Baseline concentrations for dissolved arsenic, dissolved iron, and dissolved manganese, presented in **Tables 3.5** and **3.6**, were established as follows:

- For monitoring wells installed before 2019, the maximum historical result was selected.
- For monitoring wells installed after 2019, the maximum result between January 2020 and December 2021 was selected, which did not include initial samples collected after well installation and allowed for water quality stabilization after installation.

If in-situ byproduct concentrations at a dose response or downgradient monitoring well are above the action levels, then a new sample is collected from the monitoring well within 45 days. If the re-sample confirms the exceedance, then the DTSC is notified, and operation of the remedial system will be adjusted as needed.

Figures 3.3 through **3.5** show the distribution of First Quarter 2022 dissolved arsenic, dissolved iron, and dissolved manganese concentrations for the dose response and downgradient monitoring wells monitoring Layers 1 through 5. In-situ byproduct concentrations at the dose response and downgradient monitoring wells were below the action levels, except for the dissolved manganese concentration at dose response well MW-31-060 (located 10 feet from IRZ-18) collected on February 1 (7.8 mg/L; above the action level of 5 mg/L).

Following the shutdown that began on February 22 in preparation for sitewide energization, injection into northern injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, and IRZ-27 resumed on February 28, and monitoring well MW-31-060 was re-sampled on March 4 before the subsequent ethanol injection. On March 7, 2022, ethanol injection frequency was reduced from two doses per week to one dose per week in response to the action level exceedances at MW-31-060. The March 2022 dissolved manganese concentration at MW-31-060 decreased to

2.2 mg/L (below the action level of 5 mg/L), and concentrations at downgradient wells MW-77, MW-81, and MW-82 remained below baseline concentrations. Therefore, dosing was not further modified.

3.2.1.2 Northern NTH IRZ Extraction Monitoring Results

On the northern end of the NTH IRZ, the system is designed to control potential migration of Cr6 via groundwater extraction rather than the establishment of an IRZ. Multiple lines of evidence will be used to evaluate achievement of control of the Cr6 plume at the northern end of the NTH IRZ (NTH IRZ DQO 4) including interpreted water levels, concentration trends, and numerical modeling (CH2M Hill 2015a).

In First Quarter 2022, extraction operations at IRZ-9, IRZ-13S, and IRZ-13D were limited; therefore, the impact of groundwater extraction on ambient groundwater gradients was not assessed. Cr6 results for the northern extraction monitoring wells are provided in **Tables 3.4** and **3.7** and **Figure 3.2**. Cr6 concentrations in the northern NTH IRZ extraction monitoring wells and surface water monitoring locations were below 32 µg/L (except MW-75-033 which yielded 40 µg/L, consistent with historical measurements since 2020) and indicate that plume control in the northern NTH IRZ was maintained during this period.

Extraction wells IRZ-13S and IRZ-13D are anticipated to be operating full-time in Second Quarter 2022.

3.2.2 Remedy Compliance Monitoring Results

This section summarizes the First Quarter 2022 remedy compliance monitoring results and provides a brief overview of progress towards achievement of RAOs 2, 3, and 4, as defined in Section 1.1, during remedy startup. RAO progress is anticipated to be evaluated throughout the duration of the remedy; data collected each quarter will contribute to the overall evaluation.

The First Quarter 2022 remedy compliance monitoring results are presented in **Table 3.7**. Progress towards achievement of RAOs 2, 3, and 4 is summarized below.

- *RAO 2*. RAO 2 is evaluated by monitoring Cr6 concentrations in the Colorado River to verify that concentrations do not exceed the surface water quality standard (11 µg/L). In First Quarter 2022, Cr6 concentrations at the 16 surface water monitoring locations were below the water quality standard of 11 µg/L (USEPA 2022); all results were non-detect at the reporting limit.

  Although RAO 2 is specifically intended to address Cr6, IRZ in-situ byproducts dissolved arsenic and dissolved manganese are also monitored in the Colorado River to verify that concentrations do not exceed the surface water quality standards. In First Quarter 2022, dissolved arsenic concentrations at the 16 surface water monitoring locations were below the National Recommended Water Quality Criteria (NRWQC) for aquatic life of 150 µg/L. There is no NRWQC for aquatic life for dissolved manganese (USEPA 2022). Dissolved arsenic and dissolved manganese concentrations were below the California primary and secondary maximum contaminant levels (MCLs) of 10 µg/L (primary MCL) and 0.05 mg/L (secondary MCL), respectively (State of California 2022).

- *RAO 3*. RAO 3 is evaluated by monitoring changes in groundwater Cr6 concentrations inside the plume boundary (i.e., mass reduction) and assessing the lateral and vertical distributions of Cr6 concentrations across the plume. This RAO will be achieved by meeting the cleanup goal of 32 µg/L of Cr6.

  Changes in Cr6 concentrations inside the plume as a result of IRZ system operations are discussed in Section 3.2.1.1. In First Quarter 2022, initial Cr6 treatment (i.e., decreasing Cr6 concentrations) was observed

at four dose response monitoring wells. **Figure 3.2** shows the distribution of Cr6 in groundwater across the Site in First Quarter 2022 for wells monitoring Layers 1 through 5. As IRZ system operations continue, Cr6 data from monitoring wells located inside the plume will continue to be collected and assessed to evaluate progress towards this RAO.

- *RAO 4*. RAO 4 is evaluated by monitoring Cr6 and in-situ byproduct concentrations (dissolved arsenic and dissolved manganese) outside of the target remediation area (i.e., baseline Cr6 plume boundary) to verify that concentrations do not permanently increase following completion of the remedial action. Because operation of the Phase 1 remedy just started in First Quarter 2022, additional data collection over a longer period is needed to evaluate progress towards this RAO.

3.2.3 COPC Monitoring Results

This section summarizes the First Quarter 2022 COPC monitoring results (dissolved selenium, dissolved molybdenum, and nitrate) and provides and evaluation of the results in accordance with the COPC PAP. The First Quarter 2022 COPC monitoring results are presented in **Table 3.8**.

The COPC PAP was developed to notify the DTSC when COPC threshold concentrations (i.e., trigger levels) in select outer plume compliance groundwater monitoring wells (i.e., COPC PAP monitoring wells) are exceeded. Thirty-one monitoring wells are included in the COPC PAP; however, not all COPC PAP monitoring wells were scheduled for sampling in First Quarter 2022 (see **Table 3.1**). The trigger levels are based on Shewhart control limits calculated from the most recent eight sample results for each monitoring well; the method for calculating the trigger levels is provided in Appendix D of the Fourth Quarter 2021 Quarterly Progress Report (Arcadis 2022a). The COPC PAP decision tree, also provided in Appendix D of the Fourth Quarter 2021 Quarterly Progress Report (Arcadis 2022a), outlines notifications and actions to be taken when COPC concentrations in a COPC PAP monitoring well exceed a trigger level.

In First Quarter 2022, the nitrate concentration in COPC PAP monitoring well MW-90-031 (0.66 mg/L nitrogen [N]) exceeded the trigger level of 0.22 mg/L N (see Appendix D of the Fourth Quarter 2021 Quarterly Progress Report [Arcadis 2022a]); however, the trigger level was calculated based on a dataset of nitrate/nitrite results. Historically, nitrate/nitrate has been analyzed at this monitoring well; nitrate was analyzed for the first time in First Quarter 2022. In accordance with the COPC PAP decision tree, PG&E notified the Agencies of this exceedance on April 29, 2022 (provided in **Appendix D**; Arcadis 2022b). A verification sample will be collected within 45 days of receipt of the validated data (May 2022). The nitrate trigger level exceedance is likely due to a change in the analytical method rather than remedy operations.

Before First Quarter 2022, USEPA Method 353.2/SM 4500 was used to analyze for nitrate/nitrite; these results were used to calculate the MW-90-031 trigger level for nitrate, as described in Appendix D of the Fourth Quarter 2021 Quarterly Progress Report (Arcadis 2022a). In First Quarter 2022, USEPA Method 300.0 was used to analyze for nitrate as part of the Phase 1 Monitoring Program. The difference in analytical techniques (Method 353.2/SM4500 is colorimetric whereas Method 300.0 uses ion chromatography) is the likely cause of the exceedance. To evaluate this potential cause of the exceedance, both nitrate/nitrite (Method 353.2) and nitrate (Method 300.0) will be analyzed during the verification sampling event. Once received, the results will be assessed and relayed to Agencies. If the sampling method is confirmed to explain the difference in results, all COPC PAP monitoring wells will be sampled for both nitrate/nitrite and nitrate until there are sufficient data to generate trigger levels based on nitrate (Method 300.0).

4 Green Remediation Evaluation Matrix Summary

PG&E develops a semiannual GREM summary report to document various sustainability metrics generated by PG&E including the TCS. The GREM summary reports data regarding greenhouse gas reductions, savings from use of renewable energy, reductions in liquid and solid waste, and local economy boost. The GREM summary is reported under separate cover and is not provided in this quarterly progress report. In First Quarter 2022, PG&E continued to take measures to enhance the sustainability of activities associated with the groundwater remedy.

5 Recommendations and Planned Activities for Next Reporting Period

Phase 1 remedy operations and the Phase 1 Monitoring Program will continue to be performed in Second Quarter 2022 (April to June 2022) in accordance with the O&M Plan (CH2M Hill 2015a) and Phase 1 Monitoring Plan (Arcadis 2021). Because the system operated intermittently in First Quarter 2022, reducing conditions are still being established; therefore, IRZ operations will continue (see Figure 2.2-2 of the BOD SMP [CH2M Hill 2015a]). The monitoring program outlined in **Table 3.1** will continue with modifications as noted below.

In addition to routine remedy operations and monitoring, the following activities are planned for Second Quarter 2022:

- Resume operation of target extraction and injection wells following repairs after the flooding event and power outage on March 28, 2022. Injection wells closest to an extraction well (IRZ-15, IRZ-21, and IRZ-25) along with extraction well IRZ-9 will remain offline.
- Continue construction and functional testing of the RPWC system.
- Because extraction wells IRZ-13S, IRZ-13D, and IRZ-23 were not operated continuously throughout First Quarter 2022, continue monthly extraction well monitoring in Second Quarter 2022 to evaluate the potential for well fouling of the IRZ injection wells.
- Continue to monitor the carbon amendment system (analyzing for both TOC and ethanol) to verify that the system continues to work properly.
- Incorporate wells IRZ-15, IRZ-21, and IRZ-25 into the dose response monitoring program to evaluate the potential for fouling adjacent to an extraction well prior to startup of injection at these locations.
- Increase the sampling frequency of select downgradient monitoring wells (MW-34-080, MW-36-100, MW-39-100, MW-45-095a, MW-77, MW-81, and MW-82) from quarterly to monthly to better evaluate changes in Cr6 concentrations in response to system operation.
- Collect a verification sample at MW-90-030, analyzing for both nitrate as N using Method 300.0 and nitrate/nitrite as N using Method 353.2, to confirm if nitrate concentrations are increasing above the COPC PAP trigger level.
- Continue construction of the Phase 2a remedy.

Operations, monitoring, and monitoring results will be reported in a Second Quarter 2022 Quarterly Progress Report. A Second Quarter 2022 Well Performance Report will also be submitted to document well performance tracking data from Second Quarter 2022, in accordance with the O&M Plan (CH2M Hill 2015a).

6 References

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Tables

Table 2.1
NTH IRZ Operational Overview
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Month	Recirculated Groundwater Extraction Volume (gal)	Recirculated Groundwater Injection Volume (gal)	Average Injection Flow Rate, During Operation (gpm)	Average Extraction Flow Rate, During Operation (gpm)	Ethanol Injection Volume (gal)	Run Time (hours)[a]	Run Time (percent)[b]
November 2021	--	--	--	--	--	--	--
December 2021	307,610	312,416	93.0	91.6	84.4	56	8
January 2022	790,773	807,489	62.9	61.6	195	214	30
February 2022	615,500	634,662	63.0	61.1	136	168	25
March 2022	4,154,763	4,226,217	113	112	186	621	83

Notes:

[a] Run time in hours is calculated from extraction well operating hours over the course of the month

[b] Percent run time is calculated from extraction operating well hours divided by the total hours in the month x 100%.

Abbreviations:

-- = not applicable
gal = gallon
gpm = gallon(s) per minute
IRZ = In-Situ Reactive Zone
NTH = National Trails Highway

Table 2.2
Summary of NTH IRZ System Discharges to Groundwater
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Aquifer Interval	Well Type	Operating Period	Recirculated Groundwater Volume (gal)	Ethanol Volume (gal)	Total Hours Operating (hours)	Active Time Operating (percent)	Average Flow Rate When Operating (gpm)
IRZ-15	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-15	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-15	Upper	Injection	Jan-22	--	--	--	--	--
IRZ-15	Upper	Injection	Feb-22	--	--	--	--	--
IRZ-15	Upper	Injection	Mar-22	--	--	--	--	--
IRZ-15	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-15	Lower	Injection	Dec-21	--	--	--	--	--
IRZ-16	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-16	Upper	Injection	Dec-21	18,090	5.1	55	7	5.5
IRZ-16	Upper	Injection	Jan-22	47,945	11.4	150	20	5.3
IRZ-16	Upper	Injection	Feb-22	3,011	--	10	1	5.0
IRZ-16	Upper	Injection	Mar-22	188,133	8.8	610	82	5.1
IRZ-16	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-16	Lower	Injection	Dec-21	37,913	10.4	56	8	11.3
IRZ-16	Lower	Injection	Jan-22	83,007	21.3	139	19	10.0
IRZ-16	Lower	Injection	Feb-22	5,621	--	10	1	9.4
IRZ-16	Lower	Injection	Mar-22	368,922	16.9	608	82	10.1
IRZ-17	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-17	Upper	Injection	Dec-21	25,091	6.6	56	8	7.5
IRZ-17	Upper	Injection	Jan-22	61,929	15.2	153	21	6.7
IRZ-17	Upper	Injection	Feb-22	3,761	--	10	1	6.3
IRZ-17	Upper	Injection	Mar-22	253,824	12.5	636	85	6.7
IRZ-17	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-17	Lower	Injection	Dec-21	48,210	13.1	56	8	14.3
IRZ-17	Lower	Injection	Jan-22	126,137	29.9	153	21	13.7
IRZ-17	Lower	Injection	Feb-22	7,626	--	10	1	12.7
IRZ-17	Lower	Injection	Mar-22	511,032	24.1	632	85	13.5
IRZ-18	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-18	Upper	Injection	Dec-21	23,330	6.5	56	8	6.9
IRZ-18	Upper	Injection	Jan-22	57,708	14.1	150	20	6.4
IRZ-18	Upper	Injection	Feb-22	3,581	--	10	1	6.0
IRZ-18	Upper	Injection	Mar-22	237,093	9.6	598	80	6.6
IRZ-18	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-18	Lower	Injection	Dec-21	46,126	12.8	56	8	13.7
IRZ-18	Lower	Injection	Jan-22	124,878	29.5	152	20	13.7
IRZ-18	Lower	Injection	Feb-22	7,496	--	10	1	12.5
IRZ-18	Lower	Injection	Mar-22	441,208	17.2	598	80	12.3
IRZ-20	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-20	Upper	Injection	Dec-21	18,890	5.2	56	8	5.6
IRZ-20	Upper	Injection	Jan-22	48,376	11.8	151	20	5.3

Table 2.2
Summary of NTH IRZ System Discharges to Groundwater
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Aquifer Interval	Well Type	Operating Period	Recirculated Groundwater Volume (gal)	Ethanol Volume (gal)	Total Hours Operating (hours)	Active Time Operating (percent)	Average Flow Rate When Operating (gpm)
IRZ-20	Upper	Injection	Feb-22	2,701	--	9	1	5.0
IRZ-20	Upper	Injection	Mar-22	202,257	10.3	630	85	5.4
IRZ-20	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-20	Lower	Injection	Dec-21	34,313	9.5	55	7	10.4
IRZ-20	Lower	Injection	Jan-22	93,639	22.4	152	20	10.3
IRZ-20	Lower	Injection	Feb-22	5,767	--	10	1	9.6
IRZ-20	Lower	Injection	Mar-22	388,733	18.6	631	85	10.3
IRZ-21	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-21	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-21	Upper	Injection	Jan-22	--	--	--	--	--
IRZ-21	Upper	Injection	Feb-22	--	--	--	--	--
IRZ-21	Upper	Injection	Mar-22	--	--	--	--	--
IRZ-21	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-21	Lower	Injection	Dec-21	--	--	--	--	--
IRZ-21	Lower	Injection	Jan-22	--	--	--	--	--
IRZ-21	Lower	Injection	Feb-22	--	--	--	--	--
IRZ-21	Lower	Injection	Mar-22	--	--	--	--	--
IRZ-25	Upper / Upper Middle	Injection	Nov-21	--	--	--	--	--
IRZ-25	Upper / Upper Middle	Injection	Dec-21	--	--	--	--	--
IRZ-25	Upper / Upper Middle	Injection	Jan-22	--	--	--	--	--
IRZ-25	Upper / Upper Middle	Injection	Feb-22	--	--	--	--	--
IRZ-25	Upper / Upper Middle	Injection	Mar-22	--	--	--	--	--
IRZ-25	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-25	Lower	Injection	Dec-21	--	--	--	--	--
IRZ-25	Lower	Injection	Jan-22	--	--	--	--	--
IRZ-25	Lower	Injection	Feb-22	--	--	--	--	--
IRZ-25	Lower	Injection	Mar-22	--	--	--	--	--
IRZ-27	Upper / Upper Middle	Injection	Nov-21	--	--	--	--	--
IRZ-27	Upper / Upper Middle	Injection	Dec-21	36,743	7.3	56	8	10.9
IRZ-27	Upper / Upper Middle	Injection	Jan-22	103,663	26.7	154	21	11.5
IRZ-27	Upper / Upper Middle	Injection	Feb-22	113,867	25.3	169	23	11.2
IRZ-27	Upper / Upper Middle	Injection	Mar-22	395,578	14.9	594	80	11.1
IRZ-27	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-27	Lower	Injection	Dec-21	23,710	7.9	56	8	7.1
IRZ-27	Lower	Injection	Jan-22	47,797	12.4	154	21	5.4
IRZ-27	Lower	Injection	Feb-22	53,661	12.3	167	22	5.4
IRZ-27	Lower	Injection	Mar-22	190,998	7.1	594	80	5.4
IRZ-29	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-29	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-29	Upper	Injection	Jan-22	740	--	3	0	4.1

Table 2.2
Summary of NTH IRZ System Discharges to Groundwater
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Aquifer Interval	Well Type	Operating Period	Recirculated Groundwater Volume (gal)	Ethanol Volume (gal)	Total Hours Operating (hours)	Active Time Operating (percent)	Average Flow Rate When Operating (gpm)
IRZ-29	Upper	Injection	Feb-22	50,817	11.7	157	21	5.4
IRZ-29	Upper	Injection	Mar-22	121,397	5.2	388	52	5.2
IRZ-29	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-29	Lower	Injection	Dec-21	--	--	--	--	--
IRZ-29	Lower	Injection	Jan-22	3,450	--	5	1	11.5
IRZ-29	Lower	Injection	Feb-22	70,677	16.2	158	21	7.5
IRZ-29	Lower	Injection	Mar-22	167,369	7.4	389	52	7.2
IRZ-31	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-31	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-31	Upper	Injection	Jan-22	2,620	--	4	1	10.9
IRZ-31	Upper	Injection	Feb-22	60,855	14.7	160	22	6.3
IRZ-31	Upper	Injection	Mar-22	141,661	6.2	389	52	6.1
IRZ-31	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-31	Lower	Injection	Dec-21	--	--	--	--	--
IRZ-31	Lower	Injection	Jan-22	3,380	--	5	1	11.3
IRZ-31	Lower	Injection	Feb-22	60,795	14.3	161	22	6.3
IRZ-31	Lower	Injection	Mar-22	144,199	6.4	389	52	6.2
IRZ-33	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-33	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-33	Upper	Injection	Jan-22	560	--	2	0	4.7
IRZ-33	Upper	Injection	Feb-22	42,259	10.0	158	21	4.5
IRZ-33	Upper	Injection	Mar-22	97,704	4.2	389	52	4.2
IRZ-33	Lower	Injection	Nov-21	--	--	--	--	--
IRZ-33	Lower	Injection	Dec-21	--	--	--	--	--
IRZ-33	Lower	Injection	Jan-22	480	--	2	0.3	4
IRZ-33	Lower	Injection	Feb-22	41,839	9.8	158	21	4.4
IRZ-33	Lower	Injection	Mar-22	97,074	4.2	389	52	4.2
IRZ-35	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-35	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-35	Upper	Injection	Jan-22	800	--	2	0	
IRZ-35	Upper	Injection	Feb-22	51,887	12.0	158	21	5.5
IRZ-35	Upper	Injection	Mar-22	118,638	5.1	387	52	5.1
IRZ-37	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-37	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-37	Upper	Injection	Jan-22	380	--	2	0	3.2
IRZ-37	Upper	Injection	Feb-22	31,301	7.0	153	21	3.4
IRZ-37	Upper	Injection	Mar-22	76,904	3.4	383	51	3.3
IRZ-39	Upper	Injection	Nov-21	--	--	--	--	--
IRZ-39	Upper	Injection	Dec-21	--	--	--	--	--
IRZ-39	Upper	Injection	Jan-22	--	--	--	--	--

Table 2.2
Summary of NTH IRZ System Discharges to Groundwater
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Aquifer Interval	Well Type	Operating Period	Recirculated Groundwater Volume (gal)	Ethanol Volume (gal)	Total Hours Operating (hours)	Active Time Operating (percent)	Average Flow Rate When Operating (gpm)
IRZ-39	Upper	Injection	Feb-22	17,140	2.9	72	10	4.0
IRZ-39	Upper	Injection	Mar-22	83,493	4.0	384	52	3.6
IRZ-9	Upper	Extraction	Nov-21	--	--	--	--	--
IRZ-9	Upper	Extraction	Dec-21	--	--	--	--	--
IRZ-9	Upper	Extraction	Jan-22	207,010	--	66	9	52.3
IRZ-9	Upper	Extraction	Feb-22	--	--	--	--	--
IRZ-9	Upper	Extraction	Mar-22	612	--	1	0	10.2
IRZ-13D	Lower	Extraction	Nov-21	--	--	--	--	--
IRZ-13D	Lower	Extraction	Dec-21	--	--	--	--	--
IRZ-13D	Lower	Extraction	Jan-22	--	--	--	--	--
IRZ-13D	Lower	Extraction	Feb-22	--	--	--	--	--
IRZ-13D	Lower	Extraction	Mar-22	937,033	--	391	53	39.9
IRZ-13S	Upper	Extraction	Nov-21	--	--	--	--	--
IRZ-13S	Upper	Extraction	Dec-21	--	--	--	--	--
IRZ-13S	Upper	Extraction	Jan-22	--	--	--	--	--
IRZ-13S	Upper	Extraction	Feb-22	--	--	--	--	--
IRZ-13S	Upper	Extraction	Mar-22	674,317	--	391	53	28.7
IRZ-23	Lower	Extraction	Nov-21	--	--	--	--	--
IRZ-23	Lower	Extraction	Dec-21	307,610	--	56	8	91.6
IRZ-23	Lower	Extraction	Jan-22	583,763	--	148	20	65.7
IRZ-23	Lower	Extraction	Feb-22	615,500	--	168	23	61.1
IRZ-23	Lower	Extraction	Mar-22	2,542,801	--	621	83	68.2

Abbreviations:
-- = not applicable
gal = gallon
gpm = gallons per minute
ID = identification
IRZ = In Situ Reactive Zone
NTH = National Trails Highway

Table 2.3
NTH IRZ System Operations and Non-Routine Maintenance Log
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Date	Operations and Maintenance Log	Notes
12/22/2021	Functional testing and startup and initial operation of northern wells. Injection Wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27. Extraction well: IRZ-23.	Daytime operation on work days using portable generators.
12/31/2021 to 1/2/2022	All injection and extraction wells are turned off. System is not running.	Holiday weekend.
1/5/2022	Backwash wells that were in operation. Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27	--
1/9/2022	All injection and extraction wells are turned off. System is not running.	Holiday weekend.
1/11/2022 to 1/13/2022	Injection well IRZ-16 (lower) offline for 51 hours.	Replaced modulating valve.
1/12/2022	Backwash injection well IRZ-27.	--
1/13/2022	Backwash remaining wells. Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20.	--
1/14/2022 to 1/17/2022	All injection and extraction wells are turned off. System is not running.	Weekend. Staff not onsite to operate generators.
1/17/2022	Startup and initial operation of extraction well IRZ-9.	Additional generator used to power additional nodes and additional wells.
1/17/2022	IRZ-23 offline to add a ball valve until 2pm. Operated approximately 2 hours total during the day.	--
1/19/2022	Backwash wells that were in operation. Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27.	--
1/23/2022	All injection and extraction wells are turned off. System is not running.	Weekend. Staff not on site to operate generators.
1/25/2022	Backwash wells that were in operation. Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27.	--
1/26/2022 through 1/30/2022	All injection and extraction wells are turned off. System is not running.	Testing sitewide energization.
1/31/2022	Startup and initial operation of southern IRZ wells. Injection wells: IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37. Extraction wells: IRZ-23. Injection wells that had been previously operating that were taken offline include: IRZ-16, IRZ-17, IRZ-18, IRZ-20.	--
2/9/2022	Functional testing and startup and initial operation of injection well IRZ-39.	--
2/9/2022	Backwash wells that were in operation. Injection Wells: IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37.	--
2/10/2022	Continued functional testing and startup and initial operation of injection well IRZ-39. Flow not continuous.	--
2/16/2022	All injection and extraction wells are turned off. System is not running.	Construction work occurring near generator.
2/17/2022	Backwash wells that were in operation. Injection Wells: IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, IRZ-39.	--
2/19/2022 through 2/27/2022	All injection and extraction wells are turned off. System is not running.	Sitewide energization and functional testing.
2/28/2022	Full-time system operation (24-hour operation via generator). Wells operating: Extraction well: IRZ-23 Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27.	--
3/2/2022	Backwash wells that were in operation.	--
3/7/2022	Ethanol dosing. Ethanol injection frequency reduced from 2 doses per week to 1 dose per week.	Injection frequency change was based on manganese at well MW-31-060, as detailed in Table 3.4 in the 1Q 2022 Quarterly Progress Report.
3/9/2022	Functional testing of IRZ-13.	--
3/10/2022	Full-time system operation (24-hour operation via generator). Wells operating: Extraction well: IRZ-23, IRZ-9, IRZ-13 Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, IRZ-39.	IRZ-15, IRZ-21, IRZ-25 remain offline.
3/10/2022	IRZ-9 turned off to balance extraction and injection flows.	--
3/11/2022	Backwash subset of wells. Injection wells: IRZ-16, IRZ-17, IRZ-20, IRZ-27.	--

Table 2.3
NTH IRZ System Operations and Non-Routine Maintenance Log
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Date	Operations and Maintenance Log	Notes
3/16/2022	IRZ-35 repaired. Broken nipple in air relief valve replaced.	
3/16/2022	Backwash remaining wells. Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, IRZ-39.	
3/18/2022	IRZ-9 online. Flowrates for IRZ-13 (upper) and IRZ-13 (lower) adjusted to be closer to target rates.	
3/22/2022 to 3/24/2022	All injection and extraction wells are turned off. System is not running.	
3/24/2022	Transfer to station power complete. Full-time system operation (24-hour operation on station power). Wells operating: Extraction well: IRZ-23, IRZ-13 Injection wells: IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, IRZ-39.	
3/29/2022 to 3/30/2022	All wells shut down due to flooding from stormwater. On-site team inspected vaults and panels for damage/functionality.	
3/30/2022	Partial system operation. Wells operating: Extraction well: IRZ-23 Injection wells: IRZ-16, IRZ-17, and IRZ-20.	

Abbreviations:
-- = not applicable
IRZ = in-situ reactive zone
NTH = National Trails Highway

Table 2.6
First Quarter 2022 Backwash Water Field Parameters and Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Sample Description	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Temperature (deg C)	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm)	pH	ORP (mV)	Turbidity (NTU)
BACKWASH PRE-FILTER	1/25/2022	N	640	640	ND (0.02)	0.0048	14.9	9.45	5,975	8.17	113	4.27
BACKWASH POST-FILTER	1/25/2022	N	630	650	ND (0.02)	0.0048	17.9	7.11	6,744	7.85	74.4	1.56
BACKWASH PRE-FILTER	2/8/2022	N	680	660	ND (0.02 J)	0.033	--	--	--	--	--	--
BACKWASH POST-FILTER	2/8/2022	N	710	710	0.16 J	0.035	--	--	--	--	--	--
BACKWASH PRE-FILTER	3/2/2022	N	440	510	0.070	0.29	--	--	--	--	--	--
BACKWASH POST-FILTER	3/2/2022	N	430	490	0.074	0.29	--	--	--	--	--	--
BACKWASH PRE-FILTER	3/14/2022	N	480	470	ND (0.02)	0.13	17.9	4.9	9,934	7.8	78.3	2.3
BACKWASH POST-FILTER	3/14/2022	N	480	460	ND (0.02)	0.13	18.2	5.85	9,924	7.8	83.6	1.51

Note:
1. Field parameter data collected on February 8 and March 2, 2022 were inadvertently not recorded.

Abbreviations:
-- = not available
deg C = degrees Celsius
J = estimated concentration
mg/L = milligram(s) per liter
mV = millivolts
N = primary sample
ND = not detected at the reporting limit, as shown
NTU = nephelometric turbidity units
ORP = oxidation-reduction potential
µg/L = microgram(s) per liter
µS/cm = microsiemens per centimeter

Table 3.1
Groundwater Remedy Phase 1 Monitoring Program Summary
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Remedy Compliance Monitoring: Outside Plume	Remedy Compliance Monitoring: Inside Plume	Remedy Compliance Monitoring: Surface Water	Process Control Monitoring: Dose Response Wells	Process Control Monitoring: Downgradient Monitoring Wells	Process Control Monitoring: Northern NTH Extraction Wells	Process Control Monitoring: Northern NTH IRZ Extraction Monitoring Wells	Water Level Monitoring	Process Control Monitoring: Carbon Amendment System Monitoring	Former IM-3 Injection Area Monitoring	COPC Monitoring	Domestic Well Sampling	Hexavalent Chromium	Total Dissolved Chromium	Total Organic Carbon	Dissolved Arsenic	Dissolved Manganese	Dissolved Iron	Total Iron	Dissolved Barium	Nitrate	Nitrite and Ammonium [1]	Ammonia as N	Nitrate/ Nitrite as N	Sulfate	Dissolved Molybdenum	Dissolved Selenium	Other Dissolved Metals [2]	Total Dissolved Solids	Alkalinity	Cations/ Anions
C-BNS			X								X		Q	SA		Q	Q				A					A	A				
C-CON			X								X		Q	SA		Q	Q				A					A	A				
C-I-3			X					M(Q), Q			X		Q	SA		Q	Q				A					A	A				
C-MAR			X								X		Q	SA		Q	Q				A					A	A				
C-NR1			X								X		Q	SA		Q	Q				A					A	A				
C-NR3			X								X		Q	SA		Q	Q				A					A	A				
C-NR4			X								X		Q	SA		Q	Q				A					A	A				
C-R22A			X								X		Q	SA		Q	Q				A					A	A				
C-R27			X								X		Q	SA		Q	Q				A					A	A				
C-TAZ			X								X		Q	SA		Q	Q				A					A	A				
CW-01D										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-01M										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-02D										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-02M										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-03D										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-03M										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-04D										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
CW-04M										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
IRZ-13S						X							M(Q), Q		M(Q), Q		M(Q), Q	M(Q), Q	M(Q), Q												
IRZ-13D						X							M(Q), Q		M(Q), Q		M(Q), Q	M(Q), Q	M(Q), Q												
IRZ-23						X							M(Q), Q		M(Q), Q		M(Q), Q	M(Q), Q	M(Q), Q												
IRZ-09						X							M(Q), Q		M(Q), Q		M(Q), Q	M(Q), Q	M(Q), Q												
MW-09		X									X		SA	SA		A	A				SA					SA	SA				
MW-10		X									X		SA	SA		A	A				SA					SA	SA				
MW-10D		X									X		SA	SA		A	A				SA					SA	SA				
MW-11		X											SA	SA		A	A														
MW-11D		X											SA	SA		A	A														
MW-12		X									X		SA	SA		A	A				SA					SA	SA				
MW-13	X										X		SA	SA		A	A				A					A	A				
MW-14	X										X		SA	SA		A	A				A					A	A				
MW-15	X												SA	SA		A	A														
MW-19		X											SA	SA		A	A														
MW-20-070		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-20-100		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-20-130		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-21	X			X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-22	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-23-060		X									X		SA	SA		A	A				A					A	A				
MW-23-080	X										X		SA	SA		A	A				A					A	A				
MW-24A		X									X		SA	SA		A	A				SA					SA	SA				
MW-24B		X									X		SA	SA		A	A				SA					SA	SA				
MW-24BR	X												SA	SA		A	A														
MW-25		X									X		SA	SA		A	A				A					A	A				
MW-26		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-27-020	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-27-060	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-27-085	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-28-025	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-28-090	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-29	X						X						Q	SA																	
MW-30-030	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-30-050	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-31-060		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-31-135	X			X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-32-020	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-32-035	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-33-040	X						X	M(Q), Q			X		Q	SA							A					A	A				
MW-33-090	X						X	M(Q), Q			X		Q	SA							A					A	A				
MW-33-150	X						X	M(Q), Q			X		Q	SA							A					A	A				
MW-33-210	X						X						Q	SA																	
MW-34-055	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				

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MW-34-080	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-34-100	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-35-060	X						X	M(Q), Q			X		Q	SA							A					A	A				
MW-35-135	X						X	M(Q), Q			X		Q	SA							A					A	A				
MW-36-020	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-36-040	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-36-050	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-36-070	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-36-090	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-36-100	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-37D	X										X		SA	SA		A	A				A					A	A				
MW-37S	X										X		SA	SA		A	A				A					A	A				
MW-38D		X									X		Q	Q		A	A				Q					Q	Q				
MW-38S		X									X		Q	Q		A	A				Q					Q	Q				
MW-39-040	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-39-050	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-39-060	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-39-070	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-39-080	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-39-100		X			X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-40D		X									X		SA	SA		A	A				A					A	A				
MW-40S	X										X		SA	SA		A	A				A					A	A				
MW-41D	X										X		SA	SA		A	A				A					A	A				
MW-41M	X										X		SA	SA		A	A				A					A	A				
MW-41S	X										X		SA	SA		A	A				A					A	A				
MW-42-030	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-42-055	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-42-065	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-43-025	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-43-075	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-43-090	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-44-070	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-44-115	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-44-125	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-45-095a	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-46-175	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-46-205	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-47-055	X						X						Q	SA																	
MW-47-115	X						X	M(Q), Q					Q	SA																	
MW-48	X										X		SA	SA		A	A				SA					SA	SA				
MW-49-135	X						X	M(Q), Q					Q	SA																	
MW-49-275	X						X						Q	SA																	
MW-49-365	X						X						Q	SA																	
MW-50-095	X							M(Q), Q					SA	SA		A	A														
MW-50-200		X									X		SA	SA		A	A				A					A	A				
MW-51		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-52D	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-52M	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-52S	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-53D	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-53M	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-53S	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-54-085	X							M(Q), Q			X		SA	SA		A	A				A					A	A				
MW-54-140	X							M(Q), Q			X		SA	SA		A	A				A					A	A				
MW-54-195	X							M(Q), Q			X		SA	SA		A	A				A					A	A				
MW-55-045	X												SA	SA		A	A														
MW-55-120	X												SA	SA		A	A														
MW-56D	X										X		SA	SA		A	A				A					A	A				
MW-56M	X										X		SA	SA		A	A				A					A	A				
MW-56S	X										X		SA	SA		A	A				A					A	A				
MW-57-050		X											SA	SA		A	A														

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MW-57-070		X									X		SA	SA		A	A				A					A	A				
MW-57-185	X										X		SA	SA		A	A				A					A	A				
MW-58-065	X										X		SA	SA		A	A				A					A	A				
MW-58-115	X										X		SA	SA		A	A				A					A	A				
MW-58-205	X										X		SA	SA		A	A				A					A	A				
MW-58BR	X										X		SA	SA		A	A				A					A	A				
MW-59-100		X									X		SA	SA		A	A				A					A	A				
MW-60-125		X									X		SA	SA		A	A				A					A	A				
MW-60BR-245	X												SA	SA		A	A														
MW-61-110		X									X		SA	SA		A	A				A					A	A				
MW-62-065		X									X		SA	SA		A	A				A					A	A				
MW-62-110		X									X		SA	SA		A	A				A					A	A				
MW-62-190	X										X		SA	SA		A	A				A					A	A				
MW-63-065	X										X		SA	SA		A	A				A					A	A				
MW-64-150	X												SA	SA		A	A														
MW-64-205	X												SA	SA		A	A														
MW-64-260	X												SA	SA		A	A														
MW-64BR	X										X		SA	SA		A	A				A					A	A				
MW-65-160		X									X		Q	Q		A	A				Q					Q	Q				
MW-65-225		X									X		Q	Q		A	A				Q					Q	Q				
MW-66-165		X									X		SA	SA		A	A				SA					SA	SA				
MW-66-230		X									X		SA	SA		A	A				SA					SA	SA				
MW-66BR-270	X												SA	SA		A	A														
MW-67-185		X									X		SA	SA		A	A				SA					SA	SA				
MW-67-225		X									X		SA	SA		A	A				SA					SA	SA				
MW-67-260		X									X		SA	SA		A	A				SA					SA	SA				
MW-68-180		X									X		Q	Q		A	A				Q					Q	Q				
MW-68-240		X									X		SA	SA		A	A				SA					SA	SA				
MW-68BR-280	X												SA	SA		A	A														
MW-69-195		X									X		Q	Q		A	A				Q					Q	Q				
MW-70-105		X									X		SA	SA		A	A				SA					SA	SA				
MW-70BR-225		X									X		SA	SA		A	A				SA					SA	SA				
MW-70BR-287		X											SA	SA		A	A														
MW-71-035	X			X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-72-080		X									X		SA	SA		A	A				A					A	A				
MW-72BR-200	X												SA	SA		A	A														
MW-73-080		X									X		SA	SA		A	A				A					A	A				
MW-74-240	X										X		SA	SA		A	A				A					A	A				
MW-75-033		X					X	M(Q), Q					Q	SA																	
MW-75-117	X						X	M(Q), Q					Q	SA																	
MW-75-202	X						X	M(Q), Q					Q	SA																	
MW-75-267	X						X	M(Q), Q					Q	SA																	
MW-75-337	X						X	M(Q), Q					Q	SA																	
MW-76-039		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-76-156		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-76-181		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-76-218		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-77-046	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-77-102	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-77-158	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-77-187	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-78-070		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-78-142		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-79-058		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-79-102		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-80-057		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-80-082		X		X				M(Q), Q			X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
MW-81-043	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-81-098	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-82-046	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-82-112	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				

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MW-82-168	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-82-198	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-83-090		X									X		SA	SA		A	A				A					A	A				
MW-83-180	X										X		SA	SA		A	A				A					A	A				
MW-83-225		X									X		SA	SA		A	A				A					A	A				
MW-83-245		X									X		SA	SA		A	A				A					A	A				
MW-84-057		X									X		SA	SA		A	A				A					A	A				
MW-84-095	X										X		SA	SA		A	A				A					A	A				
MW-84-132	X										X		SA	SA		A	A				A					A	A				
MW-84-193		X									X		SA	SA		A	A				A					A	A				
MW-85-129		X									X		SA	SA		A	A				A					A	A				
MW-85-217		X									X		SA	SA		A	A				A					A	A				
MW-85-237		X									X		SA	SA		A	A				A					A	A				
MW-86-030	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-86-066	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-86-120	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-86-140	X				X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-87-109	X										X		SA	SA		A	A				A					A	A				
MW-87-139	X										X		SA	SA		A	A				A					A	A				
MW-87-192	X										X		SA	SA		A	A				A					A	A				
MW-87-275	X										X		SA	SA		A	A				A					A	A				
MW-88-107		X											SA	SA		A	A														
MW-89-183	X										X		SA	SA		A	A				A					A	A				
MW-89-273	X										X		SA	SA		A	A				A					A	A				
MW-90-031	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
MW-91-045	X										X		SA	SA		A	A				A					A	A				
MW-91-120	X										X		SA	SA		A	A				A					A	A				
MW-91-170	X										X		SA	SA		A	A				A					A	A				
MW-91-320	X										X		SA	SA		A	A				A					A	A				
MW-92-037	X										X		SA	SA		A	A				A					A	A				
MW-92-072	X										X		SA	SA		A	A				A					A	A				
MW-92-102	X										X		SA	SA		A	A				A					A	A				
MW-92-122	X										X		SA	SA		A	A				A					A	A				
MW-93-050	X												SA	SA		A	A														
MW-93-213	X												SA	SA		A	A														
MW-95-113	X										X		SA	SA		A	A				A					A	A				
MW-95-157	X										X		SA	SA		A	A				A					A	A				
MW-96-045	X						X	M(Q), Q					Q	SA																		
MW-96-217	X						X	M(Q), Q					Q	SA																		
MW-97-042							X	M(Q), Q					Q	SA																		
MW-97-202							X	M(Q), Q					Q	SA																		
MW-98-055		X											SA	SA		A	A														
MW-98-077		X											SA	SA		A	A														
OW-01D										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-01M										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-01S								M(Q), Q		X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-02D										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-02M										X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-02S								M(Q), Q		X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-05D								M(Q), Q		X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-05M								M(Q), Q		X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
OW-05S								M(Q), Q		X			A	A		A	A			A				A	A	A	A	A	A	A	A [3]
PGE-07BR	X												SA	SA		A	A														
PGE-08	X												SA	SA		A	A														
PT5D		X			X			M(Q), Q			X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
PT5M	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
PT5S	X				X						X		Q	SA	Q	Q	Q	Q		Q	Q					A	A				
PT8D		X											SA	SA		A	A														
PT9D		X									X		SA	SA		A	A				A					A	A				
PT9M		X									X		SA	SA		A	A				A					A	A				
PT9S		X									X		SA	SA		A	A				A					A	A				

Table 3.1
Groundwater Remedy Phase 1 Monitoring Program Summary
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Remedy Compliance Monitoring: Outside Plume	Remedy Compliance Monitoring: Inside Plume	Remedy Compliance Monitoring: Surface Water	Process Control Monitoring: Dose Response Wells	Process Control Monitoring: Downgradient Monitoring Wells	Process Control Monitoring: Northern NTH Extraction Wells	Process Control Monitoring: Northern NTH IRZ Extraction Monitoring Wells	Water Level Monitoring	Process Control Monitoring: Carbon Amendment System Monitoring	Former IM-3 Injection Area Monitoring	COPC Monitoring	Domestic Well Sampling	Hexavalent Chromium	Total Dissolved Chromium	Total Organic Carbon	Dissolved Arsenic	Dissolved Manganese	Dissolved Iron	Total Iron	Dissolved Barium	Nitrate	Nitrite and Ammonium [1]	Ammonia as N	Nitrate/ Nitrite as N	Sulfate	Dissolved Molybdenum	Dissolved Selenium	Other Dissolved Metals [2]	Total Dissolved Solids	Alkalinity	Cations/ Anions
R-19			X								X		Q	SA		Q	Q				A					A	A				
R-28			X								X		Q	SA		Q	Q				A					A	A				
R-63			X								X		Q	SA		Q	Q				A					A	A				
RRB			X					M(Q), Q			X		Q	SA		Q	Q				A					A	A				
SW1			X								X		Q	SA		Q	Q				A					A	A				
SW2			X								X		Q	SA		Q	Q				A					A	A				
TW-01		X									X		SA	SA		A	A				SA					SA	SA				
TW-02D		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
TW-02S		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
TW-03D		X		X							X		M(yr), Q	Q (yr), SA	M(yr), Q	M(yr), Q	M(yr), Q	M(yr), Q		M(yr), Q	M(yr), Q	Q(yr)			M(yr), Q	Q	Q		As needed	As needed	As needed
TW-04	X						X						Q	SA																	
TW-05	X												SA	SA		A	A														
PM-03												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
PM-04												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
Marina-1												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
MTS-1												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
MTS-2												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
Topock-2												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
Topock-3												X	B	B		B	B	B			B		B		B	B	B		B	B	B [4]
CAB_MIXER_606									X						M(Q), SA [5]																
CAB_MIXER_607									X						M(Q), SA [5]																

Notes:
1. The monitoring program will be re-evaluated after 2 years of operation.

[1] Ammonium and nitrite will be monitored for the first year. If not detected within the first year of monitoring, sampling for these analytes will be discontinued. If increases in ammonium or nitrite concentrations are detected in dose response wells, recommendations for continued sampling and potential expansion of the monitoring network for these analytes will be provided.

2 Other dissolved metals: boron, calcium, magnesium, potassium, sodium, and vanadium

[3] Chloride and fluoride

[4] Dissolved calcium, dissolved magnesium, dissolved potassium, dissolved sodium, chloride, fluoride

[5] Samples are collected biweekly (1 time every 2 weeks) until the system operations are verified. The sampling frequency is reduced to semi-annual thereafter.

X(X): Frequency for the first year (yr) or quarter (Q); frequency reduction to be considered thereafter
A = Annually
B = biennially (every 2 years)
COPC = constituent of potential concern
ID = identification
IM-3 = Interim Measure 3
IRZ = In-site Reactive Zone
M = Monthly
NTH = National Trails Highway
Q = Quarterly
SA = Semi-annually

Table 3.2
Remedy Well Construction Details
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Well Type	Easting (NAD83)	Northing (NAD83)	Drilling Method	Completion Date	Boring Depth (feet bgs)	Screen Type	Upper Screen Interval 1 (feet bgs) Start	Upper Screen Interval 1 (feet bgs) End	Upper Middle Screen Interval 2 (feet bgs) Start	Upper Middle Screen Interval 2 (feet bgs) End	Lower Screen Interval 4 (feet bgs) Start	Lower Screen Interval 4 (feet bgs) End	Sump Interval (feet bgs) Start	Sump Interval (feet bgs) End	Boring Diameter (inches; range if variable)	Well Casing Diameter (inches)
IRZ-09	Extraction	7615565.51	2103560.78	Dual Rotary	9/2/2020	107.6	Single	55.0	99.8	--	--	--	--	99.8	105.4	15.625 - 18	10
IRZ-13S	Extraction	7615711.28	2103302.8	Dual Rotary	7/24/2020	103.6	Single	53.0	95.8	--	--	--	--	95.8	101.6	18	10
IRZ-13D	Extraction	7615707.68	2103310.2	Dual Rotary	7/11/2020	227.7	Single	--	--	--	--	160.4	210.2	210.2	215.8	15.625 - 18	10
IRZ-23	Extraction	7615826.01	2102535.62	Dual Rotary	6/30/2019	150.4	Single	--	--	--	--	92.1	142.0	142.0	147.4	17.5 - 24	10
IRZ-15	Injection	7615772.94	2103152.1	Dual Rotary	1/16/2020	232.6	Dual	30.0	55.3	--	--	150.3	200.2	200.2	205.9	15.5 - 18	10
IRZ-16	Injection	7615823.34	2103042.34	Dual Rotary	12/11/2019	194.5	Dual	27.0	54.9	--	--	155.0	186.8	186.8	192.5	16 - 18	10
IRZ-17	Injection	7615870.94	2103001.18	Dual Rotary	11/19/2019	192.0	Dual	36.2	57.1	--	--	137.2	167.1	167.1	172.8	16 - 18	10
IRZ-18	Injection	7615808.45	2102885.15	Dual Rotary	8/11/2020	193.9	Dual	41.7	59.6	--	--	155.0	181.8	181.8	187.4	16 - 18	10
IRZ-20	Injection	7615813.89	2102761.96	Dual Rotary	4/23/2019	188.1	Dual	49.0	71.0	--	--	136.0	155.0	155.0	160.0	18 - 24	10
IRZ-21	Injection	7615817.31	2102689.08	Dual Rotary	6/15/2019	166.5	Dual	47.4	65.4	--	--	140.4	157.3	157.3	163.0	18 - 24	10
IRZ-25	Injection	7615824.68	2102414.88	Dual Rotary	5/29/2019	174.0	Triple[a]	50.1	67.1	77.1	100.0	135.0	166.0	166.0	171.6	15.5 - 18	10
IRZ-27	Injection	7615803.46	2102237.25	Dual Rotary	2/7/2020	144.3	Triple[a]	52.0	67.0	77.0	99.9	114.9	136.8	136.8	142.3	16 - 18	10
IRZ-29	Injection	7615788.78	2102085.65	Dual Rotary	2/22/2020	128.5	Dual	48.2	77	--	--	92.1	120.9	120.9	126.3	15.5 - 18	10
IRZ-31	Injection	7615789.12	2101940.52	Dual Rotary	3/7/2020	128.8	Dual	48.2	77.1	--	--	92.1	121.0	121.0	126.8	16 - 18	10
IRZ-33	Injection	7615828.03	2101792.54	Dual Rotary	3/22/2020	119.5	Dual[b]	51.4	77.3	--	--	87.2	111.0	111.0	116.6	16 - 18	10
IRZ-35	Injection	7615918.00	2101643.44	Dual Rotary	3/29/2020	97.0	Single	53.1	88.0	--	--	--	--	88.0	93.8	18	10
IRZ-37	Injection	7616004.52	2101556.06	Dual Rotary	2/4/2020	82.0	Single	49.0	74.0	--	--	--	--	74.0	79.8	12	8
IRZ-39	Injection	7616112.16	2101376.07	Dual Rotary	10/23/2019	47.0	Single	28.0	39.0	--	--	--	--	39.0	44.7	8 - 12	8

Notes:

a. At triple-screened wells IRZ-25 and IRZ-27, well intervals can only be packed off to operate as two discrete intervals (e.g., by combining the upper and middle screens, by combining the middle and lower screens).

b. At IRZ-33, the dual screens were separated by only filter pack and no bentonite.

Abbreviations:

-- = not applicable
bgs = below ground surface
NAD83 = North American Datum of 1983
NAVD88 = North American Vertical Datum of 1988
PVC = polyvinyl chloride

Table 3.2
Remedy Well Construction Details
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, N

Well ID	Well Type	Easting (NAD83)	Northing (NAD83)	Well Casing Material	Screen Material	Upper Bentonite Seal Depth (range; feet bgs)	Upper Well Screen Slot Size (inches)	Upper Sand Pack Material	Upper Middle Bentonite Seal Depth (range; feet bgs)	Upper Middle Well Screen Slot Size (inches)	Upper Middle Sand Pack Material	Lower Bentonite Seal Depth (range; feet bgs)	Lower Well Screen Slot Size (inches)
IRZ-09	Extraction	7615565.51	2103560.78	SDR17 PVC	316L SS Wire	41.7 - 44	0.05	#6	--	--	--	--	--
IRZ-13S	Extraction	7615711.28	2103302.8	SDR17 PVC	316L SS Wire	40.4 - 42.1	0.05	#6	--	--	--	--	--
IRZ-13D	Extraction	7615707.68	2103310.2	SDR17 PVC	316L SS Wire	146.7 - 148.8	0.01	#0/30	--	--	--	--	--
IRZ-23	Extraction	7615826.01	2102535.62	SDR17 PVC	316L SS Wire	--	--	--	--	--	--	66.5 - 68.6	0.01
IRZ-15	Injection	7615772.94	2103152.1	SDR17 PVC	316L SS Wire	--	0.025	#2/16	--	--	--	59.8 - 140.9	0.030
IRZ-16	Injection	7615823.34	2103042.34	SDR17 PVC	316L SS Wire	--	0.02	#1	--	--	--	59.0 - 146.0	0.015
IRZ-17	Injection	7615870.94	2103001.18	SDR17 PVC	316L SS Wire	25.5 - 26.9	0.50	#8	--	--	--	61.3 - 128.2	0.015
IRZ-18	Injection	7615808.45	2102885.15	SDR17 PVC	316L SS Wire	--	0.01	#0/30	--	--	--	63.9 - 133.8	0.018
IRZ-20	Injection	7615813.89	2102761.96	SDR17 PVC	316L SS Wire	34.5 - 37.2	0.02	#1	--	--	--	75.4 - 125.6	0.02
IRZ-21	Injection	7615817.31	2102689.08	SDR17 PVC	316L SS Wire	35.2 - 36.7	0.025	#2/16	--	--	--	70.2 - 132.1	0.015
IRZ-25	Injection	7615824.68	2102414.88	SDR17 PVC	316L SS Wire	31.1 - 35.1	0.01	#0/30	69 - 74	0.03	#3	103.8 - 126	0.01
IRZ-27	Injection	7615803.46	2102237.25	SDR17 PVC	316L SS Wire	--	0.01	#0/30	69.1 - 72.9	0.02	#2/16	104 - 108.3	0.008
IRZ-29	Injection	7615788.78	2102085.65	SDR17 PVC	316L SS Wire	--	0.01	#0/30	--	--	--	80.4 - 85.9	0.01
IRZ-31	Injection	7615789.12	2101940.52	SDR17 PVC	316L SS Wire	--	0.01	#0/30	--	--	--	79.9 - 85.5	0.008
IRZ-33	Injection	7615828.03	2101792.54	SDR17 PVC	316L SS Wire	--	0.01	#0/30	--	--	--	--	0.01
IRZ-35	Injection	7615918.00	2101643.44	SDR17 PVC	316L SS Wire	--	0.01	#0/30	--	--	--	--	--
IRZ-37	Injection	7616004.52	2101556.06	SDR17 PVC	316L SS Wire	--	0.01	#0/60	--	--	--	--	--
IRZ-39	Injection	7616112.16	2101376.07	SDR17 PVC	316L SS Wire	--	0.008	#0/60	--	--	--	--	--

Notes:

a. At triple-screened wells IRZ-25 and IRZ-27, well intervals can only be packed off to operate as two discrete intervals (e.g., by combining the upper and middle screens, by combining the middle and lower screens).

b. At IRZ-33, the dual screens were separated by only filter pack and no bentonite.

Abbreviations:

-- = not applicable
bgs = below ground surface
NAD83 = North American Datum of 1983
NAVD88 = North American Vertical Datum of 1988
PVC = polyvinyl chloride

Table 3.2
Remedy Well Construction Details
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, N

Well ID	Well Type	Easting (NAD83)	Northing (NAD83)	Lower Sand Pack Material
IRZ-09	Extraction	7615565.51	2103560.78	--
IRZ-13S	Extraction	7615711.28	2103302.8	--
IRZ-13D	Extraction	7615707.68	2103310.2	--
IRZ-23	Extraction	7615826.01	2102535.62	#0/30
IRZ-15	Injection	7615772.94	2103152.1	#2/12
IRZ-16	Injection	7615823.34	2103042.34	#1/20
IRZ-17	Injection	7615870.94	2103001.18	#1/20
IRZ-18	Injection	7615808.45	2102885.15	#1/20
IRZ-20	Injection	7615813.89	2102761.96	#1
IRZ-21	Injection	7615817.31	2102689.08	#1/20
IRZ-25	Injection	7615824.68	2102414.88	#0/30
IRZ-27	Injection	7615803.46	2102237.25	#0/60
IRZ-29	Injection	7615788.78	2102085.65	#0/30
IRZ-31	Injection	7615789.12	2101940.52	#0/60
IRZ-33	Injection	7615828.03	2101792.54	#0/30
IRZ-35	Injection	7615918.00	2101643.44	--
IRZ-37	Injection	7616004.52	2101556.06	--
IRZ-39	Injection	7616112.16	2101376.07	--

Notes:

a. At triple-screened wells IRZ-25 and IRZ-27, well intervals can only be packed off to operate as two discrete intervals (e.g., by combining the upper and middle screens, by combining the middle and lower screens).

b. At IRZ-33, the dual screens were separated by only filter pack and no bentonite.

Abbreviations:

-- = not applicable
bgs = below ground surface
NAD83 = North American Datum of 1983
NAVD88 = North American Vertical Datum of 1988
PVC = polyvinyl chloride

Table 3.3
Monitoring Well Construction Details
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Location Type	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Other Layer	Top of Casing Elevation (ft)	Depth of Well (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Diameter of Well (inches)
C-BNS	SW	--	--	--	--	--	--	--	--	--	--	--
C-CON	SW	--	--	--	--	--	--	--	--	--	--	--
C-I-3	SW	--	--	--	--	--	--	--	--	--	--	--
C-MAR	SW	--	--	--	--	--	--	--	--	--	--	--
C-NR1	SW	--	--	--	--	--	--	--	--	--	--	--
C-NR3	SW	--	--	--	--	--	--	--	--	--	--	--
C-NR4	SW	--	--	--	--	--	--	--	--	--	--	--
C-R22A	SW	--	--	--	--	--	--	--	--	--	--	--
C-R27	SW	--	--	--	--	--	--	--	--	--	--	--
C-TAZ	SW	--	--	--	--	--	--	--	--	--	--	--
R-19	SW	--	--	--	--	--	--	--	--	--	--	--
R-28	SW	--	--	--	--	--	--	--	--	--	--	--
R63	SW	--	--	--	--	--	--	--	--	--	--	--
RRB	SW	--	--	--	--	--	--	--	--	--	--	--
SW1	SW	--	--	--	--	--	--	--	--	--	--	--
SW2	SW	--	--	--	--	--	--	--	--	--	--	--
TW-01	EW	X	X	X	--	--	--	620.55	271.0	169.0	269.0	5
TW-02D	EW	--	--	X	X	--	--	493.29	150.0	113.0	148.0	6
TW-02S	EW	X	X	--	--	--	--	499.05	97.5	42.5	92.5	6
TW-03D	EW	--	--	X	X	--	--	498.09	156.0	111.0	156.0	8
TW-04	EW	--	--	--	--	X	Layer 6	484.11	255.0	210.0	250.0	4
TW-05	EW	--	--	X	X	--	--	496.30	155.0	110.0	150.0	4
CW-01D	MW	--	--	--	X	X	--	566.46	300.2	250.0	300.0	2
CW-01M	MW	--	X	X	--	--	--	566.07	190.0	140.0	190.0	2
CW-02D	MW	--	--	--	--	X	Layer 6	549.43	355.0	285.0	335.0	2
CW-02M	MW	--	--	X	X	--	--	549.45	208.3	152.0	202.0	2
CW-03D	MW	--	--	--	--	X	Layer 6	534.14	340.0	270.0	320.0	2
CW-03M	MW	--	--	X	X	--	--	534.10	222.0	172.0	222.0	2
CW-04D	MW	--	--	--	--	X	Layer 6	518.55	303.0	233.0	283.0	2
CW-04M	MW	--	--	X	X	--	--	518.55	169.8	119.5	169.5	2
HNWR-1A	MW	--	X	X	X	--	--	467.69	400.0	63.0	133.0	--
MW-09	MW	X	--	--	--	--	--	536.56	89.4	77.0	87.0	4
MW-10	MW	X	--	--	--	--	--	530.65	96.9	74.0	94.0	4
MW-10D	MW	--	X	--	--	--	--	531.54	125.5	108.0	123.0	2
MW-11	MW	X	--	--	--	--	--	522.61	86.1	62.5	82.5	4
MW-11D	MW	--	X	X	--	--	--	522.59	132.4	110.0	130.0	2
MW-12	MW	X	--	--	--	--	--	484.01	50.4	27.5	47.5	4

Table 3.3
Monitoring Well Construction Details
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Location Type	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Other Layer	Top of Casing Elevation (ft)	Depth of Well (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Diameter of Well (inches)
MW-13	MW	X	--	--	--	--	--	488.64	52.0	28.5	48.5	4
MW-14	MW	X	--	--	--	--	--	570.99	133.8	111.0	131.0	4
MW-15	MW	X	--	--	--	--	--	641.52	203.0	180.5	200.5	4
MW-19	MW	X	--	--	--	--	--	499.92	65.8	46.0	66.0	4
MW-20-070	MW	X	--	--	--	--	--	500.15	69.6	50.0	70.0	4
MW-20-100	MW	--	X	--	--	--	--	500.58	101.4	89.5	99.5	4
MW-20-130	MW	--	--	X	--	--	--	500.66	132.3	121.0	131.0	4
MW-21	MW	X	--	--	--	--	--	505.55	58.5	39.0	59.0	4
MW-22	MW	X	--	--	--	--	--	460.72	12.4	5.5	10.5	2
MW-23-060	MW	X	--	--	--	--	--	504.08	60.2	50.0	60.0	2
MW-23-080	MW	X	X	--	--	--	--	504.13	80.8	75.0	80.0	2
MW-24A	MW	X	--	--	--	--	--	567.16	127.5	104.0	124.0	4
MW-24B	MW	--	--	X	--	--	--	564.76	214.8	193.0	213.0	4
MW-24BR	MW	--	--	--	--	--	Layers 7, 8	563.95	441.0	378.0	437.0	4
MW-25	MW	X	--	--	--	--	--	542.90	106.5	84.5	104.5	4
MW-26	MW	X	--	--	--	--	--	502.22	70.1	51.5	71.5	2
MW-27-020	MW	X	--	--	--	--	--	460.56	14.4	7.0	17.0	2
MW-27-060	MW	--	X	--	--	--	--	461.38	59.0	47.3	57.3	2
MW-27-085	MW	--	--	X	--	--	--	460.99	80.0	77.5	87.5	2
MW-28-025	MW	X	--	--	--	--	--	466.77	21.1	13.0	23.0	2
MW-28-090	MW	--	--	X	--	--	--	467.53	98.4	70.0	90.0	2
MW-29	MW	X	--	--	--	--	--	485.21	41.5	29.5	39.5	2
MW-30-030	MW	X	--	--	--	--	--	468.12	26.9	12.0	32.0	2
MW-30-050	MW	X	X	--	--	--	--	468.81	52.6	40.0	50.0	4
MW-31-060	MW	X	--	--	--	--	--	496.81	64.0	41.5	61.5	4
MW-31-135	MW	--	--	X	--	--	--	498.11	135.5	113.0	133.0	2
MW-32-020	MW	X	--	--	--	--	--	461.51	19.6	10.0	20.0	2
MW-32-035	MW	X	--		--	--	--	461.63	37.2	27.5	35.0	4
MW-33-040	MW	X	--	--	--	--	--	487.38	41.8	29.0	39.0	2
MW-33-090	MW	--	X	X	--	--	--	487.55	88.3	69.0	89.0	4
MW-33-150	MW	--	--	X	X	--	--	487.77	155.4	132.0	152.0	2
MW-33-210	MW	--	--	--	--	X	--	487.25	223.0	190.0	210.0	2
MW-34-055	MW	--	X	--	--	--	--	460.95	56.6	45.0	55.0	4
MW-34-080	MW	--	--	X	--	--	--	461.20	84.3	73.0	83.0	4
MW-34-100	MW	--	--	X	--	--	--	460.97	117.0	89.5	99.5	2
MW-35-060	MW	X	X	--	--	--	--	484.33	56.8	41.0	61.0	2
MW-35-135	MW	--	--	X	X	--	--	484.24	158.7	116.0	136.0	2

Table 3.3
Monitoring Well Construction Details
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Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Location Type	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Other Layer	Top of Casing Elevation (ft)	Depth of Well (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Diameter of Well (inches)
MW-36-020	MW	X	--	--	--	--	--	469.33	20.3	10.0	20.0	1
MW-36-040	MW	X	--	--	--	--	--	469.59	40.3	30.0	40.0	1
MW-36-050	MW	--	X	--	--	--	--	469.62	108.0	46.0	51.0	1
MW-36-070	MW	--	X	X	--	--	--	469.27	70.3	60.0	70.0	1
MW-36-090	MW	--	--	X	--	--	--	469.64	90.3	80.0	90.0	1
MW-36-100	MW	--	--	X	--	--	--	469.65	108.0	88.0	98.0	2
MW-37D	MW	--	--	--	X	X	--	486.19	226.7	180.0	200.0	2
MW-37S	MW	--	X	--	--	--	--	485.97	85.0	64.0	84.0	2
MW-38D	MW	--	--	X	X	--	--	525.31	190.9	163.0	183.0	2
MW-38S	MW	X	--	--	--	--	--	525.51	98.1	75.0	95.0	2
MW-39-040	MW	X	--	--	--	--	--	468.02	42.1	30.0	40.0	1
MW-39-050	MW	--	X	--	--	--	--	467.93	54.6	47.0	52.0	1
MW-39-060	MW	--	X	--	--	--	--	468.00	66.3	49.0	59.0	1
MW-39-070	MW	--	X	X	--	--	--	468.02	71.7	60.0	70.0	1
MW-39-080	MW	--	--	X	--	--	--	467.92	82.6	70.0	80.0	1
MW-39-100	MW	--	--	X	--	--	--	468.12	117.7	80.0	100.0	2
MW-40D	MW	--	--	--	X	--	--	566.08	266.0	240.0	260.0	2
MW-40S	MW	X	--	--	--	--	--	566.04	134.0	115.0	135.0	2
MW-41D	MW	--	--	--	--	--	Layer 6	479.42	311.5	271.0	291.0	2
MW-41M	MW	--	--	--	X	X	--	479.84	190.0	170.0	190.0	2
MW-41S	MW	X	X	--	--	--	--	480.07	60.0	40.0	60.0	2
MW-42-030	MW	X	--	--	--	--	--	463.74	30.1	9.8	29.8	2
MW-42-055	MW	--	X	--	--	--	--	463.85	52.8	42.5	52.5	2
MW-42-065	MW	--	X	X	--	--	--	463.37	80.0	56.2	66.2	2
MW-43-025	MW	X	--	--	--	--	--	462.54	25.0	15.0	25.0	2
MW-43-075	MW	--	--	X	--	--	--	462.71	75.0	65.0	75.0	2
MW-43-090	MW	--	--	X	--	--	--	462.76	97.0	80.0	90.0	2
MW-44-070	MW	--	X	--	--	--	--	471.90	70.0	61.0	71.0	2
MW-44-115	MW	--	--	X	--	--	--	472.01	113.5	105.0	115.0	2
MW-44-125	MW	--	--	X	X	--	--	472.04	128.8	116.0	125.0	2
MW-45-095a	MW	--	--	X	--	--	--	470.03	97.0	83.0	93.0	2
MW-46-175	MW	--	--	--	X	--	--	482.16	175.5	165.0	175.0	2
MW-46-205	MW	--	--	--	--	X	--	482.23	206.5	196.5	206.5	2
MW-47-055	MW	X	--	--	--	--	--	484.04	55.0	45.0	55.0	2
MW-47-115	MW	--	--	X	--	--	--	484.17	115.0	105.0	115.0	2
MW-48	MW	--	--	X	--	--	--	486.22	138.0	124.0	134.0	2
MW-49-135	MW	--	--	X	X	--	--	484.02	135.0	125.0	135.0	1.5

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Location ID	Location Type	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Other Layer	Top of Casing Elevation (ft)	Depth of Well (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Diameter of Well (inches)
MW-49-275	MW	--	--	--	--	--	Layer 6	483.95	274.7	255.0	275.0	2
MW-49-365	MW	--	--	--	--	--	Layer 8	484.01	367.4	346.0	366.0	2
MW-50-095	MW	--	X	--	--	--	--	496.49	95.0	85.0	95.0	2
MW-50-200	MW	--	--	--	X	X	--	496.35	204.5	190.0	200.0	2
MW-51	MW	--	X	X	--	--	--	501.56	113.3	97.0	112.0	4
MW-52D	MW	--	--	X	--	--	--	462.16	89.5	85.0	87.0	0.75
MW-52M	MW	--	--	X	--	--	--	462.16	70.5	66.0	68.0	0.75
MW-52S	MW	--	X	--	--	--	--	462.16	51.5	47.0	49.0	0.75
MW-53D	MW	--	--	--	X	--	--	461.32	125.0	123.5	125.0	0.75
MW-53M	MW	--	--	X	--	--	--	461.32	125.0	98.5	100.0	0.75
MW-53S	MW	X	--	--	--	--	--	461.32	125.0	28.5	30.0	0.75
MW-54-085	MW	--	--	X	--	--	--	466.10	93.2	77.0	87.0	2
MW-54-140	MW	--	--	--	X	--	--	465.98	138.0	128.0	138.0	2
MW-54-195	MW	--	--	--	--	X	--	466.32	195.0	185.0	195.0	2
MW-55-045	MW	X	X	--	--	--	--	465.66	54.1	37.0	47.0	2
MW-55-120	MW	--	--	X	X	--	--	465.46	120.3	108.0	118.0	2
MW-56D	MW	--	--	X	--	--	--	461.36	105.5	103.5	105.5	0.75
MW-56M	MW	--	--	X	--	--	--	461.36	105.5	73.5	75.5	0.75
MW-56S	MW	X	--	--	--	--	--	461.36	105.5	33.5	35.5	0.75
MW-57-050	MW	X	--	--	--	--	--	508.76	50.0	40.0	50.0	2
MW-57-070	MW	X	--	--	--	--	--	509.37	70.0	55.0	70.0	2
MW-57-185	MW	X	X	X	X	--	--	508.97	184.7	70.0	184.0	4
MW-58-065	MW	X	--	--	--	--	--	523.26	66.0	54.0	64.0	2
MW-58-115	MW	X	X	--	--	--	--	524.44	115.0	95.0	115.0	0
MW-58-205	MW	--	--	X	X	--	--	524.42	206.0	160.0	206.0	0
MW-59-100	MW	X	--	--	--	--	--	541.61	101.0	86.0	101.0	2
MW-60-125	MW	X	--	--	--	--	--	555.47	122.5	103.0	123.0	2
MW-61-110	MW	X	--	--	--	--	--	544.03	112.5	92.0	112.0	2
MW-62-065	MW	X	--	--	--	--	--	503.56	67.4	44.5	64.5	2
MW-62-110	MW	--	X	X	--	--	--	504.05	110.0	85.0	110.0	0
MW-62-190	MW	--	--	--	X	--	--	504.05	190.0	155.0	192.0	0
MW-63-065	MW	X	--	--	--	--	--	504.47	65.6	46.0	66.0	2
MW-64-150	MW	X	--	--	--	--	--	575.90	150.0	120.0	150.0	0
MW-64-205	MW	--	--	X	--	--	--	575.92	205.0	175.0	205.0	0
MW-64-260	MW	--	--	--	X	--	--	575.90	260.0	230.0	260.0	0
MW-65-160	MW	X	--	--	--	--	--	596.59	160.1	150.0	160.0	2
MW-65-225	MW	--	--	X	--	--	--	596.58	225.1	215.0	225.0	2

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Location ID	Location Type	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Other Layer	Top of Casing Elevation (ft)	Depth of Well (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Diameter of Well (inches)
MW-66-165	MW	X	X	--	--	--	--	586.16	162.1	142.0	162.0	2
MW-66-230	MW	--	--	X	--	--	--	586.22	228.1	218.0	228.0	2
MW-67-185	MW	X	--	--	--	--	--	625.91	186.7	177.0	187.0	2
MW-67-225	MW	--	X	--	--	--	--	625.83	225.0	210.0	225.0	2
MW-67-260	MW	--	--	X	--	--	--	625.81	260.0	250.0	260.0	2
MW-68-180	MW	X	--	--	--	--	--	621.17	180.1	165.0	180.0	2
MW-68-240	MW	--	X	X	--	--	--	621.17	240.1	220.0	240.0	2
MW-69-195	MW	X	--	--	--	--	--	631.36	195.5	176.0	196.0	2
MW-70-105	MW	X	--	--	--	--	--	541.47	107.8	85.0	105.0	2
MW-70BR-287	MW	--	--	--	--	X	--	538.53	287.0	240.0	287.0	5.5
MW-71-035	MW	X	--	--	--	--	--	483.69	36.2	26.0	36.0	2
MW-72-080	MW	X	--	--	--	--	--	513.32	80.1	60.0	80.0	2
MW-73-080	MW	X	--	--	--	--	--	505.84	79.9	60.2	80.2	2
MW-74-240	MW	X	--	--	--	--	--	672.34	239.7	220.0	240.0	2
MW-75-033	MW	X	--	--	--	--	--	473.31	35.4	18.0	33.0	2
MW-75-117	MW	--	--	X	--	--	--	473.37	119.3	97.0	117.0	2
MW-75-202	MW	--	--	--	--	X	--	472.08	204.0	182.0	202.0	2
MW-75-267	MW	--	--	--	--	--	Layer 6	472.10	269.3	247.0	267.0	2
MW-75-337	MW	--	--	--	--	--	Layers 7, 8	473.79	339.3	317.0	337.0	2
MW-76-039	MW	X	--	--	--	--	--	481.24	39.5	24.0	39.0	2
MW-76-156	MW	--	--	--	X	--	--	481.35	158.3	136.0	156.0	2
MW-76-181	MW	--	--	--	X	--	--	481.43	183.3	171.0	181.0	2
MW-76-218	MW	--	--	--	--	X	--	481.36	220.3	198.0	218.0	2
MW-77-046	MW	X	--	--	--	--	--	478.81	48.3	26.0	46.0	2
MW-77-102	MW	--	--	X	--	--	--	478.65	104.3	82.0	102.0	2
MW-77-158	MW	--	--	--	X	--	--	478.70	160.4	138.0	158.0	2
MW-77-187	MW	--	--	--	X	X	--	478.67	189.4	167.0	187.0	2
MW-78-070	MW	X	--	--	--	--	--	500.99	72.3	50.0	70.0	2
MW-78-142	MW	--	--	X	--	--	--	500.91	142.3	122.0	142.0	2
MW-79-058	MW	X	--	--	--	--	--	501.21	60.5	48.0	58.0	2
MW-79-102	MW	--	X	--	--	--	--	501.09	104.5	92.0	102.0	2
MW-80-057	MW	X	--	--	--	--	--	503.80	59.9	47.4	57.4	2
MW-80-082	MW	X	--	--	--	--	--	503.74	84.5	67.0	82.0	2
MW-81-043	MW	X	--	--	--	--	--	478.02	45.1	22.8	42.8	2
MW-81-098	MW	--	--	X	--	--	--	477.91	100.3	78.0	98.0	2
MW-82-046	MW	X	--	--	--	--	--	484.46	48.3	26.0	46.0	2
MW-82-112	MW	--	--	X	--	--	--	484.36	114.3	92.0	112.0	2

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MW-82-168	MW	--	--	--	X	--	--	483.75	170.3	148.0	168.0	2
MW-82-198	MW	--	--	--	X	X	--	483.66	200.3	178.0	198.0	2
MW-83-090	MW	X	--	--	--	--	--	529.24	92.3	70.0	90.0	2
MW-83-180	MW	--	--	X	X	--	--	529.13	182.0	160.0	180.0	2
MW-83-225	MW	--	--	--	X	--	--	529.80	227.4	205.0	225.0	2
MW-83-245	MW	--	--	--	--	X	--	529.65	257.4	235.0	245.0	2
MW-84-057	MW	X	--	--	--	--	--	500.70	59.4	42.0	57.0	2
MW-84-095	MW	X	X	--	--	--	--	500.64	97.4	75.0	95.0	2
MW-84-132	MW	--	--	X	--	--	--	501.26	134.4	112.0	132.0	2
MW-84-193	MW	--	--	--	X	--	--	501.18	195.5	173.0	193.0	2
MW-85-129	MW	X	--	--	--	--	--	569.93	131.3	113.8	129.0	2
MW-85-217	MW	--	--	X	--	--	--	569.36	219.0	196.7	216.7	2
MW-85-237	MW	--	--	--	X	--	--	569.50	239.0	226.7	236.7	2
MW-86-030	MW	X	--	--	--	--	--	468.02	32.3	10.0	30.0	2
MW-86-066	MW	--	X	--	--	--	--	467.91	68.3	46.0	66.0	2
MW-86-120	MW	--	--	X	X	--	--	468.33	122.3	100.0	120.0	2
MW-86-140	MW	--	--	--	X	--	--	468.18	142.3	130.0	140.0	2
MW-87-109	MW	X	--	--	--	--	--	546.94	111.3	89.0	109.0	2
MW-87-139	MW	X	X	--	--	--	--	546.94	141.4	119.0	139.0	2
MW-87-192	MW	--	--	X	--	--	--	547.26	194.3	172.0	192.0	2
MW-87-275	MW	--	--	--	--	X	--	547.11	277.3	255.0	275.0	2
MW-88-107	MW	X	--	--	--	--	--	546.53	109.3	87.0	107.0	2
MW-89-183	MW	--	X	--	--	--	--	587.52	185.6	163.2	183.2	2
MW-89-273	MW	--	--	--	X	--	--	587.66	275.6	253.2	273.2	2
MW-90-031	MW	X	--	--	--	--	--	459.27	33.8	21.5	31.5	2
MW-91-045	MW	X	X	--	--	--	--	465.48	46.5	24.2	44.2	2
MW-91-120	MW	--	--	X	X	--	--	465.37	122.1	99.8	119.8	2
MW-91-170	MW	--	--	--	X	X	--	465.37	173.2	150.8	170.8	2
MW-91-320	MW	--	--	--	--	--	Layers 7, 8	465.28	323.2	300.8	320.8	2
MW-92-037	MW	X	X	--	--	--	--	462.00	39.4	17.0	37.0	2
MW-92-072	MW	--	X	X	--	--	--	461.97	74.4	52.0	72.0	2
MW-92-102	MW	--	--	X	--	--	--	462.38	104.3	82.0	102.0	2
MW-92-122	MW	--	--	X	X	--	--	462.30	124.3	112.0	122.0	2
MW-93-050	MW	X	--	--	--	--	--	486.41	52.3	30.0	50.0	2
MW-93-213	MW	--	--	--	--	X	--	486.33	215.3	193.0	213.0	2
MW-94-030	MW	X	--	--	--	--	--	468.39	32.2	10.0	30.0	2
MW-94-100	MW	--	--	X	--	--	--	468.41	102.3	70.0	100.0	2

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MW-95-113	MW	X	--	--	--	--	--	553.64	115.3	93.0	113.0	2
MW-95-157	MW	--	X	X	--	--	--	553.60	159.3	137.0	157.0	2
MW-96-045	MW	X	--	--	--	--	--	483.84	47.3	25.0	45.0	2
MW-96-217	MW	--	--	--	--	X	--	483.61	219.3	197.0	217.0	2
MW-97-042	MW	X	--	--	--	--	--	481.81	42.8	22.3	42.3	2
MW-97-202	MW	--	--	--	--	X	--	481.648	201.8	191	201	2
MW-98-055	MW	X	--	--	--	--	--	502.12	57.3	39.9	55.0	2
MW-98-077	MW	X	--	--	--	--	--	502.02	79.3	67.0	77.0	2
MW-99-060	MW	X	--	--	--	--	--	500.61	62.3	40.0	60.0	2
MW-99-140	MW	--	--	X	--	--	--	500.55	142.3	120.0	140.0	2
OW-01D	MW	--	--	--	--	X	--	550.37	277.3	257.0	277.0	2
OW-01M	MW	--	--	X	--	--	--	550.36	185.8	165.0	185.0	2
OW-01S	MW	X	--	--	--	--	--	550.21	113.5	83.5	113.5	2
OW-02D	MW	--	--	--	--	--	Layer 6	549.01	340.0	310.0	330.0	2
OW-02M	MW	--	--	X	X	--	--	548.52	210.3	190.0	210.0	2
OW-02S	MW	X	--	--	--	--	--	548.88	103.6	71.0	101.0	2
OW-05D	MW	--	--	--	--	--	Layer 6	552.41	350.0	300.0	320.0	2
OW-05M	MW	--	--	--	X	--	--	551.81	250.3	210.0	250.0	2
OW-05S	MW	X	--	--	--	--	--	551.83	110.3	70.0	110.0	2
PGE-07BR	MW	--	--	--	--	--	Layer 9	--	300.0	249.0	300.0	7
PGE-08	MW	--	--	--	--	--	Layers 7, 8, 9	596.01	564.0	405.0	554.0	6.75
PT5D	MW	--	--	X	--	--	--	473.65	105.0	95.0	105.0	2
PT5M	MW	--	X	--	--	--	--	473.49	70.0	60.0	70.0	2
PT5S	MW	X	--	--	--	--	--	473.47	45.0	35.0	45.0	2
PT8D	MW	--	--	X	--	--	--	562.03	212.5	190.0	210.0	2
PT9D	MW	--	--	X	X	--	--	559.11	212.5	190.0	210.0	2
PT9M	MW	--	--	X	--	--	--	559.14	187.0	162.0	182.0	2
PT9S	MW	X	X	--	--	--	--	559.27	153.0	128.0	148.0	2
MW-58BR	MWBR	--	--	--	--	--	Layer 9	--	--	--	--	--
MW-60BR-245	MWBR	--	X	X	X	--	--	554.95	244.1	136.0	245.0	5
MW-64BR	MWBR	X	X	X	X	--	--	575.60	260.0	2.0	258.0	3
MW-66BR-270	MWBR	--	--	--	X	--	--	586.15	270.6	248.0	271.0	5
MW-68BR-280	MWBR	--	--	X	X	--	--	620.64	278.2	257.0	279.0	5
MW-70BR-225	MWBR	--	X	X	X	--	--	539.84	229.3	120.0	227.0	5
MW-72BR-200	MWBR	--	X	X	X	--	--	513.79	200.0	107.0	200.0	--

Table 3.3
Monitoring Well Construction Details
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Abbreviations

-- = not available or not applicable
bgs = below ground surface
EW = Extraction Well
ft = feet
ID = identification
MW = Monitoring Well
MWBR = Bedrock Monitoring Well
NGVD88 = Northern Geodetic Vertical Datum of 1988
SW = Surface Water
Layer 1 = greater than 425 feet NGVD88
Layer 2 = 400 – 425 feet NGVD88
Layer 3 = 350 – 400 feet NGVD88
Layer 4 = 300 – 350 feet NGVD88
Layer 5 = 250 – 300 feet NGVD88
Layer 6 = 200 – 250 feet NGVD88
Layer 7 = 150 – 200 ft NGVD88
Layer 8 = 100 – 150 ft NGVD88
Layer 9 = -200 – 100 ft NGVD88
Layer 10 = less than -200 ft NGVD88

Table 3.4
Process Control Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Ammonia (as Nitrate) (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
MW-20-070	Dose Response	02/03/2022	N	520	--	2.1 J	32	--	<0.02 J	0.0046	--	21	--	330	<1
MW-20-070	Dose Response	03/10/2022	N	450	420	1.5	26	--	<0.02	<0.0005	<0.2	17	--	300	<5
MW-20-070	Dose Response	03/10/2022	FD	450	450	1.6	26	--	<0.02	<0.0005	<0.2	17	--	300	<1
MW-20-100	Dose Response	02/03/2022	N	1,300	--	1.6 J	31	--	0.022 J	0.0052	--	6	--	270	<1
MW-20-100	Dose Response	03/10/2022	N	2,100	2,000	0.65	44	--	0.1	<0.0005	0.29	9.3	--	400	<1
MW-20-130	Dose Response	02/03/2022	N	6,000	--	<0.1	29	--	<0.02 J	0.0053	--	9.3	--	870	<1
MW-20-130	Dose Response	03/10/2022	N	4,800	4,500	<0.1	26	--	0.041	0.0021	<0.2	9	--	950	<1
MW-21	Dose Response	02/03/2022	N	6.7	--	6.4 J	32	--	0.77 J	0.04	--	4.8	--	1,100	<25
MW-21	Dose Response	03/14/2022	N	2.3	5.6	14 J	35	--	0.13	0.028	<0.2	3.9	--	1,400	<20
MW-21	Dose Response	03/14/2022	FD	2.4	5.7	9 J	36	--	0.16	0.029	<0.2	3.7	--	1,400	<1
MW-26	Dose Response	02/02/2022	N	1,800	--	1.2 J	36	--	0.037	0.006	--	12	--	400	<5
MW-26	Dose Response	03/14/2022	N	1,600	1,600	0.82 J	45	--	0.022	0.62	<0.2	6.8	--	380	<1
MW-26	Dose Response	03/14/2022	FD	1,600	1,600	0.75 J	44	--	<0.02	0.64	<0.2	6.7	--	390	<1
MW-31-060	Dose Response	02/01/2022	N	<1	--	6.9	480	--	0.031	7.80 J	--	<0.25	--	48	<25
MW-31-060	Dose Response	03/04/2022	N	230	230	<0.1	320	--	0.047	2.20	0.25	4.4	--	430	<20
MW-31-135	Dose Response	02/01/2022	N	15	--	<0.1	49	--	0.024	0.0067 J	--	1.4	--	570	<1
MW-31-135	Dose Response	03/07/2022	N	20	24	3.8 J	62 J	--	0.48	0.014 J	<0.2	1.6 J	--	720	<1
MW-31-135	Dose Response	03/07/2022	FD	19	23	3.5 J	59 J	--	0.53	0.018 J	<0.2	1.6 J	--	720	<1
MW-51	Dose Response	02/02/2022	N	2,600	--	<0.1	47	--	0.15	0.0053	--	6.8	--	660	<1
MW-51	Dose Response	03/14/2022	N	2,300	2,400	<0.1 J	37	--	<0.1	0.0063	<0.2	5.5	--	670	<1
MW-51	Dose Response	03/14/2022	FD	2,300	2,300	<0.1 J	38	--	<0.1	0.0061	<0.2	5.5	--	680	<1
MW-71-035	Dose Response	02/02/2022	N	<1	--	<0.1	47	--	0.12	0.0057	--	<0.5	--	1,100	<1
MW-71-035	Dose Response	03/14/2022	N	<1	<1	<0.1 J	47	--	0.036	0.02	<0.23	<0.5	--	1,200	<1
MW-76-039	Dose Response	01/31/2022	N	36	--	<0.1	59	--	0.28	0.034	--	2.5	--	200	<1
MW-76-039	Dose Response	03/07/2022	N	41	39	<0.1 J	62 J	--	<0.1	0.011	<0.2	2.4 J	--	190	<1
MW-76-039	Dose Response	03/07/2022	FD	40	41	<0.1 J	62 J	--	<0.1	0.011	<0.2	2.5 J	--	200	<1
MW-76-156	Dose Response	01/31/2022	N	<1	--	<0.1	60	--	<0.1	0.13	--	1.3	--	870	<1
MW-76-156	Dose Response	03/07/2022	N	2	2.5	<0.1 J	70 J	--	<0.1	0.16	<0.2	1.5 J	--	870	<1
MW-76-181	Dose Response	01/31/2022	N	1,500	--	<0.1	71	--	<0.02	0.064	--	2.1	--	850	<1
MW-76-181	Dose Response	03/07/2022	N	1,600	1,500	<0.1 J	75 J	--	<0.1	0.15	<0.2	2.2 J	--	880	<1
MW-76-218	Dose Response	01/31/2022	N	370	--	<0.1	74	--	<0.1	0.35	--	1.3	--	870	<1
MW-76-218	Dose Response	03/07/2022	N	670	700	3.5 J	79 J	--	<0.1	0.27	<0.2	1.6 J	--	890	<1
MW-76-218	Dose Response	03/07/2022	FD	680	620	3 J	73 J	--	<0.1	0.25	<0.2	1.6 J	--	890	<50
MW-78-070	Dose Response	02/01/2022	N	2,600	--	0.54	42	--	<0.02	0.003 J	--	7.1	--	310	<1
MW-78-070	Dose Response	02/01/2022	FD	2,700	--	0.56	42	--	<0.02	0.0032 J	--	7.2	--	300	<1
MW-78-070	Dose Response	03/10/2022	N	1,800	1,800	0.7	57	--	0.049	0.29	<0.2	4.8	--	270	<5
MW-78-142	Dose Response	02/01/2022	N	5,800	--	<0.1	32	--	0.072	0.0064 J	--	8.6	--	890	<1
MW-78-142	Dose Response	03/10/2022	N	5,700	5,600	<0.1	29	--	0.052	0.0045	<0.2	9.1	--	860	<1
MW-78-142	Dose Response	03/10/2022	FD	5,700	5,500	<0.1	29	--	0.045	0.0041	<0.2	9.1	--	880	<1
MW-79-058	Dose Response	02/01/2022	N	2,900	--	0.7	96	--	<0.02	<0.0005 J	--	9.3	--	400	<1
MW-79-058	Dose Response	03/14/2022	N	2,900	3,000	0.34 J	84	--	0.077	0.0021	<0.2	9.7	--	400	<1
MW-79-102	Dose Response	02/01/2022	N	3,500	--	0.94	41	--	0.39	0.0031 J	--	16	--	890	<1
MW-79-102	Dose Response	03/14/2022	N	3,600	3,500	0.78 J	38	--	0.07	0.0042	<0.2	15	--	880	<1
MW-79-102	Dose Response	03/14/2022	FD	3,600	3,600	0.75 J	38	--	0.073	0.0041	<0.2	15	--	850	<1

Table 3.4
Process Control Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Ammonia (as Nitrate) (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
MW-80-057	Dose Response	02/01/2022	N	780	--	1	54	--	<0.02	0.0028 J	--	16	--	510	<1
MW-80-057	Dose Response	03/14/2022	N	690	680	1 J	53	--	0.034	0.0041	<0.2	11	--	490	<1
MW-80-082	Dose Response	02/01/2022	N	2,000	--	0.54	44	--	<0.02	0.00071 J	--	10	--	550	<1
MW-80-082	Dose Response	02/01/2022	FD	2,000	--	0.58	44	--	<0.02	0.00071 J	--	10	--	550	<1
MW-80-082	Dose Response	03/14/2022	N	2,200	2,300	0.22 J	42	--	<0.02	0.00078	<0.2	9.4	--	580	<1
MW-80-082	Dose Response	03/14/2022	FD	2,300	2,300	0.31 J	43	--	<0.02	0.00089	<0.2	9.3	--	580	<1
TW-02S	Dose Response	03/09/2022	N	110	99	1.4	42	--	0.031 J	<0.0005	<0.2	4	--	180	<1
MW-22	Downgradient	03/04/2022	N	<1	--	6.5	110	--	11	4.30	--	<0.5	--	--	1
MW-27-020	Downgradient	03/10/2022	N	<0.2	--	0.89	53	--	0.034	0.056	--	<0.1	--	--	1
MW-27-060	Downgradient	03/10/2022	N	<0.2	--	8.5	73	--	0.34	0.24	--	<0.1	--	--	1.3
MW-27-085	Downgradient	03/10/2022	N	<1	--	<0.1	40	--	0.14	0.14	--	<0.25	--	--	<1
MW-28-025	Downgradient	03/08/2022	N	<0.2	--	0.48 J	61	--	<0.02 J	0.0067	--	<0.25	--	--	<1
MW-28-090	Downgradient	03/08/2022	N	<0.2	--	<0.1 J	27	--	0.87 J	0.27	--	<0.25	--	--	<1
MW-30-030	Downgradient	03/09/2022	N	<1	--	<0.1	120	--	0.26 J	0.079	--	<0.5	--	--	2.9
MW-30-050	Downgradient	03/09/2022	N	1.4	--	2.4	18	--	<0.02 J	0.0021	--	0.14	--	--	<1
MW-32-020	Downgradient	03/04/2022	N	<1	--	<0.1	170	--	3.50	0.13	--	<0.5	--	--	4.4
MW-32-035	Downgradient	03/04/2022	N	<1	--	13	200	--	10	0.58	--	<0.5	--	--	1.9
MW-34-055	Downgradient	03/10/2022	N	0.27	--	2.2	30	--	0.043	0.079	--	<0.1	--	--	<1
MW-34-080	Downgradient	03/10/2022	N	<0.2	--	<0.1	34	--	0.32	0.092	--	<0.25	--	--	<1
MW-34-100	Downgradient	03/10/2022	N	<1	--	<0.1	19	--	0.077	0.08	--	<0.1	--	--	<1
MW-36-020	Downgradient	03/09/2022	N	<0.2	--	0.52	88	--	1.30 J	0.27	--	<0.1	--	--	<1
MW-36-040	Downgradient	03/09/2022	N	<0.2	--	7.7	49	--	0.41 J	0.15	--	<0.1	--	--	1.5
MW-36-050	Downgradient	03/09/2022	N	<0.2	--	5.2	27	--	0.13 J	0.22	--	<0.1	--	--	<1
MW-36-070	Downgradient	03/09/2022	N	<0.2	--	2.4	32	--	0.029 J	0.22	--	<0.1	--	--	<1
MW-36-090	Downgradient	03/09/2022	N	<0.2	--	0.78	46	--	0.035 J	0.11	--	<0.25	--	--	<1
MW-36-100	Downgradient	03/09/2022	N	<0.2	--	2.8	56	--	0.49 J	0.48	--	<0.25	--	--	<1
MW-39-040	Downgradient	02/28/2022	N	<0.2	--	15	85	--	0.32	0.11	--	<0.1	--	--	2.7
MW-39-050	Downgradient	02/28/2022	N	<0.2	--	1.4	42	--	0.076	0.17	--	<0.1	--	--	<1
MW-39-060	Downgradient	02/28/2022	N	<0.2	--	2	36	--	1.80	0.15	--	<0.1	--	--	<1
MW-39-070	Downgradient	02/28/2022	N	<0.2	--	1.9	21	--	<0.02	0.0076	--	<0.1	--	--	<1
MW-39-080	Downgradient	02/28/2022	N	<0.2	--	0.49	21	--	<0.1	0.0058	--	0.15	--	--	<1
MW-39-100	Downgradient	02/28/2022	N	9.8	--	<0.1	35	--	0.16	0.013	--	<0.25	--	--	<1
MW-42-030	Downgradient	03/10/2022	N	<0.2	--	2	110	--	0.57	0.13	--	<0.1	--	--	1.8
MW-42-055	Downgradient	03/10/2022	N	<0.2	--	8.8	140	--	0.2	0.17	--	<0.1	--	--	<1
MW-42-065	Downgradient	03/10/2022	N	<0.2	--	3.1	83	--	0.092	1.60	--	<0.1	--	--	<1
MW-43-025	Downgradient	03/08/2022	N	<0.2	--	21 J	100	--	4.50 J	0.44	--	<0.25	--	--	1.3
MW-43-075	Downgradient	03/08/2022	N	<1	--	8.5 J	45	--	3.70 J	0.57	--	<0.25	--	--	<1
MW-43-090	Downgradient	03/08/2022	N	<1	--	<0.1 J	55	--	1.20 J	0.63	--	<0.25	--	--	<1
MW-44-070	Downgradient	03/10/2022	N	<0.2	--	1.7	43	--	0.45	0.28	--	<0.1	--	--	<1
MW-44-115	Downgradient	03/10/2022	N	<1	--	0.64	22	--	<0.02	0.014	--	<0.1	--	--	<1
MW-44-125	Downgradient	03/10/2022	N	<1	--	1.1	52	--	0.27	0.41	--	0.1	--	--	<1
MW-45-095A	Downgradient	03/08/2022	N	<0.2	--	<0.1 J	31	--	<0.02 J	0.18	--	<0.25	--	--	<1
MW-46-175	Downgradient	03/03/2022	N	5.4	--	<0.1	29	--	<0.1	0.013	--	0.76	--	--	<1
MW-46-205	Downgradient	03/03/2022	N	<1	--	<0.1	34	--	<0.1	0.038	--	0.57	--	--	<1

Table 3.4
Process Control Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Ammonia (as Nitrate) (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
MW-52D	Downgradient	03/08/2022	N	<1	--	2.1 J	39	--	0.53 J	0.21	--	<0.25	--	--	<1
MW-52M	Downgradient	03/08/2022	N	<1	--	<0.1 J	56	--	1 J	0.18	--	<0.25	--	--	<1
MW-52S	Downgradient	03/08/2022	N	<1	--	<0.1 J	1,000	--	21 J	1.20	--	<0.25	--	--	2.7
MW-53D	Downgradient	03/08/2022	N	<1	--	2.3 J	44	--	0.25 J	1	--	<0.25	--	--	<1
MW-53M	Downgradient	03/08/2022	N	<1	--	<0.1 J	70	--	0.99 J	0.51	--	<0.25	--	--	<50
MW-53S	Downgradient	03/08/2022	N	<0.2	--	<0.1 J	200	--	5.40 J	1.20	--	<0.25	--	--	<1
MW-77-046	Downgradient	03/01/2022	N	<0.2	--	0.89	43	--	1.50	0.27	--	<0.25	--	--	<1
MW-77-102	Downgradient	03/01/2022	N	<0.2	--	<0.1	48	--	<0.1	0.029	--	0.93	--	--	<1
MW-77-158	Downgradient	03/01/2022	N	52	--	<0.1	49	--	<0.1	0.068	--	1.6	--	--	<50
MW-77-187	Downgradient	03/01/2022	N	10	--	4.4	44	--	<0.5	0.035	--	1.4	--	--	<1
MW-81-043	Downgradient	03/01/2022	N	17	--	<0.1	110	--	<0.02	0.15	--	0.99	--	--	<1
MW-81-098	Downgradient	03/01/2022	N	<1	--	<0.1	100	--	<0.1	0.12	--	0.94	--	--	<1
MW-82-046	Downgradient	03/01/2022	N	<1	--	13	68	--	6.60	0.21	--	<0.5	--	--	3.4
MW-82-112	Downgradient	03/01/2022	N	<0.2	--	<0.1	38	--	0.11 J	0.058	--	0.6	--	--	<1
MW-82-168	Downgradient	03/01/2022	N	1.2	--	1.9	50	--	<0.1	0.2	--	1.3	--	--	<1
MW-82-198	Downgradient	03/01/2022	N	2.9	--	3.1	52	--	<0.5	0.16	--	1.7	--	--	<1
MW-86-030	Downgradient	03/07/2022	N	<0.2	--	5.4 J	97	--	0.36	0.26	--	<0.25	--	--	1.7
MW-86-066	Downgradient	03/07/2022	N	<0.2	--	<0.1 J	81	--	0.023	0.67	--	<0.5	--	--	<1
MW-86-120	Downgradient	03/07/2022	N	<1	--	<0.1 J	42	--	<0.1	0.37	--	<0.5	--	--	<1
MW-86-140	Downgradient	03/07/2022	N	<1	--	<0.1 J	50	--	<0.1	0.82	--	<0.5	--	--	<1
MW-90-031	Downgradient	03/04/2022	N	<1	--	<0.1	97	--	3.60	0.24	--	0.66	--	--	1.8
PT5D	Downgradient	03/04/2022	N	5.5	--	1.6	27	--	0.05	0.11	--	<0.5	--	--	<1
PT5M	Downgradient	03/04/2022	N	<0.2	--	1.1	32	--	0.14	1.20	--	<0.5	--	--	<1
PT5S	Downgradient	03/04/2022	N	<0.2	--	9.5	90	--	0.87	0.24	--	<0.25	--	--	1.9
IRZ-09	Extraction Wells	01/25/2022	N	19	18	<0.1	75	<0.02	<0.02	0.0027	<0.2	1.8	<5	480	<1
IRZ-09	Extraction Wells	03/10/2022	N	6.7	--	--	--	0.081	0.022	0.0016	--	--	--	--	<1
IRZ-13D	Extraction Wells	03/10/2022	N	350	340	<0.1	44	<0.02	0.059	0.062	<0.2	1.5	<5	950	<50
IRZ-13S	Extraction Wells	03/10/2022	N	17	17	<0.1	76	0.06	<0.02	<0.0005	<0.22	1.6	<5	460	<1
IRZ-23	Extraction Wells	01/25/2022	N	780	--	--	--	0.13	<0.02	<0.0005	--	--	--	--	<1
IRZ-23	Extraction Wells	02/21/2022	N	880	--	--	--	<0.02	<0.02	<0.0005	--	--	--	--	<20
IRZ-23	Extraction Wells	03/10/2022	N	900	--	--	--	0.11	<0.02	<0.0005	--	--	--	--	<1
MW-29	Northern Extraction	03/08/2022	N	<0.2	--	--	--	--	--	--	--	--	--	--	--
MW-33-040	Northern Extraction	03/03/2022	N	<0.2	--	--	--	--	--	--	--	--	--	--	--
MW-33-090	Northern Extraction	03/03/2022	N	4.8	--	--	--	--	--	--	--	--	--	--	--
MW-33-150	Northern Extraction	03/03/2022	N	4.3	--	--	--	--	--	--	--	--	--	--	--
MW-33-210	Northern Extraction	03/03/2022	N	8.6	--	--	--	--	--	--	--	--	--	--	--
MW-35-060	Northern Extraction	03/02/2022	N	20	--	--	--	--	--	--	--	--	--	--	--
MW-35-135	Northern Extraction	03/02/2022	N	30	--	--	--	--	--	--	--	--	--	--	--
MW-47-055	Northern Extraction	03/03/2022	N	17	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	Northern Extraction	03/03/2022	N	20	--	--	--	--	--	--	--	--	--	--	--
MW-49-135	Northern Extraction	03/08/2022	N	1.3	--	--	--	--	--	--	--	--	--	--	--
MW-49-275	Northern Extraction	03/08/2022	N	1.1	--	--	--	--	--	--	--	--	--	--	--
MW-49-365	Northern Extraction	03/08/2022	N	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-033	Northern Extraction	03/02/2022	N	39	--	--	--	--	--	--	--	--	--	--	--

Table 3.4
Process Control Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Ammonia (as Nitrate) (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
MW-75-033	Northern Extraction	03/02/2022	FD	40	--	--	--	--	--	--	--	--	--	--	--
MW-75-117	Northern Extraction	03/02/2022	N	2.7	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	Northern Extraction	03/02/2022	N	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-267	Northern Extraction	03/02/2022	N	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-337	Northern Extraction	03/02/2022	N	<1	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	Northern Extraction	03/02/2022	N	<0.2	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	Northern Extraction	03/02/2022	N	<1	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	Northern Extraction	03/02/2022	N	6.7	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	Northern Extraction	03/02/2022	N	<1	--	--	--	--	--	--	--	--	--	--	--
TW-02D	Dose Response	03/09/2022	N	64	62	5.8	52	--	0.039 J	0.14	<0.2	1.1	--	940	<50
TW-03D	Dose Response	03/09/2022	N	920	840	<0.1	42	--	<0.02 J	0.03	<0.2	1.5	--	920	<1
TW-04	Northern Extraction	03/03/2022	N	12	--	--	--	--	--	--	--	--	--	--	--

Abbreviations:
-- = not applicable or not available
< = not detected at reporting limit, as shown
FD = field duplicate
ID = identification
J = estimated concentration
mg/L= milligram(s) per liter
N = primary sample
µg/L = microgram(s) per liter

Table 3.5
NTH IRZ Dose Response Monitoring Wells Performance Summary
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	IRZ Injection Well ID	Sample Date	TOC			Cr6						Dissolved Iron				Dissolved Arsenic			Dissolved Manganese			Evidence of Treated Groundwater at Well[g]	Are In-Situ Byproducts Controlled?	Reasoning and Operational Response
			TOC Baseline[a] (mg/L)	TOC (mg/L)	Is TOC within the Target Range of 15 - 50 mg/L[b]?	Cr6 Baseline[c] (µg/L)	Cr6 (µg/L)	Change from Baseline Concentration (µg/L)	Percent Change from Baseline Concentration (%)[d]	Are Cr6 Concentrations Decreasing Compared to the Baseline Concentration?	Is Cr6 < 32 µg/L[e]?	Dissolved Iron Baseline[f] (mg/L)	Dissolved Iron (mg/L)	Are Dissolved Iron Concentrations above Baseline?	Is Dissolved Iron < 5 mg/L[e]?	Dissolved Arsenic Baseline[f] (µg/L)	Dissolved Arsenic (µg/L)	Is Dissolved Arsenic < 15 µg/L[e]?	Dissolved Manganese Baseline[f] (mg/L)	Dissolved Manganese (mg/L)	Is Dissolved Manganese < 5 mg/L[e]?			
MW-20-070	IRZ-25	02/03/2022	<1	<1	N*	2,500	520	-1,980	-79%	Y	N	0.0624	<0.02 J	N*	Y	2.70	2.1 J	Y	0.0077	0.0046	Y	N	Y	IRZ injection well not operating
MW-20-070	IRZ-25	03/10/2022	<1	<5	N*	2,500	450	-2,050	-82%	Y	N	0.0624	<0.02	N*	Y	2.70	1.6	Y	0.0077	<0.0005	Y	N	Y	IRZ injection well not operating
MW-20-100	IRZ-25	02/03/2022	<1	<1	N*	750	1,300	550	73%	N	N	0.390	0.022 J	N	Y	2.9	1.6 J	Y	0.056	0.0052	Y	N	Y	IRZ injection well not operating
MW-20-100	IRZ-25	03/10/2022	<1	<1	N*	750	2,100	1,350	180%	N	N	0.390	0.1	N	Y	2.9	0.65	Y	0.056	<0.0005	Y	N	Y	IRZ injection well not operating
MW-20-130	IRZ-25	02/03/2022	<1	<1	N*	5,900	6,000	100	2%	N	N	0.092	<0.02 J	N*	Y	7.42	<0.1	Y	0.0036	0.0053	Y	N	Y	IRZ injection well not operating
MW-20-130	IRZ-25	03/10/2022	<1	<1	N*	5,900	4,800	-1,100	-19%	Y	N	0.092	0.041	N	Y	7.42	<0.1	Y	0.0036	0.0021	Y	N	Y	IRZ injection well not operating
MW-21	IRZ-37 IRZ-39	02/03/2022	<1	<25	N*	4.6	6.7	2	46%	N	Y	0.170	0.77 J	Y	Y	4.47	6.4 J	Y	1.040	0.04	Y	N	Y	Baseline Cr6 less than 32 µg/L
MW-21	IRZ-37 IRZ-39	03/14/2022	<1	<20	N*	4.6	2.4	-2	-48%	Y	Y	0.170	0.16	N	Y	4.47	9 J	Y	1.040	0.029	Y	N	Y	Baseline Cr6 less than 32 µg/L
MW-26	IRZ-31	02/02/2022	<1	<5	N*	2,300	1,800	-500	-22%	Y	N	0.110	0.037	N	Y	2.2	1.2 J	Y	0.120	0.006	Y	Y	Y	No operational changes made
MW-26	IRZ-31	03/14/2022	<1	<1	N*	2,300	1,600	-700	-30%	Y	N	0.110	0.022	N	Y	2.2	0.82 J	Y	0.120	0.64	Y	Y	Y	No operational changes made
MW-31-060	IRZ-18	02/01/2022	<1	<25	N*	410	<1	-409	-100%	Y	Y	0.110	0.031	N	Y	1.96	6.9	Y	0.0066	7.8 J	N	Y	N	Dissolved manganese concentration exceeded action level. Reduced dosing frequency.
MW-31-060	IRZ-18	03/04/2022	<1	<20	N*	410	230	-180	-44%	Y	N	0.110	0.047	N	Y	1.96	<0.1	Y	0.0066	2.2	Y	Y	Y	No operational changes made
MW-31-135	IRZ-18	02/01/2022	<1	<1	N*	15	15	0	0%	N	Y	0.0610	0.024	N	Y	4.64	<0.1	Y	0.130	0.0067 J	Y	N	Y	Baseline Cr6 less than 32 µg/L
MW-31-135	IRZ-18	03/07/2022	<1	<1	N*	15	20	5	33%	N	Y	0.0610	0.53	Y	Y	4.64	3.8 J	Y	0.130	0.018 J	Y	N	Y	Baseline Cr6 less than 32 µg/L
MW-51	IRZ-31	02/02/2022	<1	<1	N*	3,300	2,600	-700	-21%	Y	N	0.081	0.15	Y	Y	4.9	<0.1	Y	0.0045	0.0053	Y	Y	Y	No operational changes made
MW-51	IRZ-31	03/14/2022	<1	<1	N*	3,300	2,300	-1,000	-30%	Y	N	0.081	<0.1	N*	Y	4.9	<0.1 J	Y	0.0045	0.0063	Y	Y	Y	No operational changes made
MW-71-035	IRZ-39	02/02/2022	<1	<1	N*	<1	<1	0	0%	N	Y	13	0.12	N	Y	10	<0.1	Y	5.2	0.0057	Y	N	Y	Baseline Cr6 less than 32 µg/L
MW-71-035	IRZ-39	03/14/2022	<1	<1	N*	<1	<1	0	0%	N	Y	13	0.036	N	Y	10	<0.1 J	Y	5.2	0.02	Y	N	Y	Baseline Cr6 less than 32 µg/L
MW-76-039	IRZ-15	01/31/2022	<1	<1	N*	130	36	-94	-72%	Y	N	2.0	0.28	N	Y	1.3	<0.1	Y	0.220	0.034	Y	N	Y	IRZ injection well not operating
MW-76-039	IRZ-15	03/07/2022	<1	<1	N*	130	41	-89	-68%	Y	N	2.0	<0.1	N*	Y	1.3	<0.1 J	Y	0.220	0.011	Y	N	Y	IRZ injection well not operating
MW-76-156	IRZ-15	01/31/2022	<1	<1	N*	4.2	<1	-3	-76%	Y	Y	0.170	<0.1	N*	Y	2.5	<0.1	Y	0.28	0.13	Y	N	Y	IRZ injection well not operating
MW-76-156	IRZ-15	03/07/2022	<1	<1	N*	4.2	2	-2	-52%	Y	Y	0.170	<0.1	N*	Y	2.5	<0.1 J	Y	0.28	0.16	Y	N	Y	IRZ injection well not operating
MW-76-181	IRZ-15	01/31/2022	<1	<1	N*	1,500	1,500	0	0%	N	N	0.080	<0.02	N*	Y	1.7	<0.1	Y	0.93	0.064	Y	N	Y	IRZ injection well not operating
MW-76-181	IRZ-15	03/07/2022	<1	<1	N*	1,500	1,600	100	7%	N	N	0.080	<0.1	N*	Y	1.7	<0.1 J	Y	0.93	0.15	Y	N	Y	IRZ injection well not operating
MW-76-218	IRZ-15	01/31/2022	<1	<1	N*	320	370	50	16%	N	N	0.180	<0.1	N*	Y	5.1	<0.1	Y	0.39	0.35	Y	N	Y	IRZ injection well not operating
MW-76-218	IRZ-15	03/07/2022	<1	<50	N*	320	680	360	113%	N	N	0.180	<0.1	N*	Y	5.1	3.5 J	Y	0.39	0.27	Y	N	Y	IRZ injection well not operating
MW-78-070	IRZ-25; IRZ-27	02/01/2022	<1	<1	N*	4,400	2,700	-1,700	-39%	Y	N	0.100	<0.02	N*	Y	1.40	0.56	Y	0.0054	0.0032 J	Y	Y	Y	No operational changes made
MW-78-070	IRZ-25; IRZ-27	03/10/2022	<1	<5	N*	4,400	1,800	-2,600	-59%	Y	N	0.100	0.049	N	Y	1.40	0.7	Y	0.0054	0.29	Y	Y	Y	No operational changes made
MW-78-142	IRZ-25; IRZ-27	02/01/2022	<1	<1	N*	6,800	5,800	-1,000	-15%	Y	N	0.130	0.072	N	Y	4.3	<0.1	Y	0.0250	0.0064 J	Y	N	Y	Continue to evaluate
MW-78-142	IRZ-25; IRZ-27	03/10/2022	<1	<1	N*	6,800	5,700	-1,100	-16%	Y	N	0.130	0.052	N	Y	4.3	<0.1	Y	0.0250	0.0045	Y	N	Y	Continue to evaluate
MW-79-058	IRZ-29; IRZ-31	02/01/2022	<1	<1	N*	3,200	2,900	-300	-9%	Y	N	2.6	<0.02	N*	Y	2.5	0.7	Y	0.470	<0.0005 J	Y	N	Y	Continue to evaluate
MW-79-058	IRZ-29; IRZ-31	03/14/2022	<1	<1	N*	3,200	2,900	-300	-9%	Y	N	2.6	0.077	N	Y	2.5	0.34 J	Y	0.470	0.0021	Y	N	Y	Continue to evaluate

Table 3.5
NTH IRZ Dose Response Monitoring Wells Performance Summary
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	IRZ Injection Well ID	Sample Date	TOC			Cr6						Dissolved Iron				Dissolved Arsenic			Dissolved Manganese			Evidence of Treated Groundwater at Well[g]	Are In-Situ Byproducts Controlled?	Reasoning and Operational Response
			TOC Baseline[a] (mg/L)	TOC (mg/L)	Is TOC within the Target Range of 15 - 50 mg/L[b]?	Cr6 Baseline[c] (µg/L)	Cr6 (µg/L)	Change from Baseline Concentration (µg/L)	Percent Change from Baseline Concentration (%)[d]	Are Cr6 Concentrations Decreasing Compared to the Baseline Concentration?	Is Cr6 < 32 µg/L[e]?	Dissolved Iron Baseline[f] (mg/L)	Dissolved Iron (mg/L)	Are Dissolved Iron Concentrations above Baseline?	Is Dissolved Iron < 5 mg/L[e]?	Dissolved Arsenic Baseline[f] (µg/L)	Dissolved Arsenic (µg/L)	Is Dissolved Arsenic < 15 µg/L[e]?	Dissolved Manganese Baseline[f] (mg/L)	Dissolved Manganese (mg/L)	Is Dissolved Manganese < 5 mg/L[e]?			
MW-79-102	IRZ-29; IRZ-31	02/01/2022	<1	<1	N*	3,500 J	3,500	0	0%	N	N	0.065	0.39	Y	Y	4.8	0.94	Y	0.054	0.0031 J	Y	N	Y	Continue to evaluate
MW-79-102	IRZ-29; IRZ-31	03/14/2022	<1	<1	N*	3,500 J	3,600	100	3%	N	N	0.065	0.073	Y	Y	4.8	0.78 J	Y	0.054	0.0042	Y	N	Y	Continue to evaluate
MW-80-057	IRZ-35	02/01/2022	<1	<1	N*	840 J	780	-60	-7%	Y	N	0.11	<0.02	N*	Y	3.3	1	Y	0.080	0.0028 J	Y	N	Y	Continue to evaluate
MW-80-057	IRZ-35	03/14/2022	<1	<1	N*	840 J	690	-150	-18%	Y	N	0.110	0.034	N	Y	3.3	1 J	Y	0.080	0.0041	Y	N	Y	Continue to evaluate
MW-80-082	IRZ-35	02/01/2022	<1	<1	N*	2,100 J	2,000	-100	-5%	Y	N	0.059	<0.02	N*	Y	4.2	0.58	Y	0.010	0.00071 J	Y	N	Y	Continue to evaluate
MW-80-082	IRZ-35	03/14/2022	<1	<1	N*	2,100 J	2,300	200	10%	N	N	0.059	<0.02	N*	Y	4.2	0.31 J	Y	0.010	0.00089	Y	N	Y	Continue to evaluate
TW-02S	IRZ-21	03/09/2022	<1	<1	N*	81	110	29	36%	N	N	0.180	0.031 J	N	Y	<10	1.4	Y	0.090	<0.0005	Y	N	Y	IRZ injection well not operating
TW-02D	IRZ-21	03/09/2022	<1	<50	N*	740	64	-676	-91%	Y	N	0.770	0.039 J	N	Y	4.53	5.8	Y	0.210	0.14	Y	N	Y	IRZ injection well not operating
TW-03D	IRZ-21	03/09/2022	<1	<1	N*	470	920	450	96%	N	N	0.180	<0.02 J	N*	Y	<5	<0.1	Y	0.034	0.03	Y	N	Y	IRZ injection well not operating

Notes:

a. Baseline TOC concentrations are defined by the most recent sampling result prior to IRZ system startup. Note that if a result was non-detect at an elevated reporting limit, previous sampling events were considered to develop a more conservative baseline concentration.

b. Anticipated target ranges were set forth in the NTH IRZ Injection Decision Rules and Operational Framework (CH2M Hill 2015).

c. Baseline Cr6 concentrations represent the maximum concentration observed at each monitoring well between January 2020 and December 2021.

d. In comparison to the baseline concentration, a negative value indicates a decrease in concentration and a positive value indicates an increase in concentration.

e. Anticipated comparison values were set forth in the NTH IRZ Injection Decision Rules and Operational Framework (CH2M Hill 2015).

f. Baseline dissolved iron, dissolved arsenic, and dissolved manganese concentrations represent the maximum historical concentration observed at each monitoring well. For wells installed after 2019, baseline concentrations represent the maximum concentration observed at each monitoring well between January 2020 and December 2021.

g. Evidence of treated groundwater at the monitoring well is determined by changes in TOC, Cr6, and in-situ byproduct (dissolved iron, dissolved arsenic and dissolved manganese) concentrations, as outlined in the NTH IRZ Injection Decision Rules and Operational Framework (CH2M Hill 2015). Additional information, including changes in nitrate and sulfate concentrations, is also used to support evidence of treated groundwater.

Abbreviations:

<x = not detected at the reporting limit, as indicated in parentheses
< = less than
Cr6 = hexavalent chromium
ID = identification
IRZ = in-situ reactive zone
J = estimated concentration
mg/L= milligram(s) per liter
N = no
N* = No, the result is not detected at the reporting limit, and as such is not considered within the target range or above baseline.
NTH = National Trails Highway
TOC = total organic carbon
Y = yes
µg/L = microgram(s) per liter

Reference:

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

Table 3.6
NTH IRZ Downgradient Monitoring Wells Performance Summary
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Sample Date	Cr6						Dissolved Iron				Dissolved Arsenic			Dissolved Manganese			Are In-Situ Byproducts Controlled?	Operational Response
		Cr6 Baseline[a] (µg/L)	Cr6 (µg/L)	Change from Baseline Concentration (µg/L)	Percent Change from Baseline Concentration[b]	Anticipated Change in Cr6 Concentrations[c]	Is Cr6 Concentration Within Expectations?	Dissolved Iron Baseline[d] (mg/L)	Dissolved Iron (mg/L)	Are Dissolved Iron Concentrations above Baseline?	Is Dissolved Iron < 5 mg/L[c]?	Dissolved Arsenic Baseline[d] (µg/L)	Dissolved Arsenic (µg/L)	Is Dissolved Arsenic < 15 µg/L[c]?	Dissolved Manganese Baseline[d] (mg/L)	Dissolved Manganese (mg/L)	Is Dissolved Manganese < 5 mg/L[c]?		
MW-22	03/04/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	21	11	N	N	28	6.5	Y	7.2	4.3	Y	Y	No operational changes made
MW-27-020	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	2.9	0.034	N	Y	4.8	0.89	Y	0.36	0.056	Y	Y	No operational changes made
MW-27-060	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	2.6	0.34	N	Y	13	8.5	Y	0.35	0.24	Y	Y	No operational changes made
MW-27-085	03/10/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	1.9	0.14	N	Y	14	<0.1	Y	0.964	0.14	Y	Y	No operational changes made
MW-28-025	03/08/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.063	<20 J	N*	Y*	2.4	0.48 J	Y	0.41	0.0067	Y	Y	No operational changes made
MW-28-090	03/08/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	1.0	0.87 J	N	Y	7.7	<0.1 J	Y	0.664	0.27	Y	Y	No operational changes made
MW-30-030	03/09/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	5.37	0.26 J	N	Y	19	<0.1	Y	1.3	0.079	Y	Y	No operational changes made
MW-30-050	03/09/2022	<0.2	1.4	1	600%	Remains below 32 µg/L	Y	0.12	<20 J	N*	Y*	9.7	2.4	Y	0.26	0.0021	Y	Y	No operational changes made
MW-32-020	03/04/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	21	3.5	N	Y	65	<0.1	Y	2.85	0.13	Y	Y	No operational changes made
MW-32-035	03/04/2022	<0.2	<1	0	0%	Remains below 32 µg/L	Y	24.1	10	N	N	53	13	Y	4.3	0.58	Y	Y	No operational changes made
MW-34-055	03/10/2022	<0.2	0.27	0	35%	Remains below 32 µg/L	Y	0.505	0.043	N	Y	4.83	2.2	Y	0.29	0.079	Y	Y	No operational changes made
MW-34-080	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.35	0.32	N	Y	7.3	<0.1	Y	0.30	0.092	Y	Y	No operational changes made
MW-34-100	03/10/2022	<1	<1	0	0%	Steady	Y	0.47	0.077	N	Y	16	<0.1	Y	0.23	0.08	Y	Y	No operational changes made
MW-36-020	03/09/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	2.75	1.3 J	N	Y	3.3	0.52	Y	0.642	0.27	Y	Y	No operational changes made
MW-36-040	03/09/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	3.92	0.41 J	N	Y	7.7	7.7	Y	0.699	0.15	Y	Y	No operational changes made
MW-36-050	03/09/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.57	0.13 J	N	Y	5.6	5.2	Y	0.517	0.22	Y	Y	No operational changes made
MW-36-070	03/09/2022	0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.57	0.029 J	N	Y	10	2.4	Y	1.6	0.22	Y	Y	No operational changes made
MW-36-090	03/09/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.13	0.035 J	N	Y	25	0.78	Y	0.17	0.11	Y	Y	No operational changes made
MW-36-100	03/09/2022	36	<0.2	-36	-99%	Increasing	Y	0.26	0.49 J	Y	Y	14	2.8	Y	0.39	0.48	Y	Y	No operational changes made
MW-39-040	02/28/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	12.4	0.32	N	Y	21	15	Y	1.59	0.11	Y	Y	No operational changes made
MW-39-050	02/28/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.15	0.076	N	Y	16	1.4	Y	0.19	0.17	Y	Y	No operational changes made
MW-39-060	02/28/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.12	1.8	Y	Y	7.6	2	Y	0.11	0.15	Y	Y	No operational changes made
MW-39-070	02/28/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.22	<20	N*	Y*	16	1.9	Y	0.12	0.0076	Y	Y	No operational changes made
MW-39-080	02/28/2022	0.47	<0.2	-0	-57%	Remains below 32 µg/L	Y	0.12	<100	N*	Y*	16	0.49	Y	0.12	0.0058	Y	Y	No operational changes made
MW-39-100	02/28/2022	120	9.8	-110	-92%	Increasing	Y	0.056	0.16	Y	Y	4.1	<0.1	Y	0.031	0.013	Y	Y	No operational changes made
MW-42-030	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	5.39	0.57	N	Y	6.5	2	Y	0.737	0.13	Y	Y	No operational changes made
MW-42-055	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	2.24	0.2	N	Y	29	8.8	Y	1.02	0.17	Y	Y	No operational changes made
MW-42-065	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.36	0.092	N	Y	14	3.1	Y	2.37	1.6	Y	Y	No operational changes made
MW-43-025	03/08/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	5.4	4.5 J	N	Y	32	21 J	N	0.36	0.44	Y	Y	No operational changes made
MW-43-075	03/08/2022	<0.2	<1	0	0%	Remains below 32 µg/L	Y	5.5	3.7 J	N	Y	17	8.5 J	Y	0.93	0.57	Y	Y	No operational changes made
MW-43-090	03/08/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	9.26	1.2 J	N	Y	25	<0.1 J	Y	1.26	0.63	Y	Y	No operational changes made
MW-44-070	03/10/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.656	0.45	N	Y	6.6	1.7	Y	0.316	0.28	Y	Y	No operational changes made
MW-44-115	03/10/2022	4.8	<1	-4	-79%	Increasing	Y	0.25	<20	N*	Y*	6.93	0.64	Y	0.0917	0.014	Y	Y	No operational changes made
MW-44-125	03/10/2022	<1	<1	0	0%	Increasing	Y	0.7	0.27	N	Y	5.9	1.1	Y	0.777	0.41	Y	Y	No operational changes made
MW-45-095a	03/08/2022	<0.2	<0.2	0	0%	Increasing	Y	0.0129	<20 J	N*	Y*	10	<0.1 J	Y	0.26	0.18	Y	Y	No operational changes made
MW-46-175	03/03/2022	6.6	5.4	-1	-18%	Increasing	Y	0.20	<100	N*	Y*	2.9	<0.1	Y	0.025	0.013	Y	Y	No operational changes made
MW-46-205	03/03/2022	1.6	<1	-1	-38%	Remains below 32 µg/L	Y	0.068	<100	N*	Y*	<0.1	<0.1	Y	0.053	0.038	Y	Y	No operational changes made
MW-52D	03/08/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	5.4	0.53 J	N	Y	27	2.1 J	Y	0.319	0.21	Y	Y	No operational changes made
MW-52M	03/08/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	2	1 J	N	Y	21	<0.1 J	Y	0.316	0.18	Y	Y	No operational changes made
MW-52S	03/08/2022	<0.2	<1	0	0%	Remains below 32 µg/L	Y	27	21 J	N	N	12	<0.1 J	Y	2.1	1.2	Y	Y	No operational changes made
MW-53D	03/08/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	0.54	0.25 J	N	Y	32	2.3 J	Y	2.2	1	Y	Y	No operational changes made
MW-53M	03/08/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	0.55	0.99 J	Y	Y	25	<0.1 J	Y	0.63	0.51	Y	Y	No operational changes made
MW-53S	03/08/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	5.4	5.4 J	N	N	<0.1	<0.1 J	Y	1.2	1.2	Y	Y	No operational changes made
MW-77-046	03/01/2022	1.1	<0.2	-1	-82%	Remains below 32 µg/L	Y	0.94	1.5	Y	Y	3.6	0.89	Y	0.46	0.27	Y	Y	No operational changes made

Table 3.6
NTH IRZ Downgradient Monitoring Wells Performance Summary
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Sample Date	Cr6						Dissolved Iron				Dissolved Arsenic			Dissolved Manganese			Are In-Situ Byproducts Controlled?	Operational Response
		Cr6 Baseline[a] (µg/L)	Cr6 (µg/L)	Change from Baseline Concentration (µg/L)	Percent Change from Baseline Concentration[b]	Anticipated Change in Cr6 Concentrations[c]	Is Cr6 Concentration Within Expectations?	Dissolved Iron Baseline[d] (mg/L)	Dissolved Iron (mg/L)	Are Dissolved Iron Concentrations above Baseline?	Is Dissolved Iron < 5 mg/L[c]?	Dissolved Arsenic Baseline[d] (µg/L)	Dissolved Arsenic (µg/L)	Is Dissolved Arsenic < 15 µg/L[c]?	Dissolved Manganese Baseline[d] (mg/L)	Dissolved Manganese (mg/L)	Is Dissolved Manganese < 5 mg/L[c]?		
MW-77-102	03/01/2022	1.6	<0.2	-1	-88%	Remains below 32 µg/L	Y	0.082	<100	N*	Y*	1.3	<0.1	Y	0.064	0.029	Y	Y	No operational changes made
MW-77-158	03/01/2022	10 J	52	42	420%	Remains below 32 µg/L	N	0.048	<100	N*	Y*	3.2	<0.1	Y	0.087	0.068	Y	Y	No operational changes made; monitoring closely
MW-77-187	03/01/2022	4.1	10	6	144%	Remains below 32 µg/L	Y	0.050	<500	N*	Y*	4.4	4.4	Y	0.11	0.035	Y	Y	No operational changes made
MW-81-043	03/01/2022	13	17	4	31%	Remains below 32 µg/L	Y	0.38	<20	N*	Y*	3.4	<0.1	Y	0.36	0.15	Y	Y	No operational changes made
MW-81-098	03/01/2022	2.0 J	<1	-1	-50%	Remains below 32 µg/L	Y	0.15	<100	N*	Y*	1.0	<0.1	Y	0.28	0.12	Y	Y	No operational changes made
MW-82-046	03/01/2022	<0.2	<1	0	0%	Increasing before decreasing below 32 µg/L	Y	6.6	6.6	N	N	32	13	Y	0.48	0.21	Y	Y	No operational changes made
MW-82-112	03/01/2022	0.88	<0.2	-1	-77%	Increasing before decreasing below 32 µg/L	Y	0.11	0.11 J	N	Y	2.0	<0.1	Y	0.072	0.058	Y	Y	No operational changes made
MW-82-168	03/01/2022	7	1.2	-6	-83%	Increasing before decreasing below 32 µg/L	Y	0.094	<100	N*	Y*	1.9	1.9	Y	0.32	0.2	Y	Y	No operational changes made
MW-82-198	03/01/2022	<1	2.9	2	190%	Increasing before decreasing below 32 µg/L	Y	0.27	<500	N*	Y*	3.9	3.1	Y	0.23	0.16	Y	Y	No operational changes made
MW-86-030	03/07/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	1.4	0.36	N	Y	7.8	5.4 J	Y	0.44	0.26	Y	Y	No operational changes made
MW-86-066	03/07/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	0.42	0.023	N	Y	2.0	<0.1 J	Y	1.1	0.67	Y	Y	No operational changes made
MW-86-120	03/07/2022	1.1 J	<1	-0	-9%	Remains below 32 µg/L	Y	0.69	<100	N*	Y*	3.1	<0.1 J	Y	0.98	0.37	Y	Y	No operational changes made
MW-86-140	03/07/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	0.53	<100	N*	Y*	1.4	<0.1 J	Y	1.5	0.82	Y	Y	No operational changes made
MW-90-031	03/04/2022	<1	<1	0	0%	Remains below 32 µg/L	Y	9.8	3.6	N	Y	3.7	<0.1	Y	0.35	0.24	Y	Y	No operational changes made
PT5D	03/04/2022	31	5.5	-26	-82%	May increase before increasing	Y	2.2	0.05	N	Y	11.5	1.6	Y	1.7	0.11	Y	Y	No operational changes made
PT5M	03/04/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	1.82	0.14	N	Y	11.1	1.1	Y	1.77	1.2	Y	Y	No operational changes made
PT5S	03/04/2022	<0.2	<0.2	0	0%	Remains below 32 µg/L	Y	1.03	0.87	N	Y	13	9.5	Y	2.44	0.24	Y	Y	No operational changes made

Notes:

a. Baseline Cr6 concentrations represent the maximum concentration observed at each monitoring well between January 2020 and December 2021.

b. In comparison to the baseline concentration, a negative value indicates a decrease in concentration and a positive value indicates an increase in concentration.

c. Anticipated change in Cr6 concentrations and comparison values were determined from the NTH IRZ Injection Decision Rules and Operational Framework (CH2M Hill 2015).

d. Baseline dissolved iron, dissolved arsenic, and dissolved manganese concentrations represent the maximum historical concentration observed at each monitoring well. For wells installed after 2019, baseline concentrations represent the maximum concentration observed at each monitoring well between January 2020 and December 2021.

Abbreviations:

<x = not detected at the reporting limit
Cr6 = hexavalent chromium
ID = identification
IRZ = in-situ reactive zone
J = estimated value
mg/L= milligram(s) per liter
N = no
N* = No, the result is not detected at the reporting limit, and as such is not considered within the target range or above baseline.
NTH = National Trails Highway
Y = yes
Y* = Yes, the result is not detected at an elevated reporting limit, and as such is not considered above the comparison criteria.
µg/L = microgram(s) per liter

Reference:

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

Table 3.7
Remedy Compliance Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Manganese (mg/L)
C-BNS	Surface Water	02/16/2022	N	<0.2	--	1.9	<0.0005 J
C-CON-D	Surface Water	02/17/2022	N	<0.2	--	2.2	0.00071
C-CON-S	Surface Water	02/17/2022	N	<0.2	--	2	<0.0005
C-I-3-D	Surface Water	02/16/2022	N	<0.2	--	2.1	<0.0005 J
C-I-3-S	Surface Water	02/16/2022	N	<0.2	--	1.9	<0.0005 J
C-MAR-D	Surface Water	02/17/2022	N	<0.2	--	1.8	0.0054
C-MAR-S	Surface Water	02/17/2022	N	<0.2	--	2	0.007
C-NR1-D	Surface Water	02/17/2022	N	<0.2	--	2	<0.0005
C-NR1-D	Surface Water	02/17/2022	FD	<0.2	--	1.9	0.0017
C-NR1-S	Surface Water	02/17/2022	N	<0.2	--	2	<0.0005
C-NR3-D	Surface Water	02/17/2022	N	<0.2	--	1.9	<0.0005
C-NR3-S	Surface Water	02/17/2022	N	<0.2	--	2	<0.0005
C-NR4-D	Surface Water	02/17/2022	N	<0.2	--	2	<0.0005
C-NR4-S	Surface Water	02/17/2022	N	<0.2	--	1.9	<0.0005
C-R22A-D	Surface Water	02/16/2022	N	<0.2	--	2	<0.0005 J
C-R22A-S	Surface Water	02/16/2022	N	<0.2	--	2	<0.0005 J
C-R22A-S	Surface Water	02/16/2022	FD	<0.2	--	2.1	<0.0005 J
C-R27-D	Surface Water	02/16/2022	N	<0.2	--	2	<0.0005 J
C-R27-S	Surface Water	02/16/2022	N	<0.2	--	1.9	<0.0005 J
C-TAZ-D	Surface Water	02/16/2022	N	<0.2	--	1.9	<0.0005 J
C-TAZ-D	Surface Water	02/16/2022	FD	<0.2	--	2	<0.0005 J
C-TAZ-S	Surface Water	02/16/2022	N	<0.2	--	1.9	<0.0005 J
MW-20-070	Inside Plume	02/03/2022	N	520	--	2.1 J	0.0046
MW-20-070	Inside Plume	03/10/2022	N	450	420	1.5	<0.0005
MW-20-070	Inside Plume	03/10/2022	FD	450	450	1.6	<0.0005
MW-20-100	Inside Plume	02/03/2022	N	1,300	--	1.6 J	0.0052
MW-20-100	Inside Plume	03/10/2022	N	2,100	2,000	0.65	<0.0005
MW-20-130	Inside Plume	02/03/2022	N	6,000	--	<0.1	0.0053
MW-20-130	Inside Plume	03/10/2022	N	4,800	4,500	<0.1	0.0021
MW-21	Outside Plume	02/03/2022	N	6.7	--	6.4 J	0.04
MW-21	Outside Plume	03/14/2022	N	2.3	5.6	14 J	0.028
MW-21	Outside Plume	03/14/2022	FD	2.4	5.7	9 J	0.029
MW-22	Outside Plume	03/04/2022	N	<1	--	6.5	4.30
MW-26	Inside Plume	02/02/2022	N	1,800	--	1.2 J	0.006
MW-26	Inside Plume	03/14/2022	N	1,600	1,600	0.82 J	0.62
MW-26	Inside Plume	03/14/2022	FD	1,600	1,600	0.75 J	0.64
MW-27-020	Outside Plume	03/10/2022	N	<0.2	--	0.89	0.056
MW-27-060	Outside Plume	03/10/2022	N	<0.2	--	8.5	0.24
MW-27-085	Outside Plume	03/10/2022	N	<1	--	<0.1	0.14
MW-28-025	Outside Plume	03/08/2022	N	<0.2	--	0.48 J	0.0067
MW-28-090	Outside Plume	03/08/2022	N	<0.2	--	<0.1 J	0.27
MW-29	Outside Plume	03/08/2022	N	<0.2	--	--	--
MW-30-030	Outside Plume	03/09/2022	N	<1	--	<0.1	0.079
MW-30-050	Outside Plume	03/09/2022	N	1.4	--	2.4	0.0021
MW-31-060	Inside Plume	02/01/2022	N	<1	--	6.9	7.80 J
MW-31-060	Inside Plume	03/04/2022	N	230	230	<0.1	2.20

Table 3.7
Remedy Compliance Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Manganese (mg/L)
MW-31-135	Outside Plume	02/01/2022	N	15	--	<0.1	0.0067 J
MW-31-135	Outside Plume	03/07/2022	N	20	24	3.8 J	0.014 J
MW-31-135	Outside Plume	03/07/2022	FD	19	23	3.5 J	0.018 J
MW-32-020	Outside Plume	03/04/2022	N	<1	--	<0.1	0.13
MW-32-035	Outside Plume	03/04/2022	N	<1	--	13	0.58
MW-33-040	Outside Plume	03/03/2022	N	<0.2	--	--	--
MW-33-090	Outside Plume	03/03/2022	N	4.8	--	--	--
MW-33-150	Outside Plume	03/03/2022	N	4.3	--	--	--
MW-33-210	Outside Plume	03/03/2022	N	8.6	--	--	--
MW-34-055	Outside Plume	03/10/2022	N	0.27	--	2.2	0.079
MW-34-080	Outside Plume	03/10/2022	N	<0.2	--	<0.1	0.092
MW-34-100	Outside Plume	03/10/2022	N	<1	--	<0.1	0.08
MW-35-060	Outside Plume	03/02/2022	N	20	--	--	--
MW-35-135	Outside Plume	03/02/2022	N	30	--	--	--
MW-36-020	Outside Plume	03/09/2022	N	<0.2	--	0.52	0.27
MW-36-040	Outside Plume	03/09/2022	N	<0.2	--	7.7	0.15
MW-36-050	Outside Plume	03/09/2022	N	<0.2	--	5.2	0.22
MW-36-070	Outside Plume	03/09/2022	N	<0.2	--	2.4	0.22
MW-36-090	Outside Plume	03/09/2022	N	<0.2	--	0.78	0.11
MW-36-100	Outside Plume	03/09/2022	N	<0.2	--	2.8	0.48
MW-38D	Inside Plume	03/03/2022	N	39	36	--	--
MW-38S	Inside Plume	03/03/2022	N	31	31	--	--
MW-39-040	Outside Plume	02/28/2022	N	<0.2	--	15	0.11
MW-39-050	Outside Plume	02/28/2022	N	<0.2	--	1.4	0.17
MW-39-060	Outside Plume	02/28/2022	N	<0.2	--	2	0.15
MW-39-070	Outside Plume	02/28/2022	N	<0.2	--	1.9	0.0076
MW-39-080	Outside Plume	02/28/2022	N	<0.2	--	0.49	0.0058
MW-39-100	Inside Plume	02/28/2022	N	9.8	--	<0.1	0.013
MW-42-030	Outside Plume	03/10/2022	N	<0.2	--	2	0.13
MW-42-055	Outside Plume	03/10/2022	N	<0.2	--	8.8	0.17
MW-42-065	Outside Plume	03/10/2022	N	<0.2	--	3.1	1.60
MW-43-025	Outside Plume	03/08/2022	N	<0.2	--	21 J	0.44
MW-43-075	Outside Plume	03/08/2022	N	<1	--	8.5 J	0.57
MW-43-090	Outside Plume	03/08/2022	N	<1	--	<0.1 J	0.63
MW-44-070	Outside Plume	03/10/2022	N	<0.2	--	1.7	0.28
MW-44-115	Outside Plume	03/10/2022	N	<1	--	0.64	0.014
MW-44-125	Outside Plume	03/10/2022	N	<1	--	1.1	0.41
MW-45-095A	Outside Plume	03/08/2022	N	<0.2	--	<0.1 J	0.18
MW-46-175	Outside Plume	03/03/2022	N	5.4	--	<0.1	0.013
MW-46-205	Outside Plume	03/03/2022	N	<1	--	<0.1	0.038
MW-47-055	Outside Plume	03/03/2022	N	17	--	--	--
MW-47-115	Outside Plume	03/03/2022	N	20	--	--	--
MW-49-135	Outside Plume	03/08/2022	N	1.3	--	--	--
MW-49-275	Outside Plume	03/08/2022	N	1.1	--	--	--
MW-49-365	Outside Plume	03/08/2022	N	<1	--	--	--
MW-51	Inside Plume	02/02/2022	N	2,600	--	<0.1	0.0053

Table 3.7
Remedy Compliance Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Manganese (mg/L)
MW-51	Inside Plume	03/14/2022	N	2,300	2,400	<0.1 J	0.0063
MW-51	Inside Plume	03/14/2022	FD	2,300	2,300	<0.1 J	0.0061
MW-52D	Outside Plume	03/08/2022	N	<1	--	2.1 J	0.21
MW-52M	Outside Plume	03/08/2022	N	<1	--	<0.1 J	0.18
MW-52S	Outside Plume	03/08/2022	N	<1	--	<0.1 J	1.20
MW-53D	Outside Plume	03/08/2022	N	<1	--	2.3 J	1
MW-53M	Outside Plume	03/08/2022	N	<1	--	<0.1 J	0.51
MW-53S	Outside Plume	03/08/2022	N	<0.2	--	<0.1 J	1.20
MW-65-160	Inside Plume	03/09/2022	N	250	240	--	--
MW-65-225	Inside Plume	03/09/2022	N	350	340	--	--
MW-65-225	Inside Plume	03/09/2022	FD	340	330	--	--
MW-68-180	Inside Plume	03/09/2022	N	34,000	37,000	--	--
MW-69-195	Inside Plume	03/09/2022	N	430	450	--	--
MW-71-035	Outside Plume	02/02/2022	N	<1	--	<0.1	0.0057
MW-71-035	Outside Plume	03/14/2022	N	<1	<1	<0.1 J	0.02
MW-75-033	Inside Plume	03/02/2022	N	39	--	--	--
MW-75-033	Inside Plume	03/02/2022	FD	40	--	--	--
MW-75-117	Outside Plume	03/02/2022	N	2.7	--	--	--
MW-75-202	Outside Plume	03/02/2022	N	<1	--	--	--
MW-75-267	Outside Plume	03/02/2022	N	<1	--	--	--
MW-75-337	Outside Plume	03/02/2022	N	<1	--	--	--
MW-76-039	Inside Plume	01/31/2022	N	36	--	<0.1	0.034
MW-76-039	Inside Plume	03/07/2022	N	41	39	<0.1 J	0.011
MW-76-039	Inside Plume	03/07/2022	FD	40	41	<0.1 J	0.011
MW-76-156	Inside Plume	01/31/2022	N	<1	--	<0.1	0.13
MW-76-156	Inside Plume	03/07/2022	N	2	2.5	<0.1 J	0.16
MW-76-181	Inside Plume	01/31/2022	N	1,500	--	<0.1	0.064
MW-76-181	Inside Plume	03/07/2022	N	1,600	1,500	<0.1 J	0.15
MW-76-218	Inside Plume	01/31/2022	N	370	--	<0.1	0.35
MW-76-218	Inside Plume	03/07/2022	N	670	700	3.5 J	0.27
MW-76-218	Inside Plume	03/07/2022	FD	680	620	3 J	0.25
MW-77-046	Outside Plume	03/01/2022	N	<0.2	--	0.89	0.27
MW-77-102	Outside Plume	03/01/2022	N	<0.2	--	<0.1	0.029
MW-77-158	Outside Plume	03/01/2022	N	52	--	<0.1	0.068
MW-77-187	Outside Plume	03/01/2022	N	10	--	4.4	0.035
MW-78-070	Inside Plume	02/01/2022	N	2,600	--	0.54	0.003 J
MW-78-070	Inside Plume	02/01/2022	FD	2,700	--	0.56	0.0032 J
MW-78-070	Inside Plume	03/10/2022	N	1,800	1,800	0.7	0.29
MW-78-142	Inside Plume	02/01/2022	N	5,800	--	<0.1	0.0064 J
MW-78-142	Inside Plume	03/10/2022	N	5,700	5,600	<0.1	0.0045
MW-78-142	Inside Plume	03/10/2022	FD	5,700	5,500	<0.1	0.0041
MW-79-058	Inside Plume	02/01/2022	N	2,900	--	0.7	<0.0005 J
MW-79-058	Inside Plume	03/14/2022	N	2,900	3,000	0.34 J	0.0021
MW-79-102	Inside Plume	02/01/2022	N	3,500	--	0.94	0.0031 J
MW-79-102	Inside Plume	03/14/2022	N	3,600	3,500	0.78 J	0.0042
MW-79-102	Inside Plume	03/14/2022	FD	3,600	3,600	0.75 J	0.0041

Table 3.7
Remedy Compliance Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location ID	Well Group	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Manganese (mg/L)
MW-80-057	Inside Plume	02/01/2022	N	780	--	1	0.0028 J
MW-80-057	Inside Plume	03/14/2022	N	690	680	1 J	0.0041
MW-80-082	Inside Plume	02/01/2022	N	2,000	--	0.54	0.00071 J
MW-80-082	Inside Plume	02/01/2022	FD	2,000	--	0.58	0.00071 J
MW-80-082	Inside Plume	03/14/2022	N	2,200	2,300	0.22 J	0.00078
MW-80-082	Inside Plume	03/14/2022	FD	2,300	2,300	0.31 J	0.00089
MW-81-043	Outside Plume	03/01/2022	N	17	--	<0.1	0.15
MW-81-098	Outside Plume	03/01/2022	N	<1	--	<0.1	0.12
MW-82-046	Outside Plume	03/01/2022	N	<1	--	13	0.21
MW-82-112	Outside Plume	03/01/2022	N	<0.2	--	<0.1	0.058
MW-82-168	Outside Plume	03/01/2022	N	1.2	--	1.9	0.2
MW-82-198	Outside Plume	03/01/2022	N	2.9	--	3.1	0.16
MW-86-030	Outside Plume	03/07/2022	N	<0.2	--	5.4 J	0.26
MW-86-066	Outside Plume	03/07/2022	N	<0.2	--	<0.1 J	0.67
MW-86-120	Outside Plume	03/07/2022	N	<1	--	<0.1 J	0.37
MW-86-140	Outside Plume	03/07/2022	N	<1	--	<0.1 J	0.82
MW-90-031	Outside Plume	03/04/2022	N	<1	--	<0.1	0.24
MW-96-045	Outside Plume	03/02/2022	N	<0.2	--	--	--
MW-96-217	Outside Plume	03/02/2022	N	<1	--	--	--
PT5D	Inside Plume	03/04/2022	N	5.5	--	1.6	0.11
PT5M	Outside Plume	03/04/2022	N	<0.2	--	1.1	1.20
PT5S	Outside Plume	03/04/2022	N	<0.2	--	9.5	0.24
R-19	Surface Water	02/17/2022	N	<0.2	--	2	<0.0005
R-28	Surface Water	02/16/2022	N	<0.2	--	2	<0.0005 J
R-63	Surface Water	02/16/2022	N	<0.2	--	2	0.0007 J
RRB	Surface Water	02/17/2022	N	<0.2	--	1.5	0.014
SW1	Surface Water	02/16/2022	N	<0.2	--	1.4	0.021 J
SW2	Surface Water	02/16/2022	N	<0.2	--	1.7	0.015 J
TW-02D	Inside Plume	03/09/2022	N	64	62	5.8	0.14
TW-02S	Inside Plume	03/09/2022	N	110	99	1.4	<0.0005
TW-03D	Inside Plume	03/09/2022	N	920	840	<0.1	0.03
TW-04	Outside Plume	03/03/2022	N	12	--	--	--

Abbreviations:

-- = not applicable or not available
< = not detected at reporting limit, as shown
FD = field duplicate
ID = identification
J = estimated concentration
mg/L= milligram(s) per liter
N = primary sample
µg/L = microgram(s) per liter

Table 3.8
COPC Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Sample Date	Sample Type	Dissolved Molybdenum (µg/L)	Dissolved Selenium (µg/L)	Nitrate (mg/L)
MW-20-070	02/03/22	N	--	--	21
MW-20-070	03/10/22	N	20	15	17
MW-20-070	03/10/22	FD	21	16	17
MW-20-100	02/03/22	N	--	--	6
MW-20-100	03/10/22	N	3.1	14	9.3
MW-20-130	02/03/22	N	--	--	9.3
MW-20-130	03/10/22	N	32	21	9
MW-21	02/03/22	N	--	--	4.8
MW-21	03/14/22	N	28	76	3.9
MW-21	03/14/22	FD	28	78	3.7
MW-22	03/04/22	N	--	--	<0.5
MW-26	02/02/22	N	--	--	12
MW-26	03/14/22	N	13	8.5	6.8
MW-26	03/14/22	FD	13	8.5	6.7
MW-27-020	03/10/22	N	--	--	<0.1
MW-27-060	03/10/22	N	--	--	<0.1
MW-27-085	03/10/22	N	--	--	<0.25
MW-28-025	03/08/22	N	--	--	<0.25
MW-28-090	03/08/22	N	--	--	<0.25
MW-30-030	03/09/22	N	--	--	<0.5
MW-30-050	03/09/22	N	--	--	0.14
MW-31-060	02/01/22	N	--	--	<0.25
MW-31-060	03/04/22	N	22	8.8	4.4
MW-31-135	02/01/22	N	--	--	1.4
MW-31-135	03/07/22	N	28	1	1.6 J
MW-31-135	03/07/22	FD	27	0.9	1.6 J
MW-32-020	03/04/22	N	--	--	<0.5
MW-32-035	03/04/22	N	--	--	<0.5
MW-34-055	03/10/22	N	--	--	<0.1
MW-34-080	03/10/22	N	--	--	<0.25
MW-34-100	03/10/22	N	--	--	<0.1
MW-36-020	03/09/22	N	--	--	<0.1
MW-36-040	03/09/22	N	--	--	<0.1
MW-36-050	03/09/22	N	--	--	<0.1
MW-36-070	03/09/22	N	--	--	<0.1
MW-36-090	03/09/22	N	--	--	<0.25
MW-36-100	03/09/22	N	--	--	<0.25
MW-38D	03/03/22	N	38	0.75	0.75
MW-38S	03/03/22	N	7.7	5.7	5.6
MW-39-040	02/28/22	N	--	--	<0.1
MW-39-050	02/28/22	N	--	--	<0.1
MW-39-060	02/28/22	N	--	--	<0.1
MW-39-070	02/28/22	N	--	--	<0.1
MW-39-080	02/28/22	N	--	--	0.15
MW-39-100	02/28/22	N	--	--	<0.25
MW-42-030	03/10/22	N	--	--	<0.1

Table 3.8
COPC Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Sample Date	Sample Type	Dissolved Molybdenum (µg/L)	Dissolved Selenium (µg/L)	Nitrate (mg/L)
MW-42-055	03/10/22	N	--	--	<0.1
MW-42-065	03/10/22	N	--	--	<0.1
MW-43-025	03/08/22	N	--	--	<0.25
MW-43-075	03/08/22	N	--	--	<0.25
MW-43-090	03/08/22	N	--	--	<0.25
MW-44-070	03/10/22	N	--	--	<0.1
MW-44-115	03/10/22	N	--	--	<0.1
MW-44-125	03/10/22	N	--	--	0.1
MW-45-095A	03/08/22	N	--	--	<0.25
MW-46-175	03/03/22	N	--	--	0.76
MW-46-205	03/03/22	N	--	--	0.57
MW-51	02/02/22	N	--	--	6.8
MW-51	03/14/22	N	49	17	5.5
MW-51	03/14/22	FD	49	17	5.5
MW-52D	03/08/22	N	--	--	<0.25
MW-52M	03/08/22	N	--	--	<0.25
MW-52S	03/08/22	N	--	--	<0.25
MW-53D	03/08/22	N	--	--	<0.25
MW-53M	03/08/22	N	--	--	<0.25
MW-53S	03/08/22	N	--	--	<0.25
MW-65-160	03/09/22	N	26	9.3	14
MW-65-225	03/09/22	N	32	4.6	5.9
MW-65-225	03/09/22	FD	33	4.8	6
MW-68-180	03/09/22	N	53	17	25
MW-69-195	03/09/22	N	59	12	18
MW-71-035	02/02/22	N	--	--	<0.5
MW-71-035	03/14/22	N	13	<0.5	<0.5
MW-76-039	01/31/22	N	--	--	2.5
MW-76-039	03/07/22	N	15	1.8	2.4 J
MW-76-039	03/07/22	FD	16	1.8	2.5 J
MW-76-156	01/31/22	N	--	--	1.3
MW-76-156	03/07/22	N	25	0.93	1.5 J
MW-76-181	01/31/22	N	--	--	2.1
MW-76-181	03/07/22	N	27	1.9	2.2 J
MW-76-218	01/31/22	N	--	--	1.3
MW-76-218	03/07/22	N	54	1.5	1.6 J
MW-76-218	03/07/22	FD	47	1.2	1.6 J
MW-77-046	03/01/22	N	--	--	<0.25
MW-77-102	03/01/22	N	--	--	0.93
MW-77-158	03/01/22	N	--	--	1.6
MW-77-187	03/01/22	N	--	--	1.4
MW-78-070	02/01/22	N	--	--	7.1
MW-78-070	02/01/22	FD	--	--	7.2
MW-78-070	03/10/22	N	13	4.4	4.8
MW-78-142	02/01/22	N	--	--	8.6
MW-78-142	03/10/22	N	22	36	9.1

Table 3.8
COPC Monitoring Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Monitoring Well ID	Sample Date	Sample Type	Dissolved Molybdenum (µg/L)	Dissolved Selenium (µg/L)	Nitrate (mg/L)
MW-78-142	03/10/22	FD	22	37	9.1
MW-79-058	02/01/22	N	--	--	9.3
MW-79-058	03/14/22	N	8.6	8.8	9.7
MW-79-102	02/01/22	N	--	--	16
MW-79-102	03/14/22	N	29	65	15
MW-79-102	03/14/22	FD	29	64	15
MW-80-057	02/01/22	N	--	--	16
MW-80-057	03/14/22	N	46	26	11
MW-80-082	02/01/22	N	--	--	10
MW-80-082	02/01/22	FD	--	--	10
MW-80-082	03/14/22	N	19	12	9.4
MW-80-082	03/14/22	FD	19	12	9.3
MW-81-043	03/01/22	N	--	--	0.99
MW-81-098	03/01/22	N	--	--	0.94
MW-82-046	03/01/22	N	--	--	<0.5
MW-82-112	03/01/22	N	--	--	0.6
MW-82-168	03/01/22	N	--	--	1.3
MW-82-198	03/01/22	N	--	--	1.7
MW-86-030	03/07/22	N	--	--	<0.25
MW-86-066	03/07/22	N	--	--	<0.5
MW-86-120	03/07/22	N	--	--	<0.5
MW-86-140	03/07/22	N	--	--	<0.5
MW-90-031	03/04/22	N	--	--	0.66
PT5D	03/04/22	N	--	--	<0.5
PT5M	03/04/22	N	--	--	<0.5
PT5S	03/04/22	N	--	--	<0.25
TW-02D	03/09/22	N	92	0.63	1.1
TW-02S	03/09/22	N	9.7	2.5	4
TW-03D	03/09/22	N	65	1.1	1.5

Abbreviations:
-- = not applicable or not available
< = not detected at reporting limit, as shown
COPC = constituent of potential concern
FD = field duplicate
ID = identification
J = estimated concentration
mg/L= milligram(s) per liter
N = primary sample
µg/L = microgram(s) per liter

Figures



LEGEND

- REMEDIATION WELL (EXTRACTION)
- REMEDIATION WELL (INJECTION)
- REMEDIATION WELL (NOT PLUMBED INTO SYSTEM CURRENTLY)
- BAT CAVE WASH
- PIPELINE
- REMEDY STRUCTURE

Notes:
1. NTH = National Trails Highway
2. IRZ = In Situ Reactive Zone

N

0 625 1,250

Feet

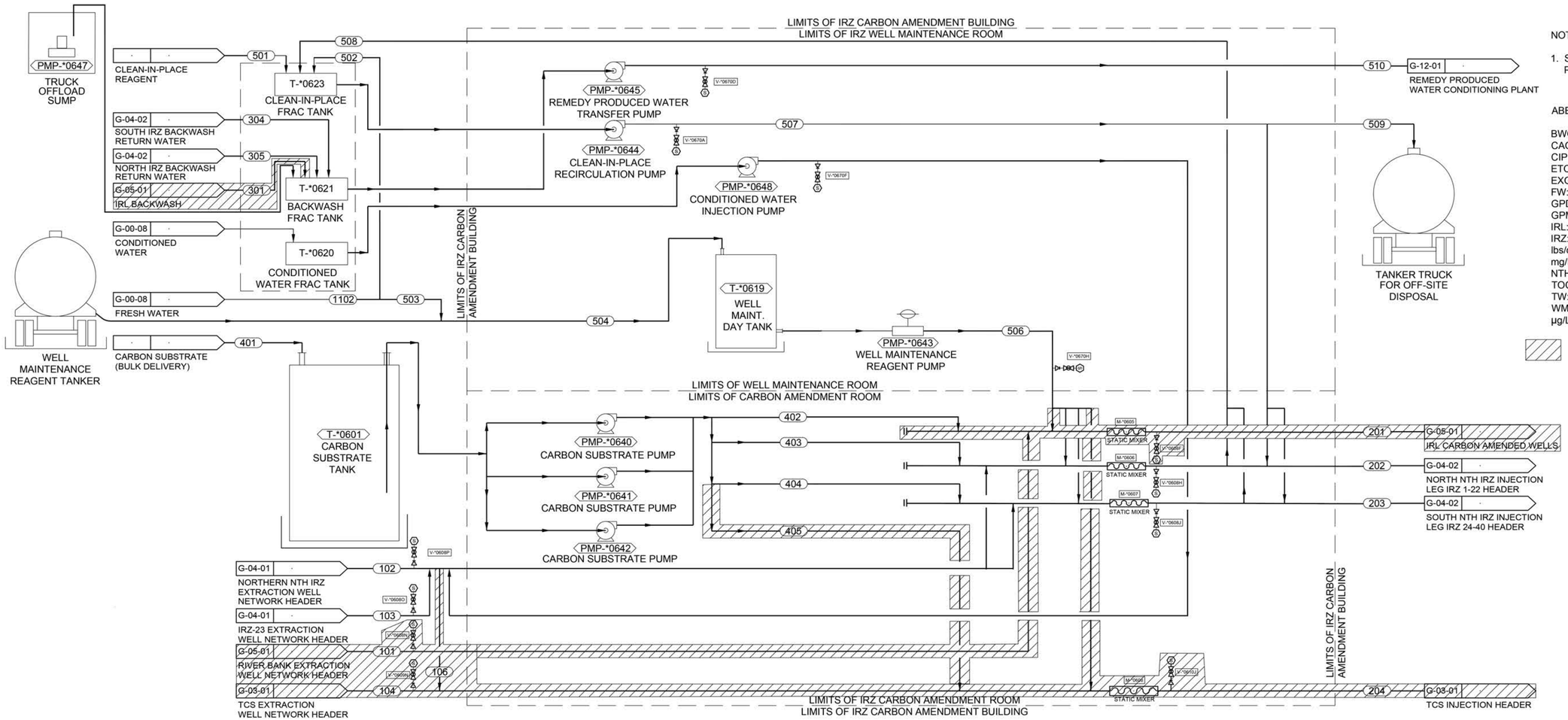
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

PARTIAL REMEDY SYSTEM LAYOUT

ARCADIS

FIGURE
1.1

T:_ENV\PGE_TOPOCK\GEC\MXD\GMP\1Q22\FINAL\FIGURE1.1_PARTIAL REMEDY SYSTEM LAYOUT.MXD 4/19/2022 2:08:40 PM



NOTES:

1. SPARE HEADERS AND FUTURE PROVISIONAL WELLS ARE NOT SHOWN.

ABBREVIATIONS:

BWGW:	BACKWASH GROUNDWATER
CAGW:	CARBON AMENDED GROUNDWATER
CIPR:	CLEAN IN PLACE REAGENT
ETOH:	ETHANOL
EXGW:	EXTRACTED GROUNDWATER
FW:	FRESH WATER
GPD:	GALLONS PER DAY
GPM:	GALLONS PER MINUTE
IRL:	INNER RECIRCULATION LOOP
IRZ:	IN-SITU REACTIVE ZONE
lbs/day	POUNDS PER DAY
mg/L:	MILLIGRAMS PER LITER
NTH:	NATIONAL TRAIL HIGHWAY
TOC:	TOTAL ORGANIC CARBON
TW:	TREATED WATER
WMR:	WELL MAINTENANCE REAGENT
µg/L:	MICROGRAMS PER LITER

TO BE COMPLETED DURING PHASE 2.

ARCADIS

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
		REVISIONS					

NO.	DATE	DESCRIPTION	GM/SPEC	DWN	CHKD	SUPV	APVD BY
		REVISIONS					

APPROVED BY: SO, SUPV, DSGN, DWN, CHKD, OK, DATE, SCALES

TOPOCK GROUNDWATER REMEDIATION PROJECT

MW-20 BENCH
PROCESS FLOW DIAGRAM

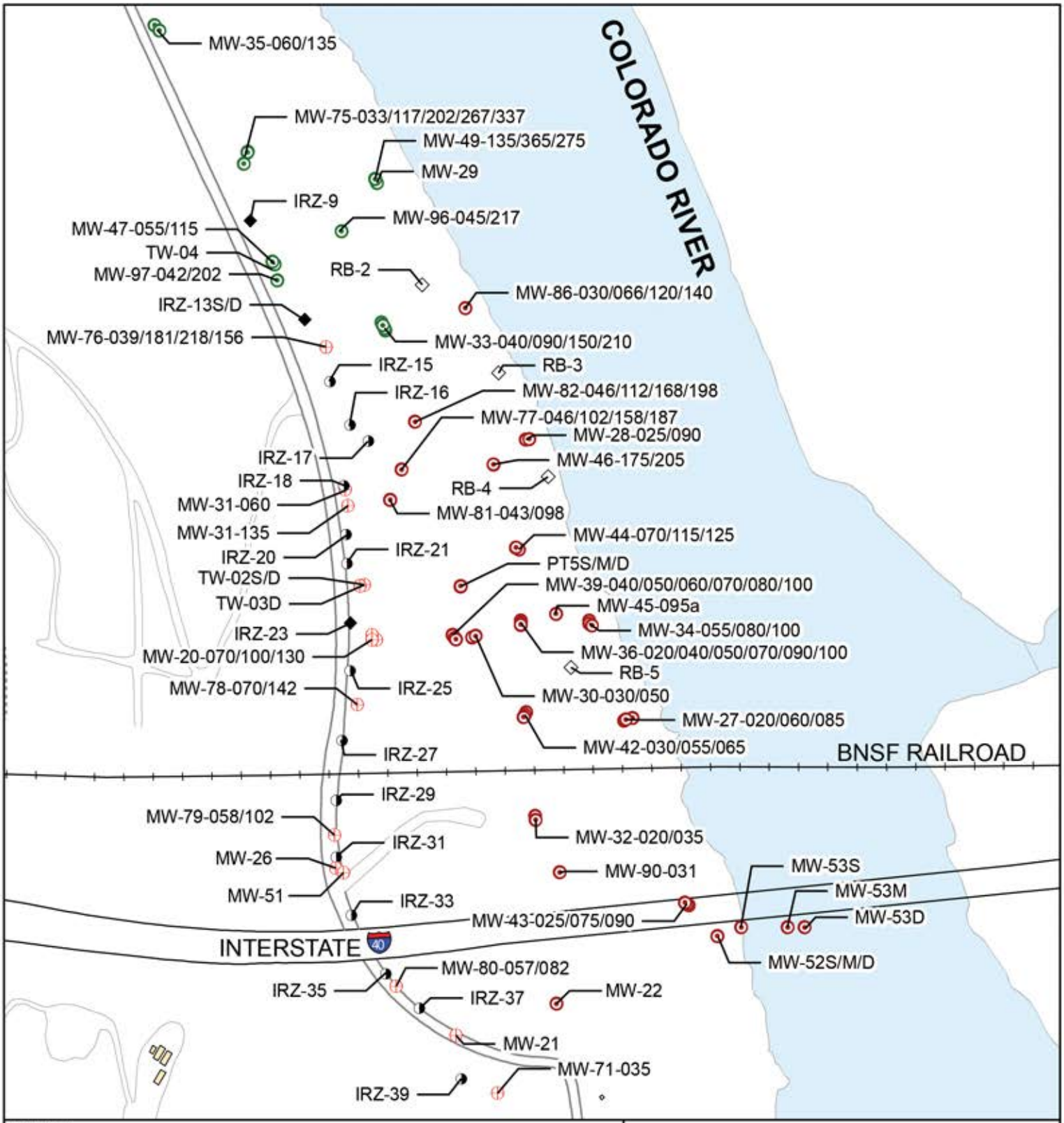
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

MICROFILM
BILL OF MATL
DWG LIST
SUPSDS
SUPSD BY
SHEET NO. of SHEETS
REV

FIGURE 1.2

05/24/2022, 21:37, C:\Users\vmorasko\ACCDocs\Arcadis\ANA - 30019125 – RC000753.0050 - Needles CA - Topock Construction & Closeout DOR Svcs\Project Files\0_WIP\G-General\G-06-01-Startup Figure.dwg, Tab: G-06-01 -Startup Figure

N1808



LEGEND

- NTH IRZ DOSE RESPONSE MONITORING WELL
- NORTHERN IRZ EXTRACTION MONITORING WELL
- NTH IRZ DOWNGRADIENT MONITORING WELL
- REMEDIATION WELL (INJECTION)
- REMEDIATION WELL (EXTRACTION)
- REMEDIATION WELL (NOT PLUMBED INTO SYSTEM CURRENTLY)

Notes:
1. NTH = National Trails Highway
2. IRZ = In Situ Reactive Zone

0 365 730
Feet

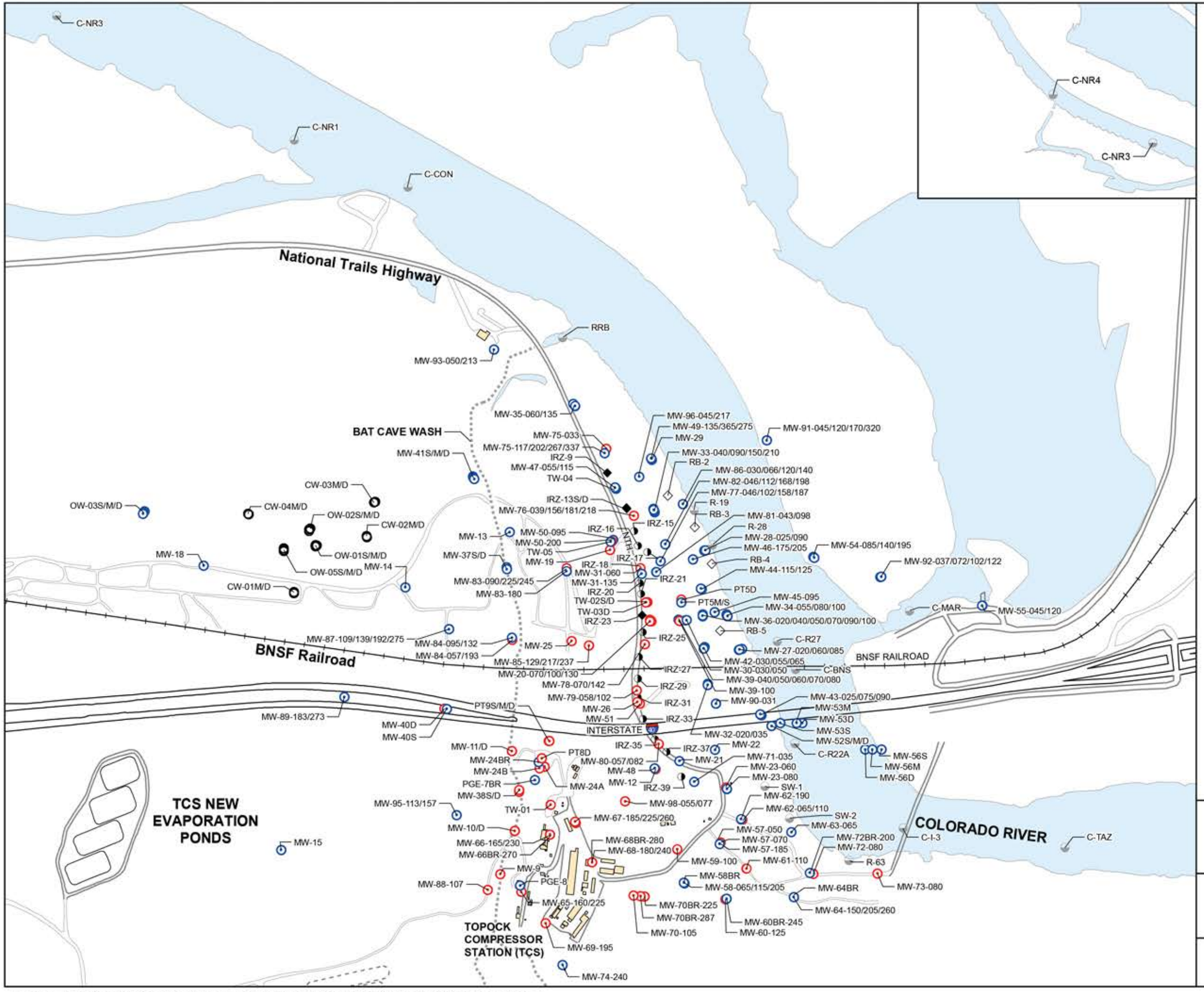
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

PROCESS CONTROL MONITORING NETWORK

ARCADIS

FIGURE
1.3

T:_ENV\PGE_TOPOCK\GEC\MXD\GMP\1Q22\FINAL\FIGURE1.2_TOPOCK PROCESS CONTROL MONITORING WELLS.MXD 5/11/2022 7:30:03 PM



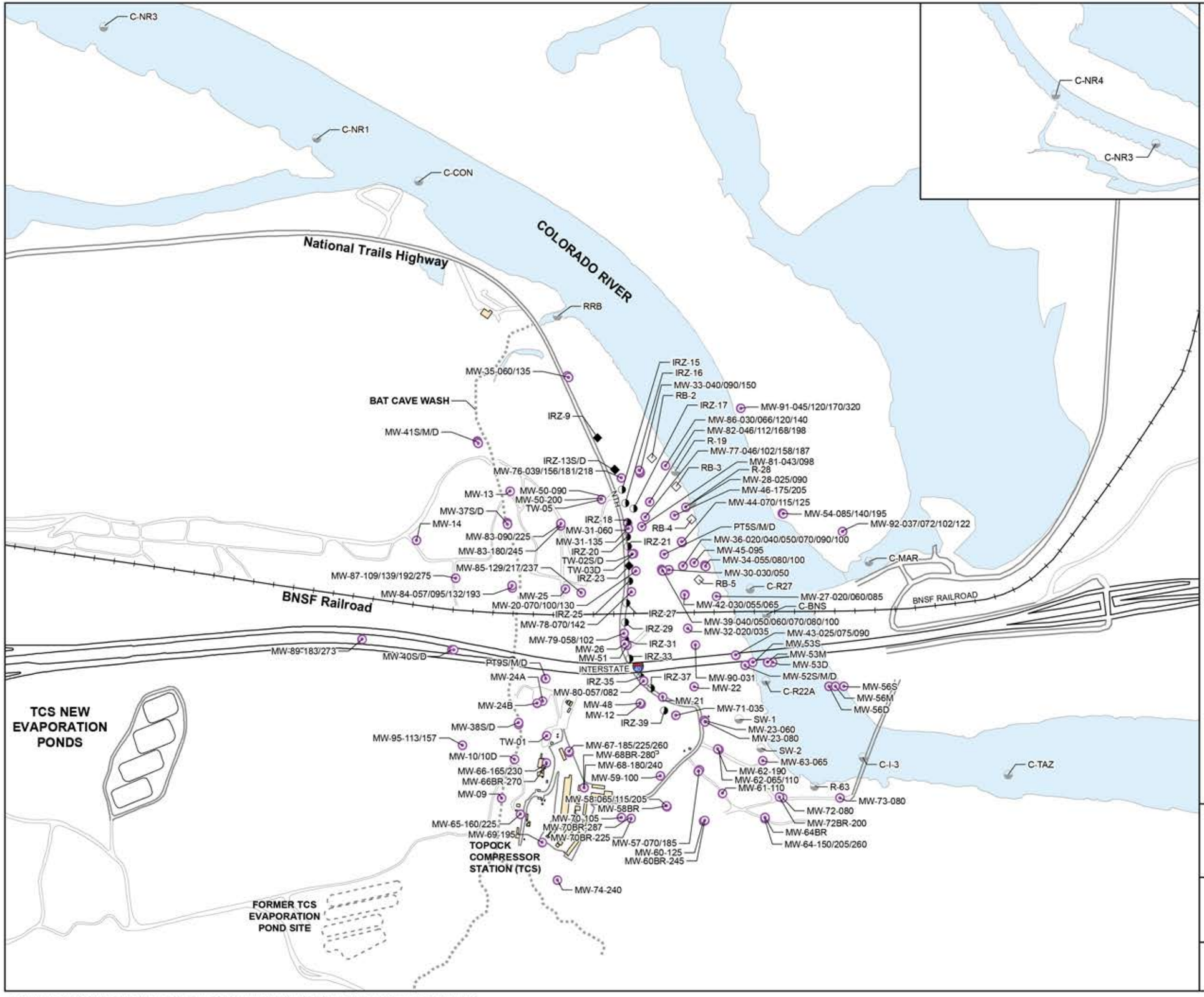
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

REMEDY COMPLIANCE MONITORING NETWORK

ARCADIS

FIGURE 1.4

T:_ENV\PGE_TOPOCK\GEC\MXD\GMP\1Q22\FINAL\FIGURE1.3_REMEDY COMPLIANCE MONITORING NETWORK.MXD 5/11/2022 7:30:00 PM



LEGEND

- REMEDIATION WELL (EXTRACTION)
- REMEDIATION WELL (INJECTION)
- REMEDIATION WELL (NOT PLUMBED INTO SYSTEM CURRENTLY)
- SURFACE WATER MONITORING LOCATION (INCLUDED IN COPC MONITORING PROGRAM)
- COPC MONITORING WELL
- BAT CAVE WASH

Notes:
1. NTH = National Trails Highway
2. IRZ = In Situ Reactive Zone
3. COPC = Constituent of Potential Concern

0 500 1,000
Feet

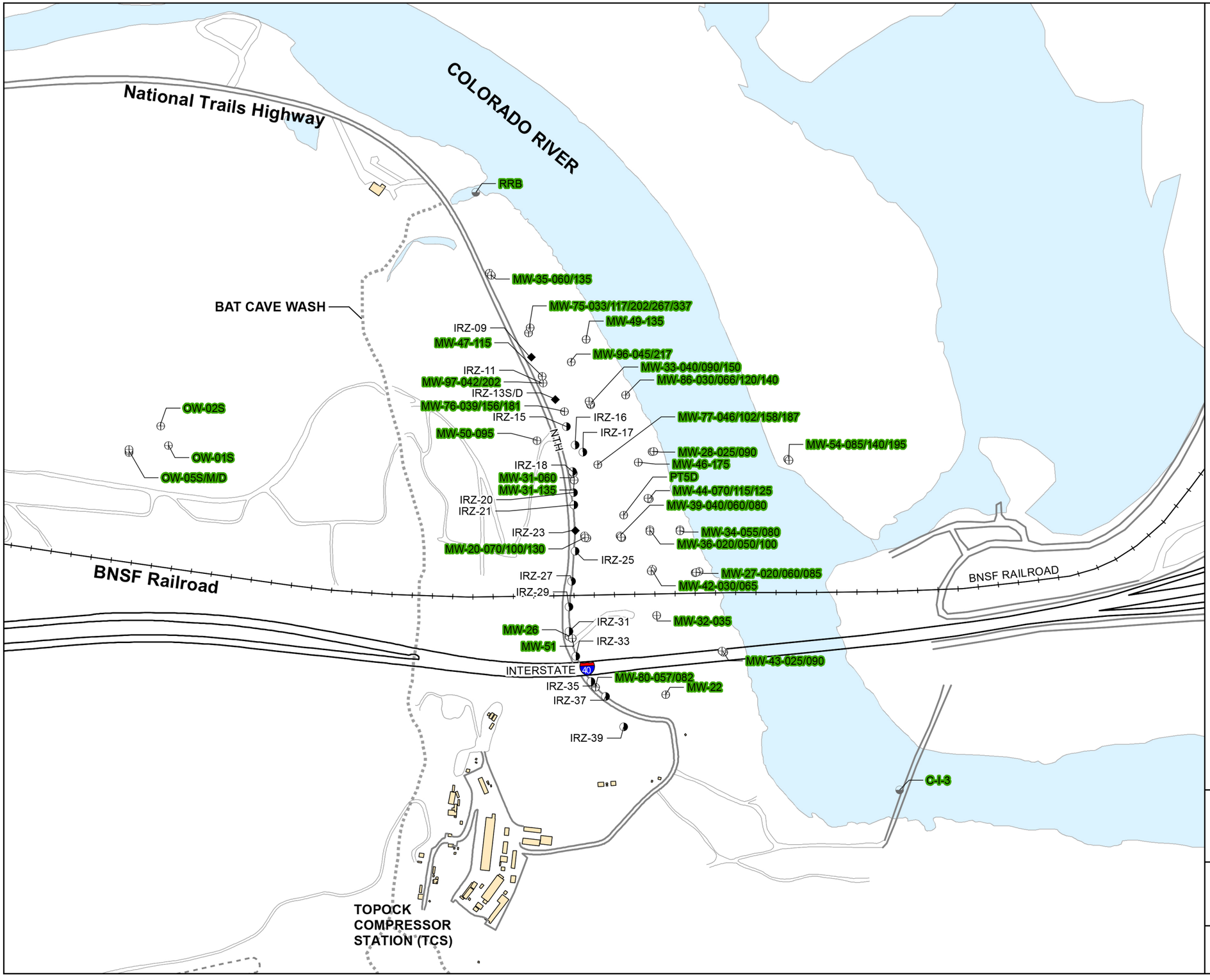
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

COPC MONITORING NETWORK

ARCADIS

FIGURE
1.5

T:_ENV\PGE_TOPOCK\GEC\MXD\GMP\1Q22\FINAL\FIGURE1.4_COPC MONITORING NETWORK.MXD 5/11/2022 7:29:55 PM



LEGEND

- GROUNDWATER MONITORING WELL
- SURFACE WATER MONITORING LOCATION
- REMEDIATION WELL (INJECTION)
- REMEDIATION WELL (EXTRACTION)
- BAT CAVE WASH

MW-46-175 = Groundwater monitoring well or surface water monitoring location with a pressure transducer

0 500 1,000

Feet

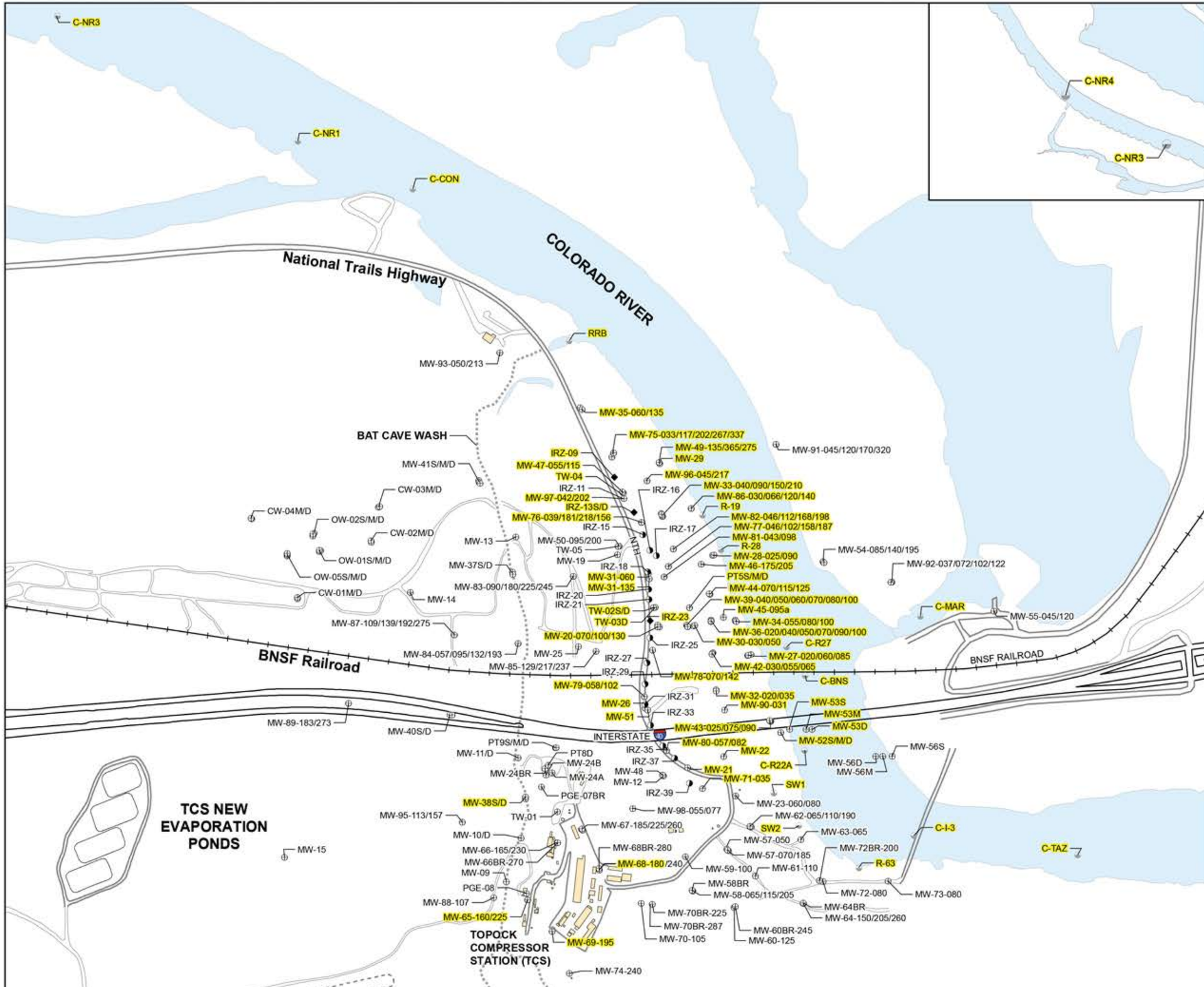
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

PRESSURE TRANSDUCER MONITORING NETWORK

ARCADIS

FIGURE 1.6

T:_ENV\PGE_TOPOCK\GEC\MXD\GMP\1Q22\FINAL\FIGURE1.6_PRESSURE TRANSDUCER MONITORING NETWORK.MXD 6/1/2022 6:45:56 PM



LEGEND

- GROUNDWATER MONITORING WELL
- SURFACE MONITORING WELL LOCATION
- REMEDIATION WELL (INJECTION)
- REMEDIATION WELL (EXTRACTION)
- BAT CAVE WASH

MW-69-195 = Location sampled in First Quarter 2022
MW-74-240 = Location not sampled in First Quarter 2022

0 500 1,000
Feet

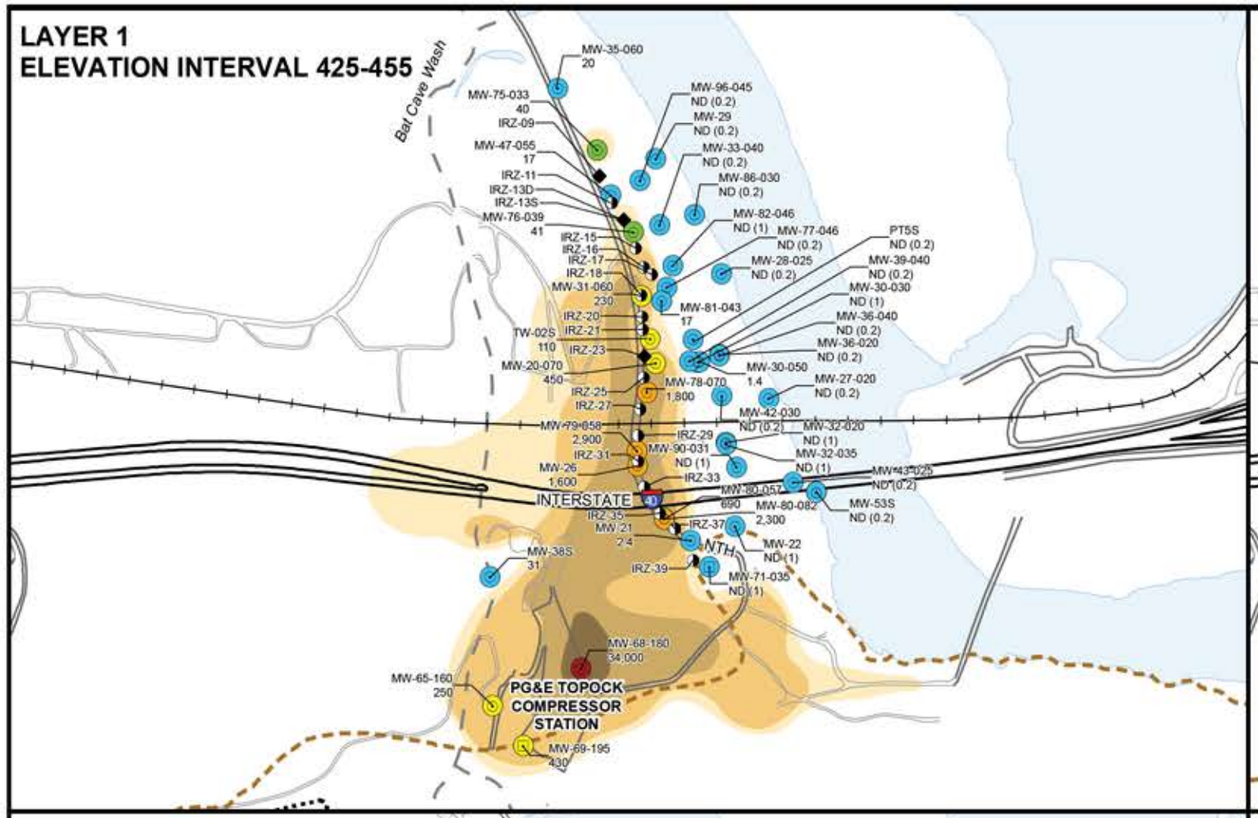
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

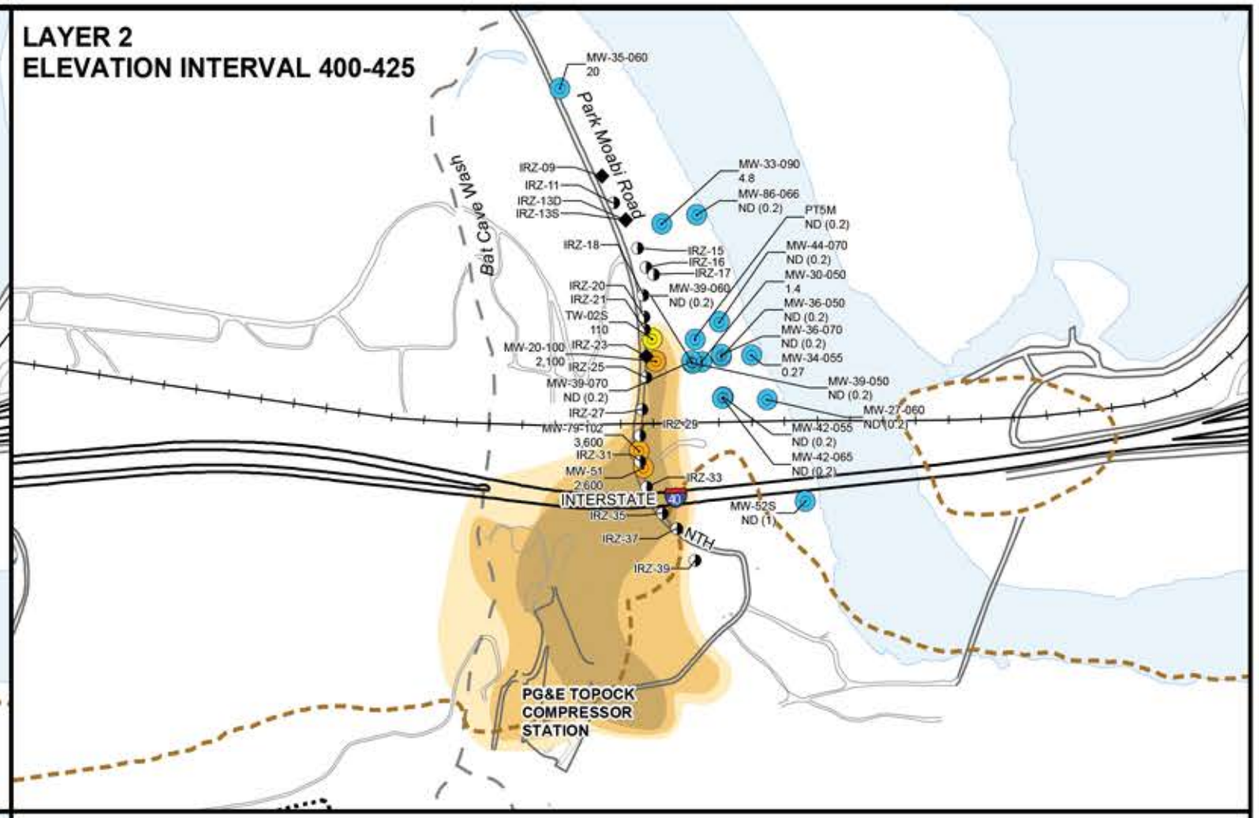
PHASE 1 MONITORING PROGRAM: FIRST QUARTER 2022

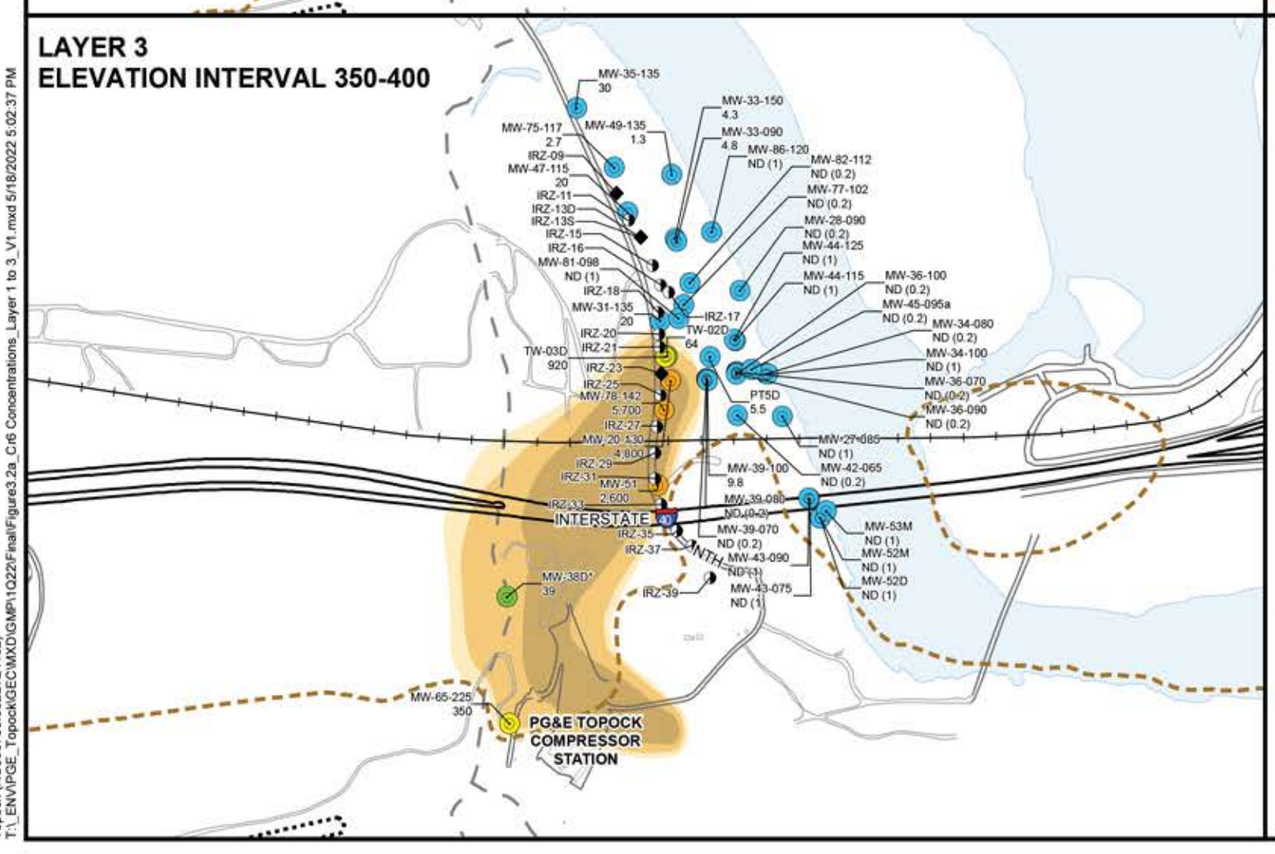
ARCADIS

FIGURE
3.1

T:_ENV\PGE_TOPOCK\GEC\MXD\GMP\1Q22\FINAL\FIGURE3.1_PHASE1 MONITORING PROGRAM FIRST QUARTER 2022.MXD 5/17/2022 12:01:30 PM







LEGEND

- Groundwater Monitoring Well
- Groundwater Well Completed in Bedrock
- NTH IRZ Injection Well
- NTH IRZ Extraction Well
- Bat Cave Wash
- Approximate bedrock contact (per depth interval)

Cr6 Concentrations

- ≤ 32 µg/L (or not detected [ND])
- 32 - 100 µg/L
- 100 - 1,000 µg/L
- 1,000 - 10,000 µg/L
- > 10,000 µg/L

Cr6 contours

- 32 µg/L
- 100 µg/L
- 1,000 µg/L
- 10,000 µg/L

N

0 400 800 Feet

Notes:

1. Cr6 = Hexavalent Chromium
2. µg/L = Micrograms Per Liter
3. NTH = National Trails Highway
4. IRZ = In-situ Reactive Zone
5. ND = non-detect at the reporting limit
6. First Quarter 2022 results are presented (February - March 2022).
7. If more than one concentration is available for a monitoring well, then the maximum concentration is used for contouring.
8. * = concentration not used for contouring

MW-55-120 —— Well ID
7.96 —— Cr6 concentration in µg/L

FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

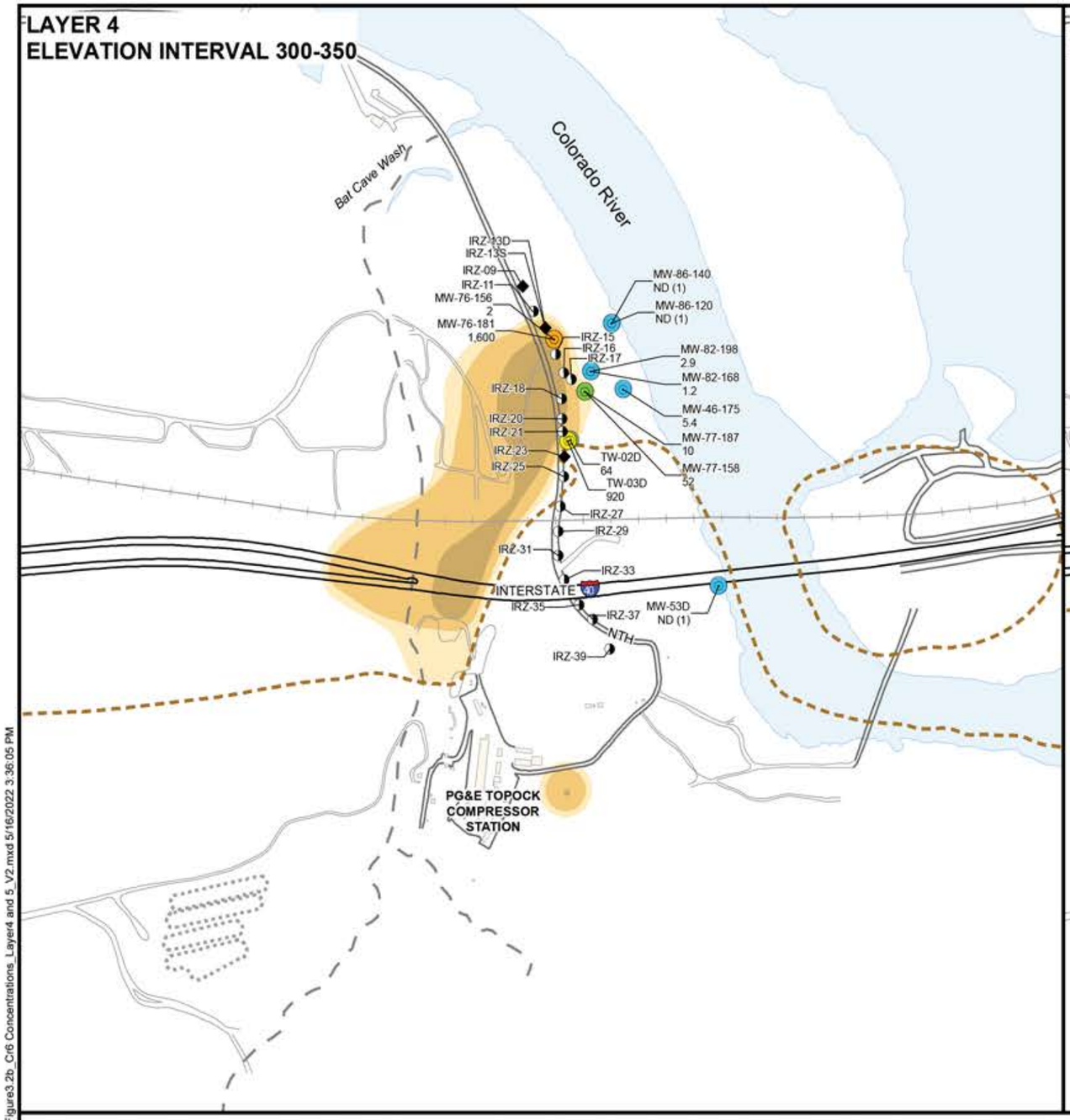
Cr6 CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

ARCADIS

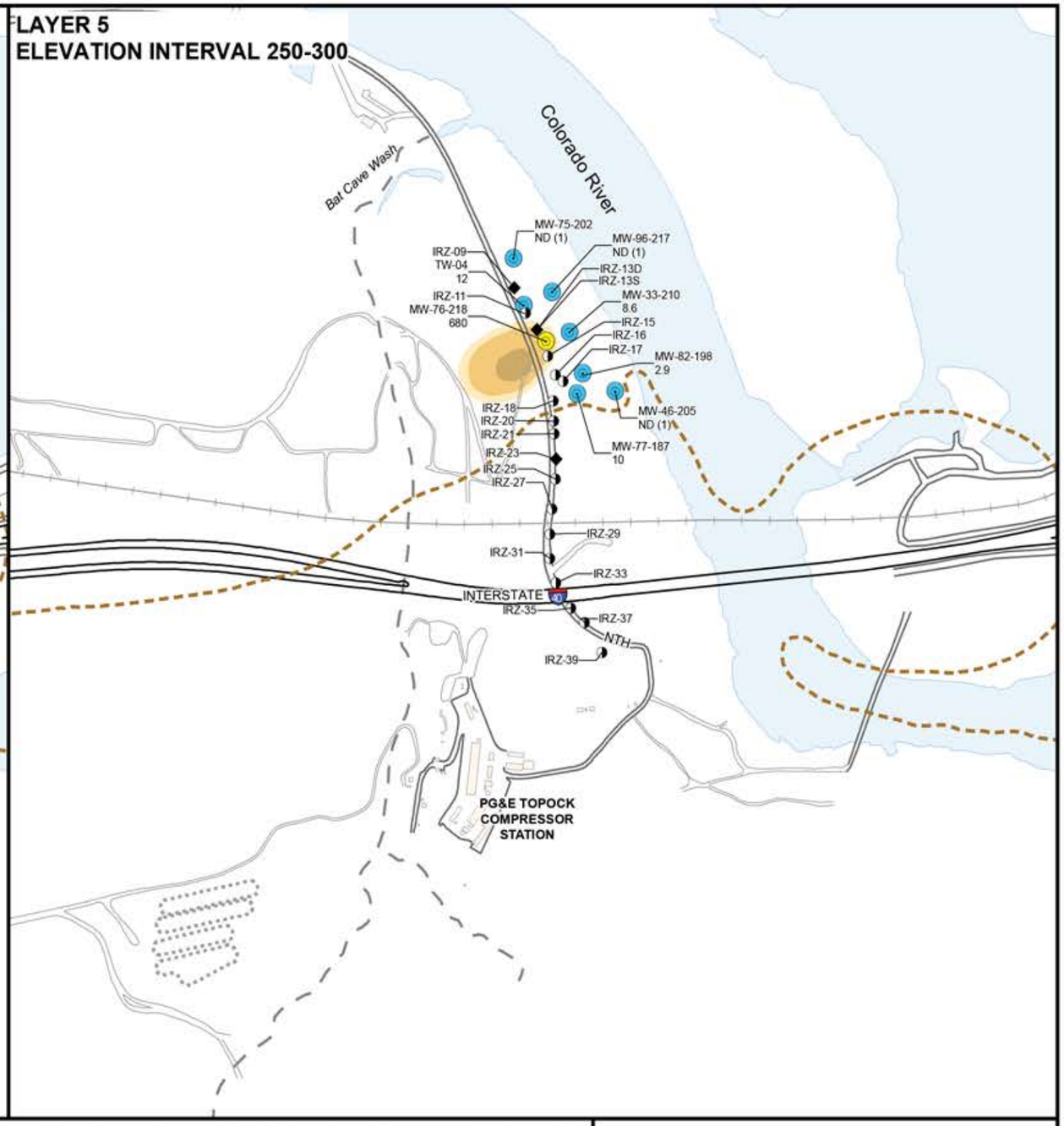
FIGURE 3.2a

City: Citrix Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PSI01045
Topock (RC000753.802D.Q4182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.2a_Cr6 Concentrations_Layer 1 to 3_V1.mxd 5/18/2022 5:02:37 PM

LAYER 4
ELEVATION INTERVAL 300-350



LAYER 5
ELEVATION INTERVAL 250-300



LEGEND

- Groundwater Monitoring Well
- Groundwater Well Completed in Bedrock
- NTH IRZ Injection Well
- NTH IRZ Extraction Well
- Bat Cave Wash
- Approximate bedrock contact (per depth interval)

Cr6 Concentrations

- ≤ 32 µg/L (or not detected [ND])
- 32 - 100 µg/L
- 100 - 1,000 µg/L
- 1,000 - 10,000 µg/L
- > 10,000 µg/L

Cr6 contours

- 32 µg/L
- 100 µg/L
- 1,000 µg/L
- 10,000 µg/L

MW-60BR-245 —— Well ID
7.1 —— Cr6 concentration in µg/L

N

0 400 800 Feet

Notes:

1. Cr6 = Hexavalent Chromium
2. µg/L = Micrograms Per Liter
3. NTH = National Trails Highway
4. IRZ = In-situ Reactive Zone
5. ND = non-detect at the reporting limit
6. First Quarter 2022 results are presented (February - March 2022).
7. If more than one concentration is available for a monitoring well, then the maximum concentration is used for contouring.

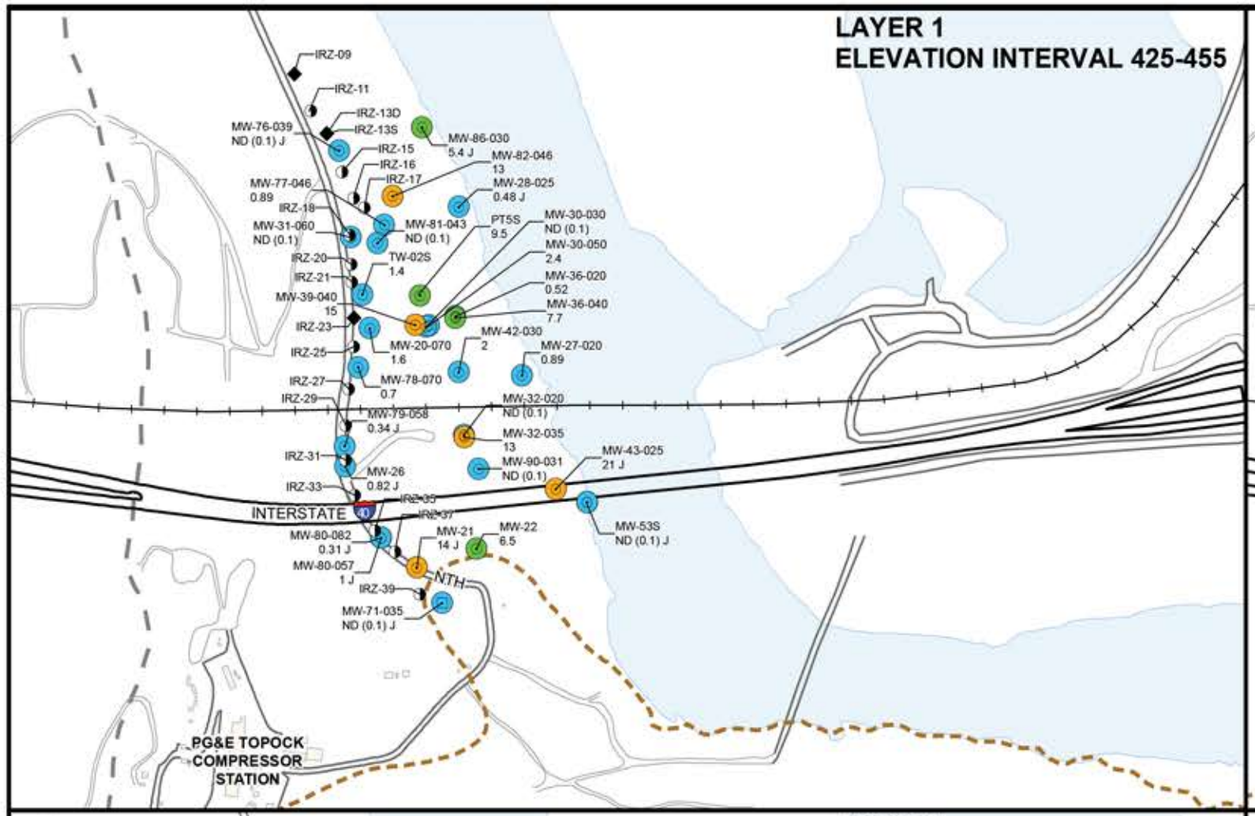
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Cr6 CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

ARCADIS

FIGURE
3.2b

City: Citrix Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PSI01045
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.2b_Cr6 Concentrations_Layer4 and 5_V2.mxd 5/16/2022 3:36:05 PM
Topock (RC000753.8020.04182)



Notes:

1. µg/L = micrograms per liter
2. NTH = National Trails Highway
3. IRZ = in-situ reactive zone
4. ND = non-detect at the reporting limit
5. Arsenic Background Study Upper Tolerance Limit (UTL) = 24.3 µg/L
6. Arsenic applicable or relevant and appropriate requirement (ARAR) = 10.0 µg/L
7. J = concentration estimated by laboratory or data validation
8. First Quarter 2022 results are presented (January to March 2022). If more than one result is available for a monitoring well, then the most recent result is presented. If a primary sample and field duplicate sample were collected, then the maximum result is presented.

FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

DISSOLVED ARSENIC CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

ARCADIS

FIGURE 3.3a

City: Citrix Dw/Group: IM Created By: K. SINSABAUGH Last Saved By: PJI01206
Topock (R0900753.802D.Q4182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.3a_Arsenic Concentrations_Layer 1 to 3.mxd 6/1/2022 1:00:27 PM

LAYER 4
ELEVATION INTERVAL 300-350

IRZ-09
IRZ-11
IRZ-13D
IRZ-13S
IRZ-15
IRZ-16
IRZ-17
IRZ-18
IRZ-20
IRZ-21
IRZ-23
IRZ-25
IRZ-27
IRZ-29
IRZ-31
IRZ-33
IRZ-35
IRZ-37
IRZ-39
MW-76-181 ND (0.1) J
MW-76-156 ND (0.1) J
MW-77-158 ND (0.1)
MW-77-187 4.4
MW-86-140 ND (0.1) J
MW-86-120 ND (0.1) J
MW-82-198 3.1
MW-82-168 1.9
MW-46-175 ND (0.1)
MW-44-125 1.1
TW-02D 5.8
TW-03D ND (0.1)
MW-53D 2.3 J
INTERSTATE
NTH
PG&E TOPOCK COMPRESSOR STATION

LAYER 5
ELEVATION INTERVAL 250-300

IRZ-09
IRZ-11
IRZ-13D
IRZ-13S
IRZ-15
IRZ-16
IRZ-17
IRZ-18
IRZ-20
IRZ-21
IRZ-23
IRZ-25
IRZ-27
IRZ-29
IRZ-31
IRZ-33
IRZ-35
IRZ-37
IRZ-39
MW-76-218 3.5 J
MW-82-198 3.1
MW-46-205 ND (0.1)
MW-77-187 4.4
INTERSTATE
NTH
PG&E TOPOCK COMPRESSOR STATION

LEGEND

- Groundwater Monitoring Well
- Groundwater Well Completed in Bedrock
- NTH IRZ Injection Well
- NTH IRZ Extraction Well
- Bat Cave Wash
- Approximate bedrock contact (per depth interval)

Dissolved Arsenic Concentrations

- 5 µg/L
- 10 µg/L (ARAR)
- 24.3 µg/L (Background UTL)

Notes:

1. µg/L = micrograms per liter
2. NTH = National Trails Highway
3. IRZ = in-situ reactive zone
4. ND = non-detect at the reporting limit
5. Arsenic Background Study Upper Tolerance Limit (UTL) = 24.3 µg/L
6. Arsenic applicable or relevant and appropriate requirement (ARAR) = 10.0 µg/L
7. J = concentration estimated by laboratory or data validation
8. First quarter 2022 results are presented (January to March 2022). If more then one result is available for a monitoring well, then the most recent result is presented. If a primary sample and field duplicate sample were collected, then the maximum result is presented.

MW-77-187 — Well ID
4.4 — Dissolved arsenic concentration in µg/L

N

0 400 800 Feet

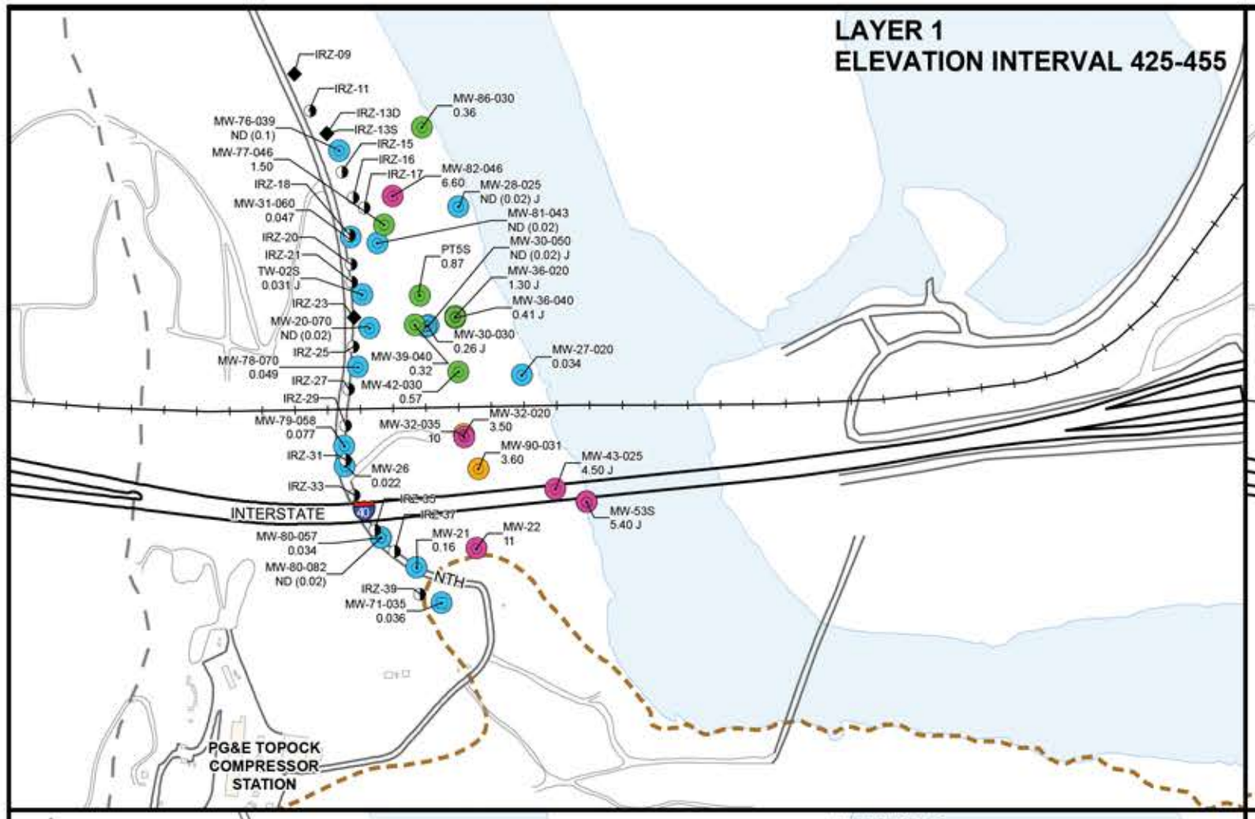
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

DISSOLVED ARSENIC CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

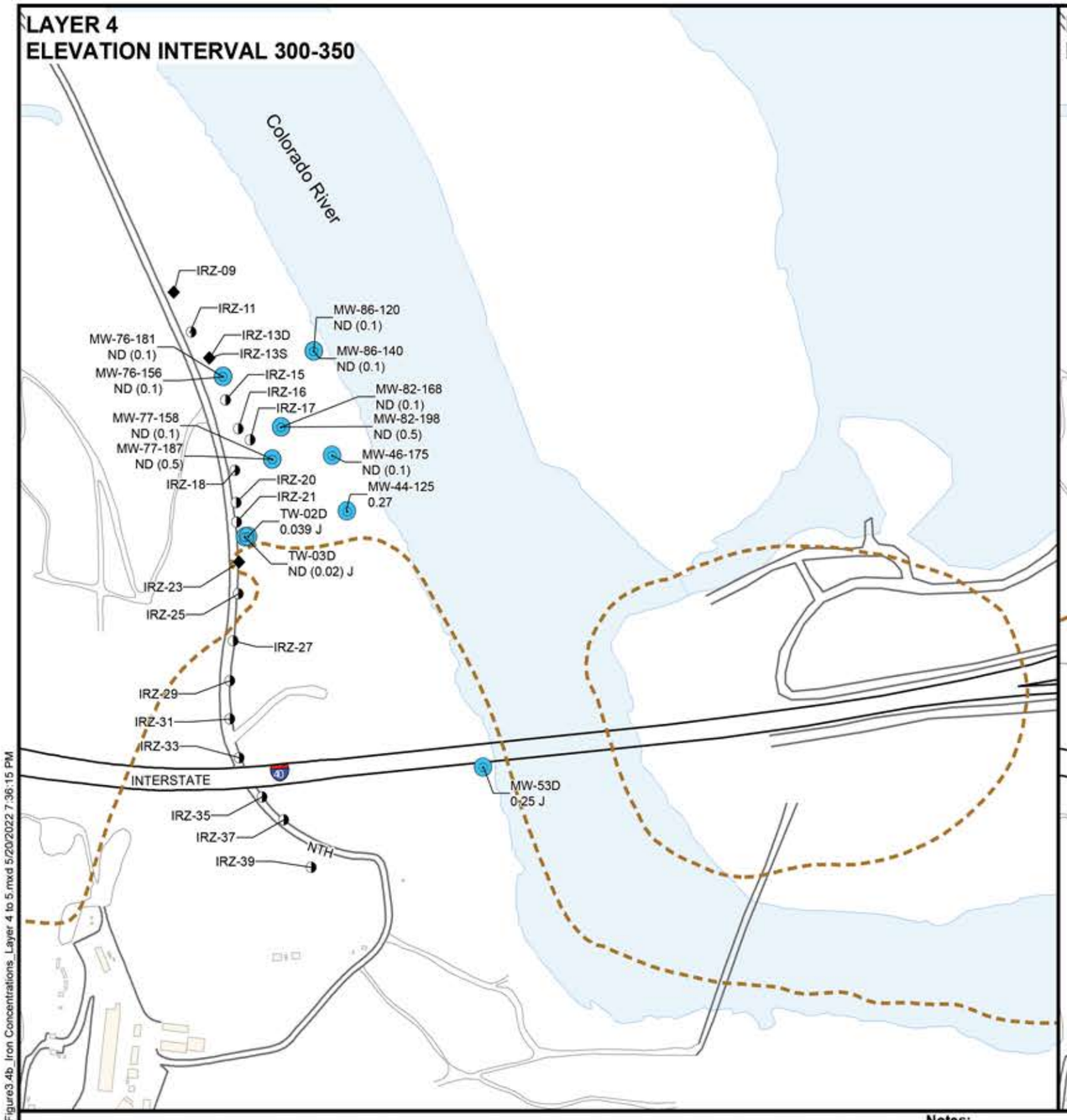
ARCADIS

FIGURE
3.3b

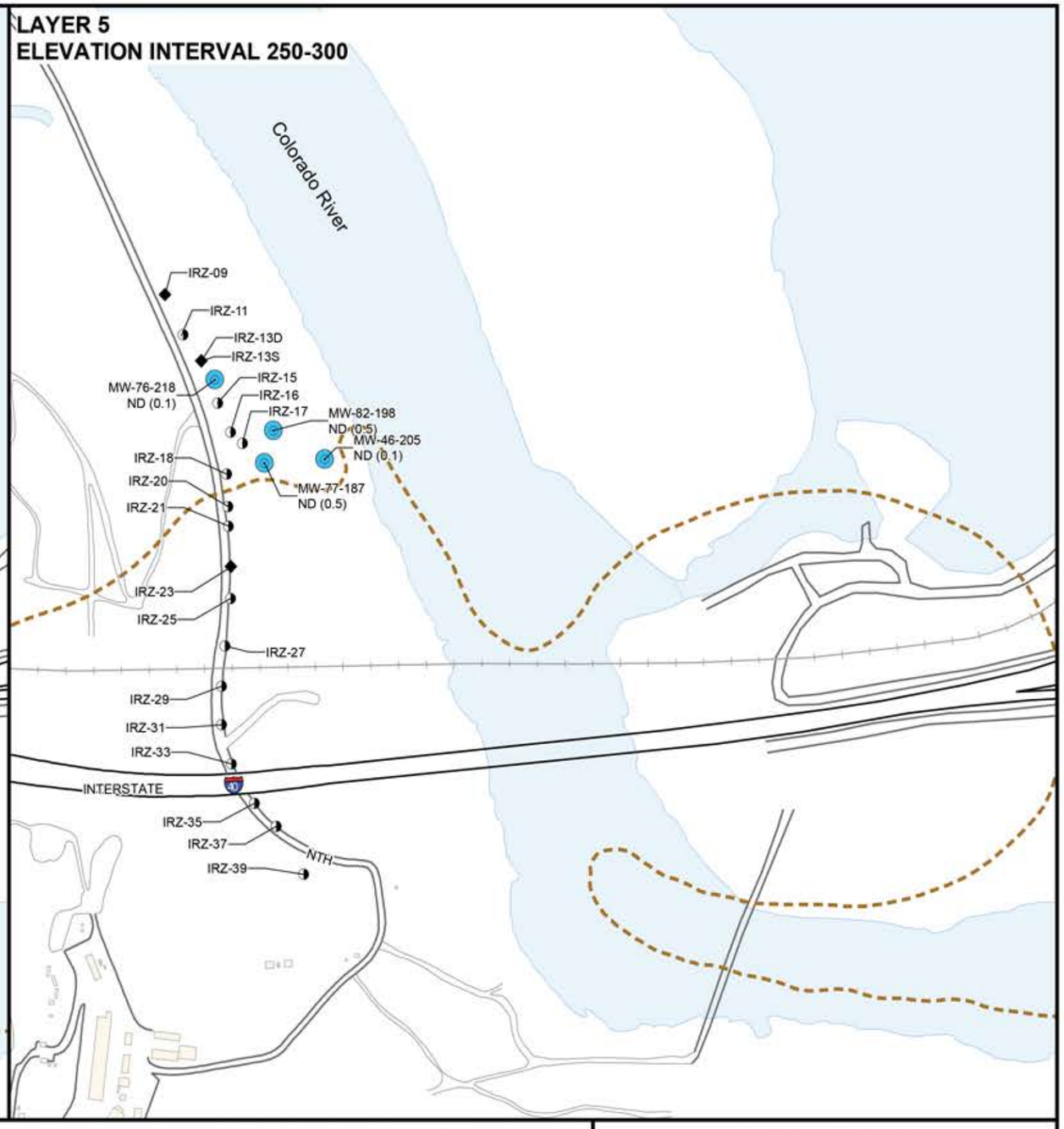
City: Citrix_Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PSI01045
Topock (RC000753.802D.04182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.3b_Arsenic Concentrations_Layer 4 and 5.mxd 5/20/2022 7:12:25 PM


LAYER 1
ELEVATION INTERVAL 425-455
IRZ-09
IRZ-11
IRZ-13D
IRZ-13S
IRZ-15
IRZ-16
IRZ-17
IRZ-18
IRZ-20
IRZ-21
IRZ-23
IRZ-25
IRZ-27
IRZ-29
IRZ-31
IRZ-33
IRZ-35
IRZ-37
IRZ-39
MW-76-039 ND (0.1)
MW-77-046 1.50
MW-31-060 0.047
TW-02S 0.031 J
MW-20-070 ND (0.02)
MW-78-070 0.049
MW-79-058 0.077
MW-80-057 0.034
MW-80-082 ND (0.02)
MW-71-035 0.036
MW-86-030 0.36
MW-82-046 6.60
MW-28-025 ND (0.02) J
MW-81-043 ND (0.02)
PT5S 0.87
MW-30-050 ND (0.02) J
MW-36-020 1.30 J
MW-36-040 0.41 J
MW-30-030 0.26 J
MW-39-040 0.32
MW-42-030 0.57
MW-27-020 0.034
MW-32-035 10
MW-32-020 3.50
MW-90-031 3.60
MW-43-025 4.50 J
MW-53S 5.40 J
MW-26 0.022
MW-21 0.16
MW-22 11
INTERSTATE 40
NTH
PG&E TOPOCK COMPRESSOR STATION
LAYER 2
ELEVATION INTERVAL 400-425
Bat Cave Wash
MW-86-066 0.023
PT5M 0.14
MW-39-070 ND (0.02)
MW-44-070 0.45
MW-39-050 0.076
MW-36-070 0.029 J
MW-36-050 0.13 J
MW-34-055 0.043
MW-20-100 0.1
MW-30-050 ND (0.02) J
MW-27-060 0.34
MW-39-060 1.80
MW-42-065 0.092
MW-42-055 0.2
MW-51 ND (0.1)
MW-79-102 0.073
MW-52S 21 J
LAYER 3
ELEVATION INTERVAL 350-400
MW-86-120 ND (0.1)
MW-28-090 0.87 J
MW-44-125 0.27
MW-44-115 ND (0.02)
MW-82-112 0.11 J
MW-81-098 ND (0.1)
MW-77-102 ND (0.1)
MW-31-135 0.53
MW-36-070 0.029 J
MW-36-090 0.035 J
MW-36-100 0.49 J
TW-02D 0.039 J
TW-03D ND (0.02) J
MW-20-130 0.041
MW-78-142 0.052
MW-34-100 0.077
MW-34-080 0.32
PT5D 0.05
MW-45-095a ND (0.02) J
MW-27-089 0.14
MW-42-065 0.092
MW-39-100 0.16
MW-39-080 ND (0.1)
MW-39-070 ND (0.02)
MW-43-090 1.20 J
MW-43-075 3.70
MW-53M 0.99 J
MW-52D 0.53 J
MW-52M 1 J
LEGEND
Groundwater Monitoring Well
Groundwater Well Completed in Bedrock
NTH IRZ Injection Well
NTH IRZ Extraction Well
Bat Cave Wash
Approximate bedrock contact (per depth interval)
Dissolved Iron Concentrations
0.3 mg/L (ARAR)
2 mg/L
3.93 mg/L (Background UTL)
MW-43-075 — Well ID
3.70 — Dissolved Iron concentration in mg/L
N
0 400 800
Feet
Notes:
1. mg/L = milligrams per liter
2. NTH = National Trails Highway
3. IRZ = in-situ reactive zone
4. ND = non-detect at the reporting limit
5. Iron Background Study Upper Tolerance Limit (UTL) = 3.93 mg/L.
6. Iron applicable or relevant and appropriate requirement (ARAR) = 0.3 mg/L
7. J = concentration estimated by laboratory or data validation
8. First Quarter 2022 results are presented (January to March 2022). If more then one result is available for a monitoring well, then the most recent result is presented. If a primary sample and field duplicate sample were collected, then the maximum result is presented.
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA
DISSOLVED IRON CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL
ARCADIS
FIGURE
3.4a
City: Citrix Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PJI01206
Topock (RC000753.802D.Q4182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22Final\Figure3.4a_Iron Concentrations_Layer 1 to 3.mxd 6/1/2022 2:52:30 PM

LAYER 4
ELEVATION INTERVAL 300-350



LAYER 5
ELEVATION INTERVAL 250-300



LEGEND

- Groundwater Monitoring Well
- Groundwater Well Completed in Bedrock
- NTH IRZ Injection Well
- NTH IRZ Extraction Well
- Bat Cave Wash
- Approximate bedrock contact (per depth interval)

Dissolved Iron Concentrations

- 0.3 mg/L (ARAR)
- 2 mg/L
- 3.93 mg/L (Background UTL)

Notes:

1. mg/L = milligrams per liter
2. NTH = National Trails Highway
3. IRZ = in-situ reactive zone
4. ND = non-detect at the reporting limit
5. Iron Background Study Upper Tolerance Limit (UTL) = 3.93 mg/L.
6. Iron applicable or relevant and appropriate requirement (ARAR) = 0.3 mg/L
7. J = concentration estimated by laboratory or data validation
8. First Quarter 2022 results are presented (January to March 2022). If more then once result is available for a monitoring well, then the most recent result is presented. If a primary sample and field duplicate sample were collected, then the maximum result is presented.

MW-53D — Well ID
0.25 — Dissolved Iron concentration in mg/L

N

0 400 800 Feet

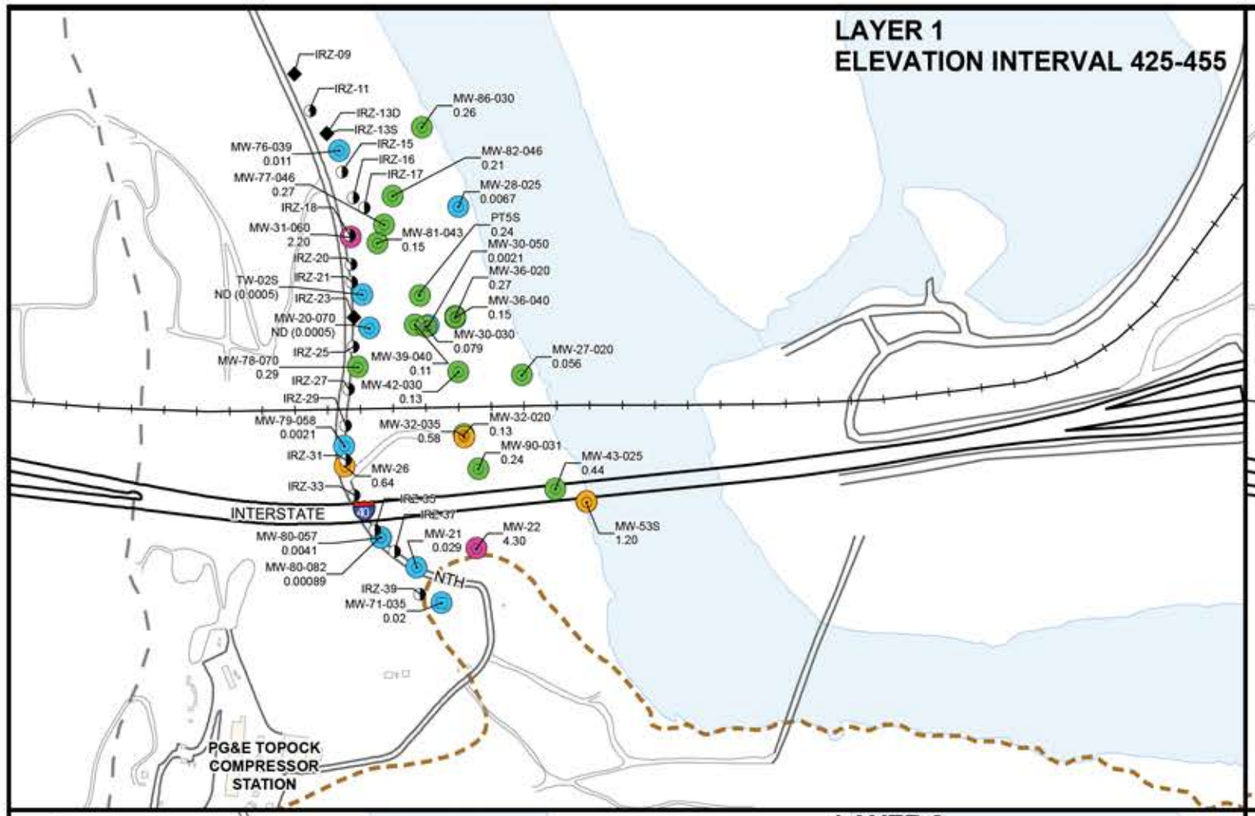
FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

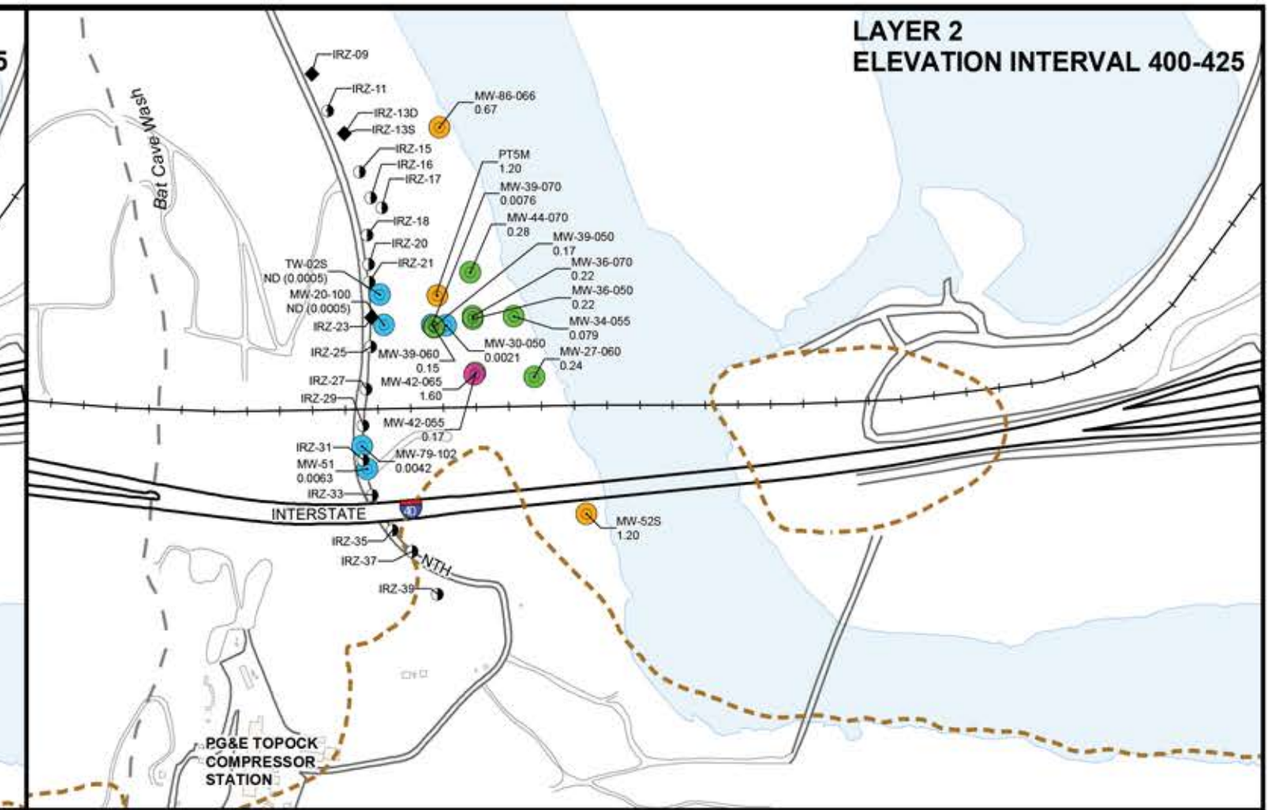
DISSOLVED IRON CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

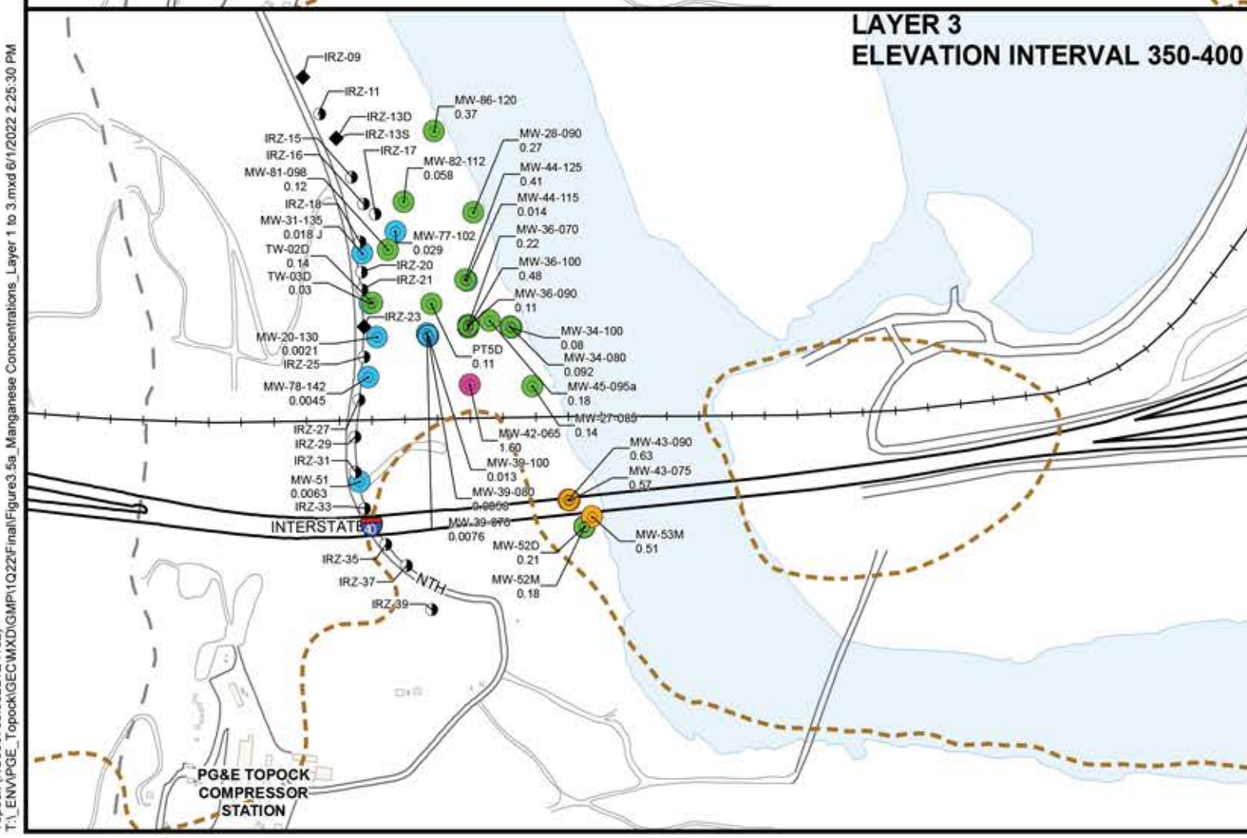
ARCADIS

FIGURE
3.4b

City: Citrix Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PSI01045
Topock (RC000753.8020.Q4182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.4b_Iron Concentrations_Layer 4 to 5.mxd 5/20/2022 7:36:15 PM







LEGEND

- Groundwater Monitoring Well
- Groundwater Well Completed in Bedrock
- NTH IRZ Injection Well
- NTH IRZ Extraction Well
- Bat Cave Wash
- Approximate bedrock contact (per depth interval)

Dissolved Manganese Concentrations

- 0.05 mg/L (ARAR)
- 0.5 mg/L
- 1.320 mg/L (Background UTL)

MW-43-090 — Well ID
0.63 — Dissolved manganese concentration in mg/L

N

0 400 800 Feet

Notes:

1. mg/L = milligrams per liter
2. NTH = National Trails Highway
3. IRZ = in-situ reactive zone
4. ND = non-detect at the reporting limit
5. Manganese Background Study Upper Tolerance Limit (UTL) = 1.320 mg/L
6. Manganese applicable or relevant and appropriate requirement (ARAR) = 0.05 mg/L
7. J = concentration estimated by laboratory or data validation
8. First Quarter 2022 results are presented (January to March 2022). If more then one result is available for a monitoring well, then the most recent result is presented. If a primary sample and field duplicate sample were collected, then the maximum result is presented.

FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

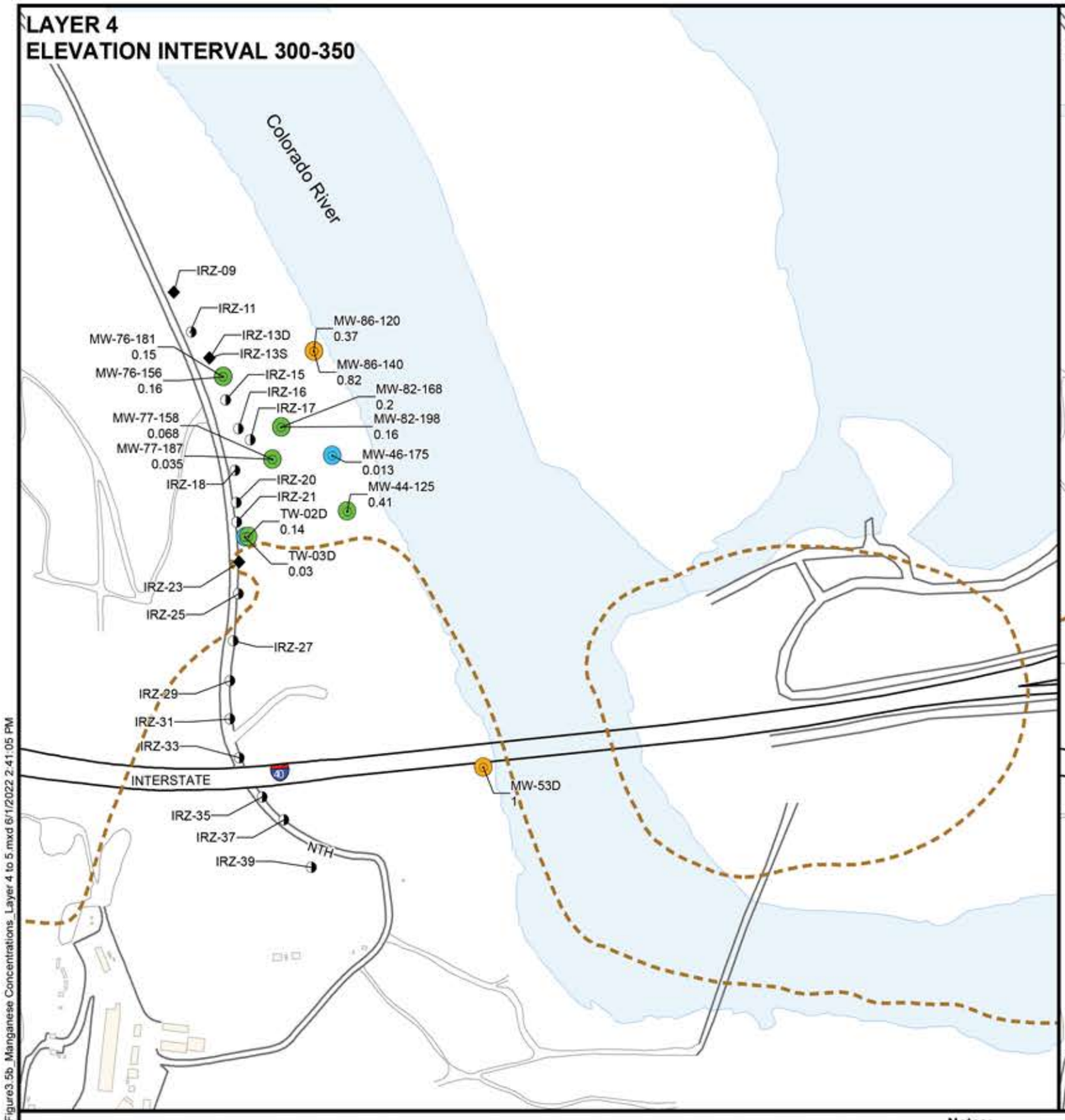
DISSOLVED MANGANESE CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

ARCADIS

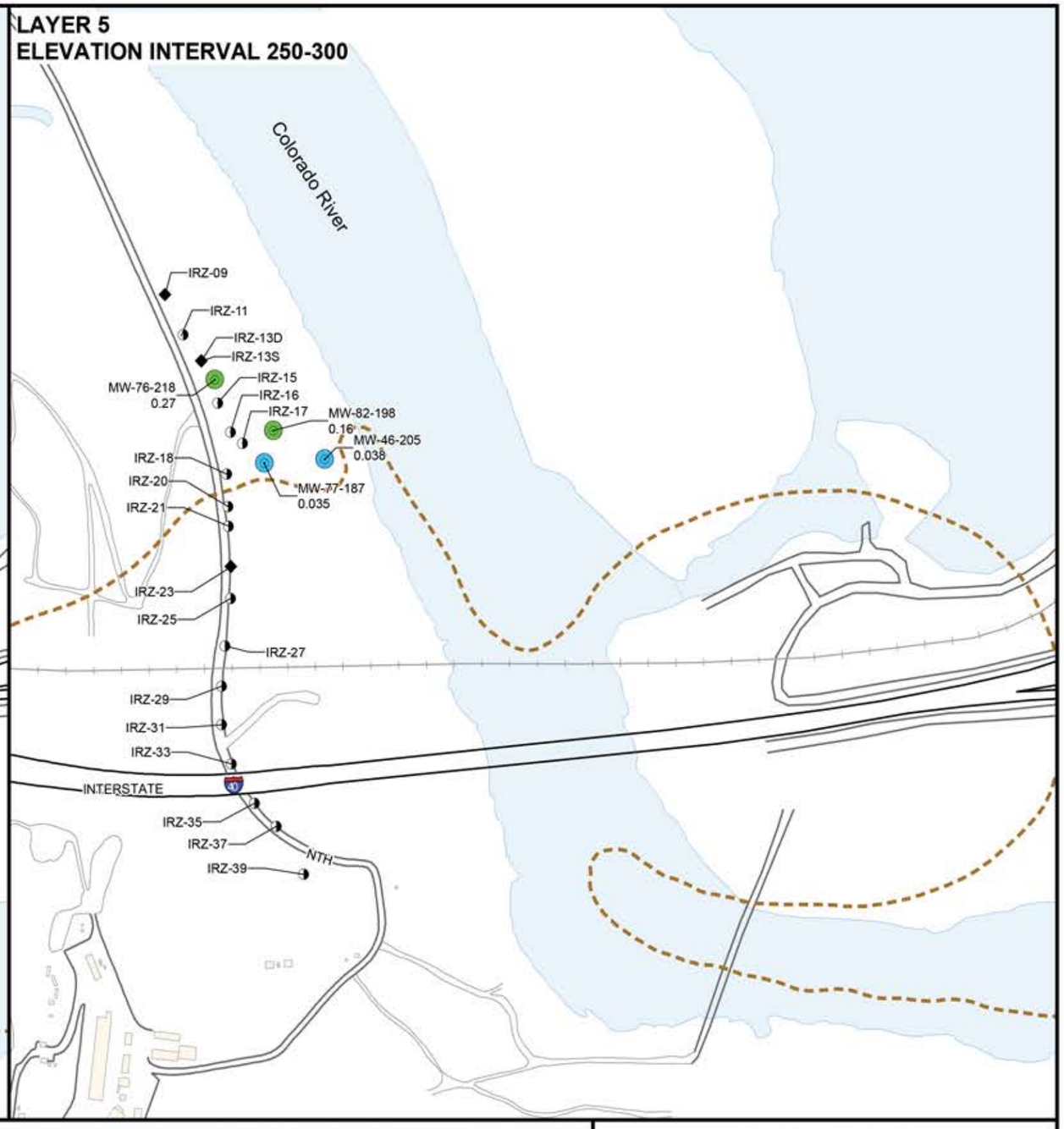
FIGURE
3.5a

City: Citrix Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PJI01206
Topock (RC000753.802D.Q4182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.5a_Manganese Concentrations_Layer 1 to 3.mxd 6/1/2022 2:25:30 PM

LAYER 4
ELEVATION INTERVAL 300-350



LAYER 5
ELEVATION INTERVAL 250-300



LEGEND

- Groundwater Monitoring Well
- Groundwater Well Completed in Bedrock
- NTH IRZ Injection Well
- NTH IRZ Extraction Well
- Bat Cave Wash
- Approximate bedrock contact (per depth interval)

Dissolved Manganese Concentrations

- 0.05 mg/L (ARAR)
- 0.5 mg/L
- 1.320 mg/L (Background UTL)

Notes:

1. mg/L = milligrams per liter
2. NTH = National Trails Highway
3. IRZ = in-situ reactive zone
4. ND = non-detect at the reporting limit
5. Manganese Background Study Upper Tolerance Limit (UTL) = 1.320 mg/L
6. Manganese applicable or relevant and appropriate requirement (ARAR) = 0.05 mg/L
7. First Quarter 2022 results are presented (January to March 2022). If more then one result is available for a monitoring well, then the most recent result is presented. If a primary sample and field duplicate sample were collected, then the maximum result is presented.

MW-44-125
0.41
Well ID
Dissolved manganese concentration in mg/L

N

0 400 800 Feet

FIRST QUARTER 2022
QUARTERLY PROGRESS REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

DISSOLVED MANGANESE CONCENTRATIONS IN GROUNDWATER BY ELEVATION INTERVAL

ARCADIS

FIGURE
3.5b

City: Citrix Div/Group: IM Created By: K. SINSABAUGH Last Saved By: PJI01206
Topock (RC000753.8020.Q4182)
T:_ENV\PGE_Topock\GEC\MXD\GMP\1Q22\Final\Figure3.5b_Manganese Concentrations_Layer 4 to 5.mxd 6/1/2022 2:41:05 PM

Appendix A

First Quarter 2022 Field Parameters

Appendix A
First Quarter 2022 Field Parameters
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
C-BNS	02/16/2022	8.3	952	1.0	10.65	10.90	0.47	610	177.6
C-CON-D	02/17/2022	8.3	948	1.0	12.19	10.80	0.47	610	140.9
C-CON-S	02/17/2022	8.4	950	1.0	12.02	10.80	0.47	610	141.2
C-I-3-D	02/16/2022	8.1	939	1.0	11.13	10.80	0.47	610	185.6
C-I-3-S	02/16/2022	8.2	942	1.0	10.79	10.80	0.47	610	184.3
C-MAR-D	02/17/2022	8.3	1,009	6.0	10.32	11.30	0.50	660	158.6
C-MAR-S	02/17/2022	8.3	1,015	5.0	10.89	11.30	0.50	660	159.6
C-NR1-D	02/17/2022	8.4	952	1.0	11.45	10.80	0.47	610	143.8
C-NR1-S	02/17/2022	8.4	954	1.0	11.38	10.70	0.47	610	145.7
C-NR3-D	02/17/2022	8.4	955	1.0	12.11	10.70	0.47	610	148.5
C-NR3-S	02/17/2022	8.4	955	1.0	12.25	10.70	0.47	610	149.6
C-NR4-D	02/17/2022	8.4	956	1.0	11.12	10.60	0.47	620	153.6
C-NR4-S	02/17/2022	8.4	955	1.0	11.17	10.60	0.47	610	154.2
C-R22A-D	02/16/2022	8.3	946	2.0	11.11	10.80	0.47	610	180.6
C-R22A-S	02/16/2022	8.3	948	2.0	11.08	11.30	0.47	610	176.9
C-R27-D	02/16/2022	8.3	951	1.0	10.60	11.10	0.47	610	177.1
C-R27-S	02/16/2022	8.4	952	1.0	10.60	11.10	0.47	610	177.3
C-TAZ-D	02/16/2022	8.0	920	2.0	11.48	10.80	0.46	590	195.6
C-TAZ-S	02/16/2022	8.1	933	1.0	11.16	10.80	0.46	600	189.6
IRZ-09	01/25/2022	7.8	9,032	54.9	3.75	24.10	nm	nm	86.8
IRZ-23	01/25/2022	7.5	5,527	15.7	4.11	25.90	nm	nm	100.1
IRZ-23	02/21/2022	7.5	5,486	57.3	4.19	24.50	0.00	nm	95.5
MW-20-070	02/03/2022	7.8	2,586	5.0	3.22	28.10	1.32	1,670	107.0
MW-20-070	03/10/2022	7.8	2,611	14.0	0.40	26.40	1.26	1,540	-20.0
MW-20-100	02/03/2022	7.5	2,442	4.0	1.15	29.20	1.25	1,580	104.8
MW-20-100	03/10/2022	7.3	3,490	10.0	0.90	28.60	1.59	1,790	-22.2
MW-20-130	02/03/2022	7.8	12,224	4.0	0.70	27.50	6.95	7,900	123.9
MW-20-130	03/10/2022	7.3	12,915	29.0	0.42	27.00	7.29	8,300	-68.8

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Well ID	Sample Date	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-21	02/03/2022	7.7	8,251	35.0	3.21	25.60	4.57	5,360	94.5
MW-21	03/14/2022	7.1	11,713	2.0	4.18	27.90	6.67	7,630	97.9
MW-22	03/04/2022	7.4	21,481	37.0	0.96	23.70	0.13	13,870	-36.0
MW-26	02/02/2022	7.6	3,250	4.0	2.12	26.50	1.70	2,110	102.8
MW-26	03/14/2022	7.2	3,882	7.0	2.91	29.80	2.03	2,510	108.4
MW-27-020	03/10/2022	7.2	983	8.0	7.47	16.90	0.49	630	165.1
MW-27-060	03/10/2022	7.3	1,162	4.0	4.15	18.10	0.58	750	-13.1
MW-27-085	03/10/2022	7.3	11,955	2.0	4.02	18.50	6.86	7,760	-15.1
MW-28-025	03/08/2022	7.3	1,186	5.0	5.92	20.40	0.59	770	54.2
MW-28-090	03/08/2022	7.2	7,212	2.0	1.25	19.10	3.99	4,690	-44.2
MW-29	03/08/2022	7.2	3,647	6.0	0.86	22.80	1.93	2,370	-105.9
MW-30-030	03/09/2022	7.7	3,473	10.0	0.13	23.80	1.55	2,080	-52.5
MW-30-050	03/09/2022	7.5	1,050	9.0	0.20	23.30	0.45	590	-15.0
MW-31-060	02/01/2022	7.7	7,234	5.0	2.65	27.80	3.96	4,700	-139.9
MW-31-060	03/04/2022	7.4	6,255	8.0	1.13	26.90	2.30	2,990	5.7
MW-31-135	02/01/2022	8.0	13,040	5.0	2.01	27.90	7.35	8,350	53.8
MW-31-135	03/07/2022	7.8	15,820	42.0	0.18	27.30	9.22	10,300	-56.3
MW-32-020	03/04/2022	7.1	17,764	43.0	0.89	24.10	0.16	nm	-129.9
MW-32-035	03/04/2022	7.1	7,866	27.0	0.21	24.90	7.60	nm	-133.9
MW-33-040	03/03/2022	7.9	7,053	18.0	0.22	26.20	3.85	4,350	-17.7
MW-33-090	03/03/2022	7.6	8,834	21.0	0.89	26.50	4.92	5,750	10.3
MW-33-150	03/03/2022	7.9	16,782	6.0	0.74	26.20	9.79	10,740	6.2
MW-33-210	03/03/2022	7.9	18,624	8.0	0.54	26.70	0.11	12,100	5.2
MW-34-055	03/10/2022	7.7	1,023	2.0	3.72	17.80	0.51	660	-35.9
MW-34-080	03/10/2022	7.3	9,570	2.0	0.17	18.50	5.40	6,210	-80.5
MW-34-100	03/10/2022	7.6	13,553	2.0	0.19	18.40	7.85	8,800	-74.2
MW-35-060	03/02/2022	7.4	6,745	19.0	1.23	27.80	0.54	nm	-1.2
MW-35-135	03/02/2022	7.7	11,180	16.0	0.41	27.50	0.94	nm	-54.7

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MW-36-020	03/09/2022	7.4	1,863	14.0	0.48	20.10	0.89	1,030	-80.3
MW-36-040	03/09/2022	7.4	1,090	5.0	0.19	20.50	0.54	700	-100.3
MW-36-050	03/09/2022	7.5	1,044	2.0	0.29	20.80	0.47	580	-79.7
MW-36-070	03/09/2022	7.6	1,044	7.0	0.60	19.60	0.46	570	-20.2
MW-36-090	03/09/2022	7.1	6,415	3.0	0.55	19.80	3.28	5,870	-26.6
MW-36-100	03/09/2022	7.2	5,835	3.0	0.18	20.90	2.97	3,450	-50.2
MW-38D	03/03/2022	7.9	19,790	10.0	0.41	29.90	0.17	nm	-9.1
MW-38S	03/03/2022	7.7	2,040	15.0	2.39	32.10	0.15	nm	45.8
MW-39-040	02/28/2022	7.8	1,226	9.0	0.58	26.80	0.61	790	-55.8
MW-39-050	02/28/2022	7.2	789	14.0	0.60	25.30	0.38	510	-10.0
MW-39-060	02/28/2022	7.7	852	47.0	0.57	26.00	0.40	550	-12.1
MW-39-070	02/28/2022	7.4	1,824	29.0	0.58	25.80	0.92	1,180	-6.0
MW-39-080	02/28/2022	7.6	4,583	20.0	0.58	25.10	2.46	2,980	-16.8
MW-39-100	02/28/2022	7.4	10,953	10.0	0.86	23.40	8.52	8,130	6.6
MW-42-030	03/10/2022	7.7	1,672	5.0	0.14	20.90	0.85	1,080	-156.4
MW-42-055	03/10/2022	7.6	1,175	4.0	4.07	20.40	0.59	760	-46.4
MW-42-065	03/10/2022	7.2	6,219	6.0	0.83	20.50	3.39	4,030	-52.1
MW-43-025	03/08/2022	8.0	2,031	42.0	0.44	18.80	1.04	1,320	-35.1
MW-43-075	03/08/2022	7.8	10,898	4.0	0.60	19.30	6.12	7,020	-57.1
MW-43-090	03/08/2022	7.9	18,341	11.0	0.30	18.60	0.11	11,850	-23.4
MW-44-070	03/10/2022	7.4	2,394	8.0	0.74	19.10	1.23	1,550	-108.5
MW-44-115	03/10/2022	7.6	11,579	8.0	0.31	19.80	6.64	7,540	-38.6
MW-44-125	03/10/2022	7.9	13,450	2.0	0.75	19.80	7.78	8,740	-148.1
MW-45-095A	03/08/2022	7.2	8,949	2.0	0.80	19.70	5.02	5,810	57.1
MW-46-175	03/03/2022	8.0	17,515	3.0	0.60	22.60	0.10	11,440	-11.9
MW-46-205	03/03/2022	8.0	21,639	5.0	0.49	23.20	0.13	14,100	-59.9
MW-47-055	03/03/2022	7.5	5,700	23.0	0.99	29.50	0.44	nm	35.7
MW-47-115	03/03/2022	7.5	13,623	14.0	0.19	29.20	0.11	nm	-25.1

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Well ID	Sample Date	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-49-135	03/08/2022	7.8	14,959	3.0	0.74	22.60	8.73	9,740	41.4
MW-49-275	03/08/2022	8.0	26,351	3.0	0.42	23.80	0.16	17,130	52.6
MW-49-365	03/08/2022	7.1	38,581	2.0	0.61	22.90	0.25	25,070	55.8
MW-51	02/02/2022	7.7	12,200	4.0	0.90	28.30	6.96	7,930	112.1
MW-51	03/14/2022	7.5	13,287	4.0	2.32	28.90	7.62	8,630	106.1
MW-52D	03/08/2022	7.8	21,136	5.0	0.30	20.90	0.13	13,740	-55.8
MW-52M	03/08/2022	7.7	18,673	10.0	0.49	20.50	9.53	10,560	-85.1
MW-52S	03/08/2022	7.3	10,117	2.0	0.33	19.90	5.75	6,650	-87.7
MW-53D	03/08/2022	7.9	26,081	9.0	0.25	20.60	0.16	16,900	-79.5
MW-53M	03/08/2022	7.6	19,880	3.0	0.28	19.00	0.12	12,930	-74.7
MW-53S	03/08/2022	7.9	1,298	6.0	0.26	18.90	0.66	830	-95.6
MW-65-160	03/09/2022	7.2	4,792	7.0	4.91	25.60	2.55	3,110	126.3
MW-65-225	03/09/2022	7.2	12,097	6.0	1.26	29.80	6.86	7,860	114.1
MW-68-180	03/09/2022	7.4	5,418	7.0	5.26	27.70	2.91	3,520	127.3
MW-69-195	03/09/2022	7.2	3,655	8.0	4.18	23.70	1.92	2,370	140.2
MW-71-035	02/02/2022	7.0	15,875	25.0	1.15	24.30	8.31	9,440	-66.4
MW-71-035	03/14/2022	6.7	17,578	4.0	1.15	25.70	0.10	11,410	94.1
MW-75-033	03/02/2022	8.0	3,970	25.0	0.75	27.60	2.09	2,580	-5.7
MW-75-117	03/02/2022	8.0	12,225	7.0	0.60	27.60	6.95	7,940	-9.6
MW-75-202	03/02/2022	7.9	18,050	14.0	0.42	27.60	0.11	11,720	-13.8
MW-75-267	03/02/2022	7.8	22,650	25.0	0.30	26.90	0.14	14,720	-30.3
MW-75-337	03/02/2022	8.0	29,407	13.0	0.71	29.50	0.18	19,110	-14.3
MW-76-039	01/31/2022	7.6	3,708	5.0	0.34	26.30	1.95	2,410	84.0
MW-76-039	03/07/2022	7.7	3,133	17.0	0.70	26.80	1.64	2,050	-18.8
MW-76-156	01/31/2022	7.5	12,205	5.0	0.21	27.20	7.34	8,310	90.9
MW-76-156	03/07/2022	7.6	15,637	4.0	0.17	26.20	9.11	10,100	-48.7
MW-76-181	01/31/2022	7.7	17,285	2.0	0.19	26.30	0.10	11,210	95.1
MW-76-181	03/07/2022	7.4	18,781	9.0	0.22	26.30	0.11	12,290	-14.8

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MW-76-218	01/31/2022	8.8	14,505	5.0	0.17	25.20	8.58	9,660	94.9
MW-76-218	03/07/2022	7.8	20,630	5.0	0.15	26.60	0.12	13,530	-45.2
MW-77-046	03/01/2022	7.4	6,990	38.0	0.71	27.40	0.18	nm	-126.5
MW-77-102	03/01/2022	7.2	8,922	8.0	0.60	26.80	0.13	nm	-13.6
MW-77-158	03/01/2022	7.5	19,300	9.0	0.35	27.60	10.00	nm	-7.6
MW-77-187	03/01/2022	8.1	20,938	8.0	0.30	27.40	10.00	nm	3.3
MW-78-070	02/01/2022	7.7	2,586	9.0	2.33	29.30	1.32	1,680	73.2
MW-78-070	03/10/2022	7.3	3,486	35.0	0.49	26.70	1.45	1,740	-90.2
MW-78-142	02/01/2022	7.6	11,452	10.0	1.20	28.30	6.51	7,460	78.4
MW-78-142	03/10/2022	7.3	10,848	33.0	0.68	28.00	6.07	7,120	-81.9
MW-79-058	02/01/2022	7.6	3,167	8.0	2.16	29.60	1.65	2,050	72.7
MW-79-058	03/14/2022	7.4	3,246	8.0	4.62	29.30	1.69	2,110	109.1
MW-79-102	02/01/2022	7.6	8,077	10.0	1.13	29.40	4.45	5,230	79.0
MW-79-102	03/14/2022	7.5	9,405	9.0	1.51	29.20	5.27	6,120	104.4
MW-80-057	02/01/2022	7.8	5,270	7.0	2.12	30.00	2.81	3,400	73.5
MW-80-057	03/14/2022	7.6	6,087	8.0	3.75	29.60	3.28	3,950	99.1
MW-80-082	02/01/2022	7.6	8,444	7.0	1.13	29.00	4.67	5,490	79.4
MW-80-082	03/14/2022	7.5	10,125	6.0	2.48	29.30	5.67	6,570	106.6
MW-81-043	03/01/2022	8.0	6,701	13.0	1.02	27.80	3.63	4,290	-12.5
MW-81-098	03/01/2022	7.6	7,595	14.0	0.50	28.80	4.21	5,000	-40.0
MW-82-046	03/01/2022	7.1	9,980	18.0	0.65	25.80	5.69	6,630	-78.3
MW-82-112	03/01/2022	7.5	7,408	22.0	0.89	25.40	4.07	4,790	-11.7
MW-82-168	03/01/2022	7.4	18,259	20.0	0.34	25.90	0.11	11,900	-8.9
MW-82-198	03/01/2022	8.2	19,444	17.0	0.58	26.40	0.12	12,610	-45.6
MW-86-030	03/07/2022	7.4	1,287	8.0	1.15	20.10	0.65	830	-46.4
MW-86-066	03/07/2022	7.5	7,336	6.0	6.98	19.70	4.06	4,770	88.7
MW-86-120	03/07/2022	7.6	13,339	2.0	4.19	20.40	7.71	8,660	127.6
MW-86-140	03/07/2022	7.5	14,642	3.0	6.53	20.50	0.10	11,470	164.6

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MW-90-031	03/04/2022	7.1	9,982	17.0	0.34	23.60	5.80	nm	-119.2
MW-96-045	03/02/2022	7.4	6,807	34.0	1.37	26.40	3.71	4,410	10.4
MW-96-217	03/02/2022	7.3	18,082	7.0	0.20	26.80	0.11	11,630	-14.0
MW-97-042	03/02/2022	7.5	3,869	46.0	1.00	29.10	0.29	nm	-58.2
MW-97-202	03/02/2022	7.1	8,021	8.0	0.54	27.60	0.16	nm	-204.1
PT5D	03/04/2022	8.0	11,239	9.0	0.93	21.90	6.40	7,520	-72.9
PT5M	03/04/2022	7.8	1,774	8.0	1.87	21.20	0.90	1,150	-112.7
PT5S	03/04/2022	8.0	638	4.0	2.67	21.50	0.32	410	-85.8
R-19	02/17/2022	8.4	959	2.0	11.27	11.10	0.48	620	158.9
R-28	02/16/2022	8.4	963	1.0	10.29	11.40	0.47	610	177.6
R63	02/16/2022	8.2	951	2.0	9.95	10.80	0.47	610	184.3
RRB	02/17/2022	8.1	1,053	4.0	11.51	9.70	0.52	680	163.9
SW1	02/16/2022	7.9	1,190	5.0	6.38	15.80	0.60	770	185.9
SW2	02/16/2022	7.8	1,076	8.0	6.71	14.60	0.54	710	184.3
TW-02D	03/09/2022	7.6	23,033	8.0	0.14	26.40	0.14	14,970	100.2
TW-02S	03/09/2022	7.6	2,809	2.0	5.27	27.40	1.45	1,830	93.5
TW-03D	03/09/2022	7.1	21,399	3.0	0.27	26.70	0.13	13,860	132.5
TW-04	03/03/2022	7.3	16,625	8.0	0.28	28.40	0.17	nm	20.9

Abbreviations:

deg C = degrees Celsius
mg/L = milligrams per liter
mV = millivolts
nm = not measured
NTU = nephelometric turbidity units
ORP = oxidation-reduction potential
ppt = parts per thousand
µS/cm = microsiemens per centimeter

Appendix B

January 2020 to March 2022 Analytical Results

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
C-BNS	01/29/20	N	<0.2	<1	2.2	120	--	--	0.093	<0.02	--	0.0016	4.7	--	1.6
C-BNS	02/19/20	N	<0.2	<1	2.2	120 J	--	--	0.13 J	0.08 J	--	0.0013	4.6	--	1.6
C-BNS	04/29/20	N	<0.2	<1	2.2	120	--	--	0.058 J	0.039 J	--	0.00071	4.6	--	1.7
C-BNS	08/19/20	N	<0.2	<1	2.6	120 J	--	--	0.051 J	0.023 J	--	0.00054	4.7	--	1.5
C-BNS	11/18/20	N	<0.2	<1	2.4	110	--	--	0.05	<0.02	--	0.00079	4.4	--	1.5
C-BNS	11/18/20	FD	<0.2	<1	2.4	110	--	--	0.036	<0.02	--	0.001	4.4	--	1.5
C-BNS	01/27/21	N	<0.2	<1	2.3	120	--	--	0.033	<0.02	--	0.0012	4.7	--	1.7
C-BNS	02/17/21	N	<0.2	<1	2.5	110	--	--	0.046 J	<0.02 J	--	0.0014	4.7	--	1.6
C-BNS	05/19/21	N	<0.2	<1	2.2	110	--	--	<0.02	<0.02 J	--	<0.0005	4.4	--	1.4
C-BNS	08/18/21	N	<0.2	<1	2.3	100	--	--	0.026 J	<0.02	--	<0.0005	4.1	--	1.4
C-BNS	11/17/21	N	<0.2	<1	3	--	--	--	--	--	--	<0.0005	4.4 J	--	1.9
C-BNS	02/16/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005 J	--	--	--
C-CON-D	01/30/20	N	<0.2	<1	2.2	120	--	--	0.084	0.027 J	--	0.002 J	4.6	--	1.6
C-CON-D	02/20/20	N	<0.2	<1	2.1	110	--	--	0.078	0.029	--	0.0014	4.5 J	--	1.4
C-CON-D	04/30/20	N	<0.2	<1	2.2	110	--	--	0.079	0.031 J	--	0.00082	4.6	--	1.6
C-CON-D	04/30/20	FD	<0.2	<1	2.1	100	--	--	0.099	0.029 J	--	0.00083	4.4	--	1.7
C-CON-D	08/20/20	N	<0.2	<1	2.6	110 J	--	--	0.032 J	<0.02 J	--	0.0021	4.8	--	1.6
C-CON-D	11/19/20	N	<0.2	<1	2.3	110	--	--	0.026	<0.02	--	0.00096	4.7	--	1.7
C-CON-D	01/28/21	N	<0.2	<1	2.3	120	--	--	0.035	0.024	--	0.00069	4.6	--	1.6
C-CON-D	02/18/21	N	<0.2	<1	2.2	110	--	--	0.15 J	<0.02 J	--	0.0012	4.6	--	1.4
C-CON-D	05/20/21	N	<0.2	<1	1.9	110	--	--	<0.02	<0.02	--	<0.0005	4.3	--	1.3
C-CON-D	08/19/21	N	<0.2	<1	2	98	--	--	0.025	<0.02 J	--	<0.0005	4.1	--	1.4
C-CON-D	11/18/21	N	<0.2	<1	2.5 J	--	--	--	--	--	--	<0.0005	4.5	--	1.5
C-CON-D	02/17/22	N	<0.2	--	2.2	--	--	--	--	--	--	0.00071	--	--	--
C-CON-S	01/30/20	N	<0.2	<1	2.2	110	--	--	0.053	0.032 J	--	0.0022 J	4.6	--	1.6
C-CON-S	02/20/20	N	<0.2	<1	2.1	110	--	--	0.067 J	0.028	--	0.0012	4.6 J	--	1.4
C-CON-S	02/20/20	FD	<0.2	<1	2.3	120 J	--	--	0.088	0.038	--	0.00099	4.7	--	1.6
C-CON-S	04/30/20	N	<0.2	<1	2.2	110	--	--	0.073	<0.02	--	0.00052	4.5	--	1.5
C-CON-S	08/20/20	N	<0.2	<1	2.5	110 J	--	--	0.025 J	<0.02 J	--	0.00062	4.5	--	1.4
C-CON-S	11/19/20	N	<0.2	<1	2.2	110	--	--	0.034	<0.02	--	0.0011	4.5	--	1.6
C-CON-S	01/28/21	N	<0.2	<1	2.2	120	--	--	0.029	<0.02	--	0.00074	4.6	--	1.5
C-CON-S	02/18/21	N	<0.2	<1	2.3	120	--	--	0.1 J	<0.02 J	--	0.0011	4.8	--	1.6
C-CON-S	02/18/21	FD	<0.2	<1	2.5	120	--	--	0.035 J	<0.02 J	--	0.0011	4.8	--	1.7
C-CON-S	05/20/21	N	<0.2	<1	2.1	110	--	--	<0.02	<0.02	--	<0.0005	4.4	--	1.3
C-CON-S	08/19/21	N	<0.2	<1	2.2	100	--	--	0.021	<0.02 J	--	<0.0005	4.4	--	1.4
C-CON-S	11/18/21	N	<0.2	<1	3 J	--	--	--	--	--	--	<0.0005	4.4	--	1.5
C-CON-S	11/18/21	FD	<0.2	<1	3.2 J	--	--	--	--	--	--	<0.0005	4.5	--	2
C-CON-S	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005	--	--	--
C-I-3-D	01/29/20	N	<0.2	<1	2.1	110	--	--	0.075	<0.02	--	0.0012	4.4	--	1.6
C-I-3-D	02/19/20	N	<0.2	<1	2.1	120 J	--	--	0.091 J	0.086 J	--	0.00084	4.6	--	1.6
C-I-3-D	04/29/20	N	<0.2	<1	2.2	120	--	--	0.53 J	0.049 J	--	0.00068	4.5	--	1.6
C-I-3-D	08/19/20	N	<0.2	<1	2.6	120 J	--	--	0.056 J	0.051 J	--	0.00062	4.8	--	1.6
C-I-3-D	11/18/20	N	<0.2	<1	2.4	110	--	--	0.09	<0.02	--	0.0013	4.6	--	1.6
C-I-3-D	01/27/21	N	<0.2	<1	2.3	120	--	--	0.023	<0.02	--	<0.0005	4.6	--	1.6

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
C-BNS	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-BNS	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.32	--	--	--
C-BNS	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-BNS	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-BNS	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-BNS	11/18/20	FD	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-BNS	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-BNS	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-BNS	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-BNS	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-BNS	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-BNS	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-CON-D	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-CON-D	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-CON-D	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.34	--	--	--
C-CON-D	04/30/20	FD	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-CON-D	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-CON-D	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-CON-D	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-CON-D	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-CON-D	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.44	--	--	--
C-CON-D	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-CON-D	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.46	--	--	--
C-CON-D	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-CON-D	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-CON-D	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-CON-S	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-CON-S	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
C-CON-S	02/20/20	FD	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-CON-S	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-CON-S	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-CON-S	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-CON-S	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-CON-S	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-CON-S	02/18/21	FD	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-CON-S	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-CON-S	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-CON-S	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-CON-S	11/18/21	FD	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-CON-S	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-I-3-D	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-I-3-D	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-I-3-D	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-I-3-D	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-I-3-D	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
C-I-3-D	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
C-I-3-D	02/17/21	N	<0.2	<1	2.5	120	--	--	0.07 J	<0.02 J	--	0.0014	4.8	--	1.9
C-I-3-D	05/19/21	N	<0.2	<1	2.3	110	--	--	<0.02	<0.02 J	--	<0.0005	4.5	--	1.4
C-I-3-D	08/18/21	N	<0.2	<1	2.1	100	--	--	<0.02	<0.02	--	<0.0005	4.3	--	1.6
C-I-3-D	11/17/21	N	<0.2	<1	2.5	--	--	--	--	--	--	<0.0005	4.5 J	--	1.5
C-I-3-D	02/16/22	N	<0.2	--	2.1	--	--	--	--	--	--	<0.0005 J	--	--	--
C-I-3-S	01/29/20	N	<0.2	<1	2.2	110	--	--	0.12	<0.02	--	0.0011	4.4	--	1.5
C-I-3-S	02/19/20	N	<0.2	<1	2.2	120 J	--	--	0.075	0.044 J	--	0.0011	4.6	--	1.6
C-I-3-S	04/29/20	N	<0.2	<1	2.2	120	--	--	0.075 J	0.029 J	--	<0.0005	4.5	--	1.7
C-I-3-S	08/19/20	N	<0.2 J	<1	2.5	120 J	--	--	0.04 J	0.038 J	--	<0.0005	4.7	--	1.6
C-I-3-S	11/18/20	N	<0.2	<1	2.5	110	--	--	0.044	<0.02	--	0.001	4.6	--	1.7
C-I-3-S	01/27/21	N	<0.2	<1	2.3	120	--	--	0.029	0.026 J	--	0.00051	4.9	--	1.7
C-I-3-S	02/17/21	N	<0.2	<1	2.3	110	--	--	0.069 J	<0.02 J	--	0.0017	4.6	--	1.7
C-I-3-S	05/19/21	N	<0.2	<1	2	110	--	--	<0.02	<0.02 J	--	<0.0005	4.4	--	1.5
C-I-3-S	08/18/21	N	<0.2	<1	2.1	100	--	--	0.025 J	<0.02	--	<0.0005	4.2	--	1.4
C-I-3-S	11/17/21	N	<0.2	<1	2.8	--	--	--	--	--	--	<0.0005	4.5 J	--	1.6
C-I-3-S	02/16/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005 J	--	--	--
C-MAR-D	01/30/20	N	<0.2	<1	2.6	130	--	--	1.10	0.38 J	--	0.092 J	5.1	--	1.6
C-MAR-D	02/20/20	N	<0.2	<1	2.1	110	--	--	0.4 J	0.069	--	0.014	4.7 J	--	1.5
C-MAR-D	04/30/20	N	<0.2	<1	2.3	110	--	--	0.26	0.048 J	--	0.0021	4.6	--	1.7
C-MAR-D	08/20/20	N	<0.2	<1	2.5	110 J	--	--	0.15 J	<0.02 J	--	0.0038	4.7	--	1.5
C-MAR-D	08/20/20	FD	<0.2	<1	2.4	110 J	--	--	0.2 J	<0.02 J	--	0.0025	4.8	--	1.6
C-MAR-D	11/19/20	N	<0.2	<1	2.3	110	--	--	0.35	<0.02	--	0.0099	4.8	--	1.5
C-MAR-D	01/28/21	N	<0.2	<1	2.4	130	--	--	0.38	0.028	--	0.021	4.8	--	1.4
C-MAR-D	02/18/21	N	<0.2	<1	2.4	110	--	--	0.24 J	<0.02 J	--	0.0036	4.8	--	1.6
C-MAR-D	05/20/21	N	<0.2	<1	1.9	100	--	--	0.042 J	<0.02	--	0.0014	4.4	--	1.3
C-MAR-D	08/19/21	N	<0.2	<1	2.1	100	--	--	0.19	<0.02 J	--	0.0032	4.3	--	1.5
C-MAR-D	11/18/21	N	<0.2	<1	3.2 J	--	--	--	--	--	--	0.0047	4.5	--	1.8
C-MAR-D	02/17/22	N	<0.2	--	1.8	--	--	--	--	--	--	0.0054	--	--	--
C-MAR-S	01/30/20	N	<0.2	<1	2.7	130	--	--	1.40	0.88 J	--	0.11 J	5	--	1.4
C-MAR-S	02/20/20	N	<0.2	<1	2.3	120	--	--	0.43 J	0.25	--	0.021	4.7 J	--	1.5
C-MAR-S	04/30/20	N	<0.2	<1	2.2	110	--	--	0.072	0.022 J	--	0.0019	4.5	--	1.6
C-MAR-S	08/20/20	N	<0.2	<1	2.6	110 J	--	--	0.2 J	<0.02 J	--	0.0055	4.9	--	1.5
C-MAR-S	11/19/20	N	<0.2	<1	2.3	110	--	--	0.11	0.021 J	--	0.0034	4.5	--	1.4
C-MAR-S	01/28/21	N	<0.2	<1	2.4	130	--	--	0.56	0.028	--	0.024	5.1	--	1.5
C-MAR-S	02/18/21	N	<0.2	<1	2.3	120	--	--	0.14 J	<0.02 J	--	0.003	4.8	--	1.9
C-MAR-S	02/18/21	FD	<0.2	<1	2.3	120	--	--	0.16 J	<0.02 J	--	0.003	4.8	--	1.5
C-MAR-S	05/20/21	N	<0.2	<1	1.9	100	--	--	0.029 J	<0.02	--	0.0034	4.4	--	1.4
C-MAR-S	08/19/21	N	<0.2	<1	2.6	100	--	--	0.15	<0.02 J	--	0.0048	4.3	--	1.5
C-MAR-S	11/18/21	N	<0.2	<1	3.2 J	--	--	--	--	--	--	0.005	4.6	--	1.6
C-MAR-S	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	0.007	--	--	--
C-NR1-D	01/30/20	N	<0.2	<1	2.2	110	--	--	0.057	<0.02 J	--	0.002 J	4.5	--	1.7
C-NR1-D	02/20/20	N	<0.2	<1	2.1	120	--	--	0.08 J	0.038 J	--	0.00084	4.6 J	--	1.5
C-NR1-D	04/30/20	N	<0.2	<1	2.2	110	--	--	0.065	0.051 J	--	0.00082	4.6	--	1.6
C-NR1-D	08/20/20	N	<0.2	<1	2.4	110	--	--	0.15 J	0.2 J	--	0.00051	4.6	--	1.5

Appendix B
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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
C-I-3-D	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.45	--	--	--
C-I-3-D	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-I-3-D	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-I-3-D	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-I-3-D	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-I-3-S	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-I-3-S	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-I-3-S	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.44	--	--	--
C-I-3-S	08/19/20	N	<0.2 J	--	--	--	--	--	--	--	--	0.46	--	--	--
C-I-3-S	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.44	--	--	--
C-I-3-S	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-I-3-S	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.45	--	--	--
C-I-3-S	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
C-I-3-S	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-I-3-S	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-I-3-S	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-MAR-D	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.31	--	--	--
C-MAR-D	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-MAR-D	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
C-MAR-D	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-MAR-D	08/20/20	FD	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-MAR-D	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-MAR-D	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-MAR-D	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-MAR-D	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-MAR-D	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-MAR-D	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-MAR-D	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-MAR-S	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-MAR-S	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-MAR-S	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-MAR-S	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-MAR-S	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-MAR-S	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
C-MAR-S	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-MAR-S	02/18/21	FD	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-MAR-S	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-MAR-S	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-MAR-S	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-MAR-S	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR1-D	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-NR1-D	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-NR1-D	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-NR1-D	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
C-NR1-D	11/19/20	N	<0.2	<1	2.4	110	--	--	0.034	<0.02	--	0.00096	4.6	--	1.5
C-NR1-D	01/28/21	N	<0.2	<1	2.2	120	--	--	0.02	<0.02	--	0.00064	4.7	--	1.6
C-NR1-D	02/18/21	N	<0.2	<1	2.4	120	--	--	0.071 J	<0.02 J	--	0.0012	4.8	--	1.3
C-NR1-D	05/20/21	N	<0.2	<1	2	100	--	--	<0.02	<0.02	--	<0.0005	4.3	--	1.1
C-NR1-D	08/19/21	N	<0.2	<1	1.8	100	--	--	<0.02	<0.02 J	--	<0.0005	4.1	--	1.5
C-NR1-D	11/18/21	N	<0.2	<1	3.3 J	--	--	--	--	--	--	<0.0005	4.5	--	1.6
C-NR1-D	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005	--	--	--
C-NR1-D	02/17/22	FD	<0.2	--	1.9	--	--	--	--	--	--	0.0017	--	--	--
C-NR1-S	01/30/20	N	<0.2	<1	2.1	110	--	--	0.026	0.028 J	--	0.0026 J	4.4	--	1.6
C-NR1-S	02/20/20	N	<0.2	<1	2.2	120	--	--	0.083 J	<0.02 J	--	0.0011	4.6 J	--	1.5
C-NR1-S	04/30/20	N	<0.2	<1	2.1	110	--	--	0.061 J	<0.02	--	<0.0005	4.4	--	1.6
C-NR1-S	04/30/20	FD	<0.2	<1	2.1	100	--	--	0.18 J	<0.02	--	<0.0005	4.6	--	1.7
C-NR1-S	08/20/20	N	<0.2	<1	2.4	110 J	--	--	0.022 J	<0.02 J	--	0.00059	4.5	--	1.5
C-NR1-S	11/19/20	N	<0.2	<1	2.3	110	--	--	<0.02	<0.02	--	0.00098	4.5	--	1.5
C-NR1-S	01/28/21	N	<0.2	<1	2.2	120	--	--	0.023	<0.02	--	0.00062	4.6	--	1.7
C-NR1-S	02/18/21	N	<0.2	<1	2.4	120	--	--	0.024 J	<0.02 J	--	0.0013	4.8	--	1.7
C-NR1-S	05/20/21	N	<0.2	<1	1.9	110	--	--	0.02 J	<0.02	--	<0.0005	4.4	--	1.4
C-NR1-S	08/19/21	N	<0.2	<1	1.7	99	--	--	<0.02	<0.02 J	--	<0.0005	4.2	--	1.4
C-NR1-S	11/18/21	N	<0.2	<1	3.1 J	--	--	--	--	--	--	<0.0005	4.4	--	2
C-NR1-S	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005	--	--	--
C-NR3-D	01/30/20	N	<0.2	<1	2.1	110	--	--	0.054	0.044 J	--	0.0023 J	4.5	--	1.5
C-NR3-D	01/30/20	FD	<0.2	<1	2.1	110	--	--	0.037	0.031 J	--	0.0021 J	4.4	--	1.6
C-NR3-D	02/20/20	N	<0.2	<1	2.1	120	--	--	0.12 J	0.066 J	--	0.0017	4.6 J	--	1.6
C-NR3-D	04/30/20	N	<0.2	<1	2.2	110	--	--	0.049	<0.02	--	<0.0005	4.5	--	1.6
C-NR3-D	08/20/20	N	<0.2	<1	2.4	110 J	--	--	0.025 J	<0.02 J	--	0.0006	4.6	--	1.4
C-NR3-D	11/19/20	N	<0.2	<1	2.3	100	--	--	0.022	<0.02	--	0.0007	4.5	--	1.4
C-NR3-D	01/28/21	N	<0.2	<1	2.2	120	--	--	0.04	<0.02	--	0.0007	4.5	--	1.6
C-NR3-D	02/18/21	N	<0.2	<1	2.4	120	--	--	0.07 J	<0.02 J	--	0.0011	4.8	--	1.3
C-NR3-D	05/20/21	N	<0.2	<1	2.1	100	--	--	<0.02	<0.02	--	<0.0005	4.4	--	1.4
C-NR3-D	08/19/21	N	<0.2	<1	2	99	--	--	<0.02	<0.02 J	--	<0.0005	4.2	--	1.4
C-NR3-D	11/18/21	N	<0.2	<1	3.2 J	--	--	--	--	--	--	<0.0005	4.6	--	1.7
C-NR3-D	11/18/21	FD	<0.2	<1	3.1 J	--	--	--	--	--	--	<0.0005	4.4	--	1.7
C-NR3-D	02/17/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005	--	--	--
C-NR3-S	01/30/20	N	<0.2	<1	2	110	--	--	0.097	0.051 J	--	0.0017 J	4.3	--	1.6
C-NR3-S	02/20/20	N	<0.2	<1	2.2	120	--	--	0.091 J	0.02 J	--	0.0013	4.7 J	--	1.5
C-NR3-S	04/30/20	N	<0.2	<1	2	110	--	--	0.03	<0.02	--	<0.0005	4.4	--	1.6
C-NR3-S	08/20/20	N	<0.2	<1	2.4	110 J	--	--	0.022 J	<0.02 J	--	0.00057	4.6	--	1.5
C-NR3-S	11/19/20	N	<0.2	<1	2.3	110	--	--	<0.02	<0.02	--	0.00068	4.6	--	1.5
C-NR3-S	11/19/20	FD	<0.2	<1	2.2	100	--	--	0.022	<0.02	--	0.00067	4.5	--	1.5
C-NR3-S	01/28/21	N	<0.2	<1	2.4	120	--	--	0.084	0.025	--	0.00084	4.6	--	1.5
C-NR3-S	01/28/21	FD	<0.2	<1	2.3	120	--	--	0.026	<0.02	--	0.00061	4.4	--	1.6
C-NR3-S	02/18/21	N	<0.2	<1	2.5	120	--	--	0.032 J	<0.02 J	--	0.0013	4.8	--	1.5
C-NR3-S	05/20/21	N	<0.2	<1	2.1	110	--	--	<0.02	<0.02	--	<0.0005	4.5	--	1.3
C-NR3-S	08/19/21	N	<0.2	<1	2.4	100	--	--	<0.02	<0.02 J	--	<0.0005	4.2	--	1.5

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
C-NR1-D	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR1-D	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-NR1-D	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-NR1-D	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR1-D	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-NR1-D	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-NR1-D	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR1-D	02/17/22	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR1-S	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-NR1-S	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-NR1-S	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-NR1-S	04/30/20	FD	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-NR1-S	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-NR1-S	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR1-S	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-NR1-S	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-NR1-S	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
C-NR1-S	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-NR1-S	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-NR1-S	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR3-D	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
C-NR3-D	01/30/20	FD	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR3-D	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-NR3-D	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-NR3-D	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR3-D	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR3-D	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-NR3-D	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
C-NR3-D	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.57	--	--	--
C-NR3-D	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-NR3-D	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-NR3-D	11/18/21	FD	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-NR3-D	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR3-S	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
C-NR3-S	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-NR3-S	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-NR3-S	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-NR3-S	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR3-S	11/19/20	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR3-S	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-NR3-S	01/28/21	FD	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-NR3-S	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
C-NR3-S	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-NR3-S	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
C-NR3-S	11/18/21	N	<0.2	<1	3.2 J	--	--	--	--	--	--	<0.0005	4.5	--	1.8
C-NR3-S	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005	--	--	--
C-NR4-D	01/30/20	N	<0.2	<1	2.1	110	--	--	0.065	<0.02 J	--	0.0015 J	4.3	--	1.5
C-NR4-D	02/20/20	N	<0.2	<1	2.1	120	--	--	0.072 J	0.022 J	--	0.001	4.7 J	--	1.5
C-NR4-D	04/30/20	N	<0.2	<1	2.1	110	--	--	0.049	0.035 J	--	<0.0005	4.5	--	1.6
C-NR4-D	08/20/20	N	<0.2 J	<1	2.4	110 J	--	--	0.021 J	<0.02 J	--	0.00071	4.7	--	1.5
C-NR4-D	08/20/20	FD	<0.2	<1	2.4	110 J	--	--	0.027 J	<0.02 J	--	0.001	4.7	--	1.6
C-NR4-D	11/19/20	N	<0.2	<1	2.3	110	--	--	<0.02	<0.02	--	0.00057	4.7	--	1.5
C-NR4-D	01/28/21	N	<0.2	<1	2.3	120	--	--	0.058	<0.02	--	0.00073	4.7	--	1.6
C-NR4-D	01/28/21	FD	<0.2	<1	2.3	120	--	--	<0.02	<0.02	--	0.00085	4.6	--	1.5
C-NR4-D	02/18/21	N	<0.2	<1	2.4	110	--	--	0.031 J	<0.02 J	--	0.00099	4.7	--	1.6
C-NR4-D	05/20/21	N	<0.2	<1	1.9	100	--	--	0.027 J	<0.02	--	<0.0005	4.4	--	1.3
C-NR4-D	05/20/21	FD	<0.2	<1	2.1	100	--	--	<0.02	<0.02	--	<0.0005	4.3	--	1.2
C-NR4-D	08/19/21	N	<0.2	<1	2.4	100	--	--	0.024	<0.02 J	--	<0.0005	4.2	--	1.3
C-NR4-D	08/19/21	FD	<0.2	<1	2	110	--	--	<0.02	<0.02 J	--	<0.0005	4.2	--	1.4
C-NR4-D	11/18/21	N	<0.2	<1	3.2 J	--	--	--	--	--	--	<0.0005	4.7	--	1.8
C-NR4-D	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005	--	--	--
C-NR4-S	01/30/20	N	<0.2	<1	2.1	110	--	--	0.038	0.022 J	--	0.0015 J	4.4	--	1.5
C-NR4-S	02/20/20	N	<0.2	<1	2.1	110	--	--	0.12 J	0.03	--	0.0011	4.5 J	--	1.5
C-NR4-S	04/30/20	N	<0.2	<1	2.2	110	--	--	0.042	<0.02	--	0.00053	4.5	--	1.6
C-NR4-S	08/20/20	N	<0.2	<1	2.5	110 J	--	--	0.031 J	<0.02 J	--	0.00065	4.7	--	1.5
C-NR4-S	11/19/20	N	<0.2	<1	2.4	120	--	--	<0.02	<0.02	--	0.00062	4.7	--	1.7
C-NR4-S	01/28/21	N	<0.2	<1	2.3	120	--	--	0.032	0.032	--	0.00073	4.7	--	1.6
C-NR4-S	02/18/21	N	<0.2	<1	2.2	120	--	--	0.071 J	<0.02 J	--	0.0011	4.9	--	1.6
C-NR4-S	05/20/21	N	<0.2	<1	2.1	110	--	--	<0.02	<0.02	--	<0.0005	4.5	--	1.3
C-NR4-S	08/19/21	N	<0.2	<1	1.9	99	--	--	<0.02	<0.02 J	--	<0.0005	4.2	--	1.6
C-NR4-S	11/18/21	N	<0.2	<1	3.1 J	--	--	--	--	--	--	<0.0005	4.4	--	2
C-NR4-S	02/17/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005	--	--	--
C-R22A-D	01/29/20	N	<0.2	<1	2.2	120	--	--	0.13	<0.02	--	0.0026	4.8	--	1.6
C-R22A-D	02/19/20	N	<0.2	<1	2.2	120 J	--	--	0.13 J	0.11 J	--	0.0012	4.5	--	1.6
C-R22A-D	04/29/20	N	<0.2	<1	2.2	110	--	--	0.43 J	0.035 J	--	0.00088	4.4	--	1.6
C-R22A-D	08/19/20	N	<0.2	<1	2.4	110 J	--	--	0.047 J	0.037 J	--	0.00065	4.6	--	1.4
C-R22A-D	11/18/20	N	<0.2	<1	2.2	110	--	--	0.025	<0.02	--	0.0018	4.3	--	1.6
C-R22A-D	01/27/21	N	<0.2	<1	2.2	110	--	--	0.029	0.024 J	--	0.0023	4.7	--	1.6
C-R22A-D	02/17/21	N	<0.2	<1	2.3	110	--	--	0.048 J	0.034 J	--	0.0024	4.8	--	1.9
C-R22A-D	05/19/21	N	<0.2	<1	2	110	--	--	<0.02	<0.02 J	--	0.00088	4.7	--	1.5
C-R22A-D	08/18/21	N	<0.2	<1	2	100	--	--	0.021 J	<0.02	--	<0.0005	4.1	--	1.2
C-R22A-D	11/17/21	N	<0.2	<1	2.6	--	--	--	--	--	--	0.00058	4.5 J	--	1.5
C-R22A-D	02/16/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005 J	--	--	--
C-R22A-S	01/29/20	N	<0.2	<1	2.3	120	--	--	0.12	<0.02	--	0.0027	4.6	--	1.6
C-R22A-S	01/29/20	FD	<0.2	<1	2.3	130	--	--	0.16	0.027	--	0.0029	4.9	--	1.6
C-R22A-S	02/19/20	N	<0.2	<1	2.2	120 J	--	--	0.09	0.032 J	--	0.0014	4.7	--	1.6
C-R22A-S	04/29/20	N	<0.2	<1	2.2	110	--	--	0.088 J	<0.02 J	--	0.00058	4.5	--	1.5
C-R22A-S	08/19/20	N	<0.2	<1	2.6	110 J	--	--	0.058 J	<0.02 J	--	0.00074	4.8	--	1.4

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
C-NR3-S	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-NR3-S	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR4-D	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-NR4-D	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-NR4-D	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.89	--	--	--
C-NR4-D	08/20/20	N	<0.2 J	--	--	--	--	--	--	--	--	0.44	--	--	--
C-NR4-D	08/20/20	FD	<0.2	--	--	--	--	--	--	--	--	0.54	--	--	--
C-NR4-D	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR4-D	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR4-D	01/28/21	FD	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR4-D	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-NR4-D	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-NR4-D	05/20/21	FD	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-NR4-D	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR4-D	08/19/21	FD	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-NR4-D	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-NR4-D	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR4-S	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-NR4-S	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-NR4-S	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-NR4-S	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-NR4-S	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-NR4-S	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-NR4-S	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.44	--	--	--
C-NR4-S	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-NR4-S	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-NR4-S	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-NR4-S	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-R22A-D	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-R22A-D	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
C-R22A-D	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-R22A-D	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.32	--	--	--
C-R22A-D	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.25	--	--	--
C-R22A-D	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-R22A-D	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.46	--	--	--
C-R22A-D	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-R22A-D	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-R22A-D	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-R22A-D	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-R22A-S	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-R22A-S	01/29/20	FD	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-R22A-S	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
C-R22A-S	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-R22A-S	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
C-R22A-S	11/18/20	N	<0.2	<1	2.3	110	--	--	0.06	0.027	--	0.0016	4.4	--	1.5
C-R22A-S	01/27/21	N	<0.2	<1	2.3	120	--	--	0.032	<0.02	--	0.0022	4.9	--	1.5
C-R22A-S	02/17/21	N	<0.2	<1	2.3	110	--	--	0.1 J	<0.02 J	--	0.0026	4.6	--	1.8
C-R22A-S	02/17/21	FD	<0.2	<1	2.2	110	--	--	0.043 J	<0.02 J	--	0.0025	4.5	--	1.7
C-R22A-S	05/19/21	N	<0.2	<1	2	100	--	--	<0.02	<0.02 J	--	0.0017	4.5	--	1.5
C-R22A-S	08/18/21	N	<0.2	<1	2.2	100	--	--	<0.02	<0.02	--	<0.0005	4.3	--	1.3
C-R22A-S	11/17/21	N	<0.2	<1	2.7	--	--	--	--	--	--	<0.0005	4.3 J	--	1.5
C-R22A-S	02/16/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005 J	--	--	--
C-R22A-S	02/16/22	FD	<0.2	--	2.1	--	--	--	--	--	--	<0.0005 J	--	--	--
C-R27-D	01/29/20	N	<0.2	<1	2.1	120	--	--	0.18	0.11	--	0.004	4.6	--	1.6
C-R27-D	02/19/20	N	<0.2	<1	2.1	120 J	--	--	0.26 J	0.039 J	--	0.0021	4.6	--	1.6
C-R27-D	02/19/20	FD	<0.2	<1	2.2	120 J	--	--	0.19 J	0.061 J	--	0.0011	4.6	--	1.6
C-R27-D	04/29/20	N	<0.2	<1	2.2	110	--	--	0.071 J	0.047 J	--	0.0011	4.5	--	1.6
C-R27-D	08/19/20	N	<0.2	<1	2.4	110 J	--	--	0.054 J	0.023 J	--	0.00067	4.6	--	1.5
C-R27-D	11/18/20	N	<0.2	<1	2.4	110	--	--	0.032	<0.02	--	0.001	4.4	--	1.5
C-R27-D	01/27/21	N	<0.2	<1	2.3	120	--	--	0.028	<0.02	--	0.0014	4.8	--	1.6
C-R27-D	02/17/21	N	<0.2	<1	2.2	110	--	--	0.11 J	<0.02 J	--	0.0016	4.7	--	1.7
C-R27-D	05/19/21	N	<0.2	<1	2.1	110	--	--	<0.02	<0.02 J	--	<0.0005	4.4	--	1.3
C-R27-D	08/18/21	N	<0.2	<1	1.9	100	--	--	0.023 J	0.021	--	<0.0005	4.3	--	1.5
C-R27-D	11/17/21	N	<0.2	<1	3	--	--	--	--	--	--	0.00059	4.4 J	--	1.8
C-R27-D	02/16/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005 J	--	--	--
C-R27-S	01/29/20	N	<0.2	<1	2.2	120	--	--	0.17	<0.02	--	0.002	4.6	--	1.5
C-R27-S	02/19/20	N	<0.2	<1	2.3	120 J	--	--	0.27 J	0.058 J	--	0.0011	4.7	--	1.7
C-R27-S	04/29/20	N	<0.2	<1	2.2	110	--	--	0.07 J	0.037 J	--	<0.0005 J	4.4	--	1.6
C-R27-S	04/29/20	FD	<0.2	<1	2.2	120	--	--	0.11 J	0.088 J	--	0.0014 J	4.4	--	1.6
C-R27-S	08/19/20	N	<0.2 J	<1	2.4	110 J	--	--	0.058 J	0.022 J	--	0.0006	4.6	--	1.4
C-R27-S	08/19/20	FD	<0.2 J	<1	2.6	120 J	--	--	0.19 J	0.026 J	--	0.00069	4.9	--	1.5
C-R27-S	11/18/20	N	<0.2	<1	2.5	110	--	--	0.038	<0.02	--	0.00093	4.4	--	1.6
C-R27-S	01/27/21	N	<0.2	<1	2.1	120	--	--	0.031	<0.02	--	0.0015	4.6	--	1.6
C-R27-S	02/17/21	N	<0.2	<1	2.4	120	--	--	0.098 J	<0.02 J	--	0.0022	4.7	--	1.6
C-R27-S	05/19/21	N	<0.2	<1	2.1	100	--	--	<0.02	<0.02 J	--	<0.0005	4.4	--	1.4
C-R27-S	08/18/21	N	<0.2	<1	2	100	--	--	0.043 J	<0.02	--	<0.0005	4.3	--	1.2
C-R27-S	11/17/21	N	<0.2	<1	2.9	--	--	--	--	--	--	<0.0005	4.4 J	--	1.9
C-R27-S	02/16/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005 J	--	--	--
C-TAZ-D	01/29/20	N	<0.2	<1	2.2	110	--	--	0.15	0.026	--	0.0022	4.5	--	1.6
C-TAZ-D	02/19/20	N	<0.2	<1	2.2	120 J	--	--	0.12 J	0.033 J	--	0.0014	4.5	--	1.5
C-TAZ-D	04/29/20	N	<0.2	<1	2.2	110	--	--	0.065 J	<0.02 J	--	<0.0005	4.4	--	1.6
C-TAZ-D	08/19/20	N	<0.2	<1	2.5	120 J	--	--	0.053 J	<0.02 J	--	<0.0005	4.6	--	1.5
C-TAZ-D	11/18/20	N	<0.2	<1	2.4	110	--	--	0.042	<0.02	--	0.0013	4.5	--	1.5
C-TAZ-D	01/27/21	N	<0.2	<1	2.2	120	--	--	0.034	0.025 J	--	0.00069	4.6	--	1.5
C-TAZ-D	02/17/21	N	<0.2	<1	2.3	110	--	--	0.15 J	<0.02 J	--	0.0014	4.6	--	1.6
C-TAZ-D	05/19/21	N	<0.2	<1	2	100	--	--	<0.02	<0.02 J	--	<0.0005	4.4	--	1.4
C-TAZ-D	08/18/21	N	<0.2	<1	2	100	--	--	0.036 J	<0.02	--	<0.0005	4.2	--	1.4
C-TAZ-D	08/18/21	FD	<0.2	<1	2.2	98	--	--	0.023 J	<0.02	--	<0.0005	4.2	--	1.4

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
C-R22A-S	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.26	--	--	--
C-R22A-S	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-R22A-S	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.46	--	--	--
C-R22A-S	02/17/21	FD	<0.2	--	--	--	--	--	--	--	--	0.51	--	--	--
C-R22A-S	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-R22A-S	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-R22A-S	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-R22A-S	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-R22A-S	02/16/22	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-R27-D	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.25	--	--	--
C-R27-D	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-R27-D	02/19/20	FD	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-R27-D	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-R27-D	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.34	--	--	--
C-R27-D	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.24	--	--	--
C-R27-D	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
C-R27-D	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.46	--	--	--
C-R27-D	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-R27-D	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-R27-D	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-R27-D	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-R27-S	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.31	--	--	--
C-R27-S	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-R27-S	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
C-R27-S	04/29/20	FD	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-R27-S	08/19/20	N	<0.2 J	--	--	--	--	--	--	--	--	0.34	--	--	--
C-R27-S	08/19/20	FD	<0.2 J	--	--	--	--	--	--	--	--	0.36	--	--	--
C-R27-S	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-R27-S	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-R27-S	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-R27-S	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-R27-S	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
C-R27-S	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.31	--	--	--
C-R27-S	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-TAZ-D	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-TAZ-D	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-TAZ-D	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-TAZ-D	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-TAZ-D	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
C-TAZ-D	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.29	--	--	--
C-TAZ-D	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.45	--	--	--
C-TAZ-D	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.54	--	--	--
C-TAZ-D	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-TAZ-D	08/18/21	FD	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
C-TAZ-D	11/17/21	N	<0.2	<1	2.9	--	--	--	--	--	--	<0.0005	4.5 J	--	1.8
C-TAZ-D	02/16/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005 J	--	--	--
C-TAZ-D	02/16/22	FD	<0.2	--	2	--	--	--	--	--	--	<0.0005 J	--	--	--
C-TAZ-S	01/29/20	N	<0.2	<1	2.2	110	--	--	0.1	<0.02	--	0.0016	4.6	--	1.7
C-TAZ-S	02/19/20	N	<0.2	<1	2.2	120 J	--	--	0.084 J	0.03 J	--	0.001	4.4	--	1.6
C-TAZ-S	04/29/20	N	<0.2	<1	2.2	110	--	--	0.28 J	0.031 J	--	0.00055	4.5	--	1.6
C-TAZ-S	08/19/20	N	<0.2	<1	2.5	110 J	--	--	0.039 J	<0.02 J	--	0.00052	4.6	--	1.5
C-TAZ-S	11/18/20	N	<0.2	<1	2.4	110	--	--	0.037	<0.02	--	0.0013	4.5	--	1.5
C-TAZ-S	01/27/21	N	<0.2	<1	2.2	120	--	--	0.061	0.022 J	--	0.00079	4.8	--	1.5
C-TAZ-S	02/17/21	N	<0.2	<1	2.3	110	--	--	0.34 J	<0.02 J	--	0.0018	4.7	--	1.8
C-TAZ-S	05/19/21	N	<0.2	<1	2	110	--	--	<0.02	<0.02 J	--	<0.0005	4.3	--	1.5
C-TAZ-S	08/18/21	N	<0.2	<1	2.2	100	--	--	<0.02	<0.02	--	<0.0005	4.2	--	1.3
C-TAZ-S	11/17/21	N	<0.2	<1	3.3	--	--	--	--	--	--	<0.0005	4.6 J	--	1.8
C-TAZ-S	02/16/22	N	<0.2	--	1.9	--	--	--	--	--	--	<0.0005 J	--	--	--
CW-01D	10/08/20	N	0.59	2	1.4	22	1.1	100	0.93 J	0.19 J	21	0.0075	20	10	4.8
CW-01D	12/01/21	N	0.51	1.6	<0.1 J	20	1.1	150	--	--	19	<0.0005	24	13 J	7.6
CW-01M	10/08/20	N	0.6	<1	1.3	82	1.2	110	0.17 J	0.099 J	14	<0.0005	17	9.7	4.6
CW-01M	10/08/20	FD	0.58	<1	1.3	81	1.2	120	0.19 J	0.12 J	14	<0.0005	17	8.9	4.7
CW-01M	12/01/21	N	1.2	2.4	<0.1 J	74	0.98	180	--	--	13	0.00092	17	12 J	4.1
CW-02D	10/07/20	N	0.47	1.3	2.2 J	21	3.7 J	150	<0.02	<0.1	12 J	0.00074	14 J	8.2 J	4.3
CW-02D	12/06/21	N	0.45	1.4 J	<0.1	17	1 J	100	--	--	5.2 J	0.00089 J	14	14	4.1
CW-02D	12/06/21	FD	0.45	1.5 J	<0.1	17	0.97 J	95	--	--	4.9 J	0.001 J	14	10	4.3
CW-02M	10/07/20	N	1.1	2.1	2.1 J	63	1.7 J	130	1	<0.1	12 J	0.0019	15 J	6.1 J	4.2
CW-02M	12/06/21	N	1.1	2.3 J	<0.1	66	1.1 J	140	--	--	9.8 J	0.00075 J	14	15	3.4
CW-03D	10/07/20	N	1	2.5	1.8 J	19	2.6 J	79	3.40	0.13 J	7.3 J	0.014	16 J	8.7 J	4.4
CW-03D	12/06/21	N	1.2	2.2 J	<0.1	19	0.89 J	73	--	--	4.6 J	0.0055 J	13	11	3.9
CW-03M	10/07/20	N	2.8	6.7	1.5 J	40	3.4 J	170	0.59 J	<0.1	17 J	0.0025 J	33 J	8 J	3.1
CW-03M	10/07/20	FD	2.8	6	1.5 J	38	2.9 J	150	0.44 J	<0.1	15 J	0.0014 J	34 J	8.1 J	3.1
CW-03M	12/06/21	N	2.2	3.6 J	<0.1	34	1.2 J	150	--	--	11 J	0.002 J	37	13	2.5
CW-04D	10/02/20	N	0.53	3.9	<0.1	23	1.2	100 J	0.099	0.058 J	11 J	0.0016	21	11	3.6
CW-04D	12/01/21	N	0.3	17	<0.1 J	30	0.99	160	--	--	11	0.095	24	13 J	3.5
CW-04M	10/02/20	N	1	4.8	<0.1	100	1.2	150 J	0.29	0.06 J	16 J	0.0022	12	13	5.9
CW-04M	12/01/21	N	1.2	2.1	<0.1 J	98	0.91	210	--	--	14	<0.0005	10	13 J	3.2
IRZ-09	09/14/20	N	19	20	--	--	--	--	--	--	--	--	--	--	--
IRZ-09	09/24/20	N	19	19	<0.1 J	79	1.2	240	<0.02 J	<0.02 J	32	0.011	14	16	1
IRZ-09	01/25/22	N	19	18	<0.1	75	1	330	<0.02	<0.02	27	0.0027	13	19 J	0.83
IRZ-09	03/10/22	N	6.7	--	--	--	--	--	0.081	0.022	--	0.0016	--	--	--
IRZ-13D	08/07/20	N	350	330	--	--	--	--	--	--	--	--	--	--	--
IRZ-13D	09/26/20	N	390	370	1.9 J	42	1.8 J	320 J	<0.1 J	<0.1 J	65 J	0.057	35	29 J	1.1
IRZ-13D	03/10/22	N	350	340	<0.1	44	1.4	450	<0.02	0.059	52	0.062	34	29	0.96
IRZ-13S	08/18/20	N	24	22	--	--	--	--	--	--	--	--	--	--	--
IRZ-13S	09/28/20	N	20	21	<0.1	76	0.79 J	220 J	0.053 J	<0.02 J	30 J	0.0031	17	13 J	1.1
IRZ-13S	03/10/22	N	17	17	<0.1	76	1.1	430	0.06	<0.02	37	<0.0005	15	16	0.86
IRZ-23	12/21/21	N	150	150	0.92 J	51	0.63 J	170	0.69	0.091 J	26 J	<0.0005	6.7	9.9 J	4.1

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
C-TAZ-D	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
C-TAZ-D	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-TAZ-D	02/16/22	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
C-TAZ-S	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
C-TAZ-S	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.32	--	--	--
C-TAZ-S	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	2.5	--	--	--
C-TAZ-S	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.43	--	--	--
C-TAZ-S	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
C-TAZ-S	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.26	--	--	--
C-TAZ-S	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
C-TAZ-S	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
C-TAZ-S	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
C-TAZ-S	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.31	--	--	--
C-TAZ-S	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
CW-01D	10/08/20	N	0.59	1,400	2.4	90	<0.2	2,200	2.5	--	--	2.6	500	4,600	--
CW-01D	12/01/21	N	0.51	1,400	2.4	73	--	1,900	2.7	--	--	8.3	510	4,000	--
CW-01M	10/08/20	N	0.6	1,500	2.5	89	<0.2	2,200	2.2	--	--	3 J	510	4,700	--
CW-01M	10/08/20	FD	0.58	1,700	2.5	90	<0.2	2,200	2.2	--	--	5.4 J	510	4,600	--
CW-01M	12/01/21	N	1.2	1,500	2.2	90	--	2,100	2.4	--	--	2.5	490	4,300	--
CW-02D	10/07/20	N	0.47	1,500	3.2	66	<0.2	2,300	2	--	--	2.8	510	4,300	--
CW-02D	12/06/21	N	0.45	1,500	3.7	64	--	2,200	2.1	--	--	2.8	510	4,000	--
CW-02D	12/06/21	FD	0.45	1,600	3.7	64	--	2,200	1.9	--	--	2.7	510	4,200	--
CW-02M	10/07/20	N	1.1	1,500	3.7	59	<0.2	2,200	3.1	--	--	2.6	500	4,300	--
CW-02M	12/06/21	N	1.1	1,500	3.5	63	--	2,200	3.2	--	--	2.8	500	4,100	--
CW-03D	10/07/20	N	1	1,600	2.7	68	<0.2	2,200	2.5	--	--	2.9	490	4,300	--
CW-03D	12/06/21	N	1.2	1,500	2.3	70	--	2,200	2.4	--	--	2.6	500	4,100	--
CW-03M	10/07/20	N	2.8	1,500	2.9	53	<0.2	2,300	3.7	--	--	2.6	510	4,500	--
CW-03M	10/07/20	FD	2.8	1,500	3	53	<0.2	2,300	3.8	--	--	2.6	510	4,400	--
CW-03M	12/06/21	N	2.2	1,500	2.6	52	--	2,200	4.2	--	--	2.6	520	4,100	--
CW-04D	10/02/20	N	0.53	1,500	3	59	0.21	2,100	4.2	--	--	2.9	470	4,400	--
CW-04D	12/01/21	N	0.3	1,500	5.3	72	--	2,100	2.9	--	--	2.7	480	4,300	--
CW-04M	10/02/20	N	1	1,400	3.6	60	<0.2	2,100	2.1	--	--	2.7	480	4,500	--
CW-04M	12/01/21	N	1.2	1,400	3.2	57	--	2,100	2.3	--	--	2.7	490	4,200	--
IRZ-09	09/14/20	N	19	--	--	--	--	--	--	--	--	--	--	--	--
IRZ-09	09/24/20	N	19	1,700	3.4	54	0.2	3,000	2.8	--	--	1.8	500	6,500	<1
IRZ-09	01/25/22	N	19	1,900 J	3	52	<0.2	3,000	3.2	1.8	<5	--	480	6,800	<1
IRZ-09	03/10/22	N	6.7	--	--	--	--	--	--	--	--	--	--	--	<1
IRZ-13D	08/07/20	N	350	--	--	--	--	--	--	--	--	--	--	--	--
IRZ-13D	09/26/20	N	390	3,300 J	2.3	58	0.22	6,100	3	--	--	2.1	930	13,000	<1
IRZ-13D	03/10/22	N	350	4,200	2.5	52	<0.2	6,200	3.7	1.5	<5	--	950	12,000	<50
IRZ-13S	08/18/20	N	24	--	--	--	--	--	--	--	--	--	--	--	--
IRZ-13S	09/28/20	N	20	1,400 J	4.9	53	0.49	2,600	2.6	--	--	2.1	460	5,700	<1 J
IRZ-13S	03/10/22	N	17	2,000	3.9	48	<0.22	2,800	3.8	1.6	<5	--	460	5,600	<1
IRZ-23	12/21/21	N	150	580	9.6	87	<0.2	990	2	5.5	<5	--	220	2,200	<10

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IRZ-23	01/25/22	N	780	--	--	--	--	--	0.13	<0.02	--	<0.0005	--	--	--
IRZ-23	02/21/22	N	880	--	--	--	--	--	<0.02	<0.02	--	<0.0005	--	--	--
IRZ-23	03/10/22	N	900	--	--	--	--	--	0.11	<0.02	--	<0.0005	--	--	--
MARINA-1	09/20/21	N	1.28	<10	<10	80.7	2.87	338	--	<1	10.4	<0.1	61.4	51.3	<10
MARINA-1	03/10/22	N	2.08	<10	<10	74.1	2.64	313	--	<1	8.92	<0.1	66.7	49.6	<10
MARINA-1	03/10/22	FD	1.99	<10	<10	73.9	2.59	316	--	<1	8.92	<0.1	67.5	50.3	<10
MTS-1	09/22/21	N	2.02	3.32	15.3	82.6	0.996	87.8	--	<0.1	2.84	<0.01	19.5	7.94	<1
MTS-1	11/15/21	N	<0.2	<1	23.9	28.1	0.487	11.2	--	<0.1	0.358	<0.01	14.3	6.38	<1
MTS-1	02/16/22	N	<1	<1	20.7	65.8	0.667	91	--	<0.1	2.84	<0.01	16.2	8.49	<1
MTS-2	09/22/21	N	8.5	10.3	18.1	84.4	0.972	88	--	<0.1	2.82	<0.01	19.1	7.87	<1
MTS-2	11/15/21	N	5.43	7.3	17.3	82.6	0.756	85.6	--	<0.1	3.07	<0.01	17.9	7.68	<1
MTS-2	02/16/22	N	5.54	8.37	16.6	89.7	0.804	91.9	--	0.178	3.17	0.0218	19.6	7.6	<1
MW-09	04/24/20	N	130	130	1.1	--	--	--	--	--	--	0.0021	6.8	--	5.3
MW-09	12/01/20	N	120	120	1.8	--	1 J	100 J	--	<0.02	36 J	0.0017	4.4	--	5.3
MW-09	02/24/21	N	120	120	--	--	--	--	--	--	--	--	4.7	--	5.8
MW-09	05/19/21	N	120	110	0.86	--	--	--	--	--	--	<0.0005	3.9	--	5.2
MW-09	12/08/21	N	170	170	0.38	--	--	--	--	--	--	0.0016 J	6.2	--	6.2
MW-09	12/08/21	FD	170	180	0.52	--	--	--	--	--	--	0.002 J	6.7	--	6.4
MW-10	04/23/20	N	150	150	--	--	--	--	--	--	--	--	19	--	6.1
MW-10	11/30/20	N	120	120	2.2	51	1 J	120 J	--	0.029 J	26 J	0.0071	21	--	6
MW-10	11/30/20	FD	120	120	2.2	50	1 J	120 J	--	0.026 J	26 J	0.0067	20	--	5.3
MW-10	02/24/21	N	110	120	--	--	--	--	--	--	--	--	16	--	6.5
MW-10	05/05/21	N	130	130 J	1.5	--	--	160	--	--	--	0.00057	17	13 J	6.3
MW-10	09/22/21	N	120	140 J	1.6 J	--	--	150 J	--	--	23 J	<0.0005	17 J	11	7.3
MW-10	12/08/21	N	69	71	0.93	--	--	--	--	--	--	0.0013 J	15	--	6.1
MW-10	12/08/21	FD	67	72	0.92	--	--	--	--	--	--	0.0011 J	15	--	6.2
MW-10D	02/24/20	N	370	370	0.43	54	1.3	160	0.022 J	<0.02	31	<0.0005	1.8	14 J	7.6
MW-10D	05/28/20	N	380	390	0.52	53	1.3	150	0.24	0.022	37	0.0024	2.3	14 J	7.9
MW-10D	08/19/20	N	410	380	<0.1	40	1.3	130 J	0.089	0.065 J	35	0.018	1.9	14	8
MW-10D	12/10/20	N	420	390	0.21	46	1.1	140 J	0.18 J	0.046 J	39	<0.0005	1.4	15	7.7
MW-10D	02/24/21	N	380	380	<0.1	49 J	1.4	170	0.25 J	<0.02	41	<0.0005	1.4	16 J	7.1
MW-10D	05/05/21	N	400	370 J	<0.1	--	--	200	--	--	--	<0.0005	1.6	16 J	6.9
MW-10D	05/19/21	N	400	390	<0.1	45	1.1	160	<0.02 J	<0.02	32 J	<0.0005	1.4	16 J	7.3
MW-10D	08/24/21	N	240	270	<0.1	43	1.1	130	0.053 J	<0.02 J	28	<0.0005 J	1.4	18 J	6.6
MW-10D	09/22/21	N	94	120 J	<0.1 J	--	--	120 J	--	--	22 J	<0.0005	1.4 J	12	6.6
MW-10D	12/08/21	N	88	89	<0.1	--	--	--	--	--	--	<0.0005 J	1.8	--	5.3
MW-11	04/23/20	N	43	43	0.9	--	--	--	--	--	--	0.0013	5.8	--	4
MW-11	12/10/20	N	33	33	1.4	--	0.68	120	--	0.1 J	26	0.0006	5.1 J	--	4
MW-11	05/19/21	N	38	37	0.42	--	--	--	--	--	--	<0.0005	5.7	--	4.1
MW-11	12/09/21	N	170	180	0.48 J	--	--	--	--	--	--	0.00077	--	--	--
MW-11D	01/29/20	N	390	380	<0.1	59	1.7	400	0.16	0.036	73 J	0.049	6.6	18	5
MW-11D	02/24/20	N	390	370	<0.1	54	1.5	320	0.15 J	0.11 J	52	0.012	6.2	18 J	4.8
MW-11D	05/28/20	N	340	340	<0.1	54	1.5	340	0.26	0.037	62	0.0058	7.2	19 J	4.6
MW-11D	08/26/20	N	480	460	<0.1	53	1.4 J	260	0.15 J	<0.02	64 J	0.0021	6.1	19 J	5.2

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
IRZ-23	01/25/22	N	780	--	--	--	--	--	--	--	--	--	--	--	<1
IRZ-23	02/21/22	N	880	--	--	--	--	--	--	--	--	--	--	--	<20
IRZ-23	03/10/22	N	900	--	--	--	--	--	--	--	--	--	--	--	<1
MARINA-1	09/20/21	N	1.28	5,360	<10	--	--	9,580	3.28	--	--	--	653	19,400	--
MARINA-1	03/10/22	N	2.08	5,280	<10	--	--	12,400	3.5	--	--	--	864	14,600	--
MARINA-1	03/10/22	FD	1.99	5,260	<10	--	--	11,700	3.26	--	--	--	754	16,800	--
MTS-1	09/22/21	N	2.02	404	9.65	--	--	565	5.25	--	--	--	129	1,090	--
MTS-1	11/15/21	N	<0.2	352	<1	40.7	0.261	1,160	4.74	--	--	--	128	2,090	--
MTS-1	02/16/22	N	<1	602	3.69	--	--	938	5.08	--	--	--	126	1,810	--
MTS-2	09/22/21	N	8.5	400	11.8	--	--	586	5.1	--	--	--	124	1,120	--
MTS-2	11/15/21	N	5.43	370	11.2	69.8	<0.1	724	5	--	--	--	144	1,350	--
MTS-2	02/16/22	N	5.54	393	12.3	--	--	612	5.48	--	--	--	132	1,260	--
MW-09	04/24/20	N	130	--	--	--	--	--	--	--	--	11	--	--	--
MW-09	12/01/20	N	120	450 J	--	120	--	740	--	--	--	--	250	1,700	--
MW-09	02/24/21	N	120	--	--	--	--	--	--	--	--	13	--	--	--
MW-09	05/19/21	N	120	--	--	--	--	--	--	--	--	11	--	--	--
MW-09	12/08/21	N	170	--	--	--	--	--	--	--	--	14	--	--	--
MW-09	12/08/21	FD	170	--	--	--	--	--	--	--	--	14	--	--	--
MW-09	12/08/21	N	170	--	--	--	--	--	--	--	--	14	--	--	--
MW-09	12/08/21	FD	170	--	--	--	--	--	--	--	--	14	--	--	--
MW-10	04/23/20	N	150	--	--	--	--	--	--	--	--	12	--	--	--
MW-10	11/30/20	N	120	280 J	14	120	--	520	--	--	--	12	250	1,400	--
MW-10	11/30/20	FD	120	300 J	14	120	--	520	--	--	--	12	260	1,400	--
MW-10	02/24/21	N	110	--	--	--	--	--	--	--	--	9	--	--	--
MW-10	05/05/21	N	130	420	--	--	--	670	--	--	--	8.8	270	1,700	--
MW-10	09/22/21	N	120	500	--	--	--	710	--	--	--	11	280	1,800	--
MW-10	12/08/21	N	69	--	--	--	--	--	--	--	--	11	--	--	--
MW-10	12/08/21	FD	67	--	--	--	--	--	--	--	--	11	--	--	--
MW-10D	02/24/20	N	370	620	9.1	120	0.05 J	980	1.1	--	--	11	370	2,500	<1
MW-10D	05/28/20	N	380	710	10	120	<0.2	1,000	<1	--	--	13 J	380	2,400	<1
MW-10D	08/19/20	N	410	640	11	120	<0.2	980	1.1	--	--	13 J	370	2,500	<1
MW-10D	12/10/20	N	420	580	11	120	<0.2	1,000	1.2	--	--	13	390	2,400	<1
MW-10D	02/24/21	N	380	800 J	11	120	<0.22	1,000	1.3	--	--	9.9	380	2,300	<1
MW-10D	05/05/21	N	400	630	--	--	--	990	--	--	--	12	370	2,300	--
MW-10D	05/19/21	N	400	590	12	120	<0.2	980	1.1	--	--	12	380	2,300	<1
MW-10D	08/24/21	N	240	630	14	120	<0.2	920	1.2	--	--	11	370	2,200	<1
MW-10D	09/22/21	N	94	520	--	--	--	840	--	--	--	9.5	270	1,900	--
MW-10D	12/08/21	N	88	--	--	--	--	--	--	--	--	9.5	--	--	--
MW-11	04/23/20	N	43	--	--	--	--	--	--	--	--	5.2	--	--	--
MW-11	12/10/20	N	33	270	--	87	--	590	--	--	--	4.4	170	1,300	--
MW-11	05/19/21	N	38	--	--	--	--	--	--	--	--	5	--	--	--
MW-11	12/09/21	N	170	--	--	--	--	--	--	--	--	--	--	--	--
MW-11D	01/29/20	N	390	800	3.8	84	<0.1	1,500	1.2	--	--	6.6	460	3,500	<1
MW-11D	02/24/20	N	390	730	4.1	86	0.05 J	1,500	<2	--	--	6.4	480	3,800	<1
MW-11D	05/28/20	N	340	750	3.8	86	<0.2	1,600	<2	--	--	8.1 J	520	4,400	<1
MW-11D	08/26/20	N	480	830 J	4.9	86	<0.2	1,600	<2	--	--	7.8 J	500	4,400	<1 J

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-11D	12/10/20	N	530	520	<0.1	49	1.3	300 J	0.23 J	<0.02 J	62	<0.0005	4.6	20	5
MW-11D	02/24/21	N	490	510	<0.1	55 J	1.6	400	0.055 J	<0.02	66	<0.0005	4.9	21 J	4.7
MW-11D	05/19/21	N	510	490	<0.1	50	1.3	330	0.042 J	0.024	53 J	<0.0005	5.9	20 J	5.3
MW-11D	08/24/21	N	300	330	<0.1	63	0.88	350	0.023 J	<0.02 J	64	<0.0005 J	4.1	23 J	4.1
MW-11D	12/09/21	N	150	150	<0.1 J	--	--	--	--	--	--	<0.0005	--	--	--
MW-12	04/28/20	N	2,700	2,800	45	--	--	--	--	--	--	0.0014	8.8	--	13
MW-12	12/14/20	N	1,600	1,900	45	41	1.2	22 J	--	0.068 J	5.8	0.0022	10	--	28
MW-12	12/14/20	FD	1,600	1,900	48	43	1.1	24 J	--	0.12 J	6.4	0.0023	10	--	28
MW-12	02/17/21	N	1,400	1,600	--	--	--	--	--	--	--	--	12	--	29
MW-12	05/26/21	N	1,300	1,200	--	--	--	--	--	--	--	--	11	--	34
MW-12	12/13/21	N	2,000	2,000	35	--	--	--	--	--	--	0.00064	9.7	--	19
MW-13	12/14/20	N	23	24	1.9	--	0.68	120 J	--	0.043 J	21	0.0026	12	--	3.3
MW-13	12/07/21	N	19	20	0.8 J	--	--	--	--	--	--	0.0051 J	12	--	3
MW-13	12/07/21	FD	18	20	0.81 J	--	--	--	--	--	--	0.0047 J	11	--	2.8
MW-14	06/24/20	N	12	12	0.12	--	--	--	--	--	--	0.00079	10	--	1.8
MW-14	06/24/20	FD	12	12	0.18 J	--	--	--	--	--	--	0.00072	10	--	2
MW-14	12/10/20	N	13	13	<0.1	190	0.25	160	--	0.067 J	30	0.00097	10	--	2
MW-14	05/28/21	N	17	16	0.82	--	--	--	--	--	--	0.0022	12	--	2
MW-14	12/07/21	N	12	12	<0.1 J	--	--	--	--	--	--	0.0026 J	13	--	2.1
MW-15	12/10/20	N	15	14	--	--	0.2	130	--	0.069 J	36	<0.0005	3.1	--	3.5
MW-15	12/02/21	N	13	13	1.2 J	--	--	--	--	--	--	<0.0005	--	--	--
MW-19	04/27/20	N	32	40	--	--	--	--	--	--	--	--	--	--	--
MW-19	12/07/20	N	94	92 J	--	--	0.62 J	100 J	--	0.022 J	19 J	<0.0005	6.6 J	--	3.2 J
MW-19	05/28/21	N	500	500	--	--	--	--	--	--	--	--	--	--	--
MW-19	12/13/21	N	43	48	0.3	--	--	--	--	--	--	0.0028	--	--	--
MW-20-070	04/24/20	N	2,500	2,500	2.2	--	--	--	--	--	--	0.0022	29	--	7.7
MW-20-070	12/04/20	N	1,600 J	1,700	--	--	0.6 J	78	--	0.024 J	22 J	<0.0005	27	5.9	11
MW-20-070	05/28/21	N	1,700	1,700	--	--	--	--	--	--	--	--	22	--	21
MW-20-070	12/15/21	N	570	590	0.9	47	--	--	--	0.037 J	--	<0.0005	18	--	33 J
MW-20-070	02/03/22	N	520	--	2.1 J	32	--	--	--	<0.02 J	--	0.0046	--	--	--
MW-20-070	03/10/22	N	450	420	1.5	26	--	--	--	<0.02	--	<0.0005	20	--	15
MW-20-070	03/10/22	FD	450	450	1.6	26	--	--	--	<0.02	--	<0.0005	21	--	16
MW-20-100	04/24/20	N	750	760	1.3	--	--	--	--	--	--	0.0011	4.8	--	5.4
MW-20-100	12/04/20	N	610 J	660	--	--	1 J	95	--	<0.02 J	19 J	<0.0005	3.8	6.1 J	5.6
MW-20-100	05/28/21	N	680	690	--	--	--	--	--	--	--	--	3.8	--	5
MW-20-100	12/15/21	N	650	660	1.3	24	--	--	--	0.033 J	--	<0.0005	3.6	--	6 J
MW-20-100	02/03/22	N	1,300	--	1.6 J	31	--	--	--	0.022 J	--	0.0052	--	--	--
MW-20-100	03/10/22	N	2,100	2,000	0.65	44	--	--	--	0.1	--	<0.0005	3.1	--	14
MW-20-130	04/24/20	N	5,900	6,100	0.97	--	--	--	--	--	--	0.00084	42	--	22
MW-20-130	12/04/20	N	4,000 J	4,400	<0.1	--	2 J	140	--	0.092 J	20 J	0.0025	20	64	53
MW-20-130	12/04/20	FD	4,100 J	4,500	<0.1	--	2.2 J	150	--	0.023 J	21 J	0.0023	19	67 J	51
MW-20-130	05/28/21	N	4,100	4,000	3.1	--	--	--	--	--	--	0.0015	24	--	39
MW-20-130	12/15/21	N	3,300	3,400	0.22	24	--	--	--	<0.02 J	--	0.0016	22	--	37 J
MW-20-130	02/03/22	N	6,000	--	<0.1	29	--	--	--	<0.02 J	--	0.0053	--	--	--

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-11D	12/10/20	N	530	680	5.8	85	<0.2	1,700	<2	--	--	7.8	490	3,500	<1
MW-11D	02/24/21	N	490	770 J	6.3	83	<0.22	1,600	2.1	--	--	5.7	500	3,700	<1
MW-11D	05/19/21	N	510	830	5.8	82	<0.2	1,800	<2	--	--	7.4	550	4,000	<1
MW-11D	08/24/21	N	300	820	5.9	79	<0.2	1,600	<2	--	--	5.3 J	360	4,100	<1
MW-11D	12/09/21	N	150	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	04/28/20	N	2,700	--	--	--	--	--	--	--	--	15	--	--	--
MW-12	12/14/20	N	1,600	1,200	20	110	--	1,800	--	--	--	15	470	3,800	--
MW-12	12/14/20	FD	1,600	1,400	20	110	--	1,700	--	--	--	14	460	3,900	--
MW-12	02/17/21	N	1,400	--	--	--	--	--	--	--	--	15	--	--	--
MW-12	05/26/21	N	1,300	--	--	--	--	--	--	--	--	16	--	--	--
MW-12	12/13/21	N	2,000	--	--	--	--	--	--	--	--	17	--	--	--
MW-13	12/14/20	N	23	340	--	71	--	680	--	--	--	--	150	1,600	--
MW-13	12/07/21	N	19	--	--	--	--	--	--	--	--	5.4	--	--	--
MW-13	12/07/21	FD	18	--	--	--	--	--	--	--	--	5.5	--	--	--
MW-14	06/24/20	N	12	--	--	--	--	--	--	--	--	3.2	--	--	--
MW-14	06/24/20	FD	12	--	--	--	--	--	--	--	--	2.8	--	--	--
MW-14	12/10/20	N	13	370	2.5	60	--	940	--	--	--	2.8	150	1,900	--
MW-14	05/28/21	N	17	--	--	--	--	--	--	--	--	3.7	--	--	--
MW-14	12/07/21	N	12	--	--	--	--	--	--	--	--	3.7	--	--	--
MW-15	12/10/20	N	15	220	--	67	--	590	--	--	--	--	170	1,400	--
MW-15	12/02/21	N	13	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	04/27/20	N	32	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	12/07/20	N	94	230 J	--	100	--	510	--	--	--	--	160	1,200	--
MW-19	05/28/21	N	500	--	--	--	--	--	--	--	--	--	--	--	--
MW-19	12/13/21	N	43	--	--	--	--	--	--	--	--	--	--	--	--
MW-20-070	04/24/20	N	2,500	--	--	--	--	--	--	--	--	13	--	--	--
MW-20-070	12/04/20	N	1,600 J	280	--	88	--	470	--	--	--	17	320	1,400	--
MW-20-070	05/28/21	N	1,700	--	--	--	--	--	--	--	--	25	--	--	--
MW-20-070	12/15/21	N	570	--	--	--	<0.2	--	--	--	<5	39	490	--	<1
MW-20-070	02/03/22	N	520	--	--	--	--	--	--	21	--	--	330	--	<1
MW-20-070	03/10/22	N	450	--	--	--	<0.2	--	--	17	--	--	300	--	<5
MW-20-070	03/10/22	FD	450	--	--	--	<0.2	--	--	17	--	--	300	--	<1
MW-20-100	04/24/20	N	750	--	--	--	--	--	--	--	--	7.5	--	--	--
MW-20-100	12/04/20	N	610 J	250	--	140	--	460	--	--	--	6.7	210	1,200	--
MW-20-100	05/28/21	N	680	--	--	--	--	--	--	--	--	6.6	--	--	--
MW-20-100	12/15/21	N	650	--	--	--	<0.2	--	--	--	<2.5	7.9	200	--	<1
MW-20-100	02/03/22	N	1,300	--	--	--	--	--	--	6	--	--	270	--	<1
MW-20-100	03/10/22	N	2,100	--	--	--	0.29	--	--	9.3	--	--	400	--	<1
MW-20-130	04/24/20	N	5,900	--	--	--	--	--	--	--	--	11	--	--	--
MW-20-130	12/04/20	N	4,000 J	1,200	--	57 J	--	2,200	--	--	--	11	1,000	5,200	--
MW-20-130	12/04/20	FD	4,100 J	1,300	--	92 J	--	2,500	--	--	--	11	940	5,800	--
MW-20-130	05/28/21	N	4,100	--	--	--	--	--	--	--	--	12	--	--	--
MW-20-130	12/15/21	N	3,300	--	--	--	<0.2	--	--	--	<5	13	960	--	<1
MW-20-130	02/03/22	N	6,000	--	--	--	--	--	--	9.3	--	--	870	--	<1

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-20-130	03/10/22	N	4,800	4,500	<0.1	26	--	--	--	0.041	--	0.0021	32	--	21
MW-21	04/30/20	N	4.6	5.4	--	--	--	--	--	--	--	--	46	--	42
MW-21	12/15/20	N	<1	<1	--	--	6.4	190 J	--	<0.1	97	0.038	64	--	4.7
MW-21	06/08/21	N	<1	1.7	--	--	--	--	--	--	--	--	43	--	4.2
MW-21	12/16/21	N	<1	<1	<0.1	41	--	--	--	0.076 J	--	0.2	65	--	4.5
MW-21	02/03/22	N	6.7	--	6.4 J	32	--	--	--	0.77 J	--	0.04	--	--	--
MW-21	03/14/22	N	2.3	5.6	14 J	35	--	--	--	0.13	--	0.028	28	--	76
MW-21	03/14/22	FD	2.4	5.7	9 J	36	--	--	--	0.16	--	0.029	28	--	78
MW-22	06/16/20	N	<0.2	<1	3.2	--	--	--	--	--	--	1.60	--	--	--
MW-22	12/08/20	N	<1	<1	14	120	3.9 J	560 J	--	8.80 J	280 J	4	32	--	<0.5
MW-22	12/08/20	FD	<1	<1	15	130	4.1 J	550 J	--	9.10 J	290 J	4.10	33	--	<0.5
MW-22	04/27/21	N	<1	<1	8.2	--	--	--	--	--	--	1.80	--	--	--
MW-22	11/30/21	N	<1	<1	22 J	87	--	--	--	8.20	--	2.50	36	--	<0.5
MW-22	11/30/21	FD	<1	<1	24 J	92	--	--	--	8	--	2.50	38	--	<0.5
MW-22	03/04/22	N	<1	--	6.5	110	--	--	--	11	--	4.30	--	--	--
MW-23-060	06/18/20	N	40	37	0.86 J	--	--	--	--	--	--	0.001	--	--	--
MW-23-060	12/08/20	N	42	40	4.5	--	1.6 J	810 J	--	<0.1 J	5.2 J	0.00095	21	--	4.8
MW-23-060	04/30/21	N	41	38	<0.1	--	--	--	--	--	--	0.00073	--	--	--
MW-23-060	12/09/21	N	36	35	<0.1 J	--	--	--	--	--	--	0.0016	24	--	5.3
MW-23-060	12/09/21	FD	36	34	<0.1 J	--	--	--	--	--	--	0.0015	23	--	5
MW-23-080	06/18/20	N	<1	<1	4.9 J	--	--	--	--	--	--	0.0012	--	--	--
MW-23-080	12/08/20	N	<1	<1	5.9	--	1.9 J	770 J	--	<0.1 J	<500	0.001	45	--	5
MW-23-080	04/30/21	N	<1	1.3	<0.1	--	--	--	--	--	--	0.0015	--	--	--
MW-23-080	12/09/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.00094	46	--	4.5
MW-24A	05/01/20	N	<0.2	2.9	<0.1	--	--	--	--	--	--	0.017	100	--	<0.5
MW-24A	10/05/20	N	<0.2	3.3	--	--	--	--	--	--	--	--	--	--	--
MW-24A	12/01/20	N	<0.2	<1	0.43	23	--	--	--	--	--	0.02	120	--	<0.5
MW-24A	12/01/20	FD	<0.2	<1	0.35	23	--	--	--	--	--	0.02	110	--	<0.5
MW-24A	05/05/21	N	<0.2	<1 J	<0.1	--	--	11	--	--	--	0.015	96	3.6 J	<0.5
MW-24A	12/09/21	N	<0.2	1.9	<0.1 J	--	--	--	--	--	--	0.43	110	--	<0.5
MW-24B	05/01/20	N	120	140	<0.5	--	--	--	--	--	--	0.096	56	--	<2.5
MW-24B	10/05/20	N	<1	57	--	--	--	--	--	--	--	--	--	--	--
MW-24B	12/01/20	N	64	65	3.8	74	--	--	--	--	--	0.12	63	--	1.8
MW-24B	05/05/21	N	48	45 J	<0.1	--	--	97	--	--	--	0.11	59	51 J	1.4
MW-24B	12/09/21	N	<1	1.3	<0.1 J	--	--	--	--	--	--	0.087	63	--	<0.5
MW-24B	12/09/21	FD	<1	1.1	<0.1 J	--	--	--	--	--	--	0.087	64	--	<0.5
MW-24BR	12/02/20	N	<1	<1	0.63	--	3	100	--	0.8	4.3	0.16	58	--	<0.5
MW-24BR	12/10/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.079	--	--	--
MW-25	06/24/20	N	56	55	0.96	--	--	--	--	--	--	0.0027	4.3	--	7.5
MW-25	06/24/20	FD	57	56	0.93	--	--	--	--	--	--	0.0032	4.4	--	7.4
MW-25	12/07/20	N	68	65 J	0.79	--	0.55 J	110 J	--	0.032 J	27 J	0.00055	5.9 J	7.5 J	6.7 J
MW-25	05/25/21	N	55	56	1.5 J	--	--	--	--	--	--	0.00062	4.6	--	7.3
MW-25	05/25/21	FD	55	56	1.2 J	--	--	--	--	--	--	0.00051	4.7	--	8
MW-25	12/07/21	N	70	80	0.75 J	--	--	--	--	--	--	0.0036 J	14	--	6.2

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-20-130	03/10/22	N	4,800	--	--	--	<0.2	--	--	9	--	--	950	--	<1
MW-21	04/30/20	N	4.6	--	--	--	--	--	--	--	--	2.8	--	--	--
MW-21	12/15/20	N	<1	2,900	--	750	--	3,400	--	--	--	0.21	1,600	9,700	--
MW-21	06/08/21	N	<1	--	--	--	--	--	--	--	--	0.81	--	--	--
MW-21	12/16/21	N	<1	--	--	--	<0.2	--	--	--	<5	0.27	1,600	--	<1
MW-21	02/03/22	N	6.7	--	--	--	--	--	--	4.8	--	--	1,100	--	<25
MW-21	03/14/22	N	2.3	--	--	--	<0.2	--	--	3.9	--	--	1,400	--	<20
MW-21	03/14/22	FD	2.4	--	--	--	<0.2	--	--	3.7	--	--	1,400	--	<1
MW-22	06/16/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-22	12/08/20	N	<1	4,500 J	1.1	690	--	7,700	--	--	--	--	2,000	15,000	--
MW-22	12/08/20	FD	<1	4,600 J	1.1	690	--	8,000	--	--	--	--	2,000	15,000	--
MW-22	04/27/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-22	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	1.3
MW-22	11/30/21	FD	<1	--	--	--	--	--	--	--	--	<0.1	--	--	1.4
MW-22	03/04/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	1
MW-23-060	06/18/20	N	40	--	--	--	--	--	--	--	--	--	--	--	--
MW-23-060	12/08/20	N	42	3,000 J	--	16	--	5,800	--	--	--	--	670	12,000	--
MW-23-060	04/30/21	N	41	--	--	--	--	--	--	--	--	--	--	--	--
MW-23-060	12/09/21	N	36	--	--	--	--	--	--	--	--	5.7	--	--	--
MW-23-060	12/09/21	FD	36	--	--	--	--	--	--	--	--	5.8	--	--	--
MW-23-080	06/18/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-23-080	12/08/20	N	<1	3,500 J	--	50	--	5,700	--	--	--	--	1,000	12,000	--
MW-23-080	04/30/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-23-080	12/09/21	N	<1	--	--	--	--	--	--	--	--	4.7	--	--	--
MW-24A	05/01/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-24A	10/05/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-24A	12/01/20	N	<0.2	--	<1	--	--	--	--	--	--	--	--	--	--
MW-24A	12/01/20	FD	<0.2	--	<1	--	--	--	--	--	--	--	--	--	--
MW-24A	05/05/21	N	<0.2	400	--	--	--	300	--	--	--	<0.05	180	990	--
MW-24A	12/09/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-24B	05/01/20	N	120	--	--	--	--	--	--	--	--	0.87	--	--	--
MW-24B	10/05/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-24B	12/01/20	N	64	--	3.6	--	--	--	--	--	--	--	--	--	--
MW-24B	05/05/21	N	48	5,600	--	--	--	6,700	--	--	--	0.48	760	13,000	--
MW-24B	12/09/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-24B	12/09/21	FD	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-24BR	12/02/20	N	<1	2,700	--	45	--	4,400	--	--	--	<0.1	450	8,900	--
MW-24BR	12/10/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-25	06/24/20	N	56	--	--	--	--	--	--	--	--	13	--	--	--
MW-25	06/24/20	FD	57	--	--	--	--	--	--	--	--	12	--	--	--
MW-25	12/07/20	N	68	180 J	--	120	--	400	--	--	--	12	220	1,200	--
MW-25	05/25/21	N	55	--	--	--	--	--	--	--	--	11	--	--	--
MW-25	05/25/21	FD	55	--	--	--	--	--	--	--	--	12	--	--	--
MW-25	12/07/21	N	70	--	--	--	--	--	--	--	--	10	--	--	--

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-26	04/27/20	N	2,300	2,300	0.88	--	--	--	--	--	--	0.0015	35	--	39
MW-26	12/03/20	N	2,200	2,200	0.74	33 J	1.1	120	--	0.084	40	<0.0005	33	9	31 J
MW-26	12/03/20	FD	2,200	2,500	0.88	33 J	1.1	130	--	0.074	41	<0.0005	32	9.6	31 J
MW-26	05/20/21	N	2,200	2,300	0.48	--	--	--	--	--	--	<0.0005	31	--	33
MW-26	12/15/21	N	2,200	2,300	0.92	33	--	--	--	0.046 J	--	0.0023	16	--	13 J
MW-26	02/02/22	N	1,800	--	1.2 J	36	--	--	--	0.037	--	0.006	--	--	--
MW-26	03/14/22	N	1,600	1,600	0.82 J	45	--	--	--	0.022	--	0.62	13	--	8.5
MW-26	03/14/22	FD	1,600	1,600	0.75 J	44	--	--	--	<0.02	--	0.64	13	--	8.5
MW-27-020	12/03/20	N	<0.2	<1	0.86 J	--	<100	73	--	0.1 J	27 J	0.012	5.8	--	0.54
MW-27-020	12/01/21	N	<0.2	<1	0.71	55	--	--	--	0.032	--	0.0094	5.9	--	<0.5
MW-27-020	03/10/22	N	<0.2	--	0.89	53	--	--	--	0.034	--	0.056	--	--	--
MW-27-060	12/03/20	N	<0.2	<1	9.8 J	--	0.1	78	--	0.35 J	23 J	0.28	4.6	--	<0.5
MW-27-060	12/01/21	N	<0.2	<1	12	70	--	--	--	0.39	--	0.27	4.7	--	<0.5
MW-27-060	03/10/22	N	<0.2	--	8.5	73	--	--	--	0.34	--	0.24	--	--	--
MW-27-085	06/18/20	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.11	16	--	<0.5
MW-27-085	12/03/20	N	<1	<1	<0.1 J	--	1.1	180	--	0.1 J	56 J	0.078	21	--	<0.5
MW-27-085	04/27/21	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.1	16 J	--	<0.5
MW-27-085	12/01/21	N	<1	<1	<0.1	43	--	--	--	0.17	--	0.14	19	--	<0.5
MW-27-085	03/10/22	N	<1	--	<0.1	40	--	--	--	0.14	--	0.14	--	--	--
MW-28-025	06/23/20	N	<0.2	<1	0.52	--	--	--	--	--	--	0.0022	4.1	--	1.5
MW-28-025	12/15/20	N	<0.2	<1	0.58	--	0.43	99 J	--	<0.02	30	0.0031	4.5	--	1.5
MW-28-025	04/29/21	N	<0.2	<1	0.7	--	--	--	--	--	--	0.24	5.5	--	<0.5
MW-28-025	12/08/21	N	<0.2	<1	0.4	68	--	--	--	<0.02	--	0.006	4.6	--	1.3
MW-28-025	03/08/22	N	<0.2	--	0.48 J	61	--	--	--	<0.02 J	--	0.0067	--	--	--
MW-28-090	06/23/20	N	<0.2	<1	1	--	--	--	--	--	--	0.28	20	--	<0.5
MW-28-090	12/15/20	N	<0.2	<1	2	--	1.3	190 J	--	0.43 J	52	0.12	24	--	<0.5
MW-28-090	04/29/21	N	<0.2	<1	0.43	--	--	--	--	--	--	0.29	25	--	<0.5
MW-28-090	12/08/21	N	<0.2	<1	<0.1	27	--	--	--	0.59	--	0.14	26	--	<0.5
MW-28-090	03/08/22	N	<0.2	--	<0.1 J	27	--	--	--	0.87 J	--	0.27	--	--	--
MW-29	06/23/20	N	<0.2	<1	8.4	--	--	--	--	--	--	0.29	18	--	3.3
MW-29	12/04/20	N	<0.2	<1	15	--	0.57 J	84	--	1.40 J	45 J	0.22	9.2	--	1.5
MW-29	04/29/21	N	<0.2	<1	8	--	--	--	--	--	--	0.39	13	--	1.7
MW-29	12/02/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
MW-29	03/08/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-30-030	12/07/20	N	<1	<1 J	0.91	--	1.7 J	51 J	--	0.85 J	52 J	0.25	57 J	--	1.6 J
MW-30-030	12/03/21	N	<1	<1	<0.1	250	--	--	--	0.54 J	--	0.18	48	--	0.54
MW-30-030	03/09/22	N	<1	--	<0.1	120	--	--	--	0.26 J	--	0.079	--	--	--
MW-30-050	12/07/20	N	<0.2	<1 J	2.7	--	0.31 J	82 J	--	0.062 J	19 J	0.2	4.3 J	--	<0.5
MW-30-050	12/03/21	N	<0.2	2.6	2.7	21	--	--	--	0.038 J	--	0.26	4.9	--	<0.5
MW-30-050	03/09/22	N	1.4	--	2.4	18	--	--	--	<0.02 J	--	0.0021	--	--	--
MW-31-060	06/24/20	N	320	280	0.36	--	--	--	--	--	--	<0.0005	--	--	--
MW-31-060	12/07/20	N	410	400 J	0.53	--	0.54 J	100 J	--	0.03 J	19 J	0.001	22 J	6 J	3.3 J
MW-31-060	04/30/21	N	150	150	<0.1	--	--	--	--	--	--	0.0019	--	--	--
MW-31-060	12/16/21	N	310	310	0.52	55	--	--	--	0.021 J	--	0.0013	25	--	3.1

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MW-26	04/27/20	N	2,300	--	--	--	--	--	--	--	--	21	--	--	--
MW-26	12/03/20	N	2,200	470	7.5	130	--	770	--	--	--	18	470	2,200	--
MW-26	12/03/20	FD	2,200	500	7.9	140	--	760	--	--	--	18	460	2,200	--
MW-26	05/20/21	N	2,200	--	--	--	--	--	--	--	--	19	--	--	--
MW-26	12/15/21	N	2,200	--	--	--	<0.2	--	--	--	<5	13	430	--	<1
MW-26	02/02/22	N	1,800	--	--	--	--	--	--	12	--	--	400	--	<5
MW-26	03/14/22	N	1,600	--	--	--	<0.2	--	--	6.8	--	--	380	--	<1
MW-26	03/14/22	FD	1,600	--	--	--	<0.2	--	--	6.7	--	--	390	--	<1
MW-27-020	12/03/20	N	<0.2	66 J	--	170	--	91	--	--	--	<0.1	220	620	--
MW-27-020	12/01/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1
MW-27-020	03/10/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	1
MW-27-060	12/03/20	N	<0.2	68 J	--	190	--	87	0.66	--	--	<0.1	210	640	--
MW-27-060	12/01/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.3
MW-27-060	03/10/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	1.3
MW-27-085	06/18/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-27-085	12/03/20	N	<1	1,400 J	--	260	--	2,900	2.2	--	--	<0.1	660	6,800	--
MW-27-085	04/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.061	--	--	--
MW-27-085	12/01/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-27-085	04/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.061	--	--	--
MW-27-085	12/01/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-27-085	03/10/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-28-025	06/23/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-28-025	12/15/20	N	<0.2	100	--	220	--	100	--	--	--	<0.05	250	750	--
MW-28-025	04/29/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-28-025	12/08/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-28-025	03/08/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-28-090	06/23/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-28-090	12/15/20	N	<0.2	1,300	--	260	--	1,800	1.8	--	--	<0.05	560	4,400	--
MW-28-090	04/29/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-28-090	12/08/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-28-090	03/08/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-29	06/23/20	N	<0.2	--	--	--	--	--	--	--	--	0.13	--	--	--
MW-29	12/04/20	N	<0.2	220	--	430	--	260	--	--	--	<0.1	250	1,200	--
MW-29	04/29/21	N	<0.2	--	--	--	--	--	--	--	--	0.15	--	--	--
MW-29	12/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-29	03/08/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-30-030	12/07/20	N	<1	1,400 J	--	1,000	--	1,200	--	--	--	<0.1	1,400	5,000	--
MW-30-030	12/03/21	N	<1	--	--	--	--	--	--	--	--	0.1	--	--	11
MW-30-030	03/09/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	2.9
MW-30-050	12/07/20	N	<0.2	81 J	--	180	--	87	--	--	--	<0.1	200	630	--
MW-30-050	12/03/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1
MW-30-050	03/09/22	N	1.4	--	--	--	--	--	--	0.14	--	--	--	--	<1
MW-31-060	06/24/20	N	320	--	--	--	--	--	--	--	--	--	--	--	--
MW-31-060	12/07/20	N	410	450 J	--	99	--	790	--	--	--	4.1	220	1,700	--
MW-31-060	04/30/21	N	150	--	--	--	--	--	--	--	--	--	--	--	--
MW-31-060	12/16/21	N	310	--	--	--	<0.2	--	--	--	<2.5	3.6	210	--	<1

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-31-060	12/16/21	FD	310	310	0.32	57	--	--	--	<0.02	--	0.0013	26	--	3.1
MW-31-060	02/01/22	N	<1	--	6.9	480	--	--	--	0.031	--	7.80 J	--	--	--
MW-31-060	03/04/22	N	230	230	<0.1	320	--	--	--	0.047	--	2.20	22	--	8.8
MW-31-135	12/07/20	N	15	13 J	<0.1	--	2.4 J	340 J	--	<0.1 J	31 J	<0.0005	26 J	--	0.72 J
MW-31-135	12/16/21	N	13	14	<0.1	46	--	--	--	<0.02	--	<0.0005	27	--	0.58
MW-31-135	02/01/22	N	15	--	<0.1	49	--	--	--	0.024	--	0.0067 J	--	--	--
MW-31-135	03/07/22	N	20	24	3.8 J	62 J	--	--	--	0.48	--	0.014 J	28	--	1
MW-31-135	03/07/22	FD	19	23	3.5 J	59 J	--	--	--	0.53	--	0.018 J	27	--	0.9
MW-32-020	12/07/20	N	<1	<1 J	3.8	--	3.8 J	340 J	--	6.10 J	440 J	0.16	160 J	--	1.5 J
MW-32-020	11/30/21	N	<1	<1	<0.1 J	110	--	--	--	4.50	--	0.2	100	--	2.2
MW-32-020	03/04/22	N	<1	--	<0.1	170	--	--	--	3.50	--	0.13	--	--	--
MW-32-035	06/18/20	N	<0.2	<1	26 J	--	--	--	--	--	--	0.61	--	--	--
MW-32-035	12/07/20	N	<1	<1 J	17	--	0.94 J	300 J	--	11 J	210 J	0.75	13 J	18 J	<0.5
MW-32-035	12/07/20	FD	<1	<1 J	17	--	0.9 J	300 J	--	10 J	200 J	0.73	13 J	19 J	<0.5
MW-32-035	04/27/21	N	<0.2	1.1	24	--	--	--	--	--	--	0.66	--	--	--
MW-32-035	11/30/21	N	<0.2	<1	15 J	160	--	--	--	12	--	0.59	9.6	--	<0.5
MW-32-035	03/04/22	N	<1	--	13	200	--	--	--	10	--	0.58	--	--	--
MW-33-040	06/17/20	N	<0.2	<1	5.5	--	--	--	--	--	--	0.054	120	--	<0.5
MW-33-040	12/02/20	N	<1	1.8	9.3	--	4.2	75	--	<0.1	180	0.016	440	--	11
MW-33-040	04/29/21	N	<0.2	<1	4.7	--	--	--	--	--	--	0.036	140	--	0.52
MW-33-040	11/30/21	N	<1	2.2	--	--	--	--	--	--	--	--	380	--	5.7
MW-33-040	03/03/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-090	06/17/20	N	3.3	6.3	<0.1	--	--	--	--	--	--	0.011	8.2	--	<0.5
MW-33-090	12/02/20	N	3.1	11	1.1	--	1.2	230	--	0.42	30	0.023	9.9	--	<0.5
MW-33-090	04/29/21	N	3.4	3.9	<0.1	--	--	--	--	--	--	0.0041	8.4	--	<0.5
MW-33-090	11/30/21	N	3	5.6	--	--	--	--	--	--	--	--	8.1	--	<0.5
MW-33-090	11/30/21	FD	3	6.6	--	--	--	--	--	--	--	--	8.2	--	<0.5
MW-33-090	03/03/22	N	4.8	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-150	06/17/20	N	4.9	11	<0.1	--	--	--	--	--	--	0.0083	48	--	0.83
MW-33-150	12/02/20	N	5	8.8	1.3	--	2	450	--	0.28	77	0.012	41	--	0.61
MW-33-150	04/29/21	N	7	8.2	<0.1	--	--	--	--	--	--	0.015	45	--	0.82
MW-33-150	11/30/21	N	2.8	31	--	--	--	--	--	--	--	--	39	--	0.63
MW-33-150	03/03/22	N	4.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-210	06/17/20	N	7.2	15	<0.1	--	--	--	--	--	--	0.0072	22	--	<0.5
MW-33-210	12/02/20	N	12	15	1.2	--	2.6	440	--	0.24	69	0.012	20	--	0.75
MW-33-210	04/29/21	N	7.5	8.9	<0.1	--	--	--	--	--	--	0.0078	24	--	<0.5
MW-33-210	11/30/21	N	12	20	--	--	--	--	--	--	--	--	--	--	--
MW-33-210	03/03/22	N	8.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	12/03/20	N	<0.2	<1	2.7 J	--	0.19	67	--	0.033 J	23 J	0.068	5.2	5.4 J	<0.5
MW-34-055	12/03/20	FD	<0.2	<1	2.8 J	--	0.18	65	--	0.022 J	22 J	0.07	5.4	5.3 J	<0.5
MW-34-055	06/30/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	07/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-31-060	12/16/21	FD	310	--	--	--	<0.2	--	--	--	<2.5	3.6	210	--	<1
MW-31-060	02/01/22	N	<1	--	--	--	--	--	--	<0.25	--	--	48	--	<25
MW-31-060	03/04/22	N	230	--	--	--	0.25	--	--	4.4	--	--	430	--	<20
MW-31-135	12/07/20	N	15	1,800 J	--	35	--	3,900	--	--	--	--	500	7,900	--
MW-31-135	12/16/21	N	13	--	--	--	<0.2	--	--	--	<5	1.2	500	--	<1
MW-31-135	02/01/22	N	15	--	--	--	--	--	--	1.4	--	--	570	--	<1
MW-31-135	03/07/22	N	20	--	--	--	<0.2	--	--	1.6 J	--	--	720	--	<1
MW-31-135	03/07/22	FD	19	--	--	--	<0.2	--	--	1.6 J	--	--	720	--	<1
MW-32-020	12/07/20	N	<1	5,000 J	--	1,400	--	5,800	--	--	--	--	3,800	16,000	--
MW-32-020	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	4.4
MW-32-020	03/04/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	4.4
MW-32-035	06/18/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-32-035	12/07/20	N	<1	1,100 J	--	720	--	2,000	--	--	--	<0.1	840	5,200	--
MW-32-035	12/07/20	FD	<1	1,100 J	--	730	--	2,000	--	--	--	<0.1	850	5,300	--
MW-32-035	04/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-32-035	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.9
MW-32-035	03/04/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	1.9
MW-33-040	06/17/20	N	<0.2	--	--	--	--	--	--	--	--	0.077	--	--	--
MW-33-040	12/02/20	N	<1	3,600	--	570	--	5,500	17	--	--	0.41	2,700	14,000	--
MW-33-040	04/29/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-33-040	11/30/21	N	<1	--	--	--	--	--	--	--	--	0.35	--	--	--
MW-33-040	03/03/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-090	06/17/20	N	3.3	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-33-090	12/02/20	N	3.1	1,600	--	150	--	2,900	2.5	--	--	0.99	670	6,400	--
MW-33-090	04/29/21	N	3.4	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-33-090	11/30/21	N	3	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-33-090	11/30/21	FD	3	--	--	--	--	--	--	--	--	1	--	--	--
MW-33-090	03/03/22	N	4.8	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-150	06/17/20	N	4.9	--	--	--	--	--	--	--	--	1.4	--	--	--
MW-33-150	12/02/20	N	5	2,500	--	60	--	5,100	2.2	--	--	1.4	840	11,000	--
MW-33-150	04/29/21	N	7	--	--	--	--	--	--	--	--	1.6	--	--	--
MW-33-150	11/30/21	N	2.8	--	--	--	--	--	--	--	--	1.5	--	--	--
MW-33-150	03/03/22	N	4.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-210	06/17/20	N	7.2	--	--	--	--	--	--	--	--	1.7	--	--	--
MW-33-210	12/02/20	N	12	3,400	--	58	--	6,200	2.8	--	--	1.7	1,200	13,000	--
MW-33-210	04/29/21	N	7.5	--	--	--	--	--	--	--	--	1.6	--	--	--
MW-33-210	11/30/21	N	12	--	--	--	--	--	--	--	--	--	--	--	--
MW-33-210	03/03/22	N	8.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	12/03/20	N	<0.2	92 J	--	160	--	82	--	--	--	<0.1	210	580	--
MW-34-055	12/03/20	FD	<0.2	89 J	--	150	--	84	--	--	--	<0.1	210	580	--
MW-34-055	06/30/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	07/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-34-055	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	09/22/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	11/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	12/01/21	N	<0.2	<1	4	30	--	--	--	0.096	--	0.087	4.5	--	<0.5
MW-34-055	03/10/22	N	0.27	--	2.2	30	--	--	--	0.043	--	0.079	--	--	--
MW-34-080	06/18/20	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.066	--	--	--
MW-34-080	12/03/20	N	<0.2	<1	<0.1 J	--	0.98	210	--	0.17 J	93 J	0.052	13	18 J	<0.5
MW-34-080	04/28/21	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.064	--	--	--
MW-34-080	06/30/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	06/30/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	07/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	09/22/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	11/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	12/01/21	N	<0.2	<1	<0.1	36	--	--	--	0.35	--	0.074	12	--	<0.5
MW-34-080	03/10/22	N	<0.2	--	<0.1	34	--	--	--	0.32	--	0.092	--	--	--
MW-34-100	02/20/20	N	<0.2	4	<0.1	--	--	--	--	--	--	0.086	53	--	<0.5
MW-34-100	06/18/20	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.11	64	--	<0.5
MW-34-100	10/01/20	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.19	85	--	<0.5
MW-34-100	12/03/20	N	<1	<1	<0.1 J	--	1.2 J	92	--	0.088 J	25 J	0.18	57	26 J	<0.5
MW-34-100	12/03/20	FD	<1	<1	<0.1 J	--	1.6 J	120	--	0.1 J	32 J	0.17	60	28 J	<0.5
MW-34-100	02/25/21	N	<1	1.7	<0.1	--	--	--	--	--	--	0.16	55	--	<0.5
MW-34-100	04/28/21	N	<0.2	<1	<0.1	--	--	--	--	--	--	0.11	63	--	<0.5
MW-34-100	06/30/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	07/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	08/26/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.16	65	--	<0.5
MW-34-100	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	09/22/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	10/20/21	FD	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	11/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-34-055	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	09/22/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	11/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-055	12/01/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-34-055	03/10/22	N	0.27	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-34-080	06/18/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-34-080	12/03/20	N	<0.2	1,400 J	--	310	--	2,200	--	--	--	<0.1	580	4,900	--
MW-34-080	04/28/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-34-080	06/30/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	06/30/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	07/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	09/22/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	11/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-080	12/01/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-34-080	03/10/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-34-100	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-34-100	06/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.18	--	--	--
MW-34-100	10/01/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-34-100	12/03/20	N	<1	2,000 J	--	200	--	3,000	--	--	--	<0.1	870	6,200	--
MW-34-100	12/03/20	FD	<1	2,000 J	--	210	--	2,800	--	--	--	<0.1	840	6,100	--
MW-34-100	02/25/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-34-100	04/28/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-34-100	06/30/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	07/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	08/26/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-34-100	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	09/22/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	10/20/21	FD	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	11/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-34-100	11/19/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	12/01/21	N	<1	<1	<0.1	23	--	--	--	0.073	--	0.092	59	--	<0.5
MW-34-100	12/01/21	FD	<1	<1	<0.1	23	--	--	--	0.052	--	0.094	59	--	<0.5
MW-34-100	03/10/22	N	<1	--	<0.1	19	--	--	--	0.077	--	0.08	--	--	--
MW-35-060	04/27/20	N	32	32	0.45	--	--	--	--	--	--	0.0011	15	--	1.5
MW-35-060	12/08/20	N	21	21	1.3	72	0.83 J	190 J	--	0.044 J	32 J	0.001	10	--	1.3
MW-35-060	12/08/20	FD	20	21	1.2	72	2.1 J	230 J	--	<0.1 J	33 J	0.00081	9.8	--	0.99
MW-35-060	04/30/21	N	20	22	<0.1	--	--	--	--	--	--	0.001	12	--	1.2
MW-35-060	12/06/21	N	20	20 J	--	--	--	--	--	--	--	--	8.8	--	0.92
MW-35-060	03/02/22	N	20	--	--	--	--	--	--	--	--	--	--	--	--
MW-35-135	04/27/20	N	25	24	<0.1	--	--	--	--	--	--	0.0084	20	--	0.92
MW-35-135	12/08/20	N	27	27	0.97	38	1.8 J	260 J	--	<0.1 J	42 J	0.00072	21	--	1
MW-35-135	12/08/20	FD	28	27	1	38	0.82 J	220 J	--	<0.02 J	38 J	0.00069	21	--	1.1
MW-35-135	04/30/21	N	24	24	<0.1	--	--	--	--	--	--	0.0025	20	--	1.1
MW-35-135	12/06/21	N	26	25 J	--	--	--	--	--	--	--	--	20	--	1
MW-35-135	03/02/22	N	30	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	12/15/20	N	<0.2	<1	2.2	--	1.4	190 J	--	2.20 J	220	0.45	21	--	<0.5
MW-36-020	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	12/03/21	N	<0.2	<1	0.48	120	--	--	--	1 J	--	0.29	17	--	<0.5
MW-36-020	03/09/22	N	<0.2	--	0.52	88	--	--	--	1.30 J	--	0.27	--	--	--
MW-36-040	12/15/20	N	<0.2	<1	4.5	--	<100	49 J	--	0.34 J	13	0.12	2.9	--	<0.5
MW-36-040	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	11/18/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	12/03/21	N	<0.2	<1	5	41	--	--	--	0.32 J	--	0.11	3.5	--	<0.5

Appendix B
January 2020 to March 2022 Analytical Results
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-34-100	11/19/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-34-100	12/01/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-34-100	12/01/21	FD	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-34-100	03/10/22	N	<1	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-35-060	04/27/20	N	32	--	--	--	--	--	--	--	--	2.8	--	--	--
MW-35-060	12/08/20	N	21	990 J	2.9	84	--	2,000	--	--	--	2	310	4,100	--
MW-35-060	12/08/20	FD	20	1,100 J	3	88	--	2,000	--	--	--	2.1	320	4,100	--
MW-35-060	04/30/21	N	20	--	--	--	--	--	--	--	--	2.3	--	--	--
MW-35-060	12/06/21	N	20	--	--	--	--	--	--	--	--	2	--	--	--
MW-35-060	03/02/22	N	20	--	--	--	--	--	--	--	--	--	--	--	--
MW-35-135	04/27/20	N	25	--	--	--	--	--	--	--	--	2.6	--	--	--
MW-35-135	12/08/20	N	27	2,000 J	1.5	45	--	3,400	--	--	--	2.6	850	7,500	--
MW-35-135	12/08/20	FD	28	1,900 J	1.6	46	--	3,300	--	--	--	2.6	840	7,400	--
MW-35-135	04/30/21	N	24	--	--	--	--	--	--	--	--	2.4	--	--	--
MW-35-135	12/06/21	N	26	--	--	--	--	--	--	--	--	2.5	--	--	--
MW-35-135	03/02/22	N	30	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	12/15/20	N	<0.2	1,200	--	820	--	1,100	--	--	--	--	1,500	4,900	--
MW-36-020	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-020	12/03/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.6
MW-36-020	03/09/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-36-040	12/15/20	N	<0.2	160	--	270	--	86	--	--	--	<0.05	140	630	--
MW-36-040	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	11/18/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-040	12/03/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	2.3

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-36-040	12/03/21	FD	<0.2	<1	5.2	40	--	--	--	0.31 J	--	0.11	3.3	--	<0.5
MW-36-040	03/09/22	N	<0.2	--	7.7	49	--	--	--	0.41 J	--	0.15	--	--	--
MW-36-050	12/15/20	N	<0.2	<1	5.6	--	<100	76 J	--	0.093 J	19	0.21	3.9	--	<0.5
MW-36-050	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	08/25/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	12/03/21	N	<0.2	<1	5.2	25	--	--	--	0.15 J	--	0.22	4.1	--	<0.5
MW-36-050	03/09/22	N	<0.2	--	5.2	27	--	--	--	0.13 J	--	0.22	--	--	--
MW-36-070	12/15/20	N	0.2	<1	1.9	--	<100	71 J	--	<0.02	17	0.14	5	--	<0.5
MW-36-070	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	12/03/21	N	<0.2	<1	2.2	33	--	--	--	<0.02 J	--	0.21	4.9	--	<0.5
MW-36-070	03/09/22	N	<0.2	--	2.4	32	--	--	--	0.029 J	--	0.22	--	--	--
MW-36-090	06/16/20	N	<0.2	<1	1.3	--	--	--	--	--	--	0.051	--	--	--
MW-36-090	12/15/20	N	<0.2	1.7	5.2	--	0.52	86 J	--	0.11 J	25	0.034	9.6	--	<0.5
MW-36-090	04/28/21	N	<0.2	<1	1.2	--	--	--	--	--	--	0.038	--	--	--
MW-36-090	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-36-040	12/03/21	FD	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	2.3
MW-36-040	03/09/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	1.5
MW-36-050	12/15/20	N	<0.2	93	--	190	--	84	--	--	--	--	190	590	--
MW-36-050	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	08/25/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-050	12/03/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.3
MW-36-050	03/09/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-36-070	12/15/20	N	0.2	98	--	160	--	93	--	--	--	--	210	640	--
MW-36-070	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-070	12/03/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-36-070	03/09/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-36-090	06/16/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	12/15/20	N	<0.2	620	--	270	--	1,000	--	--	--	--	390	2,400	--
MW-36-090	04/28/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	08/25/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	11/01/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-36-090	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	12/03/21	N	<0.2	<1	1.6	36	--	--	--	0.035 J	--	0.072	14	--	<0.5
MW-36-090	03/09/22	N	<0.2	--	0.78	46	--	--	--	0.035 J	--	0.11	--	--	--
MW-36-100	06/16/20	N	12	11	1.5	--	--	--	--	--	--	0.24	20	--	<0.5
MW-36-100	12/15/20	N	4.5	6	2.9	--	1.2	180 J	--	0.18 J	53	0.22	19	--	<0.5
MW-36-100	04/28/21	N	5.5	7.1	<0.1	--	--	--	--	--	--	0.16	21	--	<0.5
MW-36-100	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	08/25/21	N	8.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	11/01/21	N	36	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	11/18/21	N	8	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	12/03/21	N	8	11	<0.1	43	--	--	--	0.26 J	--	0.23	19	--	<0.5
MW-36-100	03/09/22	N	<0.2	--	2.8	56	--	--	--	0.49 J	--	0.48	--	--	--
MW-37D	06/24/20	N	5	6.5	--	--	--	--	--	--	--	--	63	--	0.66
MW-37D	12/10/20	N	4.5	5.7	--	--	1.3	220	--	<0.1 J	15	0.0023	65	--	1.1
MW-37D	06/07/21	N	4.8	5	--	--	--	--	--	--	--	--	65	--	0.82
MW-37D	12/07/21	N	6	7.4	<0.1 J	--	--	--	--	--	--	<0.0005 J	68	--	1
MW-37S	12/10/20	N	12	13	2	--	0.73	190	--	0.13 J	34	0.006	15 J	--	0.82
MW-37S	12/07/21	N	7.8	8	<0.1 J	--	--	--	--	--	--	0.0057 J	16	--	0.8
MW-38D	04/23/20	N	19	16	7.3	--	--	--	--	--	--	0.027	78	--	<2.5
MW-38D	10/05/20	N	20	21	--	--	--	--	--	--	--	--	--	--	--
MW-38D	12/14/20	N	17	19	--	--	--	--	--	--	--	--	--	--	--
MW-38D	12/15/20	N	19	18	8.5	--	5.1	250 J	--	<0.1	6.9	0.029	89	--	<0.5
MW-38D	02/25/21	N	25	22	<0.1	--	--	--	--	--	--	0.04	78	--	<0.5
MW-38D	05/05/21	N	23	22 J	<0.1	--	--	96	--	--	--	0.02	87	50 J	<0.5
MW-38D	09/22/21	N	30	36 J	<0.1 J	--	--	550 J	--	--	11 J	0.0054	38 J	47	<0.5
MW-38D	12/08/21	N	50	47	<0.1	--	--	--	--	--	--	0.0053 J	58	--	0.83
MW-38D	03/03/22	N	39	36	--	--	--	--	--	--	--	--	38	--	0.75
MW-38S	02/25/20	N	3.8	3.3	6.6	--	--	--	--	--	--	0.048	25	--	2.5
MW-38S	02/25/20	FD	3.9	3.2	6.6	--	--	--	--	--	--	0.048	22	--	2.4
MW-38S	04/23/20	N	4	4.4	5.7	--	--	--	--	--	--	0.069	21	--	2.9
MW-38S	04/23/20	FD	4	4.6	5.8	--	--	--	--	--	--	0.075	22	--	3.1
MW-38S	11/30/20	N	7.2	7.8	6.5	--	0.99 J	23 J	--	<0.02	6.2 J	0.061	20	--	3
MW-38S	02/25/21	N	8.4	9.1	5.1	--	--	--	--	--	--	0.074	17	--	3.3
MW-38S	05/05/21	N	11	11 J	5.5	--	--	34	--	--	--	0.053	15	6.4 J	4
MW-38S	08/27/21	N	15	17	6.5 J	--	--	--	--	--	--	0.022	12	--	4.4
MW-38S	09/22/21	N	5.6	5.3 J	9 J	--	--	18 J	--	--	3.3 J	0.014	16 J	3.7	2.2
MW-38S	12/08/21	N	15	17	7.2	--	--	--	--	--	--	0.0034 J	8.2	--	3.9

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-36-090	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-090	12/03/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-36-090	03/09/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-36-100	06/16/20	N	12	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-36-100	12/15/20	N	4.5	1,400	--	290	--	1,900	--	--	--	<0.05	600	4,600	--
MW-36-100	04/28/21	N	5.5	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-36-100	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	07/13/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	08/09/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	08/25/21	N	8.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	09/07/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	09/21/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	10/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	11/01/21	N	36	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	11/18/21	N	8	--	--	--	--	--	--	--	--	--	--	--	--
MW-36-100	12/03/21	N	8	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-36-100	03/09/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-37D	06/24/20	N	5	--	--	--	--	--	--	--	--	0.92	--	--	--
MW-37D	12/10/20	N	4.5	2,400	--	32	--	3,800	--	--	--	0.98	650	7,100	--
MW-37D	06/07/21	N	4.8	--	--	--	--	--	--	--	--	1.4	--	--	--
MW-37D	12/07/21	N	6	--	--	--	--	--	--	--	--	1.4	--	--	--
MW-37S	12/10/20	N	12	1,300	--	44	--	2,200	--	--	--	--	330	4,200	--
MW-37S	12/07/21	N	7.8	--	--	--	--	--	--	--	--	1.2	--	--	--
MW-38D	04/23/20	N	19	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-38D	10/05/20	N	20	--	--	--	--	--	--	--	--	--	--	--	--
MW-38D	12/14/20	N	17	--	--	--	--	--	--	--	--	--	--	--	--
MW-38D	12/15/20	N	19	3,800	--	43	--	5,800	--	--	--	0.52	580	11,000 J	--
MW-38D	02/25/21	N	25	--	--	--	--	--	--	--	--	0.12	--	--	--
MW-38D	05/05/21	N	23	5,700	--	--	--	7,500	--	--	--	0.075	720	12,000 J	--
MW-38D	09/22/21	N	30	5,300	--	--	--	7,000	--	--	--	0.36	700	13,000	--
MW-38D	12/08/21	N	50	--	--	--	--	--	--	--	--	1.5	--	--	--
MW-38D	03/03/22	N	39	--	--	--	--	--	--	0.75	--	--	--	--	--
MW-38S	02/25/20	N	3.8	--	--	--	--	--	--	--	--	4.7	--	--	--
MW-38S	02/25/20	FD	3.9	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-38S	04/23/20	N	4	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-38S	04/23/20	FD	4	--	--	--	--	--	--	--	--	5.5	--	--	--
MW-38S	11/30/20	N	7.2	270 J	--	150	--	310	--	--	--	5.6	150	940	--
MW-38S	02/25/21	N	8.4	--	--	--	--	--	--	--	--	5.3	--	--	--
MW-38S	05/05/21	N	11	320	--	--	--	350	--	--	--	5.9	150	920	--
MW-38S	08/27/21	N	15	--	--	--	--	--	--	--	--	6.1	--	--	--
MW-38S	09/22/21	N	5.6	190	--	--	--	140	--	--	--	6.1	81	580	--
MW-38S	12/08/21	N	15	--	--	--	--	--	--	--	--	7	--	--	--

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-38S	03/03/22	N	31	31	--	--	--	--	--	--	--	--	7.7	--	5.7
MW-39-040	12/11/20	N	<0.2	<1	18	--	--	--	--	--	--	0.099	--	--	--
MW-39-040	12/07/21	N	<0.2	<1	16	74	--	--	--	0.32 J	--	0.12	7.7	--	<0.5
MW-39-040	02/28/22	N	<0.2	--	15	85	--	--	--	0.32	--	0.11	--	--	--
MW-39-050	12/11/20	N	<0.2	<1	2	--	0.12	72 J	--	0.15 J	19	0.17	4.5 J	--	<0.5
MW-39-050	12/07/21	N	<0.2	<1	16	73	--	--	--	<0.02	--	0.12	7.6	--	<0.5
MW-39-050	02/28/22	N	<0.2	--	1.4	42	--	--	--	0.076	--	0.17	--	--	--
MW-39-060	12/11/20	N	<0.2	<1	2.7	--	0.14	54 J	--	0.12 J	17	0.11	5.2 J	--	<0.5
MW-39-060	12/07/21	N	<0.2	<1	16	74	--	--	--	0.11 J	--	0.12	7.7	--	<0.5
MW-39-060	02/28/22	N	<0.2	--	2	36	--	--	--	1.80	--	0.15	--	--	--
MW-39-070	12/11/20	N	<0.2	<1	--	--	0.22	53 J	--	0.22 J	17	0.0036	16 J	--	<0.5
MW-39-070	12/07/21	N	<0.2	<1	16	74	--	--	--	<0.02	--	0.12	7.7	--	<0.5
MW-39-070	02/28/22	N	<0.2	--	1.9	21	--	--	--	<0.02	--	0.0076	--	--	--
MW-39-080	12/11/20	N	0.47	1.2	--	--	0.61	100 J	--	0.032 J	38	0.0042	26 J	--	<0.5
MW-39-080	12/07/21	N	<0.2	<1	16 J	74 J	--	--	--	<0.02	--	0.12 J	7.7 J	--	<0.5
MW-39-080	12/07/21	FD	<0.2	<1	1.5 J	22 J	--	--	--	<0.02	--	0.0039 J	22 J	--	<0.5
MW-39-080	02/28/22	N	<0.2	--	0.49	21	--	--	--	<0.1	--	0.0058	--	--	--
MW-39-100	06/18/20	N	93	91	<0.1	--	--	--	--	--	--	0.0042	7.5	--	<0.5
MW-39-100	12/15/20	N	120	110	2.3	--	2.6	260 J	--	<0.1	46	0.007	7.5	--	<0.5
MW-39-100	04/28/21	N	92	91	<0.1	--	--	--	--	--	--	0.0051	7.5	--	<0.5
MW-39-100	12/07/21	N	39	39	<0.1	27	--	--	--	0.029 J	--	0.0058	7.4	--	<0.5
MW-39-100	02/28/22	N	9.8	--	<0.1	35	--	--	--	0.16	--	0.013	--	--	--
MW-40D	06/17/20	N	12	11	<0.1	--	--	--	--	--	--	0.013	41	--	0.78
MW-40D	12/10/20	N	31	29	4.7	--	1.7	300	--	<0.1 J	49	0.0064	41	--	1
MW-40D	05/19/21	N	110	98	<0.1	--	--	--	--	--	--	<0.0005	49	--	1.8
MW-40D	12/06/21	N	45	41 J	<0.1	--	--	--	--	--	--	<0.0005 J	35	--	1.1
MW-40S	06/17/20	N	18	28	3.2	--	--	--	--	--	--	0.0058	30	--	6.1
MW-40S	12/10/20	N	5.9	29	0.55	--	--	--	--	--	--	0.0082	5.2	--	1.8
MW-40S	05/19/21	N	13	13	1.4	--	--	--	--	--	--	0.00083	15	--	3.9
MW-40S	12/06/21	N	43	45 J	4.3	--	--	--	--	--	--	<0.0005 J	32	--	11
MW-40S	12/06/21	FD	42	44 J	4.6	--	--	--	--	--	--	<0.0005 J	31	--	11
MW-41D	06/24/20	N	<1	<1	2.4	--	--	--	--	--	--	0.12	80	--	<0.5
MW-41D	06/24/20	FD	<1	<1	2.4	--	--	--	--	--	--	0.12	82	--	<0.5
MW-41D	12/17/20	N	1.1	1.4	<0.1	--	1.9	380	--	<0.1	31 J	0.047	81	--	0.55
MW-41D	06/07/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.081 J	90	--	<0.5
MW-41D	06/07/21	FD	<1	<1	<0.1 J	--	--	--	--	--	--	0.078 J	88	--	<0.5
MW-41D	12/07/21	N	<1	2.8	<0.1 J	--	--	--	--	--	--	0.032 J	79	--	0.65
MW-41M	12/17/20	N	9.5	8.3	<0.1	--	1.4	380	--	<0.1	33 J	<0.0005	26	--	<0.5
MW-41M	12/07/21	N	6.9	9	<0.1 J	--	--	--	--	--	--	0.0024 J	27	--	<0.5
MW-41S	12/17/20	N	5.5	5.2	<0.1	--	0.93	190	--	0.021	26 J	<0.0005	13	--	1.9
MW-41S	12/07/21	N	3.6	6.3	<0.1 J	--	--	--	--	--	--	0.0038 J	14	--	2.2
MW-41S	12/07/21	FD	3.7	5.1	<0.1 J	--	--	--	--	--	--	0.0033 J	14	--	1.9
MW-42-030	12/16/20	N	<0.2	<1	2	--	--	--	--	--	--	0.11	27 J	--	<0.5
MW-42-030	11/30/21	N	<0.2	<1	0.72 J	160	--	--	--	0.76	--	0.14	17	--	<0.5

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-38S	03/03/22	N	31	--	--	--	--	--	--	5.6	--	--	--	--	--
MW-39-040	12/11/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-39-040	12/07/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	2.2
MW-39-040	02/28/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	2.7
MW-39-050	12/11/20	N	<0.2	100	--	180	--	87	--	--	--	--	200	610	--
MW-39-050	12/07/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1
MW-39-050	02/28/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-39-060	12/11/20	N	<0.2	120	--	190	--	93	--	--	--	<0.05	210	620	--
MW-39-060	12/07/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-39-060	02/28/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-39-070	12/11/20	N	<0.2	360	--	190	--	380	--	--	--	--	270	1,200	--
MW-39-070	12/07/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-39-070	02/28/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-39-080	12/11/20	N	0.47	1,100	--	250	--	1,400	--	--	--	--	460	3,100	--
MW-39-080	12/07/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-39-080	12/07/21	FD	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-39-080	02/28/22	N	<0.2	--	--	--	--	--	--	0.15	--	--	--	--	<1
MW-39-100	06/18/20	N	93	--	--	--	--	--	--	--	--	0.083	--	--	--
MW-39-100	12/15/20	N	120	2,500	--	250	--	3,700	--	--	--	0.11	920	8,600	--
MW-39-100	04/28/21	N	92	--	--	--	--	--	--	--	--	0.13	--	--	--
MW-39-100	12/07/21	N	39	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-39-100	02/28/22	N	9.8	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-40D	06/17/20	N	12	--	--	--	--	--	--	--	--	0.57	--	--	--
MW-40D	12/10/20	N	31	3,000	--	47	--	5,100	--	--	--	2	690	11,000 J	--
MW-40D	05/19/21	N	110	--	--	--	--	--	--	--	--	2.1	--	--	--
MW-40D	12/06/21	N	45	--	--	--	--	--	--	--	--	1.3	--	--	--
MW-40S	06/17/20	N	18	--	--	--	--	--	--	--	--	10	--	--	--
MW-40S	12/10/20	N	5.9	--	--	--	--	--	--	--	--	3.5	--	--	--
MW-40S	05/19/21	N	13	--	--	--	--	--	--	--	--	5.9	--	--	--
MW-40S	12/06/21	N	43	--	--	--	--	--	--	--	--	25	--	--	--
MW-40S	12/06/21	FD	42	--	--	--	--	--	--	--	--	25	--	--	--
MW-41D	06/24/20	N	<1	--	--	--	--	--	--	--	--	0.14	--	--	--
MW-41D	06/24/20	FD	<1	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-41D	12/17/20	N	1.1	4,300 J	--	41	--	6,900	--	--	--	0.61	760	13,000	--
MW-41D	06/07/21	N	<1	--	--	--	--	--	--	--	--	0.44	--	--	--
MW-41D	06/07/21	FD	<1	--	--	--	--	--	--	--	--	0.5	--	--	--
MW-41D	12/07/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-41M	12/17/20	N	9.5	2,700 J	--	36	--	4,600	--	--	--	0.59	560	10,000	--
MW-41M	12/07/21	N	6.9	--	--	--	--	--	--	--	--	0.58	--	--	--
MW-41S	12/17/20	N	5.5	1,100 J	--	49	--	1,900	--	--	--	2.5	430	3,900	--
MW-41S	12/07/21	N	3.6	--	--	--	--	--	--	--	--	2.5	--	--	--
MW-41S	12/07/21	FD	3.7	--	--	--	--	--	--	--	--	2.5	--	--	--
MW-42-030	12/16/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-42-030	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.8

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-42-030	03/10/22	N	<0.2	--	2	110	--	--	--	0.57	--	0.13	--	--	--
MW-42-055	06/18/20	N	<0.2	<1	12 J	--	--	--	--	--	--	0.15	--	--	--
MW-42-055	12/16/20	N	<0.2	<1	16	--	0.1	87 J	--	0.53 J	23 J	0.3	3.9 J	--	<0.5
MW-42-055	04/27/21	N	<0.2	<1	11	--	--	--	--	--	--	0.22	--	--	--
MW-42-055	11/30/21	N	<0.2	<1	13 J	150	--	--	--	0.24	--	0.21	3.9	--	<0.5
MW-42-055	03/10/22	N	<0.2	--	8.8	140	--	--	--	0.2	--	0.17	--	--	--
MW-42-065	06/18/20	N	<0.2	<1	5.9 J	--	--	--	--	--	--	0.65	--	--	--
MW-42-065	12/16/20	N	<0.2	<1	6	--	0.47	110 J	--	0.053 J	29 J	1.30	9.5 J	--	<0.5
MW-42-065	04/27/21	N	<0.2	<1	3.5	--	--	--	--	--	--	0.92	--	--	--
MW-42-065	11/30/21	N	<0.2	<1	6.6 J	69	--	--	--	0.046	--	1.60	7.7	--	<0.5
MW-42-065	03/10/22	N	<0.2	--	3.1	83	--	--	--	0.092	--	1.60	--	--	--
MW-43-025	12/08/20	N	<0.2	<1	32	--	0.56 J	140 J	--	5.40 J	55 J	0.36	6.7	--	<0.5
MW-43-025	11/30/21	N	<0.2	<1	31 J	75	--	--	--	4.40	--	0.36	5.3	--	<0.5
MW-43-025	03/08/22	N	<0.2	--	21 J	100	--	--	--	4.50 J	--	0.44	--	--	--
MW-43-075	12/08/20	N	<0.2	<1	13	--	1.3 J	170 J	--	4.50 J	160 J	0.58	16	--	<0.5
MW-43-075	11/30/21	N	<0.2	<1	8.7 J	42	--	--	--	3.70	--	0.54	15	--	<0.5
MW-43-075	03/08/22	N	<1	--	8.5 J	45	--	--	--	3.70 J	--	0.57	--	--	--
MW-43-090	12/08/20	N	<1	<1	3.1	--	0.92 J	390 J	--	1.40 J	110 J	0.42	30	--	<0.5
MW-43-090	11/30/21	N	<1	<1	<0.1 J	55	--	--	--	1.20	--	0.52	29	--	<0.5
MW-43-090	03/08/22	N	<1	--	<0.1 J	55	--	--	--	1.20 J	--	0.63	--	--	--
MW-44-070	06/23/20	N	<0.2	<1	1.8	--	--	--	--	--	--	0.23	--	--	--
MW-44-070	12/11/20	N	<0.2	<1	2.7	--	0.2	72 J	--	0.41 J	18	0.19	8.8 J	--	<0.5
MW-44-070	04/28/21	N	<0.2	<1	1.3	--	--	--	--	--	--	0.28	--	--	--
MW-44-070	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	08/10/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	09/23/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	11/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	12/08/21	N	<0.2	<1	2.4	31	--	--	--	0.14	--	0.12	7.6	--	<0.5
MW-44-070	03/10/22	N	<0.2	--	1.7	43	--	--	--	0.45	--	0.28	--	--	--
MW-44-115	02/21/20	N	4.8	5.9	2.1	--	--	--	--	--	--	0.0064	62	--	<0.5
MW-44-115	06/23/20	N	4	3.7	2.3	--	--	--	--	--	--	0.005	68	--	<0.5
MW-44-115	10/01/20	N	3.4	4.1	2.2	--	--	--	--	--	--	0.0065	55 J	--	<0.5
MW-44-115	10/01/20	FD	3.4	3.9	1.9	--	--	--	--	--	--	0.0059	84 J	--	<0.5
MW-44-115	12/11/20	N	2.7	4.4	5.7	20	1.5	80 J	--	0.23 J	11	0.006	71 J	--	<0.5
MW-44-115	02/26/21	N	2.5	4.9	1.2	--	--	--	--	--	--	0.013	71	--	<0.5
MW-44-115	04/28/21	N	2.3	2.2	<0.1	--	--	--	--	--	--	0.0052	75	--	<0.5

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-42-030	03/10/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	1.8
MW-42-055	06/18/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-42-055	12/16/20	N	<0.2	100 J	--	230	--	87	--	--	--	--	200	660	--
MW-42-055	04/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-42-055	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-42-055	03/10/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-42-065	06/18/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-42-065	12/16/20	N	<0.2	560 J	--	320	--	750	--	--	--	--	350	2,100	--
MW-42-065	04/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-42-065	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-42-065	03/10/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-43-025	12/08/20	N	<0.2	150 J	--	390	--	200	--	--	--	--	370	1,200	--
MW-43-025	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.2
MW-43-025	03/08/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	1.3
MW-43-075	12/08/20	N	<0.2	1,800 J	--	700	--	2,700	--	--	--	--	1,400	7,300	--
MW-43-075	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-43-075	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-43-090	12/08/20	N	<1	3,600 J	--	170	--	5,700	--	--	--	--	950	12,000	--
MW-43-090	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-43-090	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-44-070	06/23/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	12/11/20	N	<0.2	230	--	200	--	260	--	--	--	--	230	970	--
MW-44-070	04/28/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	08/10/21	FD	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	09/23/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	11/02/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-070	12/08/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-44-070	03/10/22	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-44-115	02/21/20	N	4.8	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-44-115	06/23/20	N	4	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-44-115	10/01/20	N	3.4	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-44-115	10/01/20	FD	3.4	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-44-115	12/11/20	N	2.7	2,300	6.6	120	--	2,900	--	--	--	<0.05	910	6,300	--
MW-44-115	02/26/21	N	2.5	--	--	--	--	--	--	--	--	0.055	--	--	--
MW-44-115	04/28/21	N	2.3	--	--	--	--	--	--	--	--	0.05	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-44-115	06/29/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	07/12/21	N	2.5	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	07/27/21	N	2.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	07/27/21	FD	2.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	08/10/21	N	0.99	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	08/26/21	N	<1	<1	0.51 J	--	--	--	--	--	--	0.019	77	--	<0.5
MW-44-115	09/08/21	N	1.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	09/23/21	N	1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	09/23/21	FD	1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	10/06/21	N	0.9	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	10/20/21	N	1.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	11/02/21	N	1.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	11/19/21	N	1.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	12/08/21	N	1.8	2.2	0.86	19	--	--	--	<0.02	--	0.01	77	--	<0.5
MW-44-115	03/10/22	N	<1	--	0.64	22	--	--	--	<0.02	--	0.014	--	--	--
MW-44-125	06/23/20	N	<0.2	1	2.6	--	--	--	--	--	--	0.33	13	--	<0.5
MW-44-125	12/11/20	N	<0.2	<1	2.5	--	0.32	65 J	--	0.31 J	17	0.17	27 J	--	<0.5
MW-44-125	04/28/21	N	<0.2	<1	1.7	--	--	--	--	--	--	0.31	10	--	<0.5
MW-44-125	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	09/23/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	11/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	12/08/21	N	<1	1.9	<0.1	55	--	--	--	0.3	--	0.39	230	--	<0.5
MW-44-125	03/10/22	N	<1	--	1.1	52	--	--	--	0.27	--	0.41	--	--	--
MW-45-095a	12/01/21	N	<0.2	<1	<0.1	37	--	--	--	<0.02	--	0.26	14	--	<0.5
MW-45-095A	03/08/22	N	<0.2	--	<0.1 J	31	--	--	--	<0.02 J	--	0.18	--	--	--
MW-46-175	02/21/20	N	9.1	17	--	--	--	--	--	--	--	--	190	--	<2.5
MW-46-175	06/23/20	N	5.3	23	--	--	--	--	--	--	--	--	180	--	0.55
MW-46-175	10/01/20	N	5.1	5.5	--	--	--	--	--	--	--	--	190	--	1
MW-46-175	12/15/20	N	7.9	9	--	--	4.2	100 J	--	<0.1	3.5	0.015	190	--	<0.5
MW-46-175	02/25/21	N	5.1	7.6	--	--	--	--	--	--	--	--	180	--	0.62
MW-46-175	04/29/21	N	6.6	7	--	--	--	--	--	--	--	--	210	--	0.56
MW-46-175	06/30/21	N	6.5	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	07/12/21	N	5.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	07/26/21	N	4.8	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	08/10/21	N	5.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	08/26/21	N	5.2	7.2	--	--	--	--	--	--	--	--	200	--	0.79

Appendix B
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First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-44-115	06/29/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	07/12/21	N	2.5	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	07/27/21	N	2.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	07/27/21	FD	2.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	08/10/21	N	0.99	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	08/26/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-44-115	09/08/21	N	1.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	09/23/21	N	1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	09/23/21	FD	1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	10/06/21	N	0.9	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	10/20/21	N	1.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	11/02/21	N	1.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	11/19/21	N	1.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-115	12/08/21	N	1.8	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-44-115	03/10/22	N	<1	--	--	--	--	--	--	<0.1	--	--	--	--	<1
MW-44-125	06/23/20	N	<0.2	--	--	--	--	--	--	--	--	0.18	--	--	--
MW-44-125	12/11/20	N	<0.2	440	--	120	--	2,500	--	--	--	<0.05	600	5,000	--
MW-44-125	04/28/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-44-125	06/29/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	07/12/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	07/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	08/10/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	08/26/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	09/08/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	09/23/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	10/06/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	10/20/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	11/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	11/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-44-125	12/08/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-44-125	03/10/22	N	<1	--	--	--	--	--	--	0.1	--	--	--	--	<1
MW-45-095a	12/01/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-45-095A	03/08/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-46-175	02/21/20	N	9.1	--	--	--	--	--	--	--	--	1	--	--	--
MW-46-175	06/23/20	N	5.3	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-46-175	10/01/20	N	5.1	--	--	--	--	--	--	--	--	0.92	--	--	--
MW-46-175	12/15/20	N	7.9	4,400	--	43	--	5,800	--	--	--	1	960	11,000	--
MW-46-175	02/25/21	N	5.1	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-46-175	04/29/21	N	6.6	--	--	--	--	--	--	--	--	1	--	--	--
MW-46-175	06/30/21	N	6.5	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	07/12/21	N	5.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	07/26/21	N	4.8	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	08/10/21	N	5.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	08/26/21	N	5.2	--	--	--	--	--	--	--	--	0.94	--	--	--

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-46-175	09/09/21	N	5.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	09/23/21	N	4.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	10/06/21	N	6.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	10/20/21	N	3.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	10/20/21	FD	3.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	11/02/21	N	5.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	11/19/21	N	4.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	12/08/21	N	2.1	36	<0.1	31	--	--	--	0.2	--	0.021	200	--	0.56
MW-46-175	03/03/22	N	5.4	--	<0.1	29	--	--	--	<0.1	--	0.013	--	--	--
MW-46-205	06/23/20	N	1.2	2.1	--	--	--	--	--	--	--	--	--	--	--
MW-46-205	12/15/20	N	<1	3.6	--	--	5.2	93 J	--	<0.1	3.1	0.053	340	--	0.91
MW-46-205	04/29/21	N	1.6	1.8	--	--	--	--	--	--	--	--	--	--	--
MW-46-205	12/08/21	N	<1	<1	<0.1	33	--	--	--	0.068	--	0.046	340	--	0.82
MW-46-205	12/08/21	FD	<1	<1	<0.1	33	--	--	--	<0.1	--	0.042	340	--	0.86
MW-46-205	03/03/22	N	<1	--	<0.1	34	--	--	--	<0.1	--	0.038	--	--	--
MW-47-055	06/25/20	N	16	16	0.17	--	--	--	--	--	--	<0.0005	--	--	--
MW-47-055	11/30/20	N	17	17	1.2	--	1.2 J	170 J	--	<0.02	41 J	0.00056	9.1	--	0.86
MW-47-055	04/28/21	N	14	15	<0.1	--	--	--	--	--	--	0.0014	--	--	--
MW-47-055	12/06/21	N	17	18 J	--	--	--	--	--	--	--	--	--	--	--
MW-47-055	03/03/22	N	17	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	06/25/20	N	24	24	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	11/30/20	N	18	18	--	--	1.5 J	270 J	--	<0.02	46 J	0.0032	24	--	0.95
MW-47-115	04/28/21	N	24	23	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	12/06/21	N	17	17 J	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	03/03/22	N	20	--	--	--	--	--	--	--	--	--	--	--	--
MW-48	05/01/20	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-48	12/16/20	N	<1	<1	--	--	1	350 J	--	0.025 J	35 J	0.0044	9.4 J	--	<0.5
MW-48	05/28/21	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-48	12/15/21	N	<1	1.8	<0.1	--	--	--	--	--	--	0.034	9.9	--	<0.5
MW-49-135	12/04/20	N	8.6 J	11	<0.1	--	0.75 J	270	--	0.18 J	34 J	0.1	30	--	1.2
MW-49-135	12/02/21	N	6.1	7.3	--	--	--	--	--	--	--	--	--	--	--
MW-49-135	03/08/22	N	1.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-275	12/04/20	N	<1	<1	--	--	2.8 J	230	--	<0.1 J	8.2 J	0.31	260	--	<0.5
MW-49-275	12/02/21	N	<1	2.2	--	--	--	--	--	--	--	--	--	--	--
MW-49-275	03/08/22	N	1.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-365	12/04/20	N	<1	<1	--	--	3.5 J	380	--	0.18 J	16 J	0.064	200	--	<0.5
MW-49-365	12/02/21	N	<1	2.6	--	--	--	--	--	--	--	--	--	--	--
MW-49-365	03/08/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-095	06/24/20	N	13	14	--	--	--	--	--	--	--	--	--	--	--
MW-50-095	12/07/20	N	13	14 J	--	--	1 J	130 J	--	0.064 J	16 J	0.0083	17 J	--	0.76 J
MW-50-095	05/26/21	N	13	13	--	--	--	--	--	--	--	--	--	--	--
MW-50-095	12/13/21	N	14	15	<0.1	--	--	--	--	--	--	<0.0005	--	--	--
MW-50-200	06/24/20	N	3,600	3,500	--	--	--	--	--	--	--	--	--	--	--
MW-50-200	12/07/20	N	2,300	2,100 J	3.8	44 J	2.1 J	550 J	--	0.11 J	49 J	<0.0005	44 J	--	1.6 J

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-46-175	09/09/21	N	5.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	09/23/21	N	4.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	10/06/21	N	6.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	10/20/21	N	3.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	10/20/21	FD	3.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	11/02/21	N	5.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	11/19/21	N	4.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-175	12/08/21	N	2.1	--	--	--	--	--	--	--	--	0.9	--	--	<1
MW-46-175	03/03/22	N	5.4	--	--	--	--	--	--	0.76	--	--	--	--	<1
MW-46-205	06/23/20	N	1.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-205	12/15/20	N	<1	4,700	--	48	--	7,200	--	--	--	--	900	13,000 J	--
MW-46-205	04/29/21	N	1.6	--	--	--	--	--	--	--	--	--	--	--	--
MW-46-205	12/08/21	N	<1	--	--	--	--	--	--	--	--	0.93	--	--	<1
MW-46-205	12/08/21	FD	<1	--	--	--	--	--	--	--	--	0.96	--	--	<1
MW-46-205	03/03/22	N	<1	--	--	--	--	--	--	0.57	--	--	--	--	<1
MW-47-055	06/25/20	N	16	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-055	11/30/20	N	17	730 J	--	65	--	1,500	--	--	--	--	280	3,100	--
MW-47-055	04/28/21	N	14	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-055	12/06/21	N	17	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-055	03/03/22	N	17	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	06/25/20	N	24	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	11/30/20	N	18	2,800 J	--	59	--	4,400	--	--	--	--	800	8,700	--
MW-47-115	04/28/21	N	24	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	12/06/21	N	17	--	--	--	--	--	--	--	--	--	--	--	--
MW-47-115	03/03/22	N	20	--	--	--	--	--	--	--	--	--	--	--	--
MW-48	05/01/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-48	12/16/20	N	<1	3,700 J	--	29	--	5,500	--	--	--	--	570	11,000	--
MW-48	05/28/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-48	12/15/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-49-135	12/04/20	N	8.6 J	2,600	--	62	--	4,000	--	--	--	--	840	8,000	--
MW-49-135	12/02/21	N	6.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-135	03/08/22	N	1.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-275	12/04/20	N	<1	5,900	--	36	--	7,700	--	--	--	--	1,300	14,000	--
MW-49-275	12/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-275	03/08/22	N	1.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-365	12/04/20	N	<1	7,700	--	43	--	15,000	--	--	--	--	1,700	21,000	--
MW-49-365	12/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-49-365	03/08/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-095	06/24/20	N	13	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-095	12/07/20	N	13	910 J	--	52	--	1,800	--	--	--	--	300	3,600	--
MW-50-095	05/26/21	N	13	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-095	12/13/21	N	14	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-200	06/24/20	N	3,600	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-200	12/07/20	N	2,300	3,800 J	3.7 J	35	--	6,700	--	--	--	--	810	13,000	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-50-200	12/07/20	FD	2,300	2,100 J	3.8	45 J	3 J	430 J	--	<0.1 J	39 J	<0.0005	44 J	--	1.6 J
MW-50-200	05/26/21	N	3,300	3,400	--	--	--	--	--	--	--	--	--	--	--
MW-50-200	12/13/21	N	1,900	1,900	3.4	--	--	--	--	--	--	<0.0005	38	--	1.5
MW-51	04/27/20	N	3,200	3,200	<0.1	--	--	--	--	--	--	<0.0005	40	--	19
MW-51	04/27/20	FD	3,300	3,200	<0.1	--	--	--	--	--	--	<0.0005	42	--	20
MW-51	12/03/20	N	3,300	3,500	<0.1	43 J	1.5	190	--	0.081 J	21	<0.0005	40	--	33 J
MW-51	12/03/20	FD	3,300	3,700	<0.1	43 J	1.6	200	--	0.023 J	21	<0.0005	40	--	32 J
MW-51	05/20/21	N	2,600	2,600	<0.1	--	--	--	--	--	--	<0.0005	46	--	12
MW-51	12/15/21	N	2,900	3,100	<0.1	43	--	--	--	0.025 J	--	0.0011	42	--	34 J
MW-51	12/15/21	FD	2,900	3,000	<0.1	43	--	--	--	0.024 J	--	0.001	42	--	33 J
MW-51	02/02/22	N	2,600	--	<0.1	47	--	--	--	0.15	--	0.0053	--	--	--
MW-51	03/14/22	N	2,300	2,400	<0.1 J	37	--	--	--	<0.1	--	0.0063	49	--	17
MW-51	03/14/22	FD	2,300	2,300	<0.1 J	38	--	--	--	<0.1	--	0.0061	49	--	17
MW-52D	06/16/20	N	<1	<1	<0.1	--	--	--	--	--	--	0.25	--	--	--
MW-52D	12/08/20	N	<1	<1	2.3	--	2.7 J	260 J	--	0.95 J	24 J	0.23	67	--	<0.5
MW-52D	04/27/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.24	--	--	--
MW-52D	11/30/21	N	<1	<1	2 J	37	--	--	--	0.95	--	0.28	61	--	<0.5
MW-52D	03/08/22	N	<1	--	2.1 J	39	--	--	--	0.53 J	--	0.21	--	--	--
MW-52M	06/16/20	N	<1	<1	<0.1	--	--	--	--	--	--	0.15	--	--	--
MW-52M	12/08/20	N	<1	<1	1.2	--	2.9 J	350 J	--	1.60 J	40 J	0.16	34	--	<0.5
MW-52M	04/27/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.22	--	--	--
MW-52M	11/30/21	N	<1	<1	<0.1 J	54	--	--	--	1.40	--	0.21	30	--	<0.5
MW-52M	03/08/22	N	<1	--	<0.1 J	56	--	--	--	1 J	--	0.18	--	--	--
MW-52S	06/16/20	N	<0.2	<1	<0.1	--	--	--	--	--	--	1.30	--	--	--
MW-52S	12/08/20	N	<1	<1	1.7	--	2.8 J	730 J	--	27 J	860 J	1.20	25	--	1.9
MW-52S	04/27/21	N	<0.2	<1	<0.1	--	--	--	--	--	--	1.30	--	--	--
MW-52S	11/30/21	N	<0.2	<1	<0.1 J	1,400	--	--	--	20	--	1.40	5.3	--	<0.5
MW-52S	11/30/21	FD	<0.2	<1	<0.1 J	1,300	--	--	--	20	--	1.30	4.9	--	<0.5
MW-52S	03/08/22	N	<1	--	<0.1 J	1,000	--	--	--	21 J	--	1.20	--	--	--
MW-53D	06/16/20	N	<1	<1	<0.1	--	--	--	--	--	--	1.10	--	--	--
MW-53D	12/08/20	N	<1	<1	3.3	--	4.1 J	280 J	--	0.46 J	19 J	1.10	160	--	<0.5
MW-53D	04/27/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.89	--	--	--
MW-53D	11/30/21	N	<1	<1	3.6 J	44	--	--	--	0.22	--	1.30	180	--	<0.5
MW-53D	03/08/22	N	<1	--	2.3 J	44	--	--	--	0.25 J	--	1	--	--	--
MW-53M	06/16/20	N	<1	<1	<0.1	--	--	--	--	--	--	0.45	--	--	--
MW-53M	12/08/20	N	<1	<1	0.77	--	3.2 J	370 J	--	0.55 J	37 J	0.41	61	--	<0.5
MW-53M	04/27/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.63	--	--	--
MW-53M	11/30/21	N	<1	<1	<0.1 J	58	--	--	--	0.38	--	0.42	54	--	<0.5
MW-53M	03/08/22	N	<1	--	<0.1 J	70	--	--	--	0.99 J	--	0.51	--	--	--
MW-53S	11/30/21	N	<0.2	<1	<0.1 J	200	--	--	--	5.40	--	1.20	1.6	--	<0.5
MW-53S	03/08/22	N	<0.2	--	<0.1 J	200	--	--	--	5.40 J	--	1.20	--	--	--
MW-54-085	06/19/20	N	<0.2	<1	5.19	--	--	--	--	--	--	0.472	--	--	--
MW-54-085	12/09/20	N	<0.2	<10	<10	--	1.32	159	--	<0.0002	80.2	0.733	<100	--	<100
MW-54-085	06/08/21	N	<1	<10	<10	56.9	--	125	--	--	63.8	0.537	47.8	11	<10

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-50-200	12/07/20	FD	2,300	3,500 J	3.7 J	34	--	6,800	--	--	--	--	810	14,000	--
MW-50-200	05/26/21	N	3,300	--	--	--	--	--	--	--	--	--	--	--	--
MW-50-200	12/13/21	N	1,900	--	--	--	--	--	--	--	--	1.9	--	--	--
MW-51	04/27/20	N	3,200	--	--	--	--	--	--	--	--	9.2	--	--	--
MW-51	04/27/20	FD	3,300	--	--	--	--	--	--	--	--	9.2	--	--	--
MW-51	12/03/20	N	3,300	2,000	1.9	100	--	3,100	--	--	--	12	720	6,500	--
MW-51	12/03/20	FD	3,300	2,000	1.8	100	--	3,100	--	--	--	12	720	6,800	--
MW-51	05/20/21	N	2,600	--	--	--	--	--	--	--	--	6.4	--	--	--
MW-51	12/15/21	N	2,900	--	--	--	<0.2	--	--	--	<5	13	720	--	<1
MW-51	12/15/21	FD	2,900	--	--	--	<0.2	--	--	--	<5	12	720	--	<1
MW-51	02/02/22	N	2,600	--	--	--	--	--	--	6.8	--	--	660	--	<1
MW-51	03/14/22	N	2,300	--	--	--	<0.2	--	--	5.5	--	--	670	--	<1
MW-51	03/14/22	FD	2,300	--	--	--	<0.2	--	--	5.5	--	--	680	--	<1
MW-52D	06/16/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-52D	12/08/20	N	<1	4,500 J	--	62	--	7,100	--	--	--	--	960	12,000	--
MW-52D	04/27/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-52D	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<50
MW-52D	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-52M	06/16/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-52M	12/08/20	N	<1	3,100 J	--	85	--	5,300	--	--	--	--	630	10,000	--
MW-52M	04/27/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-52M	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-52M	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-52S	06/16/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-52S	12/08/20	N	<1	2,900 J	--	1,500	--	3,100	--	--	--	--	4,500	12,000	--
MW-52S	04/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-52S	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.3
MW-52S	11/30/21	FD	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.4
MW-52S	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	2.7
MW-53D	06/16/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-53D	12/08/20	N	<1	5,500 J	--	36	--	8,800	--	--	--	--	1,200	15,000	--
MW-53D	04/27/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-53D	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-53D	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-53M	06/16/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-53M	12/08/20	N	<1	4,400 J	--	46	--	6,700	--	--	--	--	740	12,000	--
MW-53M	04/27/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-53M	11/30/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-53M	03/08/22	N	<1	--	--	--	--	--	--	<0.25	--	--	--	--	<50
MW-53S	11/30/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
MW-53S	03/08/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-54-085	06/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-54-085	12/09/20	N	<0.2	1,870	--	155	--	2,910	--	--	--	--	562	5,780	--
MW-54-085	06/08/21	N	<1	1,670	<10	--	--	2,860	3	--	--	<0.2	439	5,640	--

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-54-085	12/14/21	N	<1	<10	<10	--	--	--	--	--	--	0.689	<100 J	--	<100 J
MW-54-140	06/19/20	N	<1	<1	2.66	--	--	--	--	--	--	0.106	--	--	--
MW-54-140	12/09/20	N	<1	<10	<10	--	1.86	144	--	<0.0002	15.3	<0.1	<100	--	<100
MW-54-140	06/08/21	N	<1	<10	<10	43	--	154	--	--	18.1	<0.1	44.3	20.9	<10
MW-54-140	12/14/21	N	<1	<10	<10	--	--	--	--	--	--	<0.1	<100 J	--	<100 J
MW-54-195	06/19/20	N	<1	<1	<1	--	--	--	--	--	--	0.35	--	--	--
MW-54-195	12/09/20	N	<1	<10	<10	--	2.93	127	--	<0.0002	4.77	0.331	107	--	<100
MW-54-195	06/08/21	N	<1	<10	<10	38	--	127	--	--	4.78	0.282	109	33.4	<10
MW-54-195	12/14/21	N	<1	<10	<10	--	--	--	--	--	--	0.285	111 J	--	<100 J
MW-55-045	06/19/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
MW-55-045	12/09/20	N	<0.2	<10	--	--	0.565	32.9	--	<0.0002	7.4	0.789	<100	--	<100
MW-55-045	06/09/21	N	<0.2	<1	8.17 J	524	--	31.8	--	--	7.89	1 J	40.4	4.19	<1
MW-55-045	12/14/21	N	<0.2	<1	6.35 J	--	--	--	--	--	--	0.625	--	--	--
MW-55-120	06/19/20	N	7.94	9.2	--	--	--	--	--	--	--	--	--	--	--
MW-55-120	06/19/20	FD	7.99	9.23	--	--	--	--	--	--	--	--	--	--	--
MW-55-120	12/09/20	N	7.51	<10	--	--	1.65	62.9	--	<0.0002	1.33	<0.1	<100	--	<100
MW-55-120	06/09/21	N	7.47	<10	<10	41.4	--	64.6	--	--	1.43	--	36.4	18	<10
MW-55-120	12/14/21	N	7.96	<10	<10	--	--	--	--	--	--	<0.1	--	--	--
MW-55-120	12/14/21	FD	7.95	<10	<10	--	--	--	--	--	--	<0.1	--	--	--
MW-56D	06/19/20	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-56D	12/09/20	N	<1	<10	--	--	2.78	412	--	1.06	82.4	0.812	<100	--	<100
MW-56D	06/09/21	N	<1	<10	<10	40.6	--	421	--	--	85.3	0.809 J	37.1	37.9	<10
MW-56D	12/14/21	N	<1	<10	<10	--	--	--	--	--	--	0.804	<100 J	--	<100 J
MW-56M	06/19/20	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-56M	12/09/20	N	<1	<10	--	--	1.82	377	--	2.97	99.6	0.675	<100	--	<100
MW-56M	12/09/20	FD	<1	<10	--	--	1.83	375	--	2.95	96.7	0.654	<100	--	<100
MW-56M	06/09/21	N	<1	<10	<10	48.9	--	374	--	--	99.3	0.657 J	<20	20.3	<10
MW-56M	06/09/21	FD	<1	<10	<10	48.3	--	382	--	--	99.8	0.689 J	<20	20.5	<10
MW-56M	12/14/21	N	<1	<10	<10	--	--	--	--	--	--	0.784	<100 J	--	<100 J
MW-56S	06/19/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
MW-56S	12/09/20	N	<0.2	<10	--	--	1.99	144	--	4.92	50.3	0.754	<100	--	<100
MW-56S	06/09/21	N	<0.2	<10	<10	68.2	--	148	--	--	60.3	0.823 J	28.6	10.8	<10
MW-56S	12/14/21	N	<0.2	<10	<10	--	--	--	--	--	--	1.25	<100 J	--	<100 J
MW-57-070	06/22/20	N	610	530	1.3	--	--	--	--	--	--	0.0015	2.4	--	2.8
MW-57-070	12/04/20	N	630 J	660	1.3	--	0.4 J	250	--	<0.02 J	18 J	0.00098	2.6	--	3.2
MW-57-070	04/30/21	N	490	540	1.1	--	--	--	--	--	--	0.0034	3.5	--	3.6
MW-57-070	12/10/21	N	380	410	1.2	--	--	--	--	--	--	0.0011	4	--	3.7
MW-57-185	06/22/20	N	1.3	1.9	4.3	--	--	--	--	--	--	0.002	78	--	<0.5
MW-57-185	06/22/20	FD	1.4	2	4.1	--	--	--	--	--	--	0.0021	75	--	<0.5
MW-57-185	12/04/20	N	4.4 J	5	5.4	--	2.4 J	330	--	<0.1 J	<500 J	0.0014	83	--	<0.5
MW-57-185	04/30/21	N	4.2	4.3	<0.1	--	--	--	--	--	--	0.0011	83	--	<0.5
MW-57-185	12/10/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.0032	78	--	<0.5
MW-58BR	02/17/20	N	120	120	0.11	--	--	--	--	--	--	0.16	22	--	2.7
MW-58BR	05/01/20	N	43	41	1.9	--	--	--	--	--	--	0.14	24	--	1.9

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-54-085	12/14/21	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	--
MW-54-140	06/19/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-54-140	12/09/20	N	<1	2,660	--	107	--	4,010	--	--	--	--	565	7,790	--
MW-54-140	06/08/21	N	<1	2,770	<10	--	--	4,740	2.57	--	--	0.646	565	6,980	--
MW-54-140	12/14/21	N	<1	--	--	--	--	--	--	0.605	--	--	--	--	--
MW-54-195	06/19/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-54-195	12/09/20	N	<1	2,980	--	62.6	--	6,090	--	--	--	--	869	11,500	--
MW-54-195	06/08/21	N	<1	4,420	<10	--	--	7,090	4.29	--	--	<0.5	884	11,400	--
MW-54-195	12/14/21	N	<1	--	--	--	--	--	--	<1	--	--	--	--	--
MW-55-045	06/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-55-045	12/09/20	N	<0.2	231	--	155	--	258	--	--	--	--	76.4	751	--
MW-55-045	06/09/21	N	<0.2	231	1.19	--	--	274	6.01	--	--	<0.1	84.4	689	--
MW-55-045	12/14/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-55-120	06/19/20	N	7.94	--	--	--	--	--	--	--	--	--	--	--	--
MW-55-120	06/19/20	FD	7.99	--	--	--	--	--	--	--	--	--	--	--	--
MW-55-120	12/09/20	N	7.51	2,120	--	74.2	--	2,190	--	--	--	--	239	4,050	--
MW-55-120	06/09/21	N	7.47	1,410	<10	--	--	2,170	4.93	--	--	1.28	245	3,750	--
MW-55-120	12/14/21	N	7.96	--	--	--	--	--	--	--	--	--	--	--	--
MW-55-120	12/14/21	FD	7.95	--	--	--	--	--	--	--	--	--	--	--	--
MW-56D	06/19/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-56D	12/09/20	N	<1	4,650	--	136	--	7,370	--	--	--	--	1,270	14,200	--
MW-56D	06/09/21	N	<1	4,860	<10	--	--	7,880	1.83	--	--	<0.5	1,340	13,300	--
MW-56D	12/14/21	N	<1	--	--	--	--	--	--	<1	--	--	--	--	--
MW-56M	06/19/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-56M	12/09/20	N	<1	2,920	--	437	--	4,860	--	--	--	--	835	9,310	--
MW-56M	12/09/20	FD	<1	2,930	--	438	--	4,820	--	--	--	--	854	9,490	--
MW-56M	06/09/21	N	<1	2,920	<10	--	--	5,060	0.96	--	--	<0.2	876	9,050	--
MW-56M	06/09/21	FD	<1	2,900	<10	--	--	4,950	1.02	--	--	0.475	945	8,890	--
MW-56M	12/14/21	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	--
MW-56S	06/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-56S	12/09/20	N	<0.2	1,200	--	640	--	1,300	--	--	--	--	585	3,980	--
MW-56S	06/09/21	N	<0.2	1,230	<10	--	--	1,590	4.68	--	--	<0.2	650	3,840	--
MW-56S	12/14/21	N	<0.2	--	--	--	--	--	--	<0.2	--	--	--	--	--
MW-57-070	06/22/20	N	610	--	--	--	--	--	--	--	--	8.8	--	--	--
MW-57-070	12/04/20	N	630 J	75	--	110	--	550	--	--	--	8.5	110	1,300	--
MW-57-070	04/30/21	N	490	--	--	--	--	--	--	--	--	9.3	--	--	--
MW-57-070	12/10/21	N	380	--	--	--	--	--	--	--	--	11	--	--	--
MW-57-185	06/22/20	N	1.3	--	--	--	--	--	--	--	--	0.14	--	--	--
MW-57-185	06/22/20	FD	1.4	--	--	--	--	--	--	--	--	0.12	--	--	--
MW-57-185	12/04/20	N	4.4 J	2,800	--	110	--	5,700	--	--	--	0.18	700	11,000	--
MW-57-185	04/30/21	N	4.2	--	--	--	--	--	--	--	--	0.25	--	--	--
MW-57-185	12/10/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-58BR	02/17/20	N	120	--	--	--	--	--	--	--	--	1.8	--	--	--
MW-58BR	05/01/20	N	43	--	--	--	--	--	--	--	--	0.77	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-58BR	09/29/20	N	3.9	4.5	1	--	--	--	--	--	--	0.29	29	--	2
MW-58BR	11/30/20	N	5.2	5.7	2.4	--	1.3 J	320 J	--	<0.02	31 J	0.33	27	--	2.3
MW-58BR	02/15/21	N	4.2	5.2	2.1	--	--	--	--	--	--	0.32	26	--	2.1
MW-58BR	05/17/21	N	2.7	2.8	<0.1	--	--	--	--	--	--	0.31	28	--	1.7
MW-58BR	05/17/21	FD	2.3	2.2	<0.1	--	--	--	--	--	--	0.28	27	--	1.7
MW-58BR	08/26/21	N	16	17	<0.1 J	--	--	--	--	--	--	0.38	26	--	2.2
MW-58BR	12/09/21	N	6.4	7.3	<0.1 J	--	--	--	--	--	--	0.35	25	--	1.9
MW-59-100	06/22/20	N	2,100	2,200	<0.1	--	--	--	--	--	--	0.01	9	--	1.9
MW-59-100	12/08/20	N	2,700	2,900	2.2	69	1.5 J	550 J	--	0.042 J	25 J	0.0015	4.8	--	3.2 J
MW-59-100	12/08/20	FD	2,700	2,800	2.2	70	3.4 J	670 J	--	0.27 J	27 J	0.0013	4.7	--	4.1 J
MW-59-100	02/17/21	N	2,500	2,800	--	--	--	--	--	--	--	--	6.6	--	4.3
MW-59-100	06/07/21	N	1,800	1,900	<0.1 J	--	--	--	--	--	--	0.002 J	11	--	2
MW-59-100	12/15/21	N	2,000	2,000	<0.1	--	--	--	--	--	--	0.0097	8	--	2.1
MW-60-125	06/24/20	N	660	630	<0.1	--	--	--	--	--	--	0.0047	17	--	5.2
MW-60-125	10/01/20	N	580	570	<0.1	--	0.82	450 J	--	<0.02	--	0.005	18	--	6.5
MW-60-125	05/27/21	N	390	390	<0.1 J	--	--	--	--	--	--	0.003	16	--	6.5
MW-60-125	12/16/21	N	480	480	<0.1	--	--	--	--	--	--	0.0061	19	--	5.8
MW-60BR-245	02/20/20	N	52	44	6	--	--	--	--	--	--	0.007	57	--	3
MW-60BR-245	09/30/20	N	21	22	<0.1	--	--	--	--	--	--	0.002	63	--	3.4 J
MW-60BR-245	12/17/20	N	16	15	<0.1	--	2.4	390	--	<0.1	7 J	0.0016	65	--	2.9
MW-60BR-245	02/18/21	N	22	23 J	5.6	--	--	--	--	--	--	0.0015	70	--	3.1
MW-60BR-245	05/27/21	N	9.4	8.9	<0.1 J	--	--	--	--	--	--	<0.0005	64	--	2.5
MW-60BR-245	08/26/21	N	5.5	5.5	<0.1 J	--	--	--	--	--	--	<0.0005	64	--	3.8
MW-60BR-245	12/16/21	N	7.1	8.6	<0.1	--	--	--	--	--	--	0.0016	--	--	--
MW-61-110	12/04/20	N	430 J	440	<0.1	--	2.4 J	610	--	<0.1 J	26 J	0.24	22	--	1.3
MW-61-110	05/27/21	N	160	150	<0.1 J	--	--	--	--	--	--	0.3	23	--	0.83
MW-61-110	12/10/21	N	370	390	<0.1	--	--	--	--	--	--	0.35	22	--	1.1
MW-62-065	02/19/20	N	480	460	0.13	--	--	--	--	--	--	0.0035	13	--	3.8
MW-62-065	04/28/20	N	580	550	<0.1	--	--	--	--	--	--	0.0049	15	--	3.8
MW-62-065	09/30/20	N	590	610	<0.1	--	--	--	--	--	--	0.0033	13	--	4.7 J
MW-62-065	12/04/20	N	620	570	<0.1	--	0.88 J	180	--	<0.02 J	30 J	<0.0005	12	--	3.5
MW-62-065	02/18/21	N	530	580 J	1.5	--	--	--	--	--	--	0.0034	14	--	3.8
MW-62-065	05/27/21	N	670	640	<0.1 J	--	--	--	--	--	--	0.0011	12	--	4.1
MW-62-065	08/27/21	N	590	660	<0.1 J	--	--	--	--	--	--	0.0017	13	--	3.9
MW-62-065	08/27/21	FD	600	610	<0.1 J	--	--	--	--	--	--	0.0022	13	--	3.6
MW-62-065	12/15/21	N	580	610	<0.1	--	--	--	--	--	--	<0.0005	11	--	3.4
MW-62-110	02/18/20	N	<0.2	<1	5.7	--	--	--	--	--	--	0.15	49	--	<0.5
MW-62-110	04/29/20	N	<1	<1	2.9	--	--	--	--	--	--	0.13	71	--	<0.5
MW-62-110	09/30/20	N	<1	<1	<0.1	--	--	--	--	--	--	0.14	47	--	<0.5
MW-62-110	12/02/20	N	<0.2	<1	8.1	--	1.5	140	--	0.35	9.2	0.21	50	--	<0.5
MW-62-110	02/16/21	N	<0.2	<1	4.5 J	--	--	--	--	--	--	0.13	50	--	<0.5
MW-62-110	06/08/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.16 J	64	--	<0.5
MW-62-110	08/27/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.15	56	--	<0.5
MW-62-110	12/01/21	N	<1	<1	5.2	--	--	--	--	--	--	0.18	38	--	<0.5

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First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-58BR	09/29/20	N	3.9	--	--	--	--	--	--	--	--	0.39	--	--	--
MW-58BR	11/30/20	N	5.2	1,000 J	--	47	--	2,200	--	--	--	0.5	470	4,600	--
MW-58BR	02/15/21	N	4.2	--	--	--	--	--	--	--	--	0.46	--	--	--
MW-58BR	05/17/21	N	2.7	--	--	--	--	--	--	--	--	0.46 J	--	--	--
MW-58BR	05/17/21	FD	2.3	--	--	--	--	--	--	--	--	0.95 J	--	--	--
MW-58BR	08/26/21	N	16	--	--	--	--	--	--	--	--	0.71	--	--	--
MW-58BR	12/09/21	N	6.4	--	--	--	--	--	--	--	--	0.74	--	--	--
MW-59-100	06/22/20	N	2,100	--	--	--	--	--	--	--	--	2.1	--	--	--
MW-59-100	12/08/20	N	2,700	1,500 J	<1	110	--	3,100	--	--	--	3.4	570	6,700	--
MW-59-100	12/08/20	FD	2,700	1,400 J	<1	110	--	3,100	--	--	--	3.5	580	7,200	--
MW-59-100	02/17/21	N	2,500	--	--	--	--	--	--	--	--	3.6	--	--	--
MW-59-100	06/07/21	N	1,800	--	--	--	--	--	--	--	--	1.8	--	--	--
MW-59-100	12/15/21	N	2,000	--	--	--	--	--	--	--	--	2.3	--	--	--
MW-60-125	06/24/20	N	660	--	--	--	--	--	--	--	--	3.8	--	--	--
MW-60-125	10/01/20	N	580	1,300	--	60	--	2,700	1.5	--	--	4.1	460	6,800	--
MW-60-125	05/27/21	N	390	--	--	--	--	--	--	--	--	3.9	--	--	--
MW-60-125	12/16/21	N	480	--	--	--	--	--	--	--	--	3.8	--	--	--
MW-60BR-245	02/20/20	N	52	--	--	--	--	--	--	--	--	0.22	--	--	--
MW-60BR-245	09/30/20	N	21	--	--	--	--	--	--	--	--	0.18	--	--	--
MW-60BR-245	12/17/20	N	16	3,600 J	--	24	--	5,600	--	--	--	0.18	780	11,000	--
MW-60BR-245	02/18/21	N	22	--	--	--	--	--	--	--	--	0.25	--	--	--
MW-60BR-245	05/27/21	N	9.4	--	--	--	--	--	--	--	--	0.21	--	--	--
MW-60BR-245	08/26/21	N	5.5	--	--	--	--	--	--	--	--	0.12	--	--	--
MW-60BR-245	12/16/21	N	7.1	--	--	--	--	--	--	--	--	--	--	--	--
MW-61-110	12/04/20	N	430 J	2,700	--	46	--	5,400	--	--	--	0.8	720	11,000	--
MW-61-110	05/27/21	N	160	--	--	--	--	--	--	--	--	0.38	--	--	--
MW-61-110	12/10/21	N	370	--	--	--	--	--	--	--	--	0.63	--	--	--
MW-62-065	02/19/20	N	480	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-62-065	04/28/20	N	580	--	--	--	--	--	--	--	--	4.6	--	--	--
MW-62-065	09/30/20	N	590	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-62-065	12/04/20	N	620	870	--	110	--	1,800	--	--	--	4.6	430	3,800	--
MW-62-065	02/18/21	N	530	--	--	--	--	--	--	--	--	4.8	--	--	--
MW-62-065	05/27/21	N	670	--	--	--	--	--	--	--	--	4.6	--	--	--
MW-62-065	08/27/21	N	590	--	--	--	--	--	--	--	--	5.2	--	--	--
MW-62-065	08/27/21	FD	600	--	--	--	--	--	--	--	--	4.9	--	--	--
MW-62-065	12/15/21	N	580	--	--	--	--	--	--	--	--	5	--	--	--
MW-62-110	02/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.055	--	--	--
MW-62-110	04/29/20	N	<1	--	--	--	--	--	--	--	--	3.3	--	--	--
MW-62-110	09/30/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-62-110	12/02/20	N	<0.2	1,600	--	83	--	2,900	--	--	--	<0.1	550	6,200	--
MW-62-110	02/16/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-62-110	06/08/21	N	<1	--	--	--	--	--	--	--	--	0.1	--	--	--
MW-62-110	08/27/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-62-110	12/01/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-62-190	04/29/20	N	<1	<1	<0.5	--	--	--	--	--	--	0.7	41	--	<2.5
MW-62-190	04/29/20	FD	<1	<1	<0.5	--	--	--	--	--	--	0.72	40	--	<2.5
MW-62-190	12/02/20	N	<1	<1	3.4	--	2.9	290	--	1.40	18	0.9	43	--	<0.5
MW-62-190	06/08/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.71 J	46	--	<0.5
MW-62-190	12/01/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.57	29	--	<0.5
MW-63-065	02/19/20	N	1.2	2.5	<0.1	--	--	--	--	--	--	0.014	18	--	0.89
MW-63-065	02/19/20	FD	1.2	2.8	<0.1	--	--	--	--	--	--	0.017	18	--	0.86
MW-63-065	06/24/20	N	1.3	2.6	<0.1	--	--	--	--	--	--	0.01	15	--	0.89
MW-63-065	09/30/20	N	1.3	2.3	<0.1	--	--	--	--	--	--	0.0017	17	--	1.3 J
MW-63-065	12/07/20	N	1.7	2.7 J	<0.1	--	0.77 J	150 J	--	0.034 J	23 J	0.0014	16 J	--	1.2 J
MW-63-065	02/18/21	N	1.2	3.1 J	1.6	--	--	--	--	--	--	0.006	17	--	0.93
MW-63-065	05/27/21	N	1.2	3.3	<0.1 J	--	--	--	--	--	--	0.028	17	--	0.99
MW-63-065	08/26/21	N	1.3	1.7	<0.1 J	--	--	--	--	--	--	0.0033	16	--	1.1
MW-63-065	12/16/21	N	1.4	1.3	<0.1	--	--	--	--	--	--	<0.0005	16	--	0.74
MW-64BR	02/21/20	N	<1	<1	3.2	--	--	--	--	--	--	0.91	61	--	<0.5
MW-64BR	05/01/20	N	<0.2	1.8	0.77	--	--	--	--	--	--	0.16	37	--	<0.5
MW-64BR	09/30/20	N	<1	<1	<0.1	--	--	--	--	--	--	1	66	--	<0.5
MW-64BR	11/30/20	N	<1	<1	2.3	--	2 J	260 J	--	0.71 J	22 J	1	68	--	<0.5
MW-64BR	02/18/21	N	<1	<1 J	1.9	--	--	--	--	--	--	1	65	--	<0.5
MW-64BR	05/27/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.96	61	--	<0.5
MW-64BR	08/26/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.97	60	--	<0.5
MW-64BR	12/16/21	N	<1	<1	<0.1	--	--	--	--	--	--	1	58	--	<0.5
MW-65-160	02/20/20	N	250	250	0.34	--	--	--	--	--	--	0.00052	28	--	9.2
MW-65-160	04/29/20	N	190	210	0.63	--	--	--	--	--	--	0.052	40	--	7.2
MW-65-160	09/29/20	N	240	240	0.35	--	--	--	--	--	--	0.029	26	--	9.7
MW-65-160	12/03/20	N	210	240	<0.1	--	1.1	280	--	0.62	50	0.051	27	--	9 J
MW-65-160	02/16/21	N	240	250 J	0.84 J	--	--	--	--	--	--	0.0054	25	--	11
MW-65-160	05/27/21	N	270	260	<0.1 J	--	--	--	--	--	--	<0.0005	26	--	10
MW-65-160	08/25/21	N	290	310	<0.1 J	--	--	--	--	--	--	0.00075	24	--	9.4
MW-65-160	12/08/21	N	300	310	<0.1	--	--	--	--	--	--	0.00097 J	23	--	10
MW-65-160	03/09/22	N	250	240	--	--	--	--	--	--	--	--	26	--	9.3
MW-65-225	02/20/20	N	460	470	0.34	--	--	--	--	--	--	0.0044	27	--	6.9
MW-65-225	04/29/20	N	280	260	<0.1	--	--	--	--	--	--	0.092	43	--	3.7
MW-65-225	09/29/20	N	260	250	<0.1	--	--	--	--	--	--	0.045	43	--	3.7
MW-65-225	12/03/20	N	360	350	<0.1	--	1.7	270	--	0.098	21	0.026	32	--	5.2 J
MW-65-225	02/16/21	N	330	340 J	2.3 J	--	--	--	--	--	--	0.008	33	--	4.9
MW-65-225	05/27/21	N	460	430	<0.1 J	--	--	--	--	--	--	0.0007	22	--	6.7
MW-65-225	08/25/21	N	200	210	<0.1 J	--	--	--	--	--	--	0.0074	39	--	3
MW-65-225	12/08/21	N	83	80	<0.1	--	--	--	--	--	--	0.043 J	50	--	1.8
MW-65-225	12/08/21	FD	83	81	<0.1	--	--	--	--	--	--	0.05 J	50	--	1.7
MW-65-225	03/09/22	N	350	340	--	--	--	--	--	--	--	--	32	--	4.6
MW-65-225	03/09/22	FD	340	330	--	--	--	--	--	--	--	--	33	--	4.8
MW-66-165	04/29/20	N	530	520	0.39	--	--	--	--	--	--	0.0077	6.2	--	29
MW-66-165	12/03/20	N	400	390	0.69 J	--	0.78	210	--	0.2 J	47 J	0.003	5.8	14 J	19

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-62-190	04/29/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-62-190	04/29/20	FD	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-62-190	12/02/20	N	<1	2,800	--	57	--	6,000	--	--	--	<0.1	710	12,000	--
MW-62-190	06/08/21	N	<1	--	--	--	--	--	--	--	--	0.11	--	--	--
MW-62-190	12/01/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-63-065	02/19/20	N	1.2	--	--	--	--	--	--	--	--	1	--	--	--
MW-63-065	02/19/20	FD	1.2	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-63-065	06/24/20	N	1.3	--	--	--	--	--	--	--	--	1.8	--	--	--
MW-63-065	09/30/20	N	1.3	--	--	--	--	--	--	--	--	2.4	--	--	--
MW-63-065	12/07/20	N	1.7	950 J	--	200	--	1,900	--	--	--	2	570	4,400	--
MW-63-065	02/18/21	N	1.2	--	--	--	--	--	--	--	--	1.4	--	--	--
MW-63-065	05/27/21	N	1.2	--	--	--	--	--	--	--	--	1.3	--	--	--
MW-63-065	08/26/21	N	1.3	--	--	--	--	--	--	--	--	1.5	--	--	--
MW-63-065	12/16/21	N	1.4	--	--	--	--	--	--	--	--	1.3	--	--	--
MW-64BR	02/21/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-64BR	05/01/20	N	<0.2	--	--	--	--	--	--	--	--	0.056	--	--	--
MW-64BR	09/30/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-64BR	11/30/20	N	<1	2,600 J	--	69	--	4,300	--	--	--	0.1	590	8,700	--
MW-64BR	02/18/21	N	<1	--	--	--	--	--	--	--	--	0.075	--	--	--
MW-64BR	05/27/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-64BR	08/26/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-64BR	12/16/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-65-160	02/20/20	N	250	--	--	--	--	--	--	--	--	14	--	--	--
MW-65-160	04/29/20	N	190	--	--	--	--	--	--	--	--	10	--	--	--
MW-65-160	09/29/20	N	240	--	--	--	--	--	--	--	--	13	--	--	--
MW-65-160	12/03/20	N	210	460	--	130	--	990	--	--	--	11	540	2,600	--
MW-65-160	02/16/21	N	240	--	--	--	--	--	--	--	--	15	--	--	--
MW-65-160	05/27/21	N	270	--	--	--	--	--	--	--	--	15	--	--	--
MW-65-160	08/25/21	N	290	--	--	--	--	--	--	--	--	15	--	--	--
MW-65-160	12/08/21	N	300	--	--	--	--	--	--	--	--	16	--	--	--
MW-65-160	03/09/22	N	250	--	--	--	--	--	--	14	--	--	--	--	--
MW-65-225	02/20/20	N	460	--	--	--	--	--	--	--	--	10	--	--	--
MW-65-225	04/29/20	N	280	--	--	--	--	--	--	--	--	4.9	--	--	--
MW-65-225	09/29/20	N	260	--	--	--	--	--	--	--	--	4	--	--	--
MW-65-225	12/03/20	N	360	1,800	--	88	--	3,200	--	--	--	6	690	6,600	--
MW-65-225	02/16/21	N	330	--	--	--	--	--	--	--	--	6.9	--	--	--
MW-65-225	05/27/21	N	460	--	--	--	--	--	--	--	--	8.3	--	--	--
MW-65-225	08/25/21	N	200	--	--	--	--	--	--	--	--	3.2	--	--	--
MW-65-225	12/08/21	N	83	--	--	--	--	--	--	--	--	2	--	--	--
MW-65-225	12/08/21	FD	83	--	--	--	--	--	--	--	--	1.9	--	--	--
MW-65-225	03/09/22	N	350	--	--	--	--	--	--	5.9	--	--	--	--	--
MW-65-225	03/09/22	FD	340	--	--	--	--	--	--	6	--	--	--	--	--
MW-66-165	04/29/20	N	530	--	--	--	--	--	--	--	--	29	--	--	--
MW-66-165	12/03/20	N	400	420 J	--	120	--	880	--	--	--	24	420	2,200	--

Appendix B
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First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-66-165	12/03/20	FD	410	420	0.42	--	0.9	190	--	0.16	48	0.0031	5.5	--	19 J
MW-66-165	02/16/21	N	400	400 J	--	--	--	--	--	--	--	--	6.4	--	20
MW-66-165	05/05/21	N	520	500 J	<0.1	--	--	240	--	--	--	0.0022	5.8	20 J	24
MW-66-165	09/24/21	N	360	410	<0.1 J	--	--	230 J	--	--	37 J	0.0048	6.7	13	17
MW-66-165	12/07/21	N	350	350	0.49 J	--	--	--	--	--	--	<0.0005 J	5.4	--	11
MW-66-230	04/29/20	N	6,700	6,300	8.4	--	--	--	--	--	--	0.0023	79	--	17
MW-66-230	04/29/20	FD	6,600	6,600	8.7	--	--	--	--	--	--	0.0023	81	--	17
MW-66-230	12/03/20	N	6,500	6,400	8 J	--	3	350	--	<0.1 J	7.1 J	0.0013	72	68 J	12
MW-66-230	12/03/20	FD	6,300	6,500	8 J	--	2.7	360	--	<0.1 J	7.1 J	0.0014	75	--	12
MW-66-230	02/16/21	N	6,000	6,500 J	--	--	--	--	--	--	--	--	75	--	16
MW-66-230	05/05/21	N	6,000	6,200 J	<0.1	--	--	96	--	--	--	0.012	74	57 J	7.6
MW-66-230	09/24/21	N	4,800	5,400	3.4 J	--	--	570 J	--	--	5.3 J	0.014	76	56	7.1
MW-66-230	12/07/21	N	5,000	5,200	8.9 J	--	--	--	--	--	--	0.0081 J	67	--	6.9
MW-66BR-270	06/24/20	N	<1	<1	<0.1	--	--	--	--	--	--	6.70	1.1	--	<0.5
MW-66BR-270	12/16/20	N	<1	1.2	<0.1	--	3	320	--	30	33 J	2.70	3.1	--	<0.5
MW-66BR-270	12/16/20	FD	<1	<1	<0.1	--	2.6	280	--	27 J	30 J	2.80	3	--	<0.5
MW-66BR-270	02/26/21	N	<1	<1	--	--	--	--	--	--	--	--	3.9	--	<0.5
MW-66BR-270	05/05/21	N	<1	<1 J	<0.1	--	--	370	--	--	--	1	1.9	52 J	<0.5
MW-66BR-270	10/08/21	N	<1	<1	0.11	--	--	280	--	--	18 J	0.04	12	38 J	<0.5
MW-66BR-270	12/16/21	N	<1	1.9	<0.1	--	--	--	--	--	--	0.82	--	--	--
MW-67-185	04/30/20	N	2,000	2,000	<0.1	--	--	--	--	--	--	<0.0005	5.1	--	380
MW-67-185	10/06/20	N	2,000	2,000	--	--	--	--	--	--	--	--	--	--	--
MW-67-185	12/02/20	N	2,900	3,000	0.74	--	0.72	640	--	0.11	160	0.0027	14	--	330
MW-67-185	02/16/21	N	640	690 J	--	--	--	--	--	--	--	--	60	--	250
MW-67-185	05/04/21	N	2,000	2,000	<0.1	--	--	820	--	--	--	<0.0005	5.6	20	430
MW-67-185	05/04/21	FD	2,000	1,900	<0.1	--	--	720	--	--	--	<0.0005	5.6	20	430
MW-67-185	09/23/21	N	<100	<5 J	2.2 J	--	--	190 J	--	--	29	1.60	89 J	18	54
MW-67-185	12/07/21	N	<100	<1	<0.1 J	--	--	--	--	--	--	2 J	47	--	26
MW-67-225	04/30/20	N	3,000	3,200	1.3	--	--	--	--	--	--	0.0052	48	--	87
MW-67-225	12/02/20	N	3,800	4,000	5	--	1.5	92	--	2.30	7.1	0.058	58	--	100
MW-67-225	02/16/21	N	4,100	3,500 J	--	--	--	--	--	--	--	--	88	--	92
MW-67-225	05/04/21	N	3,400	3,400	0.81	--	--	150	--	--	--	0.0053	54	17	89
MW-67-225	09/24/21	N	2,100	2,400	<0.1 J	--	--	140 J	--	--	6.3 J	0.032	72	16	72
MW-67-225	12/07/21	N	2,800	3,000	<0.1 J	--	--	--	--	--	--	0.0012 J	42	--	50
MW-67-260	04/30/20	N	1,100	1,100	11	--	--	--	--	--	--	0.12	67	--	<2.5
MW-67-260	12/02/20	N	250	250	1.6	--	0.68	370	--	0.18	<500	0.0015	24	--	1.1
MW-67-260	02/19/21	N	350	380	--	--	--	--	--	--	--	--	35	--	1.1
MW-67-260	05/04/21	N	920	940	<0.1	--	--	340	--	--	--	0.00072	63	67	1.4
MW-67-260	09/24/21	N	770	840	<0.1 J	--	--	340 J	--	--	0.11 J	0.00057	70	77	1.4
MW-67-260	12/07/21	N	810	760	<0.1 J	--	--	--	--	--	--	0.0017 J	60	--	1.4
MW-68-180	02/20/20	N	25,000	27,000	1.8	--	--	--	--	--	--	0.0061	63	--	15
MW-68-180	04/30/20	N	41,000	43,000	1.8	--	--	--	--	--	--	0.0096	53	--	21
MW-68-180	09/29/20	N	54,000	51,000	2.4	--	--	--	--	--	--	0.0069	57	--	28
MW-68-180	12/16/20	N	61,000	66,000	3.1	--	0.68	590	--	0.1 J	62 J	0.00079	53	17 J	22

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-66-165	12/03/20	FD	410	390	--	110	--	870	--	--	--	23	420	2,200	--
MW-66-165	02/16/21	N	400	--	--	--	--	--	--	--	--	22 J	--	--	--
MW-66-165	05/05/21	N	520	530	--	--	--	940	--	--	--	24	450	2,300	--
MW-66-165	09/24/21	N	360	490	--	--	--	820	--	--	--	19	360	2,100	--
MW-66-165	12/07/21	N	350	--	--	--	--	--	--	--	--	19	--	--	--
MW-66-230	04/29/20	N	6,700	--	--	--	--	--	--	--	--	23	--	--	--
MW-66-230	04/29/20	FD	6,600	--	--	--	--	--	--	--	--	23	--	--	--
MW-66-230	12/03/20	N	6,500	4,000 J	--	31	--	6,100	--	--	--	13	1,100	13,000	--
MW-66-230	12/03/20	FD	6,300	3,500 J	--	32	--	6,300	--	--	--	14	1,100	14,000	--
MW-66-230	02/16/21	N	6,000	--	--	--	--	--	--	--	--	23 J	--	--	--
MW-66-230	05/05/21	N	6,000	5,300	--	--	--	6,600	--	--	--	11	1,000	12,000	--
MW-66-230	09/24/21	N	4,800	5,200	--	--	--	7,000	--	--	--	8.8	990	13,000	--
MW-66-230	12/07/21	N	5,000	--	--	--	--	--	--	--	--	10	--	--	--
MW-66BR-270	06/24/20	N	<1	--	--	--	--	--	--	--	--	0.47	--	--	--
MW-66BR-270	12/16/20	N	<1	3,500 J	--	6.4	--	5,600	--	--	--	<0.05	250	12,000	--
MW-66BR-270	12/16/20	FD	<1	3,600 J	--	5.3	--	5,600	--	--	--	<0.05	250	11,000	--
MW-66BR-270	02/26/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-66BR-270	05/05/21	N	<1	4,700	--	--	--	6,200	--	--	--	<0.05	290	10,000	--
MW-66BR-270	05/05/21	N	<1	4,700	--	--	--	6,200	--	--	--	<0.05	290	10,000	--
MW-66BR-270	10/08/21	N	<1	3,600	--	--	--	5,600	--	--	--	<0.1	250	9,200	--
MW-66BR-270	12/16/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-67-185	04/30/20	N	2,000	--	--	--	--	--	--	--	--	91	--	--	--
MW-67-185	10/06/20	N	2,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-67-185	12/02/20	N	2,900	420	--	80	--	1,900	--	--	--	89	640	4,900	--
MW-67-185	02/16/21	N	640	--	--	--	--	--	--	--	--	78 J	--	--	--
MW-67-185	05/04/21	N	2,000	920 J	--	--	--	2,300	--	--	--	100	590	5,300	--
MW-67-185	05/04/21	FD	2,000	940 J	--	--	--	2,300	--	--	--	95	580	6,100	--
MW-67-185	09/23/21	N	<100	330	--	--	--	910	--	--	--	0.12	360	2,100	--
MW-67-185	12/07/21	N	<100	--	--	--	--	--	--	--	--	8.5	--	--	--
MW-67-225	04/30/20	N	3,000	--	--	--	--	--	--	--	--	27	--	--	--
MW-67-225	12/02/20	N	3,800	1,100	--	160	--	1,300	--	--	--	28	1,300	4,300	--
MW-67-225	02/16/21	N	4,100	--	--	--	--	--	--	--	--	26 J	--	--	--
MW-67-225	05/04/21	N	3,400	1,600 J	--	--	--	1,500	--	--	--	26	1,100	4,700	--
MW-67-225	09/24/21	N	2,100	1,400	--	--	--	1,300	--	--	--	32	990	4,000	--
MW-67-225	12/07/21	N	2,800	--	--	--	--	--	--	--	--	15	--	--	--
MW-67-260	04/30/20	N	1,100	--	--	--	--	--	--	--	--	0.62	--	--	--
MW-67-260	12/02/20	N	250	1,100	--	2,100	--	730	--	--	--	0.61	170	7,200	--
MW-67-260	02/19/21	N	350	--	--	--	--	--	--	--	--	0.71	--	--	--
MW-67-260	05/04/21	N	920	4,400 J	--	--	--	5,500	--	--	--	0.65	720	11,000	--
MW-67-260	09/24/21	N	770	4,500	--	--	--	5,300	--	--	--	0.61	690	11,000	--
MW-67-260	12/07/21	N	810	--	--	--	--	--	--	--	--	0.66	--	--	--
MW-68-180	02/20/20	N	25,000	--	--	--	--	--	--	--	--	29	--	--	--
MW-68-180	04/30/20	N	41,000	--	--	--	--	--	--	--	--	36	--	--	--
MW-68-180	09/29/20	N	54,000	--	--	--	--	--	--	--	--	35	--	--	--
MW-68-180	12/16/20	N	61,000	740 J	--	110	--	840	--	--	--	24 J	1,700	4,200	--

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-68-180	12/16/20	FD	61,000	63,000	3.1	--	<500	580	--	<0.1 J	60 J	0.0028	54	18 J	24
MW-68-180	02/19/21	N	63,000	66,000	3.2	--	--	--	--	--	--	<0.0005	53	--	23
MW-68-180	05/04/21	N	37,000	37,000	2	--	--	420	--	--	--	<0.0005	46	13	14
MW-68-180	06/28/21	N	62,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	07/27/21	N	65,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	08/16/21	N	47,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	09/09/21	N	49,000	60,000	1	--	--	--	--	--	--	0.0014	55	--	25
MW-68-180	09/23/21	N	46,000	56,000 J	1 J	--	--	680 J	--	--	65	<0.0005	58 J	18	25
MW-68-180	10/07/21	N	49,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	11/02/21	N	34,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	12/07/21	N	26,000	28,000	1.9 J	--	--	--	--	--	--	<0.0005 J	50	--	15
MW-68-180	03/09/22	N	34,000	37,000	--	--	--	--	--	--	--	--	53	--	17
MW-68-240	04/30/20	N	2,000	2,000	<0.5	--	--	--	--	--	--	0.017	22	--	3.7
MW-68-240	12/16/20	N	2,000	2,000	1.7	--	2.2	420	--	<0.02 J	21 J	0.02	24	46 J	3.8
MW-68-240	12/16/20	FD	2,000	1,900	1.9	--	2.3	440 J	--	<0.02 J	22 J	0.019	24	43 J	3.3
MW-68-240	02/19/21	N	1,900	2,000	--	--	--	--	--	--	--	--	24	--	5
MW-68-240	02/19/21	FD	1,900	2,000	--	--	--	--	--	--	--	--	24	--	4.2
MW-68-240	05/04/21	N	2,000	2,000	<0.1	--	--	590	--	--	--	0.023	24	38	4.1
MW-68-240	09/23/21	N	1,800	2,000 J	<0.1 J	--	--	660 J	--	--	19	0.018	28 J	43	4.4
MW-68-240	12/07/21	N	1,900	2,000	<0.1 J	--	--	--	--	--	--	0.012 J	25	--	3.9
MW-68-240	12/07/21	FD	1,900	1,900	<0.1 J	--	--	--	--	--	--	0.012 J	24	--	3.4
MW-68BR-280	04/30/20	N	<1	<1	0.36	--	--	--	--	--	--	0.11	13	--	<2.5
MW-68BR-280	12/16/20	N	<1	<1	0.35	--	2.2	370	--	0.03 J	3.4 J	0.059	17 J	51 J	<0.5
MW-68BR-280	12/16/20	FD	<1	1.4	0.46	--	2.5	400	--	0.027 J	3.7 J	0.06	18 J	53 J	<0.5
MW-68BR-280	02/19/21	N	<1	<1	--	--	--	--	--	--	--	--	20	--	<0.5
MW-68BR-280	05/04/21	N	<1	1.3	<0.1	--	--	410	--	--	--	0.055	24	44	<0.5
MW-68BR-280	09/23/21	N	<1	<1 J	<0.1 J	--	--	340 J	--	--	2.7	0.068	27 J	47	<0.5
MW-68BR-280	12/02/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.06	--	--	--
MW-69-195	02/25/20	N	150	140	2	--	--	--	--	--	--	0.0065	68	--	7.9
MW-69-195	05/01/20	N	170	170	1.6	--	--	--	--	--	--	0.012 J	53	--	7
MW-69-195	05/01/20	FD	180	170	1.6	--	--	--	--	--	--	0.0092 J	52	--	7.2
MW-69-195	09/29/20	N	350	380	3.3	--	--	--	--	--	--	0.16	58	--	10
MW-69-195	12/03/20	N	6	9.4	1.7	--	1.1	79	--	0.49	12	0.023	70	--	6 J
MW-69-195	02/15/21	N	29	59	2.8	--	--	--	--	--	--	0.0068	67	--	8.3
MW-69-195	02/15/21	FD	27	59	2.8	--	--	--	--	--	--	0.007	68	--	7.8
MW-69-195	05/27/21	N	610	650	0.61 J	--	--	--	--	--	--	0.0014	66	--	12
MW-69-195	05/27/21	FD	610	630	0.73 J	--	--	--	--	--	--	0.0013	64	--	12
MW-69-195	08/26/21	N	480	460	1.2 J	--	--	--	--	--	--	0.0022	62	--	11
MW-69-195	12/08/21	N	410	390	0.86	--	--	--	--	--	--	0.0021 J	54	--	11
MW-69-195	03/09/22	N	430	450	--	--	--	--	--	--	--	--	59	--	12
MW-70-105	11/30/20	N	150	150	4.3	--	0.95 J	72 J	--	<0.02	11 J	0.048	84	--	3.2
MW-70-105	02/15/21	N	140	150	--	--	--	--	--	--	--	--	79	--	3.3
MW-70-105	05/17/21	N	150	140	2.7	--	--	--	--	--	--	0.035	86	--	3.3
MW-70-105	12/09/21	N	210	220	3 J	--	--	--	--	--	--	0.0028	62	--	4.5

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-68-180	12/16/20	FD	61,000	740	--	100	--	850	--	--	--	10 J	1,700	4,300	--
MW-68-180	02/19/21	N	63,000	--	--	--	--	--	--	--	--	23	--	--	--
MW-68-180	05/04/21	N	37,000	550 J	--	--	--	740	--	--	--	15	1,100	3,000	--
MW-68-180	06/28/21	N	62,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	07/27/21	N	65,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	08/16/21	N	47,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	09/09/21	N	49,000	--	--	--	--	--	--	--	--	34	--	--	--
MW-68-180	09/23/21	N	46,000	680	--	--	--	1,100	--	--	--	34	1,400	4,300	--
MW-68-180	10/07/21	N	49,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	11/02/21	N	34,000	--	--	--	--	--	--	--	--	--	--	--	--
MW-68-180	12/07/21	N	26,000	--	--	--	--	--	--	--	--	27	--	--	--
MW-68-180	03/09/22	N	34,000	--	--	--	--	--	--	25	--	--	--	--	--
MW-68-240	04/30/20	N	2,000	--	--	--	--	--	--	--	--	4.1	--	--	--
MW-68-240	12/16/20	N	2,000	2,400	--	62	--	4,900	--	--	--	3.7	890	12,000	--
MW-68-240	12/16/20	FD	2,000	3,300	--	64	--	4,900	--	--	--	4	880	11,000	--
MW-68-240	02/19/21	N	1,900	--	--	--	--	--	--	--	--	4.6	--	--	--
MW-68-240	02/19/21	FD	1,900	--	--	--	--	--	--	--	--	4.4	--	--	--
MW-68-240	05/04/21	N	2,000	4,200 J	--	--	--	5,400	--	--	--	4.2	880	11,000	--
MW-68-240	09/23/21	N	1,800	4,300	--	--	--	5,400	--	--	--	4.8	890	11,000	--
MW-68-240	12/07/21	N	1,900	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-68-240	12/07/21	FD	1,900	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-68BR-280	04/30/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-68BR-280	12/16/20	N	<1	3,800 J	--	15	--	6,900	--	--	--	<0.1	680	13,000 J	--
MW-68BR-280	12/16/20	FD	<1	4,700	--	15	--	6,700	--	--	--	<0.05	680	12,000	--
MW-68BR-280	02/19/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-68BR-280	05/04/21	N	<1	5,400 J	--	--	--	7,300	--	--	--	<0.05	690	13,000	--
MW-68BR-280	09/23/21	N	<1	5,900	--	--	--	7,200	--	--	--	<0.1	670	13,000	--
MW-68BR-280	12/02/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-69-195	02/25/20	N	150	--	--	--	--	--	--	--	--	11	--	--	--
MW-69-195	05/01/20	N	170	--	--	--	--	--	--	--	--	11	--	--	--
MW-69-195	05/01/20	FD	180	--	--	--	--	--	--	--	--	9.6	--	--	--
MW-69-195	09/29/20	N	350	--	--	--	--	--	--	--	--	20	--	--	--
MW-69-195	12/03/20	N	6	360	--	190	--	410	--	--	--	5.5	430	1,500	--
MW-69-195	02/15/21	N	29	--	--	--	--	--	--	--	--	4.7	--	--	--
MW-69-195	02/15/21	FD	27	--	--	--	--	--	--	--	--	4.9	--	--	--
MW-69-195	05/27/21	N	610	--	--	--	--	--	--	--	--	16	--	--	--
MW-69-195	05/27/21	FD	610	--	--	--	--	--	--	--	--	18	--	--	--
MW-69-195	08/26/21	N	480	--	--	--	--	--	--	--	--	17	--	--	--
MW-69-195	12/08/21	N	410	--	--	--	--	--	--	--	--	16	--	--	--
MW-69-195	03/09/22	N	430	--	--	--	--	--	--	18	--	--	--	--	--
MW-70-105	11/30/20	N	150	500 J	--	98	--	840	--	--	--	2.9	240	1,900	--
MW-70-105	02/15/21	N	140	--	--	--	--	--	--	--	--	2.5	--	--	--
MW-70-105	05/17/21	N	150	--	--	--	--	--	--	--	--	3.3	--	--	--
MW-70-105	12/09/21	N	210	--	--	--	--	--	--	--	--	5.1	--	--	--

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-70BR-225	11/30/20	N	1,300	1,300	1.7	--	1.8 J	600 J	--	<0.02	32 J	0.0071	19	--	2.2
MW-70BR-225	05/17/21	N	1,200	1,200	<0.1	--	--	--	--	--	--	0.014	21	--	2.3
MW-70BR-225	12/09/21	N	1,400	1,400	<0.1 J	--	--	--	--	--	--	0.014	19	--	2.2
MW-70BR-287	07/24/20	N	<1	9.3	--	--	--	--	--	--	--	--	--	--	--
MW-70BR-287	07/24/20	N	3.2	21	--	--	--	--	--	--	--	--	--	--	--
MW-70BR-287	07/24/20	N	11	76	--	--	--	--	--	--	--	--	--	--	--
MW-70BR-287	08/21/20	N	350	330	<0.1	88	1.7	530	0.82	0.071	2.5	0.0039	59	43	1.2
MW-70BR-287	08/21/20	N	370	330	<0.1	83	1.8	520	0.54	<0.02	4.6	0.021	55	43	1.3
MW-70BR-287	08/21/20	N	330 J	310	<0.1	88	1.6	580	0.31	0.04	12	0.088	47	43	1.5
MW-70BR-287	09/28/20	N	290	290	2.3 J	94	2.6 J	470 J	1.40 J	0.2 J	0.73 J	0.0069	55	43	1.4
MW-70BR-287	11/18/20	N	240	200 J	<0.1	120	2.4	330 J	4.20	<0.02	7.9	0.015	54	47	1.2
MW-70BR-287	11/18/20	N	270	240 J	<0.1	80	2.5	330 J	0.46	<0.02	2.2	0.0021	53	48	1.1
MW-70BR-287	11/18/20	N	270	240 J	<0.1	86	2.5	350 J	0.3	<0.02	1.8	0.0031	52	48	1.1
MW-70BR-287	12/02/20	N	120	110	2.1	140	2.4 J	340 J	2	<0.02	11 J	0.047	56	43 J	1.1
MW-70BR-287	01/25/21	N	100	100	<0.1 J	100	1.9	360 J	0.41	0.05 J	6.5	0.0047	50	47 J	1.6
MW-70BR-287	02/15/21	N	160	150	<0.1 J	93	1.7	310	0.12 J	0.03	3.5	0.0015 J	52 J	49 J	1.3
MW-70BR-287	02/15/21	FD	160	150	<0.1 J	85	1.6	350	0.15 J	0.082	3.8	0.0014 J	48 J	50 J	1.4
MW-70BR-287	05/17/21	N	220	200	<0.1	80	1.9	530	0.08	<0.02	0.56	0.0024	52	42 J	1.1
MW-70BR-287	08/19/21	N	280	310	<0.1	63 J	1.7	470 J	0.074 J	<0.02	2 J	0.0011	52	38	1
MW-70BR-287	12/09/21	N	350	340	<0.1 J	--	--	--	--	--	--	<0.0005	--	--	--
MW-71-035	05/01/20	N	<1	<1	2.2	--	--	--	--	--	--	0.066	15	--	<0.5
MW-71-035	12/15/20	N	<1	<1	1.3	--	3	790 J	--	<0.1	81	0.28	16	--	<0.5
MW-71-035	05/26/21	N	<1	<1	<0.1 J	--	--	--	--	--	--	0.2	15	--	<0.5
MW-71-035	12/16/21	N	<1	<1	<0.1	42	--	--	--	0.031 J	--	0.071	15	--	<0.5
MW-71-035	02/02/22	N	<1	--	<0.1	47	--	--	--	0.12	--	0.0057	--	--	--
MW-71-035	03/14/22	N	<1	<1	<0.1 J	47	--	--	--	0.036	--	0.02	13	--	<0.5
MW-72-080	02/20/20	N	96	85	12	--	--	--	--	--	--	0.015	75	--	<2.5
MW-72-080	04/28/20	N	100	95	6.5	--	--	--	--	--	--	0.089	74	--	1.3
MW-72-080	09/29/20	N	79	75	6.8	--	--	--	--	--	--	0.086	81	--	1.4
MW-72-080	12/03/20	N	86	78	12 J	--	4.4	300	--	0.45 J	9.9 J	0.044	76	--	1.6
MW-72-080	02/18/21	N	70	72 J	11	--	--	--	--	--	--	0.12	82	--	1.8
MW-72-080	05/27/21	N	66	62	<0.1 J	--	--	--	--	--	--	0.05	81	--	1.3
MW-72-080	08/27/21	N	61	58	2.9 J	--	--	--	--	--	--	0.055	77	--	1.4
MW-72-080	12/09/21	N	71	66	4.4 J	--	--	--	--	--	--	0.031	72	--	1.5
MW-72BR-200	02/20/20	N	1.2	2.9	12	--	--	--	--	--	--	0.1	71	--	<0.5
MW-72BR-200	04/28/20	N	<1	2.1	6.5	--	--	--	--	--	--	0.2	73	--	<0.5
MW-72BR-200	09/29/20	N	<1	1.7	13	--	--	--	--	--	--	0.15	83	--	<0.5
MW-72BR-200	12/03/20	N	<1	<1	14 J	--	5	270	--	<0.1 J	4.3 J	0.12	77	--	<0.5
MW-72BR-200	02/18/21	N	<1	<1 J	14	--	--	--	--	--	--	0.12	79	--	<0.5
MW-72BR-200	05/27/21	N	<1	<1	1.3 J	--	--	--	--	--	--	0.13	75	--	<0.5
MW-72BR-200	05/27/21	FD	<1	<1	3.8 J	--	--	--	--	--	--	0.13	77	--	<0.5
MW-72BR-200	08/27/21	N	<1	3	5.7 J	--	--	--	--	--	--	0.1	80	--	<0.5
MW-72BR-200	12/09/21	N	<1	1.5	7.6 J	--	--	--	--	--	--	0.051	--	--	--
MW-73-080	02/20/20	N	21	19	<0.1	--	--	--	--	--	--	0.0094	33	--	3.7

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-70BR-225	11/30/20	N	1,300	2,000 J	--	47	--	3,900	--	--	--	3.2	720	8,300	--
MW-70BR-225	05/17/21	N	1,200	--	--	--	--	--	--	--	--	3.2	--	--	--
MW-70BR-225	12/09/21	N	1,400	--	--	--	--	--	--	--	--	3.4	--	--	--
MW-70BR-287	07/24/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-70BR-287	07/24/20	N	3.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-70BR-287	07/24/20	N	11	--	--	--	--	--	--	--	--	--	--	--	--
MW-70BR-287	08/21/20	N	350	3,300	3.3	50	<0.2	5,100	4.6	--	--	2	810	12,000	<1
MW-70BR-287	08/21/20	N	370	3,200	3	60	<0.2	5,100	4.3	--	--	1.9	820	12,000	<1
MW-70BR-287	08/21/20	N	330 J	3,000	2.3	43	<0.2	5,100	4	--	--	2.1	810	12,000	<1
MW-70BR-287	09/28/20	N	290	3,000	4	100	<0.2	5,100	10	--	--	1.8	790	11,000	<1 J
MW-70BR-287	11/18/20	N	240	3,200	1.4	74	<0.2	5,300	4.6	--	--	1.7	840	10,000	<1 J
MW-70BR-287	11/18/20	N	270	3,300	2.1	52	<0.2	5,200	3.9	--	--	1.4	820	11,000	<1 J
MW-70BR-287	11/18/20	N	270	3,300	2.2	65	<0.2	5,100	3.9	--	--	1.4	810	11,000	<1 J
MW-70BR-287	12/02/20	N	120	2,700	<1	26	0.21	5,100	4.4	--	--	1.5	840	9,500	<1
MW-70BR-287	01/25/21	N	100	2,600 J	1.4	28	0.22	5,000	3.9	--	--	0.17	810	10,000	<1
MW-70BR-287	02/15/21	N	160	2,700	1.6	30	<0.22	5,000	4.3	--	--	0.59 J	800	10,000	<1 J
MW-70BR-287	02/15/21	FD	160	2,900	1.8	32	<0.22	5,000	4.4	--	--	1.5 J	810	11,000	<1 J
MW-70BR-287	05/17/21	N	220	4,000 J	2.5	71	<0.2	5,200	4.5	--	--	0.99	800	11,000	<1
MW-70BR-287	08/19/21	N	280	3,800 J	1.7	34	0.28	5,100	3.7	--	--	1.3	800	11,000	<1
MW-70BR-287	12/09/21	N	350	--	--	--	--	--	--	--	--	--	--	--	--
MW-71-035	05/01/20	N	<1	--	--	--	--	--	--	--	--	0.19	--	--	--
MW-71-035	12/15/20	N	<1	3,000	--	190	--	5,300	--	--	--	0.092	1,200	12,000	--
MW-71-035	05/26/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-71-035	12/16/21	N	<1	--	--	--	<0.2	--	--	--	<5	<0.1	1,200	--	<1
MW-71-035	02/02/22	N	<1	--	--	--	--	--	--	<0.5	--	--	1,100	--	<1
MW-71-035	03/14/22	N	<1	--	--	--	<0.23	--	--	<0.5	--	--	1,200	--	<1
MW-72-080	02/20/20	N	96	--	--	--	--	--	--	--	--	0.63	--	--	--
MW-72-080	04/28/20	N	100	--	--	--	--	--	--	--	--	1	--	--	--
MW-72-080	09/29/20	N	79	--	--	--	--	--	--	--	--	0.59	--	--	--
MW-72-080	12/03/20	N	86	3,200 J	--	46	--	5,000	--	--	--	1.3	690	10,000	--
MW-72-080	02/18/21	N	70	--	--	--	--	--	--	--	--	1	--	--	--
MW-72-080	05/27/21	N	66	--	--	--	--	--	--	--	--	0.85	--	--	--
MW-72-080	08/27/21	N	61	--	--	--	--	--	--	--	--	1.2	--	--	--
MW-72-080	12/09/21	N	71	--	--	--	--	--	--	--	--	1.2	--	--	--
MW-72BR-200	02/20/20	N	1.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-72BR-200	04/28/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-72BR-200	09/29/20	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-72BR-200	12/03/20	N	<1	2,600 J	--	25	--	5,000	--	--	--	<0.1	700	9,400	--
MW-72BR-200	02/18/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-72BR-200	05/27/21	N	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-72BR-200	05/27/21	FD	<1	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-72BR-200	08/27/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-72BR-200	12/09/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-73-080	02/20/20	N	21	--	--	--	--	--	--	--	--	2.9	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-73-080	04/28/20	N	26	24	<0.1	--	--	--	--	--	--	0.0045	36	--	4.2
MW-73-080	09/30/20	N	18	21	0.29	--	--	--	--	--	--	0.0083	47	--	4.6 J
MW-73-080	12/03/20	N	11	11	<0.1 J	--	1.2	290	--	0.025 J	33 J	0.0057	36	--	4.1
MW-73-080	02/18/21	N	11	12 J	2	--	--	--	--	--	--	0.0068	37	--	4.3
MW-73-080	05/27/21	N	24	23	<0.1 J	--	--	--	--	--	--	0.0091	35	--	3.8
MW-73-080	05/27/21	FD	25	23	<0.1 J	--	--	--	--	--	--	0.01	35	--	3.8
MW-73-080	08/27/21	N	19	22	<0.1 J	--	--	--	--	--	--	0.0028	35	--	4.5
MW-73-080	12/09/21	N	9.7	11	<0.1 J	--	--	--	--	--	--	0.018	35	--	3.8
MW-74-240	04/30/20	N	<0.2	1.5	11	--	--	--	--	--	--	0.017	20	--	<0.5
MW-74-240	12/03/20	N	<0.2	<1	9.9 J	--	0.29	4.2	--	0.12 J	0.56 J	0.0043	26	--	<0.5
MW-74-240	06/07/21	N	<0.2	<1	6.6 J	--	--	--	--	--	--	0.0055 J	44	--	<0.5
MW-74-240	06/07/21	FD	<0.2	<1	6.8 J	--	--	--	--	--	--	0.0055 J	43	--	<0.5
MW-74-240	12/08/21	N	<0.2	<1	6.5	--	--	--	--	--	--	0.0074 J	46	--	<0.5
MW-75-033	01/30/20	N	27	30	2.9	61	0.81	120	3.10	0.6	25	0.19	16	8.5	1.8
MW-75-033	02/17/20	N	35	34	2.6	57 J	0.51	110	0.34 J	0.035	18	0.12	16	8.5	2
MW-75-033	03/16/20	N	31	31	2.1	53 J	0.52	100	0.17 J	0.14 J	19	0.035	13	7.7	1.9
MW-75-033	04/20/20	N	94	88	1.7	97	0.59	190	5.30	0.12 J	38	0.02	11	10	5.4
MW-75-033	05/18/20	N	54	51	1.1	86	0.56	190	0.57	0.05 J	39 J	0.002	11	11 J	7
MW-75-033	05/18/20	FD	54	50	1.1	83	0.55	190	0.56	0.044 J	40 J	0.0018	11	11 J	6.8
MW-75-033	06/15/20	N	19	20	0.85 J	87	0.65	200	1.40	0.049	42	0.0034	10	12 J	2.6
MW-75-033	07/21/20	N	22	24	0.85 J	91	0.6	170	0.61	<0.02 J	36	0.023	9.5	10 J	2.8
MW-75-033	08/17/20	N	30	29	0.78	80	1.4	230	4.90 J	3.80 J	40 J	0.018	9.8	10	2.6
MW-75-033	09/28/20	N	23	25	1.1 J	83	0.58 J	120 J	0.65 J	0.12 J	33 J	0.022	9.8	6.9	2.4
MW-75-033	10/19/20	N	28	64	7.3 J	170	0.59	150	5.70 J	4.10 J	31 J	0.9 J	8.1	11 J	2.3
MW-75-033	12/01/20	N	39	38	2.2	57	0.73 J	110 J	1.40	0.023 J	28 J	0.018	11	7.5 J	2.2
MW-75-033	12/01/20	FD	38	38	2.1	58	1 J	110 J	1.50	0.03 J	28 J	0.02	11	7.4 J	2.2
MW-75-033	02/16/21	N	34	35	0.88 J	51	0.6	90 J	0.24 J	0.031	20 J	0.018	12 J	6.9 J	1.9
MW-75-033	05/17/21	N	33	32	0.7	89	0.59	200	0.39	<0.02	38	0.017	9.4	9.2 J	1.8
MW-75-033	08/17/21	N	29	28	<0.1	64	0.57	160	0.22 J	<0.02	31 J	0.011	8.1	9.3 J	1.9
MW-75-033	11/29/21	N	42	39	--	--	--	--	--	--	--	--	--	--	--
MW-75-033	03/02/22	N	39	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-033	03/02/22	FD	40	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-117	01/30/20	N	5.1	5.4	<0.5	73	1	340	0.078	0.02	87	0.38	31	19	<2.5
MW-75-117	02/17/20	N	4.8	4.8	1.2	77 J	0.9	300	0.4 J	0.036	67	0.39	31	19	1.2
MW-75-117	03/16/20	N	5.3	4.7	<0.1	67 J	0.81	240	0.092 J	0.088 J	61	0.36	32	18	1.2
MW-75-117	03/16/20	FD	5.3	5.1	<0.1	67 J	0.8	240	0.059 J	0.042 J	60	0.38	34	18	1.2
MW-75-117	04/20/20	N	8	7.7	<0.1	67	0.8	200	0.29	0.081 J	49	0.36	36	18	1.5
MW-75-117	05/18/20	N	5.4	7.4	<0.1	66	0.8	190	0.58	0.15 J	47 J	0.3	38	18 J	1.4
MW-75-117	06/15/20	N	4.9	5.8	<0.1 J	62	0.85	180	0.48	0.12	43	0.26	39	17 J	1.4
MW-75-117	07/20/20	N	8.4	8.6	<0.1 J	69	0.82	160	0.17	<0.02	42 J	0.3 J	41	15 J	1.3
MW-75-117	08/17/20	N	1.6	3	<0.1	70	1.5	220	0.46 J	<0.02 J	54 J	0.34	40	18	1.5
MW-75-117	09/28/20	N	2.1	2.8	<0.1 J	83	0.93 J	230 J	0.28 J	<0.02 J	50 J	0.33	39	14	2
MW-75-117	10/20/20	N	5.6	5.5	1.3 J	73	1	210	0.7 J	<0.02	58 J	0.29	33	31 J	1.3
MW-75-117	12/01/20	N	7.8	8.2	1.1	68	1.1 J	180 J	0.37	<0.02	75 J	0.19	33	20 J	1.4

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-73-080	04/28/20	N	26	--	--	--	--	--	--	--	--	3.9	--	--	--
MW-73-080	09/30/20	N	18	--	--	--	--	--	--	--	--	4.5	--	--	--
MW-73-080	12/03/20	N	11	1,100 J	--	100	--	2,900	--	--	--	3.2	400	5,800	--
MW-73-080	02/18/21	N	11	--	--	--	--	--	--	--	--	3.4	--	--	--
MW-73-080	05/27/21	N	24	--	--	--	--	--	--	--	--	3	--	--	--
MW-73-080	05/27/21	FD	25	--	--	--	--	--	--	--	--	3.5	--	--	--
MW-73-080	08/27/21	N	19	--	--	--	--	--	--	--	--	3.5	--	--	--
MW-73-080	12/09/21	N	9.7	--	--	--	--	--	--	--	--	3.5	--	--	--
MW-74-240	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
MW-74-240	12/03/20	N	<0.2	170 J	--	200	--	88	--	--	--	<0.1	61	480	--
MW-74-240	06/07/21	N	<0.2	--	--	--	--	--	--	--	--	0.064	--	--	--
MW-74-240	06/07/21	FD	<0.2	--	--	--	--	--	--	--	--	0.085	--	--	--
MW-74-240	12/08/21	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
MW-75-033	01/30/20	N	27	670	4.5	100	0.14	920	3.3	--	--	2	220	1,900	<1
MW-75-033	02/17/20	N	35	620	3.6	100	0.09 J	850	3.4	--	--	2.4	210	1,900	<10
MW-75-033	03/16/20	N	31	560	3.3	100	0.12	900	3.1	--	--	2.4 J	210	2,000	<1 J
MW-75-033	04/20/20	N	94	730	2.8	100	<0.1	1,300	2.4	--	--	2.4	290	3,200	<1
MW-75-033	05/18/20	N	54	810	2.8	100	<0.2	1,400	2.4	--	--	2.9	300	3,100	<1 J
MW-75-033	05/18/20	FD	54	840	2.8	99	<0.2	1,300	2.5	--	--	2.9	290	3,100	<1 J
MW-75-033	06/15/20	N	19	840	2.9	88	<0.2	1,500	2.3	--	--	1.7 J	260	3,300	<1
MW-75-033	07/21/20	N	22	810	2.9	81	<0.2	1,400	2.6	--	--	2.1 J	260	3,100	<1
MW-75-033	08/17/20	N	30	780	3.2	82	<0.2	1,300	2.7	--	--	1.1	250	2,900	<1 J
MW-75-033	09/28/20	N	23	630	3.3	83	<0.2	1,400	2.8	--	--	2.1	250	3,100	<1 J
MW-75-033	10/19/20	N	28	760	24	78	<0.2	1,100	2.2	--	--	2.1	220	2,600	<1 J
MW-75-033	12/01/20	N	39	490	3.1	91	<0.2	1,100	3.1	--	--	2.5	230	2,300	<1
MW-75-033	12/01/20	FD	38	490	3.2	91	<0.2	1,100	3.1	--	--	2.7	230	2,300	<1
MW-75-033	02/16/21	N	34	510 J	3.7	93	<0.2	1,000	3.1	--	--	2	220	2,100	<10
MW-75-033	05/17/21	N	33	560 J	3.1	81	<0.2	1,400	2.7	--	--	2.2	250	3,000	<1
MW-75-033	08/17/21	N	29	730 J	2.8	83	<0.2	1,300	2.5	--	--	2.2	240	3,000	<1
MW-75-033	11/29/21	N	42	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-033	03/02/22	N	39	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-033	03/02/22	FD	40	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-117	01/30/20	N	5.1	3,000	1.1	73	0.09 J	4,200	3.2	--	--	2.1	640	8,500	<1
MW-75-117	02/17/20	N	4.8	2,900	1.7	76	0.11	4,000	3.3	--	--	2.2	610	8,400	<1
MW-75-117	03/16/20	N	5.3	2,400	1.1	74	0.11	3,700	3.3	--	--	1.8 J	570	8,200	<1 J
MW-75-117	03/16/20	FD	5.3	2,300	1.2	75	<0.1	3,800	3.4	--	--	1.8 J	580	8,300	<1 J
MW-75-117	04/20/20	N	8	2,400	1.4	75	<0.1	3,500	3.1	--	--	2.3	580	7,500	<1
MW-75-117	05/18/20	N	5.4	2,600	1.6	72	<0.2	3,400	3.5	--	--	2.6	580	7,200	<1 J
MW-75-117	06/15/20	N	4.9	2,300	1.6	73	--	3,300	3.5	--	--	2.5 J	550	7,300	<20
MW-75-117	07/20/20	N	8.4	2,700	1.4	70	<0.2	3,400	3.2	--	--	2.5	540	7,400	<1 J
MW-75-117	08/17/20	N	1.6	2,400	1.6	70	<0.2	3,600	3.4	--	--	2.4	520	7,800	<10 J
MW-75-117	09/28/20	N	2.1	1,900	1.5	72	<0.2	3,700	3.8	--	--	2.8	530	7,800	<1 J
MW-75-117	10/20/20	N	5.6	2,100	1.4	72	<0.2	3,800 J	3.3	--	--	2.2	550	7,800	<1
MW-75-117	12/01/20	N	7.8	2,200	1.1	75	<0.2	3,800	3.5	--	--	2.5	610	8,400	<1

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-75-117	02/16/21	N	6.5	6.7	<0.1 J	61	0.77	170 J	0.15 J	0.022	62 J	0.087	35 J	27 J	1.3
MW-75-117	05/17/21	N	13	13	<0.1	60	0.83	190	0.098	<0.02	42	0.059	42	14 J	1.2
MW-75-117	08/17/21	N	7.4	7	<0.1	64	0.88	240	0.033 J	<0.02	55 J	0.15	33	24 J	1.4
MW-75-117	11/29/21	N	10	10	--	--	--	--	--	--	--	--	--	--	--
MW-75-117	03/02/22	N	2.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	01/30/20	N	<1	<5	<0.5	93	1.5	480	<0.1	0.025	60	1.90	58	23	<2.5
MW-75-202	02/17/20	N	<1	<1	2.7	98 J	1.1	430	<0.1	0.046	49	2	61	22	<0.5
MW-75-202	03/17/20	N	<1	<1	3.1	82 J	1.1	470	0.34 J	0.21 J	51	2.10	59	25	<0.5
MW-75-202	04/21/20	N	<1	<1	4.2	98	1.1	440	0.17	0.2	41	2.60	62	23	<0.5
MW-75-202	05/18/20	N	<1	2.2	3.7	93	1	400	0.16	0.19 J	52 J	2.70	61	25 J	<0.5
MW-75-202	06/16/20	N	<1	<1	<0.1 J	100	1.1	380	0.21 J	0.21	62	2.50	67	25 J	<0.5
MW-75-202	07/20/20	N	<1	1.1	2.5 J	81	1	380	0.077	0.036	51 J	2.20 J	59	21 J	<0.5
MW-75-202	08/17/20	N	<1	<1	2.5	77	1.2	68	<0.02 J	<0.02 J	11 J	2	59	23	0.59
MW-75-202	09/28/20	N	<1	<1	1.8 J	76	1 J	440 J	<0.1 J	<0.1 J	59 J	1.80	54	21	<0.5
MW-75-202	10/19/20	N	<1	<1	1.8 J	72	1.2	400	<0.02	<0.02	56 J	1.50 J	48	56 J	<0.5
MW-75-202	12/01/20	N	<1	<1	1.8	71	1.2 J	340 J	0.33	<0.02	70 J	1.50	47	29 J	<0.5
MW-75-202	02/16/21	N	<1	<1	<0.1 J	66	0.98	320 J	0.059 J	0.022	44 J	0.98	62 J	37 J	<0.5
MW-75-202	05/17/21	N	<1	<1	<0.1	64	1.1	550	0.038	0.043	49	1.50	52	20 J	<0.5
MW-75-202	08/17/21	N	<1	<1	<0.1	61	0.97	750	0.032 J	0.022	54 J	1.50	45	30 J	<0.5
MW-75-202	08/17/21	FD	<1	<1	<0.1	59	0.98	620	0.032 J	0.025	54 J	1.50	44	27 J	<0.5
MW-75-202	11/29/21	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	11/29/21	FD	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-267	01/30/20	N	<1	<5	<0.5	79	2.5	350	<0.1	<0.1	17	0.93	120	61	<2.5
MW-75-267	01/30/20	FD	<1	<5	<0.5	81	2.6	380	0.11	<0.1	18	0.95	120	66	3.1
MW-75-267	02/18/20	N	<1	<1	<0.5	82 J	1.8	330	0.19 J	0.11	13	0.9	130	62	<2.5
MW-75-267	03/17/20	N	<1	<1	2.4	79 J	2.3	350	0.95 J	0.26 J	14	1.10	120	73	<0.5
MW-75-267	04/21/20	N	<1	<1	3.8	82	1.8	360	0.25	0.23	14	1.40	98	60	<2.5
MW-75-267	05/18/20	N	<1	<1	3.7	94	2.2	380	0.47	0.36 J	19 J	1.80	90	67 J	<2.5
MW-75-267	06/16/20	N	<1	<1	<0.1 J	93	2	360	0.59 J	0.45	19	2.20	71	63 J	<0.5
MW-75-267	06/16/20	FD	<1	<1	<0.1 J	92	2.2	390	0.57 J	0.49	21	2.10	71	69 J	<0.5
MW-75-267	07/21/20	N	<1	<1	4.7 J	93	1.9	340	0.48	0.47 J	17	2.30	74	57 J	<0.5
MW-75-267	08/17/20	N	<1	<1	4	72	2.9	370	0.49 J	0.38 J	27 J	1.80	83	580	0.65
MW-75-267	09/28/20	N	<1	<1	3.9 J	71	2.7 J	310 J	0.4 J	<0.1 J	21 J	1.40	90	69	<0.5
MW-75-267	10/19/20	N	<1	<1	3.2 J	71	2.4	290	0.37 J	0.25 J	15 J	1.20 J	90	97 J	<0.5
MW-75-267	12/01/20	N	<1	<1	2.3	67	3 J	270 J	0.28	0.22 J	18 J	1.10	110	86 J	<0.5
MW-75-267	02/16/21	N	<1	<1	<0.1 J	62	3.4	240 J	0.14 J	0.065	11 J	0.78	130 J	79 J	<0.5
MW-75-267	05/17/21	N	<1	<1	<0.1	68	2.1	400	0.27	0.19	13	1.40	100	53 J	<0.5
MW-75-267	05/17/21	FD	<1	<1	<0.1	68	2	400	0.19	0.18	13	1.40	100	53 J	<0.5
MW-75-267	08/17/21	N	<1	<1	<0.1	59	1.7	350	0.54 J	0.25	15 J	1.50	67	54 J	<0.5
MW-75-267	11/29/21	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-267	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-337	01/30/20	N	<1	<5	<0.5	65	0.63	260	1	0.5	14	0.87	190	72	3.2
MW-75-337	02/17/20	N	<1	1.1	<0.5	67 J	2.1	210	0.5 J	0.42	9.2	0.87	190	62	<2.5

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-75-117	02/16/21	N	6.5	2,100 J	1.6	73	<0.22	3,800	3.6	--	--	1.8	570	7,600	<1
MW-75-117	05/17/21	N	13	2,100 J	1.9	74	<0.2	3,200	3.6	--	--	2.6	530	7,000	<1
MW-75-117	08/17/21	N	7.4	2,800 J	1.8	73	<0.2	3,700	3.1	--	--	2.3	540	7,500	<1
MW-75-117	11/29/21	N	10	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-117	03/02/22	N	2.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	01/30/20	N	<1	4,300	<5	50	0.15	5,800	3.2	--	--	0.82	1,200	12,000	<1
MW-75-202	02/17/20	N	<1	4,100	<1	52	0.09 J	5,500	3.7	--	--	0.62	1,100	12,000	<1
MW-75-202	03/17/20	N	<1	3,800	<1	57	0.07 J	5,700	2.9	--	--	0.44 J	1,100	13,000	<1 J
MW-75-202	04/21/20	N	<1	3,900	<1	61	0.06 J	5,800	2.9	--	--	<0.05	1,200	13,000	<1
MW-75-202	05/18/20	N	<1	3,800	<1	61	0.24	5,800	2.8	--	--	0.25	1,100	12,000	<1 J
MW-75-202	06/16/20	N	<1	4,300	<1	67	--	5,400	3.6	--	--	0.14	960	11,000	<50
MW-75-202	07/20/20	N	<1	4,500	<1	57	<0.2	5,600	2.9	--	--	0.72	1,100	12,000	<20 J
MW-75-202	08/17/20	N	<1	3,800	<1	58	0.29	6,000	3.2	--	--	0.56	1,100	12,000	<1 J
MW-75-202	09/28/20	N	<1	3,200	<1	58	0.2	5,600	4	--	--	1.1	1,100	12,000	<1 J
MW-75-202	10/19/20	N	<1	4,700	<1	56	<0.2	5,700	3.7	--	--	0.98	1,100	13,000	<1 J
MW-75-202	12/01/20	N	<1	3,200	<1	62	<0.2	5,600	3.5	--	--	1.1	1,100	12,000	<1
MW-75-202	02/16/21	N	<1	3,300 J	1.2	51	<0.22	5,700	3.7	--	--	0.64	1,100	12,000	<1
MW-75-202	05/17/21	N	<1	4,300 J	<1	62	<0.2	5,500	3.6	--	--	0.81	1,100	12,000	<1
MW-75-202	08/17/21	N	<1	3,800 J	1.4	65	<0.2	5,600	3.1	--	--	0.9	1,000	13,000	<1
MW-75-202	08/17/21	FD	<1	3,900 J	1.2	65	<0.2	5,600	3.5	--	--	0.89	1,100	12,000	<1
MW-75-202	11/29/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	11/29/21	FD	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-202	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-267	01/30/20	N	<1	6,100	<5	33	0.11	8,300	4.9	--	--	0.39	1,300	15,000	<1
MW-75-267	01/30/20	FD	<1	6,300	<5	34	0.11	8,500	5.2	--	--	0.45	1,300	15,000	<1
MW-75-267	02/18/20	N	<1	6,400	<1	37	0.19	8,400	4	--	--	0.2	1,300	15,000 J	<20 J
MW-75-267	03/17/20	N	<1	5,700	<1	49	0.1	7,500	3.4	--	--	--	1,200	15,000	<1 J
MW-75-267	04/21/20	N	<1	6,700	<1	58	0.15	7,700	3.7	--	--	0.077	1,300	14,000	<1
MW-75-267	05/18/20	N	<1	7,500	<1	49	0.35	7,500	3.4	--	--	<0.05	1,200	15,000	<20 J
MW-75-267	06/16/20	N	<1	6,500	<1	55	0.22	7,500	3.3	--	--	0.073	1,200	14,000	<1
MW-75-267	06/16/20	FD	<1	6,800	<1	56	0.23	7,600	3.3	--	--	<0.05	1,200	14,000	<1
MW-75-267	07/21/20	N	<1	6,600	<1	60	0.24	7,300	3.5	--	--	0.25 J	1,200	14,000	<1
MW-75-267	08/17/20	N	<1	5,200	<1	54	0.39	8,300	4.4	--	--	0.074	1,400	14,000	<1 J
MW-75-267	09/28/20	N	<1	5,500	<1	52	0.28	7,600	4.9	--	--	<0.05	1,200	14,000	<1 J
MW-75-267	10/19/20	N	<1	6,700	<1	48	0.26	7,900	4.5	--	--	0.068	1,200	15,000	<50 J
MW-75-267	12/01/20	N	<1	4,900	<1	39	0.23	7,900	4.8	--	--	0.22	1,300	14,000	<1
MW-75-267	02/16/21	N	<1	6,500 J	<1	35	<0.22	7,900	4.2	--	--	0.14	1,200	16,000	<1
MW-75-267	05/17/21	N	<1	6,600 J	<1	43	0.26	7,700	3.9	--	--	0.18	1,200	14,000	<1
MW-75-267	05/17/21	FD	<1	6,000 J	<1	43	0.2	7,600	4.4	--	--	0.12	1,200	14,000	<1
MW-75-267	08/17/21	N	<1	4,200 J	<1	46	0.22	7,500	3.8	--	--	<0.1	1,200	14,000	<1
MW-75-267	11/29/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-267	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-337	01/30/20	N	<1	8,300	<5	74	0.17	10,000	7.7	--	--	0.066	1,600	19,000 J	<1
MW-75-337	02/17/20	N	<1	7,500	<1	66	0.14	9,700	6.9	--	--	<0.05	1,600	18,000 J	<1

Appendix B
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First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-75-337	03/16/20	N	<1	<1	4.6	65 J	2.6	250	6 J	0.58 J	8	0.95	200	74	<0.5
MW-75-337	04/20/20	N	<1	<1	<0.5	64	2.2	250	1.50 J	0.57 J	6	0.83	200	68	<2.5
MW-75-337	04/20/20	FD	<1	<1	<0.5	63	2.3	260	1.10 J	0.53 J	6.1	0.82	210	68	<2.5
MW-75-337	05/18/20	N	<1	<1	<0.5	65	2.5	240	0.79	0.51 J	6.5 J	0.8	210	72 J	<2.5
MW-75-337	06/15/20	N	<1	<1	<0.1 J	59	3.1	230	0.77	0.44	8	0.69	230	68 J	<0.5
MW-75-337	07/21/20	N	<1	<1	4.4 J	62	2.2	210	0.35	0.28 J	5	0.61	220	66 J	<0.5
MW-75-337	07/21/20	FD	<1	<1	4.3 J	62	2.9	230	0.74	0.35 J	7.1	0.62	230	70 J	<0.5
MW-75-337	08/17/20	N	<1	1.1	4.7	60	3.9	220	0.6 J	0.48 J	8 J	0.59	230	65	1.2
MW-75-337	08/17/20	FD	<1	1.1	4.5	58	3.4	240	1.10 J	0.49 J	9.1 J	0.59	220	66	1.2
MW-75-337	09/28/20	N	<1	<1	4.7 J	58	4.9 J	220 J	0.58 J	0.28 J	8.7 J	0.59	230	85	0.53
MW-75-337	10/20/20	N	<1	<1	4.6 J	66	2.3	140	1.60 J	0.84 J	5 J	0.58	200	100 J	<0.5
MW-75-337	12/01/20	N	<1	<1	5	54	3.7 J	180 J	0.77	0.4 J	8.1 J	0.6	220	98 J	<0.5
MW-75-337	02/16/21	N	<1	<1	6 J	57	4	160 J	1.10 J	0.35	5.8 J	0.66	230 J	66 J	<0.5
MW-75-337	05/17/21	N	<1	<1	3.9	55	2.5	260	0.42	0.26	4.4	0.46	240	58 J	0.6
MW-75-337	08/17/21	N	<1	1.4	<0.1	51	2.1	240	0.45 J	0.26	4.4 J	0.47	230	69 J	0.52 J
MW-75-337	11/29/21	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-75-337	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-76-039	01/29/20	N	44	43	0.38	69	0.66	160	0.63 J	0.05	26 J	0.003	15	8.3	1.7
MW-76-039	01/29/20	FD	44	45	0.21	71	0.65	170	0.95 J	0.053	26 J	0.003	16	8.8	1.9
MW-76-039	02/20/20	N	18	28 J	0.6 J	78	0.57	180	0.46 J	2 J	23	0.15 J	16	9.9	1.6
MW-76-039	02/20/20	FD	16	15 J	0.2 J	65	0.55	160	0.26 J	0.17 J	20	0.076 J	17	8	1.6
MW-76-039	03/17/20	N	120	110	0.31	57 J	0.45	130	0.1 J	0.086 J	19	0.0022	19	8	2.5
MW-76-039	04/21/20	N	35	34	<0.1	72	0.48	170	0.25	0.11	23	0.0048	14	9.3	1.7
MW-76-039	05/26/20	N	26	24	<0.1 J	75	0.44	170	0.78 J	0.042 J	23 J	0.013	12 J	10 J	1.4
MW-76-039	06/16/20	N	<1	<1	<0.1 J	79	1.2	340	0.21 J	0.073	37	0.16	32	26 J	0.98
MW-76-039	07/21/20	N	26	29	<0.1 J	94	0.56	180	0.071	<0.02 J	26	0.0036	17	10 J	1.7
MW-76-039	08/18/20	N	57	55	<0.1	74	0.49	170	0.11 J	0.044 J	25 J	0.004	18	9.7	2
MW-76-039	09/29/20	N	72	<1	<0.1	58	0.8 J	120 J	0.24 J	<0.1 J	21 J	0.22	34	5 J	0.99
MW-76-039	10/21/20	N	86	86	1.3	65	0.59	120 J	0.41	0.15	20	0.0097	21	12	2.3
MW-76-039	12/02/20	N	110	110	1.1	55	0.67	110 J	<0.02	<0.02	20	0.013	21	6.9	2.4
MW-76-039	02/17/21	N	36	37	<0.1	61	0.39	110	0.27 J	<0.02 J	20	0.011	16	11 J	1.8
MW-76-039	02/17/21	FD	36	37	<0.1	54	0.39	110	0.27 J	0.033 J	20	0.011	15	9.8 J	1.8
MW-76-039	05/21/21	N	27	26	<0.1 J	77	0.51	240 J	0.12 J	0.063 J	28 J	0.0076	13	11 J	1.5
MW-76-039	08/18/21	N	3.2	3.3	<0.1 J	49	1.4	420 J	0.069 J	0.023 J	25 J	0.11	28	25	1
MW-76-039	12/02/21	N	130	140	<0.1 J	39	--	--	--	<0.02 J	--	0.01	27	--	2.8
MW-76-039	01/31/22	N	36	--	<0.1	59	--	--	--	0.28	--	0.034	--	--	--
MW-76-039	03/07/22	N	41	39	<0.1 J	62 J	--	--	--	<0.1	--	0.011	15	--	1.8
MW-76-039	03/07/22	FD	40	41	<0.1 J	62 J	--	--	--	<0.1	--	0.011	16	--	1.8
MW-76-156	01/29/20	N	1.8	2	<0.5	68	1.5	480	<0.1	<0.1	69 J	0.22	31	27	<2.5
MW-76-156	02/20/20	N	1	2	2.3	62	1.6	440	<0.1	<0.1	44	0.22	31	25	0.83
MW-76-156	03/17/20	N	3.3	3.8	2.1	59 J	1.1	390	<0.02	<0.02	39	0.23	29	27	0.86
MW-76-156	04/21/20	N	<1	1.7	2.5	65	1.2	450	0.71	0.17	41	0.25	30	26	0.85
MW-76-156	05/26/20	N	<1	1.5	2.2 J	59	1.1	370	0.13 J	<0.02	35 J	0.26	29 J	31 J	0.81
MW-76-156	05/26/20	FD	<1	1.6	2.2 J	59	1.2	390	0.083 J	0.024 J	37 J	0.28	30 J	29 J	0.8

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-75-337	03/16/20	N	<1	6,800	<1	68	0.17	9,900	6.8	--	--	--	1,600	19,000 J	<1 J
MW-75-337	04/20/20	N	<1	7,100	<1	60	<0.1	10,000	4.8	--	--	<0.05	1,600	18,000	<1
MW-75-337	04/20/20	FD	<1	7,200	<1	60	<0.1	9,700	5	--	--	<0.05	1,700	18,000	<1
MW-75-337	05/18/20	N	<1	8,000	<1	53	0.35	10,000	5.3	--	--	<0.05	1,700	20,000 J	<1 J
MW-75-337	06/15/20	N	<1	8,600	<1	49	0.45	10,000	4.9	--	--	1.8 J	1,600	18,000 J	<1
MW-75-337	07/21/20	N	<1	9,400	<1	46	0.23	9,900	5.6	--	--	1.9 J	1,600	18,000 J	<1
MW-75-337	07/21/20	FD	<1	10,000	<1	46	0.23	9,700	5.7	--	--	0.071	1,700	18,000 J	<1
MW-75-337	08/17/20	N	<1	7,700	<1	50	0.23	11,000	5	--	--	<0.05	1,700	19,000	<1 J
MW-75-337	08/17/20	FD	<1	7,300	<1	50	0.24	9,900	6.4	--	--	<0.05	1,600	19,000	<1 J
MW-75-337	09/28/20	N	<1	7,800	<1	48	0.23	9,400	6.4	--	--	<0.05	1,600	18,000 J	<20 J
MW-75-337	10/20/20	N	<1	8,200	<1	61	2.1	9,500 J	6.5	--	--	<0.05	1,600	18,000	<1
MW-75-337	12/01/20	N	<1	6,000	<1	49	0.23	9,800	7	--	--	<0.1	1,700	17,000 J	<1
MW-75-337	02/16/21	N	<1	8,500 J	<1	54	<0.22	9,600	6.1	--	--	<0.05	1,600	22,000	<1
MW-75-337	05/17/21	N	<1	8,600 J	<1	44	<0.2	9,600	5.9	--	--	<0.05	1,600	18,000 J	<1
MW-75-337	08/17/21	N	<1	8,000 J	<1	44	0.2	10,000	4.4	--	--	<0.1	1,600	18,000	<1
MW-75-337	11/29/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-75-337	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-76-039	01/29/20	N	44	550	1.7	85	<0.1	890	2.8	--	--	2.3	190	2,000	<1
MW-76-039	01/29/20	FD	44	570	1.7	86	<0.1	900	2.8	--	--	2.6	190	2,000	<1
MW-76-039	02/20/20	N	18	550	4.2 J	86	0.05 J	870	2.5	--	--	2.7 J	190	2,000	<1
MW-76-039	02/20/20	FD	16	480	1.9 J	91	0.05 J	870	2.6	--	--	2.6 J	190	2,000	<1
MW-76-039	03/17/20	N	120	480	2.4	94	0.11	850	3.1	--	--	2.9 J	190	1,900	<1 J
MW-76-039	04/21/20	N	35	540	2.3	79	0.11	1,000	2.5	--	--	2.4	210	2,300	<1
MW-76-039	05/26/20	N	26	510	2	75	<0.2	1,100	2.1	--	--	2.2	210	2,600	<1
MW-76-039	06/16/20	N	<1	4,000	2.4	64	<0.2	5,100	2.8	--	--	0.6	780	11,000	<1
MW-76-039	07/21/20	N	26	640	2	90	<0.2	1,200	2.8	--	--	2 J	230	2,700	<10
MW-76-039	08/18/20	N	57	630	3.5	91	<0.2	1,100	3.1	--	--	2.3	220	2,600	<10
MW-76-039	09/29/20	N	72	410 J	3.6	92	<0.2	990	3.1	--	--	2.4	210	2,400	<1 J
MW-76-039	10/21/20	N	86	580	2.3	95	<0.2	920	3.5	--	--	2.5	200	2,100	<1 J
MW-76-039	12/02/20	N	110	460	2.7	95	2.6	870	3.6	--	--	2.8	190	1,800	<10
MW-76-039	02/17/21	N	36	460	2.5	78	<0.22	950	2.8	--	--	2.8	190	2,000	<1
MW-76-039	02/17/21	FD	36	490	2.4	83	<0.22	940	2.8	--	--	2.6	190	1,900	<1
MW-76-039	05/21/21	N	27	560 J	2.3	79	0.29	1,200	2.8	--	--	2 J	230	2,600	<1
MW-76-039	08/18/21	N	3.2	3,800 J	4.3	49	<0.2	5,200	2.2	--	--	1.8	770	11,000	<20
MW-76-039	12/02/21	N	130	--	--	--	<0.2	--	--	--	<2.5	2.8	190	--	<1
MW-76-039	01/31/22	N	36	--	--	--	--	--	--	2.5	--	--	200	--	<1
MW-76-039	03/07/22	N	41	--	--	--	<0.2	--	--	2.4 J	--	--	190	--	<1
MW-76-039	03/07/22	FD	40	--	--	--	<0.2	--	--	2.5 J	--	--	200	--	<1
MW-76-156	01/29/20	N	1.8	4,300	2.9	51	<0.1	5,300	2.8	--	--	1.6	840	11,000	<1
MW-76-156	02/20/20	N	1	3,200	2.9	47	0.09 J	5,100	3.6	--	--	1.3 J	840	11,000	<1
MW-76-156	03/17/20	N	3.3	3,200	2.6	51	0.09 J	5,200	2.8	--	--	1.6 J	820	11,000	<10 J
MW-76-156	04/21/20	N	<1	3,500	2.8	53	0.06 J	5,500	2.6	--	--	1.3	870	12,000	<1
MW-76-156	05/26/20	N	<1	4,300	2.7	51 J	<0.2	5,500	3.3	--	--	1.2	800	12,000	<1
MW-76-156	05/26/20	FD	<1	4,400	2.7	34 J	<0.2	5,400	3.1	--	--	1.2	820	12,000	<1

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-76-156	06/16/20	N	<1	<1	<0.1 J	68	1.3	380	0.091 J	0.025	39	0.28	29	29 J	0.7
MW-76-156	07/21/20	N	1.7	2.4	<0.1 J	64	1.3	360	0.055	0.044 J	37	0.22	33	25 J	0.97
MW-76-156	08/18/20	N	1.4	1.5	2.3	57	2.6	390	<0.1	<0.1 J	45 J	0.18	33	24	1.1
MW-76-156	09/29/20	N	<1	69	0.3	69	2 J	350 J	0.24 J	<0.02 J	41 J	0.015	18	24 J	2.3
MW-76-156	10/21/20	N	2.5	3.6	2.3	56	1.5	310 J	0.12	0.052	39	0.14	31	45	1.1
MW-76-156	10/21/20	FD	2.9	3.5	2.4	55	1.6	320 J	0.17	0.041	41	0.14	30	42	1
MW-76-156	12/02/20	N	4.2	4.6	2.2	53	2.8 J	360 J	<0.1	<0.1	55 J	0.12	31	25 J	1.2
MW-76-156	02/17/21	N	2.9	3.3	<0.1	46	1	280	0.042 J	0.023 J	40	0.094	32	26 J	0.93
MW-76-156	05/21/21	N	<1	1.1	<0.1 J	56	1.3	490	0.11 J	0.047 J	36 J	0.16	31	32 J	0.79
MW-76-156	08/18/21	N	2.3	2.6	<0.1 J	47	1.4	410 J	<0.02 J	<0.02 J	27 J	0.11	28	25	1
MW-76-156	12/02/21	N	4	4.5	<0.1 J	47	--	--	--	0.058 J	--	0.092	31	--	1.1
MW-76-156	01/31/22	N	<1	--	<0.1	60	--	--	--	<0.1	--	0.13	--	--	--
MW-76-156	03/07/22	N	2	2.5	<0.1 J	70 J	--	--	--	<0.1	--	0.16	25	--	0.93
MW-76-181	01/29/20	N	890	860	<0.5	91	1.5	570	<0.1	<0.1	96 J	0.93	33	28	<2.5
MW-76-181	02/20/20	N	1,000	970	1.6	91	1.6	580	<0.1	<0.1	79	0.86	34	29	1.6
MW-76-181	03/17/20	N	1,100	1,100	1.5	78 J	1.1	580	0.1 J	0.025 J	84	0.7	33	32	1.7
MW-76-181	04/21/20	N	720	700	1.6	100	1	550	0.48	0.08	74	0.79	35	28	<2.5
MW-76-181	05/26/20	N	1,200	1,100	1.7 J	70	0.95	540	0.31 J	<0.02	73 J	0.54	31 J	32 J	1.9
MW-76-181	06/16/20	N	710	660	<0.1 J	76	1.1	560	0.037 J	0.033	84	0.55	34	30 J	1.5
MW-76-181	07/21/20	N	1,100	1,100	<0.1 J	76	1.1	530	<0.02	<0.02	77	0.5	35	29 J	2
MW-76-181	08/18/20	N	800	760	1.7	70	2.8	570	<0.1	<0.1 J	99 J	0.5	34	29	1.8
MW-76-181	09/29/20	N	840	810	1.6	75	1.6 J	370 J	<0.1 J	<0.02 J	85 J	0.48	34	29 J	2
MW-76-181	10/21/20	N	1,300	1,200	1.5	73	1.4	450 J	<0.02	<0.02	83	0.39	30	63	2.1
MW-76-181	12/02/20	N	1,500	1,500	1.5	67	2.7	450 J	0.18 J	<0.1	90	0.31	29	32	2
MW-76-181	12/02/20	FD	1,500	1,600	1.4	68	1.7	580 J	0.31	<0.1	110	0.31	30	32	2
MW-76-181	02/17/21	N	1,500	1,600	<0.1	60	0.85	410	0.14 J	0.041 J	78	0.35	30	31 J	1.7
MW-76-181	05/21/21	N	1,500	1,500	<0.1 J	64	1.1	480 J	0.096 J	<0.02 J	76 J	0.2	29	34 J	2.2
MW-76-181	08/18/21	N	1,500	1,400	<0.1 J	65	1.3	570 J	0.097 J	<0.02 J	63 J	0.12	25	30	1.8
MW-76-181	12/02/21	N	1,500	1,500	1.5 J	67	--	--	--	0.052 J	--	0.089	27	--	1.7
MW-76-181	01/31/22	N	1,500	--	<0.1	71	--	--	--	<0.02	--	0.064	--	--	--
MW-76-181	03/07/22	N	1,600	1,500	<0.1 J	75 J	--	--	--	<0.1	--	0.15	27	--	1.9
MW-76-218	01/29/20	N	8.4	9.6	<0.5	95	2.5	290	<0.1	0.024	6.5 J	0.27	94	45	<2.5
MW-76-218	02/20/20	N	2.8	4.7	4.4	86	2.9	260	0.1	0.18	7.1	0.25	90	51	0.6
MW-76-218	03/17/20	N	51	45	4.2	79 J	1.9	250	0.39 J	0.049 J	8.1	0.26	81	52	<0.5
MW-76-218	04/21/20	N	2.1	4.2	4.6	87	2.1	260	0.3	0.12	6.1	0.25	87	46	<2.5
MW-76-218	05/26/20	N	<1	<1	5.1 J	84	1.8	240	0.047 J	<0.02	7.9 J	0.32	78 J	60 J	<0.5
MW-76-218	06/16/20	N	4.8	5.5	<0.1 J	100	2	290	0.039 J	<0.02	14	0.36	70	56 J	0.57
MW-76-218	06/16/20	FD	5.5	5.6	<0.1 J	100	1.9	280	0.24 J	<0.02	14	0.36	70	53 J	0.7
MW-76-218	07/21/20	N	23	27	4.7 J	94	2	230	0.039	<0.02 J	8.8	0.34	87	45 J	0.57
MW-76-218	08/18/20	N	5.5	6.2	4.5	89	3.6	280	<0.1	<0.1 J	14 J	0.31	81	48	0.69
MW-76-218	09/29/20	N	17	16	4.5	77	2.8 J	230 J	<0.1 J	<0.1 J	12 J	0.27	88	51 J	0.63
MW-76-218	09/29/20	FD	17	16	4.5	80	2.7 J	220 J	<0.1 J	<0.1 J	11 J	0.26	87	50 J	0.58
MW-76-218	10/21/20	N	46	44	4.5	76	2.5	150 J	0.11	<0.1	6.6	0.25	90	82	0.71
MW-76-218	12/02/20	N	81	71	4.2	67	3.2	300 J	<0.1	<0.1	14	0.24	86	57	0.63

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-76-156	06/16/20	N	<1	4,100	2.7	51	<0.2	5,400	2.9	--	--	1.2	770	11,000	<1
MW-76-156	07/21/20	N	1.7	4,300	3.3	50	<0.2	5,200	2.9	--	--	1.7 J	800	11,000	<1
MW-76-156	08/18/20	N	1.4	3,200	3.8	51	<0.2	5,700	3.1	--	--	1.8	780	11,000	<1
MW-76-156	09/29/20	N	<1	3,300 J	2.1	55	<0.2	5,000	3	--	--	1.5	760	11,000	<1 J
MW-76-156	10/21/20	N	2.5	4,600	3.8	51	<0.2	5,200	3.4	--	--	1.7	810	12,000	<1 J
MW-76-156	10/21/20	FD	2.9	4,100	3.8	51	<0.2	5,100	3.4	--	--	1.7	800	11,000	<1 J
MW-76-156	12/02/20	N	4.2	2,600	3.6	53	<0.2	5,100	3.6	--	--	1.9	810	11,000	<1
MW-76-156	02/17/21	N	2.9	3,900	3.8	52	<0.22	5,200	3.3	--	--	2	820	11,000	<1
MW-76-156	05/21/21	N	<1	4,000	3.8	52	<0.2	5,100	3.2	--	--	1.3 J	760	11,000	<50
MW-76-156	08/18/21	N	2.3	4,800 J	4.6	51	<0.2	5,100	3.1	--	--	1.8	770	11,000	<1
MW-76-156	12/02/21	N	4	--	--	--	<0.2	--	--	--	<5	2	780	--	<1
MW-76-156	01/31/22	N	<1	--	--	--	--	--	--	1.3	--	--	870	--	<1
MW-76-156	03/07/22	N	2	--	--	--	<0.2	--	--	1.5 J	--	--	870	--	<1
MW-76-181	01/29/20	N	890	4,400	1.1	71	<0.1	6,600	2.8	--	--	2.2	950	14,000	<1
MW-76-181	02/20/20	N	1,000	3,900	1.4	71	0.07 J	6,300	3.2	--	--	4.4 J	930	12,000	<1
MW-76-181	03/17/20	N	1,100	4,000	1.2	70	0.07 J	6,400	2.1	--	--	2.2 J	910	14,000	<1 J
MW-76-181	04/21/20	N	720	3,900	1.1	69	0.05 J	6,500	2.7	--	--	1.6	920	14,000	<1
MW-76-181	05/26/20	N	1,200	4,400	1.3	71	<0.2	6,500	3	--	--	2.6	940	14,000	<1
MW-76-181	06/16/20	N	710	4,700	1.3	67	<0.2	6,700	2.3	--	--	1.7	910	14,000	<1
MW-76-181	07/21/20	N	1,100	5,200	1.4	67	1.6	6,400	2.8	--	--	2.2	900	15,000	<1
MW-76-181	08/18/20	N	800	4,300	1.7	69	<0.2	6,900	2.9	--	--	2	910	14,000	<1
MW-76-181	09/29/20	N	840	5,300 J	1.4	72	<0.2	6,400	2.6	--	--	2.1	930	15,000	<1 J
MW-76-181	10/21/20	N	1,300	5,800	1.5	68	<0.2	6,400	3.3	--	--	2.3	900	13,000	<1 J
MW-76-181	12/02/20	N	1,500	4,500	1.3	70	<0.2	6,400	3.4	--	--	2.5	890	13,000	<1
MW-76-181	12/02/20	FD	1,500	4,500	1.4	69	<0.2	6,500	3.2	--	--	2.5	920	13,000	<1
MW-76-181	02/17/21	N	1,500	4,400	1.5	71	<0.22	7,000	3	--	--	2.8	940	13,000	<1
MW-76-181	05/21/21	N	1,500	4,000 J	1.8	70	<0.2	6,600	2.9	--	--	2.5 J	940	13,000	<1
MW-76-181	08/18/21	N	1,500	5,100 J	2	64	<0.2	6,500	2.7	--	--	2.3	870	14,000	<1
MW-76-181	12/02/21	N	1,500	--	--	--	<0.2	--	--	--	<5	2.3	870	--	<1
MW-76-181	01/31/22	N	1,500	--	--	--	--	--	--	2.1	--	--	850	--	<1
MW-76-181	03/07/22	N	1,600	--	--	--	<0.2	--	--	2.2 J	--	--	880	--	<1
MW-76-218	01/29/20	N	8.4	5,400	1.3	40	<0.1	7,300	5	--	--	0.28	920	14,000	<1
MW-76-218	02/20/20	N	2.8	5,200	1.6	37	0.17	7,100	5.1	--	--	0.52 J	900	14,000	<1
MW-76-218	03/17/20	N	51	5,000	1.2	39	0.07 J	7,300	4.3	--	--	0.46 J	920	14,000	<1 J
MW-76-218	04/21/20	N	2.1	5,000	1.4	39	0.05 J	7,700	4.5	--	--	0.54	920	14,000	<1
MW-76-218	05/26/20	N	<1	5,500	<1	43	<0.2	7,300	4.9	--	--	<0.05	960	13,000	<1
MW-76-218	06/16/20	N	4.8	3,900 J	1.4	56	0.24	6,800	4.6	--	--	0.15	900	14,000	<1
MW-76-218	06/16/20	FD	5.5	5,800 J	1.3	66	0.22	6,600	3.9	--	--	0.14	870	14,000	<1
MW-76-218	07/21/20	N	23	6,200	1.1	46	<0.2	7,200	4	--	--	0.33 J	900	13,000	<1
MW-76-218	08/18/20	N	5.5	5,300	1.4	54	0.22	7,300	4.6	--	--	0.19	870	13,000	<1
MW-76-218	09/29/20	N	17	4,200 J	1.4	40	<0.2	7,100	4.6	--	--	0.77	900	14,000	<1 J
MW-76-218	09/29/20	FD	17	6,000 J	1.4	39	<0.2	7,100	5	--	--	0.68	910	15,000 J	<1 J
MW-76-218	10/21/20	N	46	6,700	1.8	39	<0.2	7,200	4.3	--	--	0.72	890	13,000 J	<1 J
MW-76-218	12/02/20	N	81	6,200	1.8	40	0.2	7,300	4.5	--	--	0.73	930	13,000	<1

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MW-76-218	02/17/21	N	26	25	<0.1	61	1.8	170	0.1 J	0.03 J	6.2	0.2	93	57 J	0.65
MW-76-218	05/21/21	N	27	26	<0.1 J	76	1.9	380 J	0.05 J	0.044 J	13 J	0.37	61	70 J	0.89
MW-76-218	08/18/21	N	320	310	<0.1 J	70	2	390 J	0.023 J	<0.02 J	15 J	0.38	47	45	1.3
MW-76-218	08/18/21	FD	290	310	<0.1 J	73	1.9	370 J	0.034 J	<0.02 J	15 J	0.39	48	45	1.2
MW-76-218	12/02/21	N	270	280	3.9 J	66	--	--	--	<0.02 J	--	0.28	68	--	1
MW-76-218	01/31/22	N	370	--	<0.1	74	--	--	--	<0.1	--	0.35	--	--	--
MW-76-218	03/07/22	N	670	700	3.5 J	79 J	--	--	--	<0.1	--	0.27	54	--	1.5
MW-76-218	03/07/22	FD	680	620	3 J	73 J	--	--	--	<0.1	--	0.25	47	--	1.2
MW-77-046	01/30/20	N	1.1	3.3	1.4	39	2	130	2.10	0.43	150	0.24	93	35	4
MW-77-046	02/18/20	N	0.9	1.8	0.56	38 J	1.8	120	0.24 J	0.17	120	0.19	100	31	4.2
MW-77-046	05/26/20	N	0.48	<1	2.8 J	51	0.99	85	0.22 J	0.049 J	46 J	0.35	120 J	14 J	<0.5
MW-77-046	08/19/20	N	<0.2 J	<1	2.5	72	1.4	86 J	0.78	0.23 J	69	0.46	140	16	<0.5
MW-77-046	12/02/20	N	<1	<1	3.6	95	2.9	140 J	0.69 J	0.37	180	0.44	93	45	1.9
MW-77-046	02/17/21	N	<0.2	<1	0.8	41	1.1	58	0.49 J	0.28 J	76	0.2	130	22 J	0.58
MW-77-046	05/18/21	N	<0.2	<1	2.1 J	49	1	87	6.10 J	0.33 J	45 J	0.39	140	11 J	<0.5
MW-77-046	05/18/21	FD	<0.2	<1	2.1 J	49	0.99	87	6.70 J	0.43 J	44 J	0.38	140	11 J	<0.5
MW-77-046	08/18/21	N	<0.2	<1	1.7 J	58	1.3	100 J	4.80 J	0.22 J	58 J	0.44	120	17	<0.5
MW-77-046	12/02/21	N	<1	<1	<0.1 J	95	--	--	--	0.94 J	--	0.42	95	--	3
MW-77-046	03/01/22	N	<0.2	--	0.89	43	--	--	--	1.50	--	0.27	--	--	--
MW-77-102	02/18/20	N	0.57	<1	<0.1	51 J	1.4	290	0.14 J	0.032	37	0.064	4.1	17	<0.5
MW-77-102	05/26/20	N	0.62	1.1	<0.1 J	40	1	210	0.028 J	<0.02	29 J	0.04	3.8 J	17 J	<0.5
MW-77-102	08/19/20	N	0.61 J	1	<0.1	45	1.2	190 J	0.14	0.082 J	35	0.039	4.4	16	<0.5
MW-77-102	12/02/20	N	1.6	1.6	1.3	45	1.4	200 J	0.089	<0.02	42	0.017	3.9	15	<0.5
MW-77-102	02/17/21	N	0.61	1.5	<0.1	41	0.98	180	0.059 J	0.021 J	36	0.016	4.5	16 J	<0.5
MW-77-102	05/18/21	N	1.1 J	1.9	<0.1 J	40	1.1	230	0.16 J	0.033 J	29 J	0.022	4.4	14 J	<0.5
MW-77-102	08/18/21	N	0.55	<1	<0.1 J	39	1.2	58 J	0.029 J	<0.02 J	9 J	0.028	4.2	15	<0.5
MW-77-102	12/02/21	N	0.67	<1	<0.1 J	40	--	--	--	0.039 J	--	0.02	4.4	--	<0.5
MW-77-102	03/01/22	N	<0.2	--	<0.1	48	--	--	--	<0.1	--	0.029	--	--	--
MW-77-158	02/18/20	N	7.3	7	3.2	54 J	1.3	500	<0.1	<0.1	48	0.087	34	41	<2.5
MW-77-158	05/26/20	N	8.1	7	2.7 J	44	1.1	470	0.025 J	<0.02	45 J	0.076	29 J	50 J	0.51
MW-77-158	08/19/20	N	8.3	8.1	3	48	<0.5	100 J	<0.1	<0.1	12	0.08	31	40	0.56
MW-77-158	12/02/20	N	10	10	2.8	45	2.3	540 J	<0.1	<0.1	72	0.04	33	47	0.6
MW-77-158	02/17/21	N	7.7	7.9	<0.1	43	1	340	0.066 J	0.04 J	49	0.036	32	45 J	<0.5
MW-77-158	05/18/21	N	10 J	9.8	<0.1 J	44	1.2	640	0.11 J	0.044 J	47 J	0.029	28	40 J	0.62
MW-77-158	08/18/21	N	1.8	3.1	<0.1 J	46	2.6	580 J	0.1 J	0.026 J	31 J	0.079	34	38	<0.5
MW-77-158	12/02/21	N	7.1	7.7	<0.1 J	43	--	--	--	0.048 J	--	0.06	32	--	0.53
MW-77-158	12/02/21	FD	6.9	7.9	<0.1 J	44	--	--	--	<0.02 J	--	0.062	33	--	0.78
MW-77-158	03/01/22	N	52	--	<0.1	49	--	--	--	<0.1	--	0.068	--	--	--
MW-77-187	02/18/20	N	1.6	2.2	3.9	53 J	2.5	130	<0.1	<0.1	3.5	0.076	260	46	<2.5
MW-77-187	05/26/20	N	<1	<1	4.3 J	50	2.4	120	1.20 J	<0.02	3.3 J	0.11	250 J	48 J	0.62
MW-77-187	08/19/20	N	<1	1.2	4.4	47	0.66	24 J	<0.1	<0.1	1.1	0.08	260	41	0.67
MW-77-187	12/02/20	N	4.1	4.8	3.2	40	4	130 J	<0.1	<0.1	4.7	0.048	250	53	0.72
MW-77-187	02/17/21	N	2.3	2.7	<0.1	40	2.1	84	0.034 J	0.03 J	3.3	0.042	260	47 J	0.76
MW-77-187	02/17/21	FD	2.4	2.9	<0.1	42	2.1	81	0.04 J	0.028 J	3	0.043	260	46 J	0.8

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-76-218	02/17/21	N	26	5,900	2	36	<0.22	7,400	4.1	--	--	0.79	920	14,000	<1
MW-76-218	05/21/21	N	27	5,100 J	1.8	48	<0.2	6,900	4.1	--	--	0.67 J	900	11,000 J	<1
MW-76-218	08/18/21	N	320	5,600 J	3.2	43	<0.2	6,900	4	--	--	1.5	890	13,000	<1
MW-76-218	08/18/21	FD	290	5,600 J	2.9	42	<0.2	7,100	4	--	--	1.5	920	13,000 J	<1
MW-76-218	12/02/21	N	270	--	--	--	<0.2	--	--	--	<10	0.85	880	--	<50
MW-76-218	01/31/22	N	370	--	--	--	--	--	--	1.3	--	--	870	--	<1
MW-76-218	03/07/22	N	670	--	--	--	<0.2	--	--	1.6 J	--	--	890	--	<1
MW-76-218	03/07/22	FD	680	--	--	--	<0.2	--	--	1.6 J	--	--	890	--	<50
MW-77-046	01/30/20	N	1.1	2,300	3.2	640	2.3	2,400	5.1	--	--	0.082	980	6,500	1
MW-77-046	02/18/20	N	0.9	2,000	2.7	650	2.2	2,400	4.8	--	--	0.06	970	6,300	1.1 J
MW-77-046	05/26/20	N	0.48	1,600	8.5	250	0.56	1,600	5.9	--	--	<0.05	390	3,600	<1
MW-77-046	08/19/20	N	<0.2 J	1,500	7.1	310	0.8	1,800	6.6	--	--	0.063 J	500	4,300	<10
MW-77-046	12/02/20	N	<1	2,400	2.7	850	2.9	3,000	5.5	--	--	<0.1	1,300	8,100	1.5
MW-77-046	02/17/21	N	<0.2	1,200	1.7	390	1.5	1,900	5.8	--	--	0.11	610	4,400	<1
MW-77-046	05/18/21	N	<0.2	1,100 J	6	280	0.41	1,500	6.7	--	--	<0.05	370	3,500	<1
MW-77-046	05/18/21	FD	<0.2	1,100 J	6.3	280	0.4	1,500	6.7	--	--	<0.05	370	3,400	<1
MW-77-046	08/18/21	N	<0.2	1,500 J	4.1	320	0.78	1,700	6.1	--	--	<0.1	510	3,900	<1
MW-77-046	12/02/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	1.5
MW-77-046	08/18/21	N	<0.2	1,500 J	4.1	320	0.78	1,700	6.1	--	--	<0.1	510	3,900	<1
MW-77-046	12/02/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	1.5
MW-77-046	03/01/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	<1
MW-77-102	02/18/20	N	0.57	1,700	5	160	0.11	2,300	3.4	--	--	0.54	580	4,900	<1 J
MW-77-102	05/26/20	N	0.62	1,900	5	150	<0.2	2,300	2.8	--	--	0.49	540	4,800	<1
MW-77-102	08/19/20	N	0.61 J	1,600	5.8	150	<0.2	2,200	3.2	--	--	0.63 J	520	5,000	<1
MW-77-102	12/02/20	N	1.6	1,500	5.9	170	<0.2	2,300	3.8	--	--	0.61	570	4,700	<1
MW-77-102	02/17/21	N	0.61	1,300	5.9	160	<0.22	2,300	3.2	--	--	0.71	590	5,200	<1
MW-77-102	05/18/21	N	1.1 J	1,400 J	5.7	150	<0.2	2,100	3.5	--	--	0.5	540	4,700	<1
MW-77-102	08/18/21	N	0.55	1,600 J	5.6	150	<0.2	2,200	3.1	--	--	0.52	550	4,700	<1
MW-77-102	12/02/21	N	0.67	--	--	--	--	--	--	--	--	0.59	--	--	<1
MW-77-102	03/01/22	N	<0.2	--	--	--	--	--	--	0.93	--	--	--	--	<1
MW-77-158	02/18/20	N	7.3	4,700	3.4	49	0.07 J	6,100	2.8	--	--	1.5	1,200	13,000	<1 J
MW-77-158	05/26/20	N	8.1	6,200	2.7	45	<0.2	6,200	3.1	--	--	1.5	1,100	14,000	<50
MW-77-158	08/19/20	N	8.3	4,400	3.1	49	<0.2	6,200	2.9	--	--	1.6 J	1,200	14,000	<1
MW-77-158	12/02/20	N	10	4,800	3	52	0.22	6,100	3.6	--	--	1.5	1,200	13,000	<1
MW-77-158	02/17/21	N	7.7	4,400	3.1	54	<0.2	6,400	3.3	--	--	1.6	1,200	14,000	<1
MW-77-158	05/18/21	N	10 J	4,100 J	2.8	54	<0.2	6,000	3.2	--	--	1.4	1,200	13,000	<1
MW-77-158	08/18/21	N	1.8	4,900 J	3.4	55	<0.2	6,400	3.4	--	--	0.82	1,100	13,000	<1
MW-77-158	12/02/21	N	7.1	--	--	--	--	--	--	--	--	1.5	--	--	<1
MW-77-158	12/02/21	FD	6.9	--	--	--	--	--	--	--	--	1.5	--	--	<1
MW-77-158	03/01/22	N	52	--	--	--	--	--	--	1.6	--	--	--	--	<50
MW-77-187	02/18/20	N	1.6	6,600	3.9	46	0.14	7,400	7.3	--	--	1.1	930	13,000	<1 J
MW-77-187	05/26/20	N	<1	6,500	3.1	46	<0.2	7,500	7.5	--	--	0.75	930	13,000 J	<1
MW-77-187	08/19/20	N	<1	5,800	3.4	46	<0.2	7,300	7.4	--	--	1 J	940	13,000 J	<1
MW-77-187	12/02/20	N	4.1	6,300	3.1	56	<0.2	7,300	8.2	--	--	1.2	980	13,000 J	<1
MW-77-187	02/17/21	N	2.3	6,200	3.2	48	<0.22	7,600	7.7	--	--	1.3	960	14,000	<1
MW-77-187	02/17/21	FD	2.4	5,900	3.2	47	<0.22	7,600	7.8	--	--	1.3	950	14,000	<1

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-77-187	05/18/21	N	<1	<1	<0.1 J	43	3.4	130	0.044 J	0.037 J	3 J	0.062	260	41 J	0.87
MW-77-187	08/18/21	N	1.1	3	<0.1 J	42	4	180 J	<0.1 J	<0.1 J	6.6 J	0.065	210	41	0.81
MW-77-187	12/02/21	N	2.5	3.1	<0.1 J	40	--	--	--	0.05 J	--	0.05	250	--	0.81
MW-77-187	03/01/22	N	10	--	4.4	44	--	--	--	<0.5	--	0.035	--	--	--
MW-78-070	02/19/20	N	3,100	3,300	0.96	35	0.9 J	120 J	0.35	0.072 J	21 J	0.0016	7.4	8.1 J	8.3
MW-78-070	05/21/20	N	3,100	3,100	0.84	34	0.64	91 J	0.76 J	0.1	21	0.003	6.4	10 J	8
MW-78-070	08/18/20	N	3,100	3,200	0.81	32	1	100	2.10 J	0.063 J	20 J	0.0054	6.7	8.6	8.2
MW-78-070	12/03/20	N	3,100	3,300	1.3	32	0.88	93 J	0.14 J	<0.02	21	<0.0005	7.2	8.8	8.2
MW-78-070	12/03/20	FD	3,100	3,400	1.4	33	0.9	92 J	0.13 J	<0.02	21	<0.0005	7.2	8.4	7.9
MW-78-070	02/18/21	N	2,300	2,600	0.82	32	0.68	82 J	0.4 J	<0.02	18	0.0036	6.1	6.9	7.4
MW-78-070	05/20/21	N	1,700 J	1,700	0.82	33	0.72	100	0.077 J	0.021	18 J	<0.0005	5.3	7.8 J	6.4
MW-78-070	08/19/21	N	3,500	4,300	0.71	35 J	0.65	110 J	0.058 J	<0.02	22 J	<0.0005	8.7	8	8.8
MW-78-070	12/15/21	N	4,400	4,500	0.85	40	--	--	--	<0.02 J	--	0.00063	13	--	9.2 J
MW-78-070	02/01/22	N	2,600	--	0.54	42	--	--	--	<0.02	--	0.003 J	--	--	--
MW-78-070	02/01/22	FD	2,700	--	0.56	42	--	--	--	<0.02	--	0.0032 J	--	--	--
MW-78-070	03/10/22	N	1,800	1,800	0.7	57	--	--	--	0.049	--	0.29	13	--	4.4
MW-78-142	02/19/20	N	6,800	7,000	0.7	32	2.4 J	330 J	0.43	0.062 J	19 J	0.02	21	33 J	22
MW-78-142	05/21/20	N	6,100	6,400	<0.1	36	2.2	200 J	2.50 J	0.13	18	0.025	22	38 J	32
MW-78-142	08/18/20	N	5,700	5,800	<0.1	35	0.59	29	0.7 J	<0.02 J	2.1 J	0.013	24	31	36
MW-78-142	12/03/20	N	5,700	5,600	4	28	2.5	190 J	0.84 J	<0.02	19	0.0059	22	29	28
MW-78-142	02/18/21	N	5,400	5,800	4.3	30	1.8	200 J	1.30 J	0.11	18	0.0071	22	30	27
MW-78-142	05/20/21	N	5,600 J	5,400	<0.1	27	2.2	290	0.33 J	<0.02	16 J	0.0038	21	32 J	37
MW-78-142	05/20/21	FD	5,600 J	5,500	<0.1	28	2	290	0.35 J	0.035	16 J	0.0037	22	34 J	38
MW-78-142	08/19/21	N	5,200	6,400	<0.1	29 J	2	290 J	1.20 J	0.026	18 J	0.0082	21	28	38
MW-78-142	12/15/21	N	5,500	5,400	<0.1	31	--	--	--	0.031 J	--	0.0042	21	--	33 J
MW-78-142	02/01/22	N	5,800	--	<0.1	32	--	--	--	0.072	--	0.0064 J	--	--	--
MW-78-142	03/10/22	N	5,700	5,600	<0.1	29	--	--	--	0.052	--	0.0045	22	--	36
MW-78-142	03/10/22	FD	5,700	5,500	<0.1	29	--	--	--	0.045	--	0.0041	22	--	37
MW-79-058	02/21/20	N	1,800 J	980 J	2.5 J	260 J	0.77	210 J	2.90 J	2.60 J	42 J	0.24 J	5.9	16 J	11
MW-79-058	02/21/20	FD	620 J	1,700 J	1.1 J	190 J	0.76	210 J	1.40 J	0.48 J	41 J	0.11 J	6.2	14 J	10
MW-79-058	05/29/20	N	540	580	1.1	260	0.34	170	0.5	0.12	35	0.47	7.8	14	5.4
MW-79-058	05/29/20	FD	540	580	0.95	260	0.37	180	0.45	0.093	36	0.45	7.5	14	5.6
MW-79-058	08/18/20	N	2,000	2,000	0.68	180	0.78	200	0.12 J	0.025 J	42 J	0.11	7.5	16	10
MW-79-058	08/18/20	FD	2,000	2,000	0.74	180	0.71	180	0.14 J	<0.02 J	44 J	0.11	7.8	16	9.5
MW-79-058	12/03/20	N	2,700	2,900	1.3	130	0.95	170 J	0.084 J	<0.02	41	0.0087	7.8	14	11
MW-79-058	02/18/21	N	2,700	2,800	1.3	100	0.63	160 J	0.085 J	0.021	40	0.0022	6.8	12	10
MW-79-058	05/20/21	N	2,600 J	2,700	0.62	92	0.69	210	0.05 J	<0.02	40 J	0.0038	5.8	14 J	8.3
MW-79-058	08/19/21	N	2,600	2,700	<0.1	98 J	0.64	200 J	0.11 J	<0.02	45 J	<0.0005	10	13	10
MW-79-058	12/15/21	N	3,200	3,400	0.3	93	--	--	--	<0.02 J	--	0.00056	10	--	9.4 J
MW-79-058	02/01/22	N	2,900	--	0.7	96	--	--	--	<0.02	--	<0.0005 J	--	--	--
MW-79-058	03/14/22	N	2,900	3,000	0.34 J	84	--	--	--	0.077	--	0.0021	8.6	--	8.8
MW-79-102	02/21/20	N	3,400	3,300	2.3	44	2.1	170 J	0.064	0.065 J	18 J	0.0059	28	19 J	74
MW-79-102	05/29/20	N	3,000	3,000	1.4	72	1.8	160	0.55	<0.1	22	0.054	28	20	70
MW-79-102	08/18/20	N	3,500 J	3,600	2	52	2.1	150	0.091 J	<0.02 J	19 J	0.021	31	18	79

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-77-187	05/18/21	N	<1	5,400 J	3.2	48	<0.2	7,200	7.7	--	--	1.1	930	12,000	<1
MW-77-187	08/18/21	N	1.1	6,300 J	3.5	43	<0.2	6,700	6.6	--	--	1.4	920	12,000	<1
MW-77-187	12/02/21	N	2.5	--	--	--	--	--	--	--	--	1.2	--	--	<1
MW-77-187	03/01/22	N	10	--	--	--	--	--	--	1.4	--	--	--	--	<1
MW-78-070	02/19/20	N	3,100	340	5.7	110	0.12	450	1.5	--	--	10	300	1,400	<1 J
MW-78-070	05/21/20	N	3,100	320	6.7	110	<0.2	470	1.3	--	--	9.5	290	1,400	<1 J
MW-78-070	08/18/20	N	3,100	350	7.1	110	<0.2	460	1.6	--	--	9.5	290	1,400	<1
MW-78-070	12/03/20	N	3,100	320	6.4	120	<0.2	440	1.7	--	--	9.1	300	1,300	<10
MW-78-070	12/03/20	FD	3,100	310	6.5	120	<0.2	440	1.7	--	--	9.4	300	1,400	<1
MW-78-070	02/18/21	N	2,300	280	6.5	120	<0.22	450	1.6	--	--	9.1	280	1,300	<1
MW-78-070	05/20/21	N	1,700 J	300 J	6.6	130	<0.2	430	1.7	--	--	7.6	250	1,200	<1
MW-78-070	08/19/21	N	3,500	340 J	6.1	100	<0.2	460	1.6	--	--	11	320	1,400	<1
MW-78-070	12/15/21	N	4,400	--	--	--	<0.2	--	--	--	<2.5	12	370	--	<1
MW-78-070	02/01/22	N	2,600	--	--	--	--	--	--	7.1	--	--	310	--	<1
MW-78-070	02/01/22	FD	2,700	--	--	--	--	--	--	7.2	--	--	300	--	<1
MW-78-070	03/10/22	N	1,800	--	--	--	<0.2	--	--	4.8	--	--	270	--	<5
MW-78-142	02/19/20	N	6,800	2,600	1.8	93	0.12	3,800	3.3	--	--	8.8	930	8,400	<10 J
MW-78-142	05/21/20	N	6,100	2,900	1.9	110	<0.2	3,500	3.2	--	--	8.8	870	8,200	<1 J
MW-78-142	08/18/20	N	5,700	2,300	2.3	110	<0.2	3,200	3.2	--	--	9.9	850	7,700	<1
MW-78-142	12/03/20	N	5,700	2,800	1.7	100	<0.2	3,400	3.5	--	--	8.7	860	7,600	<1
MW-78-142	02/18/21	N	5,400	2,200	1.8	93	<0.22	3,600	2.9	--	--	9	880	8,000	<1
MW-78-142	05/20/21	N	5,600 J	2,300 J	2.1	99	<0.2	3,400	3.5	--	--	9.1	880	7,600	<1
MW-78-142	05/20/21	FD	5,600 J	2,400 J	2.1	98	<0.2	3,400	3.2	--	--	9.3	870	7,300	<1
MW-78-142	08/19/21	N	5,200	2,700 J	1.9	98	<0.2	3,500	3.2	--	--	10	870	7,700	<20
MW-78-142	12/15/21	N	5,500	--	--	--	<0.2	--	--	--	<5	9.9	900	--	<1
MW-78-142	02/01/22	N	5,800	--	--	--	--	--	--	8.6	--	--	890	--	<1
MW-78-142	03/10/22	N	5,700	--	--	--	<0.2	--	--	9.1	--	--	860	--	<1
MW-78-142	03/10/22	FD	5,700	--	--	--	<0.2	--	--	9.1	--	--	880	--	<1
MW-79-058	02/21/20	N	1,800 J	400	7.4 J	93	0.03 J	690	<1	--	--	10	380	1,900	<1
MW-79-058	02/21/20	FD	620 J	380	1.3 J	91	0.05 J	690	<1	--	--	10	380	2,000	<1
MW-79-058	05/29/20	N	540	240	3.1	85	<0.2	510	<1	--	--	4.6	270	1,600	<1
MW-79-058	05/29/20	FD	540	290	3	83	<0.2	520	<1	--	--	4.5	270	1,500	<10
MW-79-058	08/18/20	N	2,000	400	4.1	82	<0.2	690	<1	--	--	10	380	2,100	<1
MW-79-058	08/18/20	FD	2,000	380	4	82	<0.2	690	<1	--	--	10	390	2,100	<1
MW-79-058	12/03/20	N	2,700	370	3.7	86	<0.2	700	1	--	--	10	410	1,900	<1
MW-79-058	02/18/21	N	2,700	340	3.7	89	<0.22	710	<1	--	--	10	400	1,900	<10
MW-79-058	05/20/21	N	2,600 J	370 J	3.7	99	<0.2	670	<1	--	--	10	400	1,800	<1
MW-79-058	08/19/21	N	2,600	350 J	3.7	190	<0.2	700	<1	--	--	10	410	2,000	<1
MW-79-058	12/15/21	N	3,200	--	--	--	<0.2	--	--	--	<5	11	410	--	<5
MW-79-058	02/01/22	N	2,900	--	--	--	--	--	--	9.3	--	--	400	--	<1
MW-79-058	03/14/22	N	2,900	--	--	--	<0.2	--	--	9.7	--	--	400	--	<1
MW-79-102	02/21/20	N	3,400	1,800	2.8	110	0.04 J	2,100	2.3	--	--	15	870	5,400	<1
MW-79-102	05/29/20	N	3,000	1,700	3.1	130	<0.2	2,200	2.2	--	--	6.9	880	5,300	<1
MW-79-102	08/18/20	N	3,500 J	1,800	3.5	130	<0.2	2,100	2.9	--	--	17	870	5,400	<1

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-79-102	12/03/20	N	3,400	3,600	4.6	41	2.3	120 J	0.056 J	<0.02	20	0.0041	28	22	74
MW-79-102	02/18/21	N	3,200	3,400	4.8	37	1.6	110 J	0.033 J	<0.02	19	0.0016	28	17	72
MW-79-102	05/20/21	N	3,500 J	3,500	1.2	36	1.6	190	0.034 J	<0.02	18 J	0.00052	30	20 J	75
MW-79-102	08/19/21	N	2,400	2,500	1.3	32 J	1.6	140 J	0.12 J	<0.02	17 J	0.017	28	16	67
MW-79-102	12/15/21	N	2,800	2,800	1.5	37	--	--	--	<0.02 J	--	0.0052	29	--	57 J
MW-79-102	02/01/22	N	3,500	--	0.94	41	--	--	--	0.39	--	0.0031 J	--	--	--
MW-79-102	03/14/22	N	3,600	3,500	0.78 J	38	--	--	--	0.07	--	0.0042	29	--	65
MW-79-102	03/14/22	FD	3,600	3,600	0.75 J	38	--	--	--	0.073	--	0.0041	29	--	64
MW-80-057	02/24/20	N	750	770	2	41	1	100	0.3 J	0.079 J	12	0.0028	33	11 J	30
MW-80-057	05/21/20	N	800	780	1.1	79	0.84	96 J	0.26 J	0.11	17	0.005	32	16 J	28
MW-80-057	08/18/20	N	690	700	1.9	63	1.1	97	0.066 J	<0.02 J	15 J	0.08	33	11	34
MW-80-057	12/03/20	N	780	780	3.2	51	1.2	75 J	0.08 J	<0.02	14	0.013	29	10	32
MW-80-057	12/03/20	FD	770	790	3.3	51	1.2	77 J	0.052 J	<0.02	14	0.013	29	10	33
MW-80-057	02/18/21	N	680	740	1.6	46	0.72	73 J	0.033 J	<0.02	13	0.0073	30	8.5	34
MW-80-057	05/20/21	N	840 J	800	1.5	47	0.83	120	0.15 J	<0.02	14 J	0.0017	30	11 J	36
MW-80-057	08/19/21	N	680	760	1.2	50 J	0.82	95 J	0.058 J	<0.02	13 J	0.0018	34	9.5	41
MW-80-057	12/15/21	N	710	710	1.3	51	--	--	--	<0.02 J	--	0.0047	36	--	31 J
MW-80-057	02/01/22	N	780	--	1	54	--	--	--	<0.02	--	0.0028 J	--	--	--
MW-80-057	03/14/22	N	690	680	1 J	53	--	--	--	0.034	--	0.0041	46	--	26
MW-80-082	02/24/20	N	1,900	1,900	1.7	41	1.3	230	0.091 J	0.059 J	19	0.00065	18	25 J	12
MW-80-082	02/24/20	FD	1,900	1,800	1.6	39	1.3	230	0.056 J	0.037 J	20	0.00061	17	25 J	12
MW-80-082	05/21/20	N	1,600	1,600	1.2	43	1	180 J	1.10 J	<0.02	22	0.0043	17	27 J	8.2
MW-80-082	05/21/20	FD	1,600	1,600	1.2	43	0.96	170 J	1 J	0.038	21	0.0044	17	27 J	7.8
MW-80-082	08/18/20	N	1,600	1,600	1.4	37	1.6	210	0.037 J	<0.02 J	23 J	0.01	20	21	15
MW-80-082	12/03/20	N	1,600	1,700	3.6	40	1.4	180 J	0.049 J	<0.02	23	0.00092	16	36	11
MW-80-082	02/18/21	N	1,800	1,900	4.2	39	0.93	160 J	0.034 J	<0.02	22	0.00074	16	21	12
MW-80-082	02/18/21	FD	1,800	2,000	4.2	40	1	170 J	0.048 J	0.022	23	0.00092	17	21	13
MW-80-082	05/20/21	N	2,100 J	2,100	0.76	38	1	260	0.02 J	<0.02	20 J	<0.0005	18	25 J	11
MW-80-082	08/19/21	N	1,300	1,600	<0.1	32 J	1	180 J	0.064 J	<0.02	18 J	<0.0005	24	19	29
MW-80-082	12/15/21	N	1,200	1,200	1.5	33	--	--	--	<0.02 J	--	0.00087	26	--	24 J
MW-80-082	02/01/22	N	2,000	--	0.54	44	--	--	--	<0.02	--	0.00071 J	--	--	--
MW-80-082	02/01/22	FD	2,000	--	0.58	44	--	--	--	<0.02	--	0.00071 J	--	--	--
MW-80-082	03/14/22	N	2,200	2,300	0.22 J	42	--	--	--	<0.02	--	0.00078	19	--	12
MW-80-082	03/14/22	FD	2,300	2,300	0.31 J	43	--	--	--	<0.02	--	0.00089	19	--	12
MW-81-043	01/08/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
MW-81-043	01/28/20	N	1.8	3.8	1.9 J	320 J	0.9	170 B	1	0.6 J	46 J	0.6 J	24 J	11 J	1.8
MW-81-043	02/18/20	N	4.4	6.9	2.9	250 J	0.83	210	0.36 J	0.38	46	0.35	26	14	1.9
MW-81-043	03/18/20	N	2.1	3.7	2.9	220	0.89	180	2.20	0.16 J	44 J	0.32	25	12 J	2.1
MW-81-043	04/21/20	N	7.4	10	0.85	160	0.94	230	0.49	0.28	46	0.21	21	13	1.6
MW-81-043	05/21/20	N	2.4	4.9	1.4	190	0.96	180 J	1.80 J	0.38	59	0.32	27	16 J	1.3
MW-81-043	08/18/20	N	1.5	4.3	2.6	180	1.5	220	2.20 J	0.48 J	61 J	0.36	30	14	1.5
MW-81-043	12/03/20	N	7.8	8.7	3.4	120	1.1	170 J	3.20 J	0.028	58	0.22	29	18	3.2
MW-81-043	02/24/21	N	13	13	2	100 J	1.1	220	1.80 J	0.022	54	0.11	28	11 J	2.1
MW-81-043	05/18/21	N	8.8 J	9.5	1.1 J	95	0.94	210	0.16 J	0.16 J	49 J	0.14	26	11 J	1.2

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-79-102	12/03/20	N	3,400	1,700	2.9	130	<0.2	2,200	2.9	--	--	16	880	5,400	<1
MW-79-102	02/18/21	N	3,200	1,500	2.9	130	<0.22	2,200	2.3	--	--	17	900	5,300	<1
MW-79-102	05/20/21	N	3,500 J	1,900 J	3.2	130	<0.2	2,100	2.9	--	--	17	870	5,200	<1
MW-79-102	08/19/21	N	2,400	1,900 J	3.4	170	<0.2	1,800	2.7	--	--	15	860	4,400	<1
MW-79-102	12/15/21	N	2,800	--	--	--	<0.2	--	--	--	<5	16	870	--	<1
MW-79-102	02/01/22	N	3,500	--	--	--	--	--	--	16	--	--	890	--	<1
MW-79-102	03/14/22	N	3,600	--	--	--	<0.2	--	--	15	--	--	880	--	<1
MW-79-102	03/14/22	FD	3,600	--	--	--	<0.2	--	--	15	--	--	850	--	<1
MW-80-057	02/24/20	N	750	1,100	4.3	120	0.12	1,200	3.5	--	--	16	480	3,200	<1
MW-80-057	05/21/20	N	800	1,200	4.1	120	<0.2	1,400	2.8	--	--	22	490	3,400	<1 J
MW-80-057	08/18/20	N	690	1,000	3.5	130	0.99	1,300	3.1	--	--	17	490	3,200	<1
MW-80-057	12/03/20	N	780	940	4.3	130	<0.2	1,300	3.2	--	--	16	510	3,100	<1
MW-80-057	12/03/20	FD	770	940	4.3	120	<0.2	1,300	3.2	--	--	16	500	3,100	<1
MW-80-057	02/18/21	N	680	870	4.5	120	<0.22	1,300	2.9	--	--	17	490	3,200	<1
MW-80-057	05/20/21	N	840 J	910 J	4.4	110	<0.2	1,300	3	--	--	17	520	3,300	<1
MW-80-057	08/19/21	N	680	1,300 J	4.3	110	<0.2	1,300	3.3	--	--	16	490	3,200	<1
MW-80-057	12/15/21	N	710	--	--	--	<0.2	--	--	--	<5	17	520	--	<1
MW-80-057	02/01/22	N	780	--	--	--	--	--	--	16	--	--	510	--	<1
MW-80-057	12/15/21	N	710	--	--	--	<0.2	--	--	--	<5	17	520	--	<1
MW-80-057	02/01/22	N	780	--	--	--	--	--	--	16	--	--	510	--	<1
MW-80-057	03/14/22	N	690	--	--	--	<0.2	--	--	11	--	--	490	--	<1
MW-80-082	02/24/20	N	1,900	1,900	1.2	100	0.13	2,500	2.5	--	--	10	520	5,800	<1
MW-80-082	02/24/20	FD	1,900	1,800	1.2	99	0.08 J	2,500	2.5	--	--	9.8	530	5,600	<1
MW-80-082	05/21/20	N	1,600	2,000	1.2	96	<0.2	2,500	2.3	--	--	8.2	480	5,200	<1 J
MW-80-082	05/21/20	FD	1,600	2,000	1.2	97	<0.2	2,600	2.2	--	--	8.3	480	5,400	<1 J
MW-80-082	08/18/20	N	1,600	1,600	1.2	100	<0.2	2,400	2.7	--	--	11	500	5,400	<1
MW-80-082	12/03/20	N	1,600	1,600	1	110	<0.2	2,500	2.3	--	--	8.8	520	5,300	<1
MW-80-082	02/18/21	N	1,800	1,500	<1	100	<0.2	2,600	2.4	--	--	11	530	5,800	<1
MW-80-082	02/18/21	FD	1,800	1,400	<1	98	<0.22	2,600	2.3	--	--	9.9	540	5,800	<1
MW-80-082	05/20/21	N	2,100 J	1,800 J	1.2	95	<0.2	2,600	2.5	--	--	9.9	540	5,600	<1
MW-80-082	08/19/21	N	1,300	1,800 J	1.5	110	<0.2	2,200	2.7	--	--	14	530	4,800	<1
MW-80-082	12/15/21	N	1,200	--	--	--	<0.2	--	--	--	<5	13	570	--	<1
MW-80-082	02/01/22	N	2,000	--	--	--	--	--	--	10	--	--	550	--	<1
MW-80-082	02/01/22	FD	2,000	--	--	--	--	--	--	10	--	--	550	--	<1
MW-80-082	03/14/22	N	2,200	--	--	--	<0.2	--	--	9.4	--	--	580	--	<1
MW-80-082	03/14/22	FD	2,300	--	--	--	<0.2	--	--	9.3	--	--	580	--	<1
MW-81-043	01/08/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-81-043	01/28/20	N	1.8	1,200	4.7	120	0.08 J	1,800	4	--	--	0.74	360	3,800	<1 J
MW-81-043	02/18/20	N	4.4	1,200	6.1	130	0.07 J	1,700	<1	--	--	0.68	340	3,600	<1 J
MW-81-043	03/18/20	N	2.1	1,200	4.8	410	0.13	1,700	3.7	--	--	0.64	350	3,800	<1 J
MW-81-043	04/21/20	N	7.4	1,300	7.5	130	0.11	1,900	3.7	--	--	0.85	440	4,300	<10
MW-81-043	05/21/20	N	2.4	1,500	7.3	160	<0.2	2,000	4	--	--	0.62	430	4,600	<1 J
MW-81-043	08/18/20	N	1.5	1,300	5.7	170	<0.2	1,900	4.5	--	--	0.53	440	4,500	<1
MW-81-043	12/03/20	N	7.8	1,100	8.6	150	<0.2	1,900	4.9	--	--	0.62	450	4,100	<1
MW-81-043	02/24/21	N	13	1,200 J	14	120	<0.2	1,800	4.8	--	--	0.63	390	3,600	<1
MW-81-043	05/18/21	N	8.8 J	1,100 J	12	170	<0.2	1,900	4.1	--	--	0.57	450	4,000	<1

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MW-81-043	08/17/21	N	7.3	7.7	0.73	93	0.99	230	0.35 J	0.079	52 J	0.18	21	15 J	1.3
MW-81-043	12/13/21	N	8.7	9.2	0.75	110	--	--	--	<0.02 J	--	0.16	24	--	2.6
MW-81-043	03/01/22	N	17	--	<0.1	110	--	--	--	<0.02	--	0.15	--	--	--
MW-81-098	01/28/20	N	<0.2	<1	<0.1 J	93 J	1.2	250 B	0.47	0.21 J	44 J	0.45 J	3.9 J	15 J	<0.5
MW-81-098	02/18/20	N	<0.2	<1	<0.1	87 J	1.1	280	0.17 J	0.092	40	0.28	3.6	15	<0.5
MW-81-098	03/18/20	N	0.31	<1	<0.1	69	1.2	270	0.13	0.075 J	37 J	0.23	3.1	16 J	<0.5
MW-81-098	04/21/20	N	<0.2	<1	<0.1	75	1.2	280	1.20	0.15	38	0.25	3.6	15	<0.5
MW-81-098	05/21/20	N	0.29	<1	<0.1	74	1.1	200 J	7.30 J	0.15	41	0.23	3.7	17 J	<0.5
MW-81-098	08/18/20	N	<1	<1	<0.1	73	1.8	260	1.20 J	0.023 J	45 J	0.16	3.8	15	<0.5
MW-81-098	08/18/20	FD	<1	1	<0.1	71	1.7	260	1.40 J	0.037 J	45 J	0.16	3.5	15	<0.5
MW-81-098	12/03/20	N	1.2	1.5	1	72	1.4	210 J	0.42 J	<0.02	45	0.12	3.1	18	<0.5
MW-81-098	02/24/21	N	1.4	1.5	<0.1	72 J	1.3	310	0.22 J	<0.02	42	0.11	3.2	18 J	<0.5
MW-81-098	05/18/21	N	2 J	2.3	<0.1 J	67	1.1	240	0.086 J	0.092 J	33 J	0.1	3.6	11 J	<0.5
MW-81-098	08/17/21	N	0.56	<1	<0.1	65	1.2	270	0.32 J	0.025	39 J	0.11	3.8	18 J	<0.5
MW-81-098	08/17/21	FD	0.59	<1	<0.1	63	1.1	250	0.27 J	0.036	36 J	0.11	3.5	15 J	<0.5
MW-81-098	12/13/21	N	1.2	1.7	<0.1	70	--	--	--	0.041 J	--	0.14	3.4	--	<0.5
MW-81-098	03/01/22	N	<1	--	<0.1	100	--	--	--	<0.1	--	0.12	--	--	--
MW-82-046	02/27/20	N	<1	1	16	76 J	2.2	210	4.40 J	3.80 J	260	0.18	30	24	0.67
MW-82-046	05/28/20	N	<1	1.2	32	68	2.2	160	7.70	6.60	210	0.48	67	23 J	0.72
MW-82-046	08/25/20	N	<1	1.1	15	64	1.4	120 J	4.50	4	240	0.27	21 J	20 J	1.5
MW-82-046	12/01/20	N	<0.2	1.2	15	57	1.9 J	140 J	3.80	3 J	230 J	0.17	12	20 J	4.7
MW-82-046	02/25/21	N	<1	<1	13	73	2	220	4.90 J	3.30	260	0.17	22	21 J	1.2
MW-82-046	05/18/21	N	<1	<1	21 J	64	1.9	170	6.40 J	5.40 J	200 J	0.27	55	17 J	1.9
MW-82-046	08/17/21	N	<0.2	<1	13	53	1.3	140	3.70 J	3	190 J	0.16	15	18 J	1.7
MW-82-046	12/16/21	N	<0.2	<1	15	61	--	--	--	2.90 J	--	0.17	11	--	2
MW-82-046	12/16/21	FD	<0.2	<1	15	59	--	--	--	3.20 J	--	0.17	11	--	1.8
MW-82-046	03/01/22	N	<1	--	13	68	--	--	--	6.60	--	0.21	--	--	--
MW-82-112	02/27/20	N	0.2 J	<1	<0.1	36 J	1.4	210	0.23 J	0.059 J	17	0.053	10	14	<0.5
MW-82-112	05/28/20	N	<0.2	<1	<0.1	35	1.5	180	0.54	0.073	18	0.072	7.6	16 J	<0.5
MW-82-112	08/25/20	N	<1	1.3	<0.1	35	1.4	130 J	0.089	0.042	17	0.053	9.6 J	18 J	<0.5
MW-82-112	12/01/20	N	0.44	1.1	2	34	1.7 J	160 J	0.28	<0.02	22 J	0.027	9.3	16 J	<0.5
MW-82-112	02/25/21	N	0.37	1.2	<0.1	34	1.5	220	0.098 J	0.021	19	0.024	9.1	15 J	<0.5
MW-82-112	05/18/21	N	<0.2	1.3	<0.1 J	30	1.2	160	0.27 J	0.11 J	15 J	0.031	6.7	12 J	<0.5
MW-82-112	08/17/21	N	0.28	<1	<0.1	29	1.4	180	0.051 J	<0.02	15 J	0.023	8.3	15 J	<0.5
MW-82-112	12/16/21	N	0.88	2	<0.1	35	--	--	--	<0.02	--	0.027	8.7	--	<0.5
MW-82-112	03/01/22	N	<0.2	--	<0.1	38	--	--	--	0.11 J	--	0.058	--	--	--
MW-82-168	02/27/20	N	1.2 J	2.6	1.7	49 J	1.5	580	0.12 J	<0.1 J	84	0.25	18	37	<0.5
MW-82-168	05/28/20	N	1.9	3.9	1.9	57	1.1	480	0.12	0.048	79	0.31	20	46 J	0.74
MW-82-168	08/25/20	N	2.9	6.1	1.9	53	0.72	350 J	0.21	0.079	77	0.26	19 J	47 J	0.83
MW-82-168	12/01/20	N	4.7	6.5	1.7	49	1.4 J	440 J	2	0.094 J	100 J	0.16	17	48 J	0.74
MW-82-168	02/25/21	N	3.5	5.9	<0.1	49	1.5	740	0.23 J	<0.1	100	0.13	17	33 J	0.63
MW-82-168	05/18/21	N	3.1 J	5	<0.1 J	49	0.99	640	0.2 J	0.035 J	68 J	0.16	19	32 J	0.65
MW-82-168	08/17/21	N	<1	<1	<0.1	49	1	700	0.27 J	0.028	67 J	0.32	18	37 J	<0.5
MW-82-168	12/16/21	N	7	7.5	<0.1	48	--	--	--	0.031 J	--	0.14	15	--	<0.5

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-81-043	08/17/21	N	7.3	1,300 J	10	180	<0.2	2,000	3.8	--	--	0.53	480	4,400	<1
MW-81-043	12/13/21	N	8.7	--	--	--	--	--	--	--	--	0.48	--	--	<1
MW-81-043	03/01/22	N	17	--	--	--	--	--	--	0.99	--	--	--	--	<1
MW-81-098	01/28/20	N	<0.2	1,800	1.7	160	0.06 J	2,500	2.4	--	--	0.22	590	5,300	<1 J
MW-81-098	02/18/20	N	<0.2	1,600	2.8	160	0.08 J	2,400	3	--	--	0.33	580	5,200	<1 J
MW-81-098	03/18/20	N	0.31	1,800	2.4	170	0.14	2,300	1.7	--	--	0.4	590	5,200	<1 J
MW-81-098	04/21/20	N	<0.2	1,500	2.8	180	0.06 J	2,500	2.3	--	--	0.25	600	5,200	<1
MW-81-098	05/21/20	N	0.29	1,900	2.8	170	<0.2	2,300	2.3	--	--	0.31	570	5,200	<1 J
MW-81-098	08/18/20	N	<1	1,600	4.1	180	<0.2	2,200	2.5	--	--	0.38	560	5,300	<1
MW-81-098	08/18/20	FD	<1	1,500	3.7	170	<0.2	2,300	2.8	--	--	0.36	550	5,200	<1
MW-81-098	12/03/20	N	1.2	1,500	4.3	180	<0.2	2,300	2.5	--	--	0.48	580	5,100	<1
MW-81-098	02/24/21	N	1.4	1,700 J	4.8	170	<0.2	2,300	2.9	--	--	0.51	570	5,200	<20
MW-81-098	05/18/21	N	2 J	1,600 J	4.5	180	<0.22	2,300	2.5	--	--	0.53	570	5,000	<20
MW-81-098	08/17/21	N	0.56	1,500 J	4.4	170	<0.2	2,300	2.4	--	--	0.53	580	5,000	<1
MW-81-098	08/17/21	FD	0.59	1,500 J	4.1	180	<0.2	2,300	2.6	--	--	0.45	570	5,200	<1
MW-81-098	12/13/21	N	1.2	--	--	--	--	--	--	--	--	0.58	--	--	<1
MW-81-098	03/01/22	N	<1	--	--	--	--	--	--	0.94	--	--	--	--	<1
MW-82-046	02/27/20	N	<1	3,800	2.5	1,300	7.7	3,400	2.4	--	--	<0.1	1,900	11,000	<10
MW-82-046	05/28/20	N	<1	3,100	2.1	1,200	6.2	3,100	4.4 J	--	--	0.058 J	1,500	9,400	2.3 J
MW-82-046	08/25/20	N	<1	2,000	2.3	1,300	6.8	2,600	2.1	--	--	0.19	1,600	8,300	3.5
MW-82-046	12/01/20	N	<0.2	1,700	1.3	980	5.3	2,000	2.3	--	--	<0.1	1,500	7,200	2.1
MW-82-046	02/25/21	N	<1	2,700 J	2.6	1,200	8.2	3,100	2.3	--	--	0.29	1,900	9,600	2.1
MW-82-046	05/18/21	N	<1	2,700 J	1.9	1,200	5.4	2,800	4.1	--	--	0.15	1,500	8,400	2
MW-82-046	08/17/21	N	<0.2	2,000 J	1.8	1,100	6.5	2,300	2.6	--	--	<0.1	1,500	7,100	<20
MW-82-046	12/16/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.8
MW-82-046	12/16/21	FD	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.8
MW-82-046	03/01/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	3.4
MW-82-112	02/27/20	N	0.2 J	2,100	5.6	82	0.12	2,400	3	--	--	0.63	660	5,300	<1
MW-82-112	05/28/20	N	<0.2	1,700	4.8	120	<0.2	2,300	2.5 J	--	--	0.29 J	550	4,900	<1
MW-82-112	08/25/20	N	<1	2,000	6.8	100	<0.2	2,300	3.2	--	--	0.68	580	5,200	<1
MW-82-112	12/01/20	N	0.44	1,400	6.5	93	<0.2	2,400	3.3	--	--	0.74	610	5,700	<20
MW-82-112	02/25/21	N	0.37	1,500 J	7.3	89	<0.2	2,400	3.4	--	--	0.76	630	5,200	<20
MW-82-112	05/18/21	N	<0.2	1,300 J	6.3	130	<0.2	2,100	2.5	--	--	0.51	530	4,500	<1
MW-82-112	08/17/21	N	0.28	1,600 J	6.6	100	<0.2	2,300	2.8	--	--	0.62	590	4,900	<1
MW-82-112	12/16/21	N	0.88	--	--	--	--	--	--	--	--	0.72	--	--	<1
MW-82-112	03/01/22	N	<0.2	--	--	--	--	--	--	0.6	--	--	--	--	<1
MW-82-168	02/27/20	N	1.2 J	4,900	1.9	63	0.13	6,000	2.8	--	--	1.4	1,200	13,000	<1
MW-82-168	05/28/20	N	1.9	4,300	2	64	<0.2	6,200	2.5 J	--	--	1.5 J	1,100	14,000	<1
MW-82-168	08/25/20	N	2.9	4,200	2.1	66	<0.2	6,100	2.8	--	--	1.9	1,100	14,000	<1
MW-82-168	12/01/20	N	4.7	3,100	1.5	65	<0.2	6,200	3	--	--	1.6	1,200	12,000	<1
MW-82-168	02/25/21	N	3.5	5,000 J	2.2	63	<0.22	6,300	2.7	--	--	1.5	1,100	12,000	<1
MW-82-168	05/18/21	N	3.1 J	4,000 J	1.9	67	<0.2	6,100	3.1	--	--	1.4	1,100	14,000 J	<1
MW-82-168	08/17/21	N	<1	4,200 J	2	78	<0.2	6,000	2.7	--	--	0.77	990	13,000	<1
MW-82-168	12/16/21	N	7	--	--	--	--	--	--	--	--	1.6	--	--	<1

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-82-168	03/01/22	N	1.2	--	1.9	50	--	--	--	<0.1	--	0.2	--	--	--
MW-82-198	02/27/20	N	<1	3.5	3.2	41 J	2.4	110	0.11 J	0.068 J	3	0.079	150	41	<0.5
MW-82-198	05/21/20	N	<1	9	3.9	46	1.8	93 J	1.90 J	0.19	4.8	0.23	81	61 J	0.69
MW-82-198	08/25/20	N	<1	2.7	3.2	39	1.6	71 J	0.2	<0.1	3.4	0.1	120 J	57 J	0.91
MW-82-198	12/01/20	N	<1	<1	2.3	35	3 J	90 J	0.33	<0.1	3.6 J	0.07	160	63 J	0.79
MW-82-198	02/25/21	N	<1	3.3	<0.1	40	2.6	130	4.80 J	0.27	3.4	0.059	160	47 J	0.58
MW-82-198	05/18/21	N	<1	1	<0.1 J	36	1.9	130	0.4 J	0.038 J	2.7 J	0.11	74	45 J	0.77
MW-82-198	08/17/21	N	<1	<1	<0.1	42	1.6	150	0.23 J	0.02	4.8 J	0.21	75	41 J	0.87
MW-82-198	12/16/21	N	<1	2.9	<0.1	34	--	--	--	0.12 J	--	0.057	140	--	<0.5
MW-82-198	03/01/22	N	2.9	--	3.1	52	--	--	--	<0.5	--	0.16	--	--	--
MW-83-090	02/19/20	N	49	47	0.26	77	0.35 J	150 J	0.14	0.046 J	24 J	<0.0005	3.2	8.9 J	3.6
MW-83-090	05/28/20	N	44	43	<0.1	84	0.31	150	0.29 J	0.12 J	28	0.002	3	9.5 J	2.7
MW-83-090	05/28/20	FD	44	43	0.21	84	0.3	140	0.63 J	0.05 J	27	0.001	3	9.4 J	2.9
MW-83-090	08/26/20	N	49	48	<0.1	89	0.41 J	140	0.14 J	<0.02	31 J	<0.0005	3.5	9.1 J	3.1
MW-83-090	12/09/20	N	54	50	<0.1	82	0.43	150	0.075	<0.02	28	<0.0005	3.2	11	2.8
MW-83-090	12/09/20	FD	53	51	0.19	82	0.42	140	0.078	<0.02	27	<0.0005	3.2	10	2.8
MW-83-090	02/23/21	N	49	49	<0.1	80	0.5	210 J	0.36	<0.1	39 J	0.00099	3.5	9.4 J	3.5
MW-83-090	05/25/21	N	44	44	<0.1 J	93	0.29	170 J	0.69 J	0.094 J	29 J	0.0049 J	3.5	12 J	2.7
MW-83-090	05/25/21	FD	44	44	<0.1 J	90	0.28	170 J	0.79 J	0.078 J	29 J	0.0039 J	3.2	11 J	2.7
MW-83-090	05/25/21	N	44	44	<0.1 J	93	0.29	170 J	0.69 J	0.094 J	29 J	0.0049 J	3.5	12 J	2.7
MW-83-090	05/25/21	FD	44	44	<0.1 J	90	0.28	170 J	0.79 J	0.078 J	29 J	0.0039 J	3.2	11 J	2.7
MW-83-090	08/23/21	N	52	55	<0.1	78	0.28	140	0.42 J	0.032 J	25 J	<0.0005	2.9	9.2 J	1.9
MW-83-090	12/16/21	N	67	65	0.3	--	--	--	--	--	--	0.0035	4	--	3.1
MW-83-180	01/29/20	N	7.7	7.8	1.3	49	1.7	330	0.14	0.022	24 J	0.0011	33	19	0.72
MW-83-180	02/19/20	N	8.4	8.3	1.4	50	1.6 J	280 J	0.042	0.043 J	20 J	0.00085	34	18 J	0.63
MW-83-180	03/17/20	N	8.8	7.7	0.7	47 J	1.4	280	0.035 J	0.033 J	20	<0.0005	31	22	0.59
MW-83-180	04/23/20	N	7.9	8.1	1.1	56	1.7	280	0.4	0.34 J	20	0.0077	34	19	0.58
MW-83-180	05/28/20	N	9.1	9.4	4.6	50	1.4	240	0.055	<0.02	19	0.0011	35	21 J	0.7
MW-83-180	06/15/20	N	6	5.6	<0.1 J	45	1.2	210	0.48	<0.02	17	0.0025	30	18 J	0.7
MW-83-180	07/22/20	N	8.5	8.8	0.5	51	1.5	250	0.033	<0.02	19 J	0.00094	35	20 J	0.59
MW-83-180	08/26/20	N	8.4	8.8	1.2	52	1.5 J	200	0.1 J	0.052 J	21 J	0.00057	37	23 J	0.65
MW-83-180	09/29/20	N	9.4	9.3	1.2	52	1.1 J	230 J	0.061 J	<0.02 J	18 J	0.0036	37	17 J	0.6
MW-83-180	10/21/20	N	9.8	10	4.7	52	1.7	210 J	0.035	<0.02	20	0.0012	34	28	0.64
MW-83-180	12/09/20	N	9.6	8.6	0.84	51	1.2	220	0.023	<0.02	21	<0.0005	36	19	0.61
MW-83-180	02/23/21	N	4.7	6.8	<0.1	47	1.9	370 J	0.46	<0.1	26 J	<0.0005	34	20 J	0.68
MW-83-180	05/25/21	N	5.1	5.4	<0.1 J	46	1.2	290 J	1.20 J	<0.02 J	18 J	0.00077	31	24 J	0.67
MW-83-180	08/23/21	N	3.9	7.3	<0.1	47	1.2	270	0.38 J	0.09 J	16 J	<0.0005	30	30 J	0.66
MW-83-180	12/16/21	N	6.2	8.4	<0.1	--	--	--	--	--	--	0.0011	33	--	0.54
MW-83-225	02/19/20	N	450	450	4.3	44	2.2 J	390 J	0.62	<0.02 J	22 J	0.0042	49	29 J	0.57
MW-83-225	05/28/20	N	510	490	3.9	43	1.7	320	0.59	<0.02	21	0.0044	49	30 J	0.67
MW-83-225	08/26/20	N	460	420	3.8	46	1.8 J	250	0.49 J	0.44 J	22 J	0.0042	55	31 J	0.58
MW-83-225	12/09/20	N	420	360	<0.1	40	1.7	290	0.27	<0.02	22	0.0029	50	30	0.6
MW-83-225	02/23/21	N	400	390	<0.1	37	3.1	530 J	0.54	<0.1	33 J	0.0019	51	26 J	0.57
MW-83-225	02/23/21	FD	390	380	<0.1	36	2.4	410 J	0.58	<0.1	26 J	0.0019	49	25 J	0.73
MW-83-225	05/25/21	N	400	390	<0.1 J	42	2.2	300 J	1 J	0.25 J	23 J	0.0032	51	32 J	0.61
MW-83-225	08/23/21	N	370	420	<0.1	38	1.5	350	1.10 J	0.082 J	15 J	0.0038	45	28 J	1.6

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MW-82-168	03/01/22	N	1.2	--	--	--	--	--	--	1.3	--	--	--	--	<1
MW-82-198	02/27/20	N	<1	6,700	2.5	43	0.09 J	6,700	5.8	--	--	1	1,100	13,000 J	<1
MW-82-198	05/21/20	N	<1	5,800	2	55	0.28	6,200	4.6	--	--	0.63	1,000	13,000	<1 J
MW-82-198	08/25/20	N	<1	5,600	3.1	39	<0.2	6,700	5.2	--	--	1.3	1,100	12,000 J	<1
MW-82-198	12/01/20	N	<1	5,500	2.4	45	0.36	6,900	6.6	--	--	1.2	1,100	12,000 J	<1
MW-82-198	02/25/21	N	<1	6,700 J	3.1	42	<0.2	7,100	6.1	--	--	1.2	1,100	14,000	<1
MW-82-198	05/18/21	N	<1	5,300 J	2.9	34	<0.2	6,500	3.9	--	--	1.4	1,100	13,000	<1
MW-82-198	08/17/21	N	<1	5,200 J	2.7	48	<0.2	6,100	4	--	--	1.1	1,000	12,000	<1
MW-82-198	12/16/21	N	<1	--	--	--	--	--	--	--	--	1.2	--	--	<1
MW-82-198	03/01/22	N	2.9	--	--	--	--	--	--	1.7	--	--	--	--	<1
MW-83-090	02/19/20	N	49	230	2.8	100	0.05 J	500	1.6	--	--	4.9	160	1,300	<1 J
MW-83-090	05/28/20	N	44	230	2.6	91	<0.2	580	1.5 J	--	--	3.8 J	150	1,700	<1
MW-83-090	05/28/20	FD	44	220	2.6	89	<0.2	580	1.4 J	--	--	3.7 J	150	1,700	<1
MW-83-090	08/26/20	N	49	300 J	3	88	<0.2	600	1.7	--	--	3.9 J	150	1,700	<1 J
MW-83-090	12/09/20	N	54	250	2.6	88	<0.2	560	1.4	--	--	4.4	160	1,300	<1
MW-83-090	12/09/20	FD	53	260	2.7	89	<0.2	560	1.5	--	--	4.5	160	1,300	<1
MW-83-090	02/23/21	N	49	260	2.8	84	<0.2	560	1.8	--	--	4.9	150	1,200	<1
MW-83-090	05/25/21	N	44	230 J	2.9	88	<0.2	580	1.5	--	--	3.9	150	1,400	<1
MW-83-090	05/25/21	FD	44	240 J	2.8	83	<0.2	580	1.4	--	--	4	150	1,400	<1
MW-83-090	08/23/21	N	52	230	3	96	<0.2	550	1.3	--	--	4.5	150	1,600	<1
MW-83-090	12/16/21	N	67	--	--	--	--	--	--	--	--	5	--	--	--
MW-83-180	01/29/20	N	7.7	2,400	8.7	39	<0.1	3,500	4.6	--	--	0.51	480	7,500	<1
MW-83-180	02/19/20	N	8.4	2,200	9	41	0.05 J	3,400	4.8	--	--	0.5	490	7,200	<1 J
MW-83-180	03/17/20	N	8.8	2,300	8.1	39	0.06 J	3,500	3.9	--	--	0.58 J	490	7,600	<1 J
MW-83-180	04/23/20	N	7.9	2,200	8.7	34	0.05 J	3,700	4.3	--	--	0.53	500	7,500	<1
MW-83-180	05/28/20	N	9.1	2,300	9.4	38	<0.2	3,700	5.2 J	--	--	0.55 J	500	7,800	<1
MW-83-180	06/15/20	N	6	2,000	8.9	44	<0.2	3,300	4.4	--	--	0.68 J	460	7,100	<1
MW-83-180	07/22/20	N	8.5	2,800	9.3	36	<0.2	3,500	5	--	--	0.64	500	7,800	<1
MW-83-180	08/26/20	N	8.4	2,300 J	9.8	36	<0.2	3,500	4.4	--	--	0.6	500	8,200	<10 J
MW-83-180	09/29/20	N	9.4	2,200 J	8.8	40	<0.2	3,400	4.4	--	--	0.66	480	7,400	<1 J
MW-83-180	10/21/20	N	9.8	2,900	9.7	37	<0.2	3,500	4.5	--	--	0.54	500	7,900	<20 J
MW-83-180	12/09/20	N	9.6	1,900	9.5	34	<0.2	3,600	4.7	--	--	0.61	500	6,800	<1
MW-83-180	02/23/21	N	4.7	2,600	8.8	36	<0.2	3,700	4.6	--	--	0.66	490	7,300	<1
MW-83-180	05/25/21	N	5.1	1,900 J	9.2	41	<0.2	3,400	4.6	--	--	0.69	470	6,900	<1
MW-83-180	08/23/21	N	3.9	2,200	9.9	37	<0.2	3,600	4.1	--	--	0.6	490	7,400	<1
MW-83-180	12/16/21	N	6.2	--	--	--	--	--	--	--	--	0.55	--	--	--
MW-83-225	02/19/20	N	450	3,400	5.5	34	0.04 J	5,100	5	--	--	0.62	700	11,000	<1 J
MW-83-225	05/28/20	N	510	3,400	6	31	<0.2	5,300	4.7 J	--	--	0.68 J	680	11,000	<1
MW-83-225	08/26/20	N	460	4,400 J	6.6	31	<0.2	5,000	4.5	--	--	0.64	670	11,000	<1 J
MW-83-225	12/09/20	N	420	2,600	5.7	30	<0.2	5,100	4.4	--	--	0.57	680	9,900	<1
MW-83-225	02/23/21	N	400	4,700 J	5.8	33	<0.2	5,200	4.6	--	--	0.75	690	10,000	<1
MW-83-225	02/23/21	FD	390	3,400 J	5.6	32	<0.2	5,100	4.5	--	--	0.73	700	11,000	<1
MW-83-225	05/25/21	N	400	3,100 J	6.3	31	<0.2	5,100	4.2	--	--	0.7	690	10,000	<1
MW-83-225	08/23/21	N	370	3,400	6.6	35	<0.2	5,100	4.2	--	--	0.72	710	10,000	<1

Appendix B
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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-83-225	12/16/21	N	250	220	<0.1	--	--	--	--	--	--	0.0053	47	--	<0.5
MW-83-245	02/19/20	N	1.7	2.3	5.5	120	2.5 J	390 J	0.024	0.024 J	13 J	0.088	63	43 J	<0.5
MW-83-245	05/22/20	N	4.5	4.9	<0.1	96	1.9	340	3.40 J	0.025 J	12 J	0.064	65	55 J	<0.5
MW-83-245	08/26/20	N	9.2	10	5.7	110	3.9 J	310	<0.1 J	<0.1	15 J	0.073	73	60 J	<0.5
MW-83-245	12/09/20	N	19	16	<0.1	100	1.7	290	0.025	<0.02	11	0.068	68	58	<0.5
MW-83-245	02/23/21	N	23	21	<0.1	85	3	490 J	<0.1	<0.1	19 J	0.08	64	42 J	<0.5
MW-83-245	05/25/21	N	14	13	<0.1 J	150	1.9	460 J	<0.1	<0.1 J	4.5 J	<0.0005	68	140 J	0.67
MW-83-245	08/23/21	N	17	17	<0.1	110	1.7	370	0.11 J	0.021 J	3.1 J	0.0019	60	87 J	<0.5
MW-83-245	12/16/21	N	3.6	4.1	<0.1	--	--	--	--	--	--	0.042	64	--	<0.5
MW-84-057	01/27/20	N	31	29	1.2	44	0.53	68	0.87 J	0.05 J	12	0.0022	19	6.4	5.2
MW-84-057	02/19/20	N	32	31	1.4	46	0.51 J	90 J	0.55	0.093 J	15 J	0.0034	20	7.8 J	5.3
MW-84-057	03/18/20	N	29	29	1.2	45 J	0.43	80	0.22 J	0.13 J	14	0.0029	19	7.4	5
MW-84-057	03/18/20	FD	29	29	1.2	44 J	0.43	82	0.37 J	0.12 J	14	0.0033	18	7.8	4.8
MW-84-057	04/22/20	N	30	30	1.3	47	0.38	78	0.23 J	0.089 J	13	0.0034 J	19	8.1	5.2
MW-84-057	04/22/20	FD	30	30	1.2	45	0.37	76	0.3 J	0.055 J	13	0.0026 J	18	8	5.1
MW-84-057	05/28/20	N	27	28	1.2	49	0.43	83	0.42	0.048	15	0.0089	18	8 J	4.2
MW-84-057	06/17/20	N	26	26	1.2 J	52	0.44	83	0.37	0.076	15	0.0032	17	7.9	4
MW-84-057	07/22/20	N	24	27	1.2	53	0.48	82	0.81	0.026	15 J	<0.0005	18	7.8 J	4
MW-84-057	08/21/20	N	28	28	1.2	54	0.23	80	1.60	0.075	17	0.0023	19	9	4.1
MW-84-057	09/29/20	N	0.42	<1	<0.1	220	0.44 J	290 J	0.045 J	<0.02 J	65 J	0.06	7.3	11 J	0.9
MW-84-057	10/20/20	N	28	27	1.2 J	49	0.42	73	0.42 J	<0.02	13 J	<0.0005	17	7.9 J	4.2
MW-84-057	12/10/20	N	31	32	1.2	45	0.32	72 J	0.57 J	0.046 J	15	0.00082	18	8.6	5
MW-84-057	02/19/21	N	32	34	1.6	47	0.42	64 J	0.5	<0.02	14	0.0021	19	6.1	4.8
MW-84-057	05/24/21	N	27	28	0.67 J	56	0.39	96 J	0.73 J	0.11 J	16 J	0.0047	17	8.5 J	3.9
MW-84-057	08/20/21	N	23	26	1.1	56	0.37	97	0.076 J	0.02 J	16 J	<0.0005	12	8 J	3.4
MW-84-057	11/29/21	N	27	27	0.9	--	--	--	--	--	--	0.0018	12	--	3.7
MW-84-095	01/27/20	N	1.2	1.3	<0.1	220	0.55	250	0.25 J	0.055 J	48	0.06	6.3	12	0.88
MW-84-095	02/19/20	N	0.53	<1	0.3	220	0.82 J	120 J	0.25	<0.1 J	21 J	0.052	7.1	19 J	0.8
MW-84-095	03/18/20	N	1.5	1.2	<0.1	220 J	0.44	330	0.78 J	0.053 J	58	0.02	6.3	14	0.87
MW-84-095	04/22/20	N	2.1	2.6	<0.1	220	0.43	320	0.52	0.059 J	55	0.021	5.9	13	1
MW-84-095	05/28/20	N	2.1	2.2	<0.1	220	0.47	310	2	0.028	61	0.028	6.5	15 J	0.88
MW-84-095	05/28/20	FD	2.1	2.2	<0.1	230	0.49	300	2	0.066	59	0.027	6.8	13 J	0.95
MW-84-095	06/17/20	N	1.7	1.7	<0.1 J	240	0.51	300	2.60	0.055	57	0.048	7	13	0.91
MW-84-095	07/22/20	N	2.7	3.1	<0.1	220	0.59	290	1.20	0.048	58 J	0.023	6.4	13 J	0.92
MW-84-095	08/20/20	N	2.9	2.8	<0.1	220	0.72 J	310	1.20	0.83 J	67	0.018	6.5	15	0.98
MW-84-095	08/20/20	FD	3 J	2.7	<0.1	200	0.47 J	320	1.20	0.25 J	67	0.018	6.4	15	1
MW-84-095	09/29/20	N	2.9	3.6	<0.1	230	0.52 J	240 J	1.60 J	0.12 J	58 J	0.024	6.2	11 J	0.95
MW-84-095	10/20/20	N	3.3	3.1	<0.1 J	210	0.5	300	0.31 J	<0.02	56 J	0.026	5.2	16 J	1
MW-84-095	12/10/20	N	3.4	3.7	<0.1	220	0.38	270 J	1.90 J	0.084 J	64	0.028	5.3	14	0.91
MW-84-095	12/10/20	FD	3.4	3.6	<0.1	210	0.36	270 J	2.20 J	0.074 J	63	0.027	5	14	0.9
MW-84-095	02/19/21	N	3.3	3.7	1.1	230	0.43	260 J	0.6	<0.02	64	0.034	5.3	12	1.1
MW-84-095	05/24/21	N	3.3	3.5	<0.1 J	250	0.45	460 J	1.30 J	0.19 J	69 J	0.017	5.3	17 J	0.86
MW-84-095	08/20/21	N	2.6	3.5	<0.1	180	0.41	320	0.76 J	<0.02 J	54 J	<0.0005	5.4	16 J	0.9
MW-84-095	11/29/21	N	3.4	4.2	<0.1	--	--	--	--	--	--	0.0058	5.4	--	0.86

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-83-225	12/16/21	N	250	--	--	--	--	--	--	--	--	0.55	--	--	--
MW-83-245	02/19/20	N	1.7	4,200	2.1	30	0.04 J	6,400	4.9	--	--	0.13	670	12,000	<1 J
MW-83-245	05/22/20	N	4.5	5,800 J	2.3	25	<0.2	6,700	5	--	--	0.12	670	14,000	<1
MW-83-245	08/26/20	N	9.2	5,700 J	2.2	24	<0.2	6,500	3.9	--	--	0.099	670	15,000 J	<1 J
MW-83-245	12/09/20	N	19	3,400	3.1	23	<0.2	6,600	4.1	--	--	0.18	660	12,000 J	<1
MW-83-245	02/23/21	N	23	4,600	2.6	29	<0.22	6,700	4.3	--	--	0.29	690	13,000	<1
MW-83-245	05/25/21	N	14	4,100 J	6.1	210	0.28	6,200	4.5	--	--	0.22	630	12,000	<1
MW-83-245	08/23/21	N	17	4,400	5.1	89	0.21	6,200	4	--	--	<0.1	630	12,000	<1
MW-83-245	12/16/21	N	3.6	--	--	--	--	--	--	--	--	<0.1	--	--	--
MW-84-057	01/27/20	N	31	240 J	6.7	86	0.11	360	1.9	--	--	9.9	210	1,100	<1 J
MW-84-057	02/19/20	N	32	280	7.7	89	0.04 J	340	1.7	--	--	11	210	1,100	<1 J
MW-84-057	03/18/20	N	29	260	7.4	84	<0.1	360	1.7	--	--	11 J	200	1,100	<10 J
MW-84-057	03/18/20	FD	29	270	7.4	85	<0.1	360	1.8	--	--	11 J	200	1,100	<1 J
MW-84-057	04/22/20	N	30	280	7.7	80	<0.1	390	1.7	--	--	10	210	1,100	<1
MW-84-057	04/22/20	FD	30	270	7.5	81	<0.1	370	1.9	--	--	9.5	200	1,100	<1
MW-84-057	05/28/20	N	27	310	7.7	77	<0.2	410	2.3 J	--	--	8.2 J	190	1,100	<1
MW-84-057	06/17/20	N	26	280	7.8	82	<0.2	430	1.9	--	--	7.6 J	180	1,200	<1
MW-84-057	07/22/20	N	24	290	7.7	78	<0.2	440	2	--	--	8.2	180	1,100	<10
MW-84-057	08/21/20	N	28	300	8.7	79	<0.2	430	2.1	--	--	8.7	170	1,200	<1
MW-84-057	09/29/20	N	0.42	630 J	4.1	51	<0.2	1,700	3	--	--	1.2	230	4,000	<1 J
MW-84-057	10/20/20	N	28	230	7.5	81	<0.2	390 J	2.1	--	--	9.1	180	1,100	<1
MW-84-057	12/10/20	N	31	250	8.9	82	<0.2	480	2	--	--	11	260	1,000	<10
MW-84-057	02/19/21	N	32	200	8.2	90	<0.22	360	2.1	--	--	11	210	1,100	<1
MW-84-057	05/24/21	N	27	240 J	8.6	80	<0.2	450	2.3	--	--	7.6	180	1,100	<1
MW-84-057	08/20/21	N	23	300 J	8.6	77	<0.2	510	2	--	--	7.4	170	1,200	<1
MW-84-057	11/29/21	N	27	--	--	--	--	--	--	--	--	8.7	--	--	--
MW-84-095	01/27/20	N	1.2	640 J	3.7	54	0.15	1,700	3.1	--	--	1.1	230	3,800	<1 J
MW-84-095	02/19/20	N	0.53	780	3.8	55	0.1	1,700	2.9	--	--	0.98	230	3,600	<10
MW-84-095	03/18/20	N	1.5	760	4.1	56	<0.1	1,700	2.9	--	--	1.1 J	240	3,700	<1 J
MW-84-095	04/22/20	N	2.1	830	4.5	52	<0.1	1,800	2.5	--	--	2.1	250	3,900	<1
MW-84-095	05/28/20	N	2.1	730	4.7	49	<0.2	1,800	2.8 J	--	--	1.1 J	250	4,400	<1
MW-84-095	05/28/20	FD	2.1	690	4.7	54	<0.2	1,800	3.1 J	--	--	1.3 J	250	4,600	<1
MW-84-095	06/17/20	N	1.7	790	4.7	55	<0.2	1,800	2.9	--	--	1.1 J	250	4,600	<1
MW-84-095	07/22/20	N	2.7	780	4.9	50	<0.2	1,700	3.2	--	--	1.3	250	4,300	<1
MW-84-095	08/20/20	N	2.9	860	5.2	52	<0.2	1,700	2.6	--	--	1.4	240	4,500	<1
MW-84-095	08/20/20	FD	3 J	860	5	52	<0.2	1,800	2.4	--	--	1.2	240	4,400	<1
MW-84-095	09/29/20	N	2.9	690 J	4.8	54	<0.2	1,700	3	--	--	1.2	230	4,000	<1 J
MW-84-095	10/20/20	N	3.3	730	4.5	53	<0.2	1,800 J	2.6	--	--	1.2	240	4,200	<1
MW-84-095	12/10/20	N	3.4	750	5.2	50	<0.2	1,700	3.3	--	--	1.4	240	3,500	<1
MW-84-095	12/10/20	FD	3.4	750	5	49	<0.2	1,700	3	--	--	1.3	240	3,600	<1
MW-84-095	02/19/21	N	3.3	740	4.8	54	<0.2	1,800	2.9	--	--	1.3	240	3,400	<1
MW-84-095	05/24/21	N	3.3	760 J	7.4	50	<0.2	1,900	3.1	--	--	1.1	250	4,100	<1
MW-84-095	08/20/21	N	2.6	600 J	5.1	52	<0.2	1,700	2.8	--	--	1.3	230	3,900	<1
MW-84-095	11/29/21	N	3.4	--	--	--	--	--	--	--	--	1.3	--	--	--

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-84-132	01/27/20	N	<0.2	<1	<0.1	100	1.3	240	0.16 J	0.12 J	24	0.12	29	21	0.76
MW-84-132	02/19/20	N	0.26	<1	0.46	99	1.4 J	290 J	0.061	0.079 J	27 J	0.079	29	19 J	0.73
MW-84-132	03/18/20	N	0.5	<1	<0.1	80 J	0.97	280	0.044 J	0.043 J	30	0.054	24	20	0.76
MW-84-132	04/22/20	N	0.57	<1	<0.1	92	1.1	270	0.66	0.064 J	25	0.041	29	19	0.95
MW-84-132	05/28/20	N	0.44	1	0.32	88	1	240	0.95	0.06	28	0.035	26	22 J	0.82
MW-84-132	06/17/20	N	0.53	<1	0.43 J	92	1.1	260	0.054	<0.02	30	0.037	24	18	0.88
MW-84-132	07/22/20	N	0.79	1	<0.1	90	1.2	250	0.029	<0.02	29 J	0.022	28	19 J	0.88
MW-84-132	08/21/20	N	1.1	2.1	<0.1	88	0.96	230	0.035	0.034	33	0.019	29	21	0.95
MW-84-132	09/29/20	N	1.2	1.3	<0.1	84	0.88 J	250 J	0.08 J	<0.02 J	33 J	0.011	28	16 J	1.1
MW-84-132	10/20/20	N	1.4	1.5	<0.1 J	79	1.1	250	0.33 J	<0.02	29 J	0.013	23	23 J	1
MW-84-132	12/10/20	N	2	2.1	<0.1	74	1.1	200 J	0.22 J	0.17 J	26	0.0046	28	20	1.1
MW-84-132	02/19/21	N	2.3	2.8	2.4	70	1	200 J	0.053	0.025	31	0.0046	27	19	1.1
MW-84-132	05/24/21	N	2.2	3	<0.1 J	73	0.94	320 J	3.10 J	0.095 J	32 J	0.0067	23	22 J	1.2
MW-84-132	08/20/21	N	2.6	3.6	<0.1	76	0.83	300	0.047 J	0.026 J	33 J	<0.0005	18	18 J	0.84
MW-84-132	11/29/21	N	2.4	2.6	<0.1	--	--	--	--	--	--	0.00074	16	--	1.1
MW-84-193	01/27/20	N	43	39	4.9	58	1.8	180	0.16 J	0.037 J	11	0.037	46	32	<2.5
MW-84-193	02/19/20	N	63	56	1.5	54	1.9 J	210 J	0.16	0.031 J	11 J	0.019	47	30 J	1
MW-84-193	03/18/20	N	51	43	0.78	50 J	1.7	210	0.12 J	0.044 J	12	0.019	45	32	0.89
MW-84-193	04/22/20	N	62	61	1.2	57	1.6	210	1.70	0.17 J	9.4	0.028	48	30	<2.5
MW-84-193	05/22/20	N	42	40	<0.1	55	1.4	160	0.56 J	0.11 J	9.6 J	0.016	50	30 J	0.98
MW-84-193	06/17/20	N	40	39	5.3 J	57	1.7	190	0.29	<0.02	10	0.0082	49	29	1.1
MW-84-193	07/22/20	N	52	54	1.1	56	1.8	190	0.084	<0.02	10 J	0.0065	55	30 J	0.93
MW-84-193	08/20/20	N	54 J	48	1.1	54	1.1	190	0.22	0.15 J	13	0.0051	54	32	1.1
MW-84-193	09/29/20	N	48	45	1.5	59	1.8 J	190 J	<0.1 J	<0.02 J	12 J	0.016	54	29 J	1
MW-84-193	10/20/20	N	51	45	2.7 J	49	1.9	190	0.29 J	<0.02	11 J	0.0026	47	41 J	0.98
MW-84-193	12/10/20	N	74	64	0.81	46	1.6	150 J	0.4 J	<0.02 J	12	0.0019	47	32	1.1
MW-84-193	02/19/21	N	86	87	5.8	47	1.5	150 J	0.093	<0.02	12	0.00085	50	30	1.2
MW-84-193	05/24/21	N	52	49	<0.1 J	49	1.6	230 J	0.05 J	0.07 J	9.7 J	0.0011	51	35 J	1.2
MW-84-193	08/20/21	N	23	25	<0.1	40	1.5	170	0.057 J	0.021 J	6.3 J	0.0012	50	28 J	0.95
MW-84-193	11/29/21	N	14	15	2.2	--	--	--	--	--	--	0.082	58	--	1.1
MW-85-129	02/18/20	N	150	150	0.79	72 J	0.6	130	0.37 J	0.1	27	0.0034	3.1	11	9.9
MW-85-129	02/18/20	FD	150	150	0.81	72 J	0.59	140	0.41 J	0.084	27	0.0031	2.9	11	9.5
MW-85-129	05/20/20	N	130 J	120	0.51	64	0.42	110	0.34	0.069	27	0.0029	2.7	10 J	9.6
MW-85-129	08/21/20	N	140	140	0.76	70	0.19	130	0.17	<0.02	29	<0.0005	2.9	10	10
MW-85-129	12/09/20	N	140	130	0.56	69	0.47	120	0.1	<0.02	28	<0.0005	3	9.1	9.3
MW-85-129	02/22/21	N	130	130	0.62	65 J	0.39	120	0.12	0.025 J	24	<0.0005	2.7	8.9 J	11
MW-85-129	05/21/21	N	120	110	0.32 J	71	0.45	140 J	0.21 J	0.22 J	27 J	<0.0005	2.8	9.9 J	9.6
MW-85-129	08/20/21	N	130	130	0.41	56	0.43	110	0.16 J	0.035 J	21 J	<0.0005	4.2	10 J	8.2
MW-85-129	11/30/21	N	130	140	0.65	--	--	--	--	--	--	<0.0005	5	--	9.6
MW-85-217	02/18/20	N	1,100	1,100	6.5	29 J	2.2	260	0.46 J	0.2	11	0.045	93	31	6.5
MW-85-217	05/20/20	N	870 J	850	1.1	29	1.9	160	1.90	0.025	11	0.032	97	33 J	4.8
MW-85-217	08/21/20	N	1,100	970	1.9	27	1.8	170	1.10	0.034	12	0.014	100	30	5.7
MW-85-217	12/09/20	N	1,000	930	1.6	27	1.8	170	0.24	<0.02	11	0.0051	100	30	5.4
MW-85-217	02/22/21	N	1,100	37	1.1	25 J	3	290	<0.1	<0.1	14	0.002	95	27 J	6.9

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-84-132	01/27/20	N	<0.2	1,800 J	4.2	53	0.15	3,000	4.2	--	--	0.39	370	6,000	<10 J
MW-84-132	02/19/20	N	0.26	1,700	4.8	57	0.05 J	2,700	3.9	--	--	0.47	350	5,600	<1 J
MW-84-132	03/18/20	N	0.5	1,600	4.9	52	<0.1	2,600	3.1	--	--	0.59 J	340	5,400	<1 J
MW-84-132	04/22/20	N	0.57	1,700	6.1	39	<0.1	3,000	3.7	--	--	0.72	380	5,700	<1
MW-84-132	05/28/20	N	0.44	1,700	6	51	<0.2	2,700	3.5 J	--	--	0.8 J	340	5,800	<1
MW-84-132	06/17/20	N	0.53	1,500	5.7	51	<0.2	2,600	3.7	--	--	0.77 J	320	5,700	<1
MW-84-132	07/22/20	N	0.79	2,000	6.2	50	<0.2	2,700	3.4	--	--	0.84	340	5,700	<1
MW-84-132	08/21/20	N	1.1	1,700	6.5	50	<0.2	2,700	3.8	--	--	0.74	340	6,100	<1
MW-84-132	09/29/20	N	1.2	1,300 J	6.6	52	<0.2	2,500	3.5	--	--	1	310	5,400	<1 J
MW-84-132	10/20/20	N	1.4	1,600	6	51	<0.2	2,700 J	4	--	--	0.83	340	5,700	<1
MW-84-132	12/10/20	N	2	1,800	7.4	48	<0.2	3,700	3.6	--	--	0.94	480	5,500	<1
MW-84-132	02/19/21	N	2.3	1,500	7.6	49	<0.22	2,800	3.9	--	--	1	360	5,800	<1
MW-84-132	05/24/21	N	2.2	1,500 J	7.5	51	<0.2	2,600	3.7	--	--	0.91	320	5,100	<1
MW-84-132	08/20/21	N	2.6	1,500 J	8.2	51	<0.2	2,600	3.4	--	--	1.1	330	5,600	<1
MW-84-132	11/29/21	N	2.4	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-84-193	01/27/20	N	43	3,200 J	6.7	46	0.07 J	4,100	4.7	--	--	1	530	8,000	<1 J
MW-84-193	02/19/20	N	63	2,700	7.5	44	0.03 J	4,000	4.4	--	--	1.1	550	8,400	<1 J
MW-84-193	03/18/20	N	51	2,600	6.8	47	<0.1	4,100	3.8	--	--	0.95 J	530	7,800	<1 J
MW-84-193	04/22/20	N	62	2,700	8.1	46	<0.1	4,400	3.4	--	--	1.6	560	8,300	<1
MW-84-193	05/22/20	N	42	3,400 J	8.2	43	<0.2	4,100	5	--	--	0.93	530	8,600	<1
MW-84-193	06/17/20	N	40	2,600	8.6	45	<0.2	4,100	4.2	--	--	0.99 J	520	8,200	<1
MW-84-193	07/22/20	N	52	3,400	8.8	43	<0.2	4,100	4.1	--	--	1	530	8,200	<1
MW-84-193	08/20/20	N	54 J	2,700	9	44	<0.2	4,000	4	--	--	1.1	520	8,400	<1
MW-84-193	09/29/20	N	48	2,500 J	8.1	45	<0.2	3,900	4.2	--	--	0.89	490	8,200	<1 J
MW-84-193	10/20/20	N	51	3,400	8	43	<0.2	3,900 J	4.1	--	--	0.95	510	8,400	<1
MW-84-193	12/10/20	N	74	2,800	8.6	43	<0.2	5,500	4.3	--	--	1.1	740	7,900	<1
MW-84-193	02/19/21	N	86	2,400	8.7	44	<0.2	4,100	3.6	--	--	1.1	530	8,200	<1
MW-84-193	05/24/21	N	52	2,700 J	9.1	48	<0.2	4,000	4.4	--	--	0.97	510	8,000	<1
MW-84-193	08/20/21	N	23	2,400 J	11	47	<0.2	3,900	3.7	--	--	0.84	530	7,700	<1
MW-84-193	11/29/21	N	14	--	--	--	--	--	--	--	--	0.93	--	--	--
MW-85-129	02/18/20	N	150	280	7.6	160	0.06 J	370	0.52	--	--	17	220	1,200	<1 J
MW-85-129	02/18/20	FD	150	290	7.6	160	0.06 J	370	<0.5	--	--	18	220	1,200	<1 J
MW-85-129	05/20/20	N	130 J	300	6.8	140	<0.2	380	0.62	--	--	18 J	220	1,300	<1 J
MW-85-129	08/21/20	N	140	270	8.1	160	<0.2	380	0.67	--	--	22	220	1,300	<1
MW-85-129	12/09/20	N	140	230	7.6	150	<0.2	400	0.71	--	--	22	230	1,200	<10
MW-85-129	02/22/21	N	130	290 J	7.3	150	<0.2	400	0.65	--	--	15	230	1,200	<1
MW-85-129	05/21/21	N	120	260 J	7.6	150	<0.2	390	0.62	--	--	18 J	230	1,300	<1
MW-85-129	08/20/21	N	130	250 J	7.5	130	<0.2	380	0.56	--	--	16	220	1,200	<5
MW-85-129	11/30/21	N	130	--	--	--	--	--	--	--	--	16	--	--	--
MW-85-217	02/18/20	N	1,100	3,500	7	55	0.05 J	3,600	4.8	--	--	6.9	1,000	8,200	<1 J
MW-85-217	05/20/20	N	870 J	3,300	6.2	54	<0.2	3,800	4.1	--	--	5.1 J	950	8,800	<1 J
MW-85-217	08/21/20	N	1,100	2,800	6.7	54	<0.2	3,700	4.8	--	--	7.3	950	8,600	<1
MW-85-217	12/09/20	N	1,000	2,200	6.5	54	<0.2	3,700	4.8	--	--	7.1	990	7,900	<1
MW-85-217	02/22/21	N	1,100	3,100 J	6.6	49	<0.2	3,800	4.7	--	--	5.7	990	8,100	<1

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-85-217	05/21/21	N	900	850	<0.1 J	26	2	250 J	1.40 J	0.041 J	10 J	0.0054	95	32 J	5
MW-85-217	08/20/21	N	520	580	<0.1	25	1.7	230	1.10 J	0.032 J	8.7 J	0.0022	81	27 J	3.9
MW-85-217	11/30/21	N	490	500	<0.1	--	--	--	--	--	--	0.003	86	--	3.4
MW-85-237	02/18/20	N	2,100	1,900	5.5	55 J	2.5	460	0.031 J	0.045	15	0.044	77	38	2.8
MW-85-237	05/20/20	N	1,300 J	1,300	<0.1	49	2.2	250	0.11	0.027	14	0.041	83	44 J	2.6
MW-85-237	08/21/20	N	2,300	2,200	6.2	50	2.6	340	<0.1	<0.1	19	0.023	86	42	2.8
MW-85-237	12/09/20	N	2,100	2,000	<0.1	47	1.9	280	0.058	<0.02	13	0.0099	86	43	2.8
MW-85-237	02/22/21	N	2,100	2,100	<0.1	47 J	3.4	520	0.31	<0.1	21	0.0093	80	39 J	2.8
MW-85-237	05/21/21	N	390	370	<0.1 J	43	2.1	290 J	1.20 J	0.055 J	10 J	0.046	98	36 J	2.7
MW-85-237	08/20/21	N	1,400	1,500	<0.1	44	1.9	350	0.097 J	0.036 J	10 J	0.015	76	34 J	3
MW-85-237	11/30/21	N	240	250	<0.1	--	--	--	--	--	--	0.012	85	--	2.4
MW-86-030	02/27/20	N	<0.2	<1	5.5	140 J	0.33	83	1.80 J	1.40 J	25	0.31	8.7	5.1	<0.5
MW-86-030	05/28/20	N	<0.2	<1	7.8	92	0.36	42	4.10	0.96	14	0.15	18	4.3 J	<0.5
MW-86-030	08/25/20	N	<0.2	<1	2.5	98	0.14	83 J	1.70	<0.02	30	0.16	9.2 J	5.2 J	0.74
MW-86-030	12/01/20	N	<0.2	<1	3	110	0.19 J	89 J	1.50	0.61 J	31 J	0.34	8.2	5.2 J	<0.5
MW-86-030	02/24/21	N	<0.2	<1	3.9	120 J	0.29	110	1.10 J	1	34	0.44	7.3	4.9 J	<0.5
MW-86-030	05/18/21	N	<0.2	<1	5.1 J	99	0.22	87	0.62 J	0.47 J	29 J	0.32	12	3.6 J	1.1
MW-86-030	08/18/21	N	<0.2	<1	1.6 J	87	0.28	84 J	0.15 J	0.042 J	29 J	0.063	10	4	1.1
MW-86-030	08/18/21	FD	<0.2	<1	1.7 J	87	0.28	89 J	0.059 J	0.045 J	30 J	0.072	10	4.1	0.69
MW-86-030	12/14/21	N	<0.2	<1	2.6	95	--	--	--	0.033 J	--	0.42	8	--	<0.5
MW-86-030	03/07/22	N	<0.2	--	5.4 J	97	--	--	--	0.36	--	0.26	--	--	--
MW-86-066	02/27/20	N	<0.2	<1	1.1	78 J	0.77	210	0.33 J	0.42 J	35	1.10	22	12	<0.5
MW-86-066	05/28/20	N	<0.2	<1	1.1	80	0.75	230	0.39	0.39	49	0.76	26	13 J	<0.5
MW-86-066	08/25/20	N	<0.2	<1	0.63	79	0.62	150 J	0.62	0.4	43	0.72	31 J	12 J	<0.5
MW-86-066	12/01/20	N	<0.2	<1	2	100	1.1 J	190 J	0.25	0.23 J	57 J	1	21	14 J	<0.5
MW-86-066	02/24/21	N	<0.2	<1	<0.1	86 J	0.86	240	0.13 J	0.098	46	0.79	25	13 J	<0.5
MW-86-066	02/24/21	FD	<0.2	<1	<0.1	83 J	0.89	240	0.12 J	0.11	48	0.77	25	16 J	<0.5
MW-86-066	05/18/21	N	<0.2	<1	<0.1 J	67	0.75	220	0.22 J	0.16 J	41 J	0.64	28	10 J	<0.5
MW-86-066	05/18/21	FD	<0.2	<1	<0.1 J	67	0.69	210	0.21 J	0.17 J	41 J	0.64	28	11 J	<0.5
MW-86-066	08/18/21	N	<0.2	<1	<0.1 J	76	0.83	230 J	0.034 J	0.021 J	42 J	0.72	22	12	<0.5
MW-86-066	12/14/21	N	<0.2	<1	<0.1	91	--	--	--	<0.02 J	--	0.76	16	--	<0.5
MW-86-066	03/07/22	N	<0.2	--	<0.1 J	81	--	--	--	0.023	--	0.67	--	--	--
MW-86-120	02/27/20	N	<1	<1	<0.1	63 J	0.89	260	0.18 J	0.11 J	56	0.98	41	16	<0.5
MW-86-120	05/28/20	N	<1	<1	1.3	52	0.81	260	0.79	<0.02	67	0.52	37	22 J	<0.5
MW-86-120	08/25/20	N	<1	1	<0.1	51	0.69	180 J	0.24	0.044	67	0.45	41 J	25 J	<0.5
MW-86-120	12/01/20	N	<1	<1	3.1	55	1.1 J	170 J	0.033	0.69 J	66 J	0.62	51	16 J	<0.5
MW-86-120	02/24/21	N	<1	<1	<0.1	47 J	0.95	320	0.18 J	<0.02	68	0.45	35	16 J	<0.5
MW-86-120	05/18/21	N	1.1 J	1.3	<0.1 J	39	0.79	270	0.11 J	0.039 J	57 J	0.25	35	22 J	<0.5
MW-86-120	08/18/21	N	<1	<1	<0.1 J	36	0.93	270 J	0.21 J	0.058 J	52 J	0.26	33	16	<0.5
MW-86-120	12/14/21	N	<1	<1	<0.1	42	--	--	--	<0.02 J	--	0.37	33	--	<0.5
MW-86-120	03/07/22	N	<1	--	<0.1 J	42	--	--	--	<0.1	--	0.37	--	--	--
MW-86-140	02/27/20	N	<1	1.3	1.4	67 J	0.9	430	0.24 J	0.064 J	58	1.50	44	24	<0.5
MW-86-140	05/22/20	N	<1	<1	<0.1	63	0.73	320	0.64 J	0.11 J	51 J	1.40	41	24 J	<0.5
MW-86-140	08/25/20	N	<1	<1	1.4	74	1.1	250 J	0.21	0.14	60	1.10	44 J	24 J	0.59

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-85-217	05/21/21	N	900	2,500 J	6.7	53	<0.2	3,700	4.6	--	--	5.7 J	920	8,400	<1
MW-85-217	08/20/21	N	520	3,000 J	6.7	51	<0.2	4,000	4.3	--	--	4.5	830	7,800	<1
MW-85-217	11/30/21	N	490	--	--	--	--	--	--	--	--	2	--	--	--
MW-85-237	02/18/20	N	2,100	4,200	4.1	44	0.05 J	5,700	5	--	--	3.6	870	11,000	<1 J
MW-85-237	05/20/20	N	1,300 J	4,000	4.3	48	<0.2	5,100	3.8	--	--	3.4 J	850	11,000	<1 J
MW-85-237	08/21/20	N	2,300	3,500	4.3	43	<0.2	5,600	4.6	--	--	3.9	860	12,000 J	<1
MW-85-237	12/09/20	N	2,100	3,000	3.8	43	<0.2	5,700	4.5	--	--	4	860	11,000	<1
MW-85-237	02/22/21	N	2,100	3,800 J	4	41	<0.2	5,800	5.1	--	--	2.8	870	11,000	<1
MW-85-237	05/21/21	N	390	2,500 J	6	54	<0.2	4,400	4.9	--	--	2.7 J	800	9,500	<1
MW-85-237	08/20/21	N	1,400	3,900 J	5.3	44	<0.2	5,300	4.5	--	--	3	820	10,000	<1
MW-85-237	11/30/21	N	240	--	--	--	--	--	--	--	--	1.6	--	--	--
MW-86-030	02/27/20	N	<0.2	170	<1	310	1.1	160	1	--	--	<0.1	180	860	1.6
MW-86-030	05/28/20	N	<0.2	210	2.1	350	1.7	120	3.4 J	--	--	--	120	760	3.4
MW-86-030	08/25/20	N	<0.2	120	<1	230	0.29	130	1	--	--	0.17	300	910	1.2
MW-86-030	12/01/20	N	<0.2	120	<1	300	0.64	150	1.4	--	--	<0.1	270	900	1.5
MW-86-030	02/24/21	N	<0.2	180 J	<1	250	0.75	140	1.4	--	--	<0.05	260	880	1.3
MW-86-030	05/18/21	N	<0.2	170 J	<1	300	0.59	130	1.8	--	--	<0.05	280	910	1.1
MW-86-030	08/18/21	N	<0.2	220 J	<1	310	0.24	120	1.4	--	--	<0.1	240	870	1.9
MW-86-030	08/18/21	FD	<0.2	190 J	<1	320	0.23	120	1.4	--	--	<0.1	250	860	2.1
MW-86-030	12/14/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	1.5
MW-86-030	03/07/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	1.7
MW-86-066	02/27/20	N	<0.2	1,500	<1	170	0.11	1,800	2.2	--	--	<0.1	400	4,200	<1
MW-86-066	05/28/20	N	<0.2	1,200	<1	150	0.24	2,000	2.3 J	--	--	--	420	4,400	<10
MW-86-066	08/25/20	N	<0.2	950	<1	160	0.21	1,900	2.2	--	--	0.11	390	4,300	<10
MW-86-066	12/01/20	N	<0.2	1,200	<1	160	<0.2	2,100	2.4	--	--	<0.1	460	4,300	<1
MW-86-066	02/24/21	N	<0.2	1,000 J	1.3	150	0.33	1,900	2.4	--	--	<0.05	400	4,000	<1
MW-86-066	02/24/21	FD	<0.2	1,100 J	1.3	150	0.3	1,900	2.3	--	--	<0.05	400	3,400	<1
MW-86-066	05/18/21	N	<0.2	1,200 J	1	150	<0.2	1,900	2.5	--	--	0.25	410	4,100	<1
MW-86-066	05/18/21	FD	<0.2	1,100 J	1	160	<0.2	1,900	2.3	--	--	0.29	400	4,000	<1
MW-86-066	08/18/21	N	<0.2	1,300 J	1.6	150	<0.2	2,000	2	--	--	<0.1	430	4,600	<1
MW-86-066	12/14/21	N	<0.2	--	--	--	--	--	--	--	--	0.53	--	--	<1
MW-86-066	03/07/22	N	<0.2	--	--	--	--	--	--	<0.5	--	--	--	--	<1
MW-86-120	02/27/20	N	<1	3,100	<1	96	0.06 J	3,600	3	--	--	0.29	1,000	8,600	<1
MW-86-120	05/28/20	N	<1	2,900	1	88	<0.2	3,400	3.1 J	--	--	0.64 J	1,000	8,300	<1
MW-86-120	08/25/20	N	<1	3,100	1.4	89	<0.2	3,500	3	--	--	0.83	1,000	8,400	<1
MW-86-120	12/01/20	N	<1	1,900	<1	100	<0.2	3,600	3.4	--	--	0.3	1,100	8,400	<1
MW-86-120	02/24/21	N	<1	2,700 J	1.3	95	<0.2	3,700	2.9	--	--	0.42	1,000	8,300	<1
MW-86-120	05/18/21	N	1.1 J	2,400 J	1.2	90	<0.2	3,400	3.2	--	--	1.1	1,000	8,100	<1
MW-86-120	08/18/21	N	<1	2,600 J	1.7	87	<0.2	3,500	3.1	--	--	0.67	1,000	8,200	<1
MW-86-120	12/14/21	N	<1	--	--	--	--	--	--	--	--	0.41	--	--	<1
MW-86-120	03/07/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	<1
MW-86-140	02/27/20	N	<1	4,600	<1	79	0.07 J	5,200	2.4	--	--	0.17	1,000	12,000	<1
MW-86-140	05/22/20	N	<1	3,800 J	<1	67	<0.2	4,900	3.5	--	--	0.48	950	11,000	<1
MW-86-140	08/25/20	N	<1	3,900	<1	82	<0.2	4,700	3	--	--	0.52	930	11,000 J	<1

Appendix B
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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-86-140	12/01/20	N	<1	<1	0.93	63	1.1 J	350 J	0.066	0.088 J	79 J	1	39	28 J	<0.5
MW-86-140	02/24/21	N	<1	<1	<0.1	56 J	1.2	480	0.16 J	<0.1	69	1	36	23 J	<0.5
MW-86-140	05/18/21	N	<1	<1	<0.1 J	51	0.86	380	0.15 J	0.06 J	50 J	0.69	39	22 J	<0.5
MW-86-140	08/18/21	N	<1	<1	<0.1 J	49	1	350 J	1.20 J	0.53 J	41 J	0.87	31	23	<0.5
MW-86-140	12/14/21	N	<1	<1	<0.1	55	--	--	--	<0.02 J	--	0.73	34	--	<0.5
MW-86-140	03/07/22	N	<1	--	<0.1 J	50	--	--	--	<0.1	--	0.82	--	--	--
MW-87-109	01/27/20	N	28	27	0.74	98	0.44	90	1.30 J	1 J	13	0.032	10	7.8	6.8
MW-87-109	02/25/20	N	24	23	0.6	110	0.4	120	1.70 J	0.055 J	16	0.00074	9.4	9.3 J	5.4
MW-87-109	03/18/20	N	26	25	0.62	98 J	0.36	110	0.39 J	0.062 J	16	0.0022	9	9	5.9
MW-87-109	04/23/20	N	20	19	0.54	150	0.41	130	2.60	0.22 J	19	0.0074	7.8	10	4.1
MW-87-109	05/29/20	N	21	22	0.37	130	0.32	120	3.70	0.12	21	0.0049	8.3	10	4.6
MW-87-109	06/15/20	N	22	34	0.48 J	120	0.37	120	1	0.12	18	0.0049	8.6	12 J	4.7
MW-87-109	07/22/20	N	24	25	0.68	120	0.39	120	2.10	0.12	18 J	0.0072	8.6	9.4 J	4.7
MW-87-109	08/26/20	N	27	27	0.53	140	0.61 J	97	0.62 J	0.32 J	19 J	0.0011	8.2	10 J	5.7
MW-87-109	09/30/20	N	24	25	0.3	140	0.38	120	0.87	0.04 J	20 J	0.00072	8	10	5.2 J
MW-87-109	10/20/20	N	25	25	0.62 J	140	0.38	110	1.80 J	0.53 J	16 J	0.014	8.3	11 J	5.9
MW-87-109	12/17/20	N	28	27	0.43	120	0.23	120	1	<0.02	16 J	0.0044	8.3	8.8 J	5.3
MW-87-109	02/25/21	N	24	24	0.32	150	0.34	130	1.60 J	<0.02	18	0.0016	7.7	12 J	4.5
MW-87-109	05/20/21	N	33 J	32	0.4	120	0.33	140	0.13 J	<0.02	17 J	<0.0005	8	11 J	5.2
MW-87-109	08/23/21	N	27	28	<0.1	120	0.32	120	0.24 J	0.039 J	17 J	0.00092	6.8	10 J	4.1
MW-87-109	11/30/21	N	18	20	<0.1	--	--	--	--	--	--	<0.0005	5.5	--	2.9
MW-87-139	01/27/20	N	9.5	8.3	<0.1	270	0.68	370	0.038 J	<0.02	66	0.0072	4.4	16	0.89
MW-87-139	02/18/20	N	6.6	6	<0.1	260 J	<0.5	410	<0.1	<0.1	67	0.0072	5.4	17	0.86
MW-87-139	03/18/20	N	7.3	6.3	<0.1	250 J	0.63	430	0.035 J	<0.02	77	0.0027	4.7	16	0.85
MW-87-139	04/23/20	N	4.8	4.2	<0.1	250	0.8	430	0.85	0.068 J	72	0.037	5.2	16	0.9
MW-87-139	05/29/20	N	6.2	6.8	0.42	170	0.33	220	0.69	0.08	49	0.013	9.9	30	0.59
MW-87-139	06/15/20	N	6.6	6.5	<0.1 J	250	0.6	410	0.12	0.09	73	0.0021	5.1	16 J	0.92
MW-87-139	07/22/20	N	5.9	6.5	<0.1	260	0.63	410	1.20	0.051	72 J	0.034	5.4	16 J	0.9
MW-87-139	08/26/20	N	9.7	9.4	<0.1	280	0.64 J	330	0.89 J	0.24 J	91 J	<0.0005	5.2	18 J	0.98
MW-87-139	09/30/20	N	9.9	10	<0.1	270	0.64	400	0.16	0.04 J	83 J	0.0011	4.9	17	0.95 J
MW-87-139	10/20/20	N	<0.2	1.3	0.34 J	200	0.45	280	0.35 J	0.2 J	49 J	0.33	2.9	35 J	<0.5
MW-87-139	12/17/20	N	10	9.9	<0.1	250	0.65	430	0.17	0.078	74 J	0.0041	4.7	16 J	0.72
MW-87-139	02/26/21	N	9.5	9.4	<0.1	280	0.64	370	0.059 J	<0.02	79	<0.0005	4.7	19 J	0.87
MW-87-139	05/20/21	N	12 J	11	<0.1	260	0.47	570	0.099 J	<0.02	80 J	<0.0005	4.2	20 J	0.88
MW-87-139	08/23/21	N	11	11	<0.1	260	0.44	490	0.14 J	0.026 J	74 J	0.0032	3.9	19 J	0.71
MW-87-139	11/30/21	N	9.8	9.9	<0.1	--	--	--	--	--	--	<0.0005	4.7	--	1.1
MW-87-192	01/27/20	N	0.44	<1	<0.1	91	1.3	220	0.59 J	0.35 J	24	0.046	27	18	0.96
MW-87-192	02/18/20	N	0.58	<1	<0.1	95 J	1.4	310	0.14 J	0.049	28	0.026	26	19	0.94
MW-87-192	03/18/20	N	0.57	<1	<0.1	87 J	1.1	260	0.04 J	0.089 J	27	0.03	26	18	1
MW-87-192	04/22/20	N	0.76	<1	<0.1	90	1.1	260	0.082	0.021 J	24	0.016	25	16	1.2
MW-87-192	05/29/20	N	0.66	<1	<0.1	90	1.1	220	0.035	<0.02	30	0.014	25	18	1.1
MW-87-192	06/17/20	N	0.54	<1	<0.1 J	92	1.2	240	0.091	<0.02	25	0.017	26	16	0.93
MW-87-192	07/22/20	N	0.75	1.2	<0.1	93	1.2	240	0.056	<0.02	26 J	0.015	27	17 J	1.1
MW-87-192	08/26/20	N	1	1.1	<0.1	85	1.3 J	180	0.075 J	0.027 J	31 J	0.011	25	22 J	1

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-86-140	12/01/20	N	<1	3,200	<1	74	<0.2	5,300	3.4	--	--	0.58	1,000	11,000	<1
MW-86-140	02/24/21	N	<1	3,100 J	<1	75	<0.2	5,300	3.6	--	--	0.48	960	11,000	<1
MW-86-140	05/18/21	N	<1	3,900 J	<1	83	<0.2	4,600	3	--	--	0.82	920	10,000	<1
MW-86-140	08/18/21	N	<1	2,700 J	1.3	97	0.79	4,000	3.1	--	--	0.15	840	8,600	<1
MW-86-140	12/14/21	N	<1	--	--	--	--	--	--	--	--	0.78	--	--	<1
MW-86-140	03/07/22	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	<1
MW-87-109	01/27/20	N	28	290	3.2	77	0.06 J	530	2.4	--	--	7.7	180	1,300	<1 J
MW-87-109	02/25/20	N	24	330	3.2	77	0.04 J	570	2.1	--	--	7.8	170	1,400	<1
MW-87-109	03/18/20	N	26	310	3.1	77	<0.1	530	2.2	--	--	9.4 J	170	1,400	<1 J
MW-87-109	04/23/20	N	20	340	2.8	73	0.03 J	680	1.9	--	--	6.3	170	1,600	<1
MW-87-109	05/29/20	N	21	350	3.1	79	<0.2	680	1.9	--	--	6.9	170	1,800	<1
MW-87-109	06/15/20	N	22	340	3.1	79	<0.2	630	2.2	--	--	7.2 J	160	1,600	<1
MW-87-109	07/22/20	N	24	340	3.4	72	<0.2	610	2.1	--	--	7.9	160	1,600	<1
MW-87-109	08/26/20	N	27	340 J	3.6	73	<0.2	610	2.2	--	--	7.9 J	160	1,600	<1 J
MW-87-109	09/30/20	N	24	340	3.3	68	<0.2	660	2	--	--	7.3	160	1,800	<1
MW-87-109	10/20/20	N	25	350	3.1	73	<0.2	590 J	2.6	--	--	7.6	170	1,500	<1
MW-87-109	12/17/20	N	28	320	3.4	74	0.35	580	2.3	--	--	8.5	170	1,400	<1
MW-87-109	02/25/21	N	24	340 J	3.2	71	<0.2	710	2.3	--	--	7.3	170	1,500	<1
MW-87-109	05/20/21	N	33 J	330 J	3.4	74	<0.2	610	2.6	--	--	6.3	170	1,400	<10
MW-87-109	08/23/21	N	27	290	3.5	71	<0.2	610	2.3	--	--	8.5	170	1,600	<1
MW-87-109	11/30/21	N	18	--	--	--	--	--	--	--	--	5.1	--	--	--
MW-87-139	01/27/20	N	9.5	800 J	3.2	49	0.06 J	2,200	2.6	--	--	1.2	330	5,000	<1
MW-87-139	02/18/20	N	6.6	1,200	3.7	48	0.07 J	2,200	2.7	--	--	1.1	350	5,100	<1 J
MW-87-139	03/18/20	N	7.3	950	3	48	<0.1	2,200	2.3	--	--	1.1 J	340	4,900	<1 J
MW-87-139	04/23/20	N	4.8	1,000	3.1	46	0.33	2,500	2.5	--	--	1.3	360	5,000	<1
MW-87-139	05/29/20	N	6.2	740	5.5	92	<0.2	1,500	2.1	--	--	1.2	250	3,600	<1
MW-87-139	06/15/20	N	6.6	990	3.3	50	<0.2	2,400	2.6	--	--	1.2 J	340	5,400	<1
MW-87-139	07/22/20	N	5.9	940	3.4	46	<0.2	2,300	2.5	--	--	1.4	350	5,500	<1
MW-87-139	08/26/20	N	9.7	1,200 J	3.9	47	<0.2	2,200	2.4	--	--	1.2 J	350	5,800	<1 J
MW-87-139	09/30/20	N	9.9	1,000	3.7	48	<0.2	2,200	2.6	--	--	1.2	340	5,400	<1
MW-87-139	10/20/20	N	<0.2	550	<1	120	0.44	1,400 J	2.1	--	--	0.11	220	3,700	<1
MW-87-139	12/17/20	N	10	960	3.8	50	0.3	2,100	2.3	--	--	1.2	350	4,700	<1
MW-87-139	02/26/21	N	9.5	1,000	3.2	44	<0.2	2,300	2.7	--	--	1.3	340	4,200	<1
MW-87-139	05/20/21	N	12 J	860 J	3.2	46	<0.2	2,100	2.8	--	--	1.1	340	4,400	<1
MW-87-139	08/23/21	N	11	680	3.7	49	<0.2	2,200	2.4	--	--	1.3	360	5,400	<1
MW-87-139	11/30/21	N	9.8	--	--	--	--	--	--	--	--	1.3	--	--	--
MW-87-192	01/27/20	N	0.44	2,000 J	5.7	50	0.05 J	2,800	3.9	--	--	0.66	340	5,500	<1
MW-87-192	02/18/20	N	0.58	1,900	6.5	49	0.05 J	2,700	3.7	--	--	0.79	340	5,700	<1 J
MW-87-192	03/18/20	N	0.57	1,700	5.7	47	<0.1	2,800	3.1	--	--	0.73 J	340	5,700	<1 J
MW-87-192	04/22/20	N	0.76	1,700	6.5	44	<0.1	2,800	3	--	--	0.88	350	5,400	<1
MW-87-192	05/29/20	N	0.66	1,700	6.4	45	<0.2	2,700	3.4	--	--	0.7	330	5,700	<1
MW-87-192	06/17/20	N	0.54	1,600	6.3	50	<0.2	2,800	3.7	--	--	0.7 J	340	6,200	<1
MW-87-192	07/22/20	N	0.75	1,900	6.7	48	<0.2	2,700	3.6	--	--	0.78	340	5,800	<1
MW-87-192	08/26/20	N	1	2,400 J	6.7	48	<0.2	2,600	3.3	--	--	0.86 J	330	5,900	<1 J

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-87-192	09/30/20	N	0.77	1.2	<0.1	84	1.4	220	0.18	0.039 J	29 J	0.0064	27	18	1.8 J
MW-87-192	10/20/20	N	0.87	<1	<0.1 J	82	1.1	230	0.43 J	0.17 J	24 J	0.0086	25	23 J	1.1
MW-87-192	12/17/20	N	1.1	1.3	<0.1	69	1.2	260	0.021	<0.02	26 J	0.0033	26	17 J	1.1
MW-87-192	02/26/21	N	1.1	1.4	<0.1	72	1.3	200	0.04 J	0.033	29	0.0015	26	16 J	1.1
MW-87-192	05/20/21	N	1.5 J	1.5	<0.1	71	1.1	290	0.09 J	0.059	28 J	<0.0005	23	21 J	1.1
MW-87-192	08/23/21	N	1.4	2.1	<0.1	73	0.97	260	0.061 J	0.045 J	25 J	<0.0005	20	21 J	2.6
MW-87-192	11/30/21	N	1.7	2.2	<0.1	--	--	--	--	--	--	<0.0005	22	--	1.3
MW-87-275	01/27/20	N	<1	<1	3.8	76	1.5	230	<0.02 J	<0.02	19	0.02	42	24	1
MW-87-275	02/18/20	N	<1	<1	0.79	83 J	1.6	300	0.071 J	<0.02	21	0.0092	41	23	0.85
MW-87-275	03/18/20	N	<1	<1	<0.1	71 J	1.6	280	0.039 J	0.15 J	23	0.093	41	23	0.66
MW-87-275	04/22/20	N	<1	<1	<0.1	72	1.4	270	0.16	0.066 J	19	0.0069	43	22	1
MW-87-275	05/29/20	N	<1	<1	<0.1	70	1.7	300	0.11	<0.1	28	0.017	42	26	0.82
MW-87-275	06/17/20	N	0.86	1.1	3.7 J	70	1.5	240	0.13	<0.02	20	0.0062	43	22	1.1
MW-87-275	07/22/20	N	0.85	1.1	<0.1	74	1.6	240	0.1	<0.02	20 J	0.021	47	20 J	0.9
MW-87-275	07/22/20	FD	<1	1.1	<0.1	74	1.6	240	0.06	<0.02	20 J	0.023	45	21 J	0.92
MW-87-275	08/26/20	N	<1	1	<0.1	79	1.4 J	180	0.14 J	0.052 J	23 J	0.026	48	27 J	0.87
MW-87-275	08/26/20	FD	<1	<1	<0.1	81	1.4 J	180	0.13 J	<0.02	23 J	0.026	48	24 J	0.94
MW-87-275	09/30/20	N	<1	<1	<0.1	71	1.5	230	0.12 J	<0.02 J	22 J	0.023	46	24	2.3 J
MW-87-275	09/30/20	FD	<1	<1	<0.1	71	1.4	230	0.17 J	0.095 J	21 J	0.023	45	22	1.3 J
MW-87-275	10/20/20	N	0.95	1.1	0.82 J	66	1.4	230	0.13 J	<0.02	19 J	0.0042	41	27 J	1
MW-87-275	10/20/20	FD	0.93	1.1	0.96 J	64	1.5	230	0.3 J	<0.02	20 J	0.0044	42	28 J	0.97
MW-87-275	12/17/20	N	1.1	1.3	<0.1	61	1.5	270	0.029	<0.02	21 J	0.003	45	22 J	1
MW-87-275	02/26/21	N	1	1.5	<0.1	60	1.6	200	0.063 J	0.061	23	0.00061	43	20 J	1
MW-87-275	05/20/21	N	1.1 J	1.2	<0.1	60	1.4	290	0.02 J	<0.02	20 J	0.0072	44	26 J	0.91
MW-87-275	08/23/21	N	<1	1.5	<0.1	58	1.3	270	0.21 J	0.025 J	19 J	0.028	41	19 J	0.72
MW-87-275	11/30/21	N	1.3	1.8	<0.1	--	--	--	--	--	--	<0.0005	43	--	1.1
MW-88-107	01/29/20	N	49	50	1.6	55	0.5	72	0.2	0.034 J	12 J	0.015	12	10	4.4
MW-88-107	02/25/20	N	59	54	1.5	53	0.43	70	0.29 J	0.044 J	9.6	0.015	10	9.6 J	4.4
MW-88-107	05/28/20	N	69	70	1.5	57	0.41	77	0.27	<0.02	12	0.0077	10	10 J	4
MW-88-107	08/19/20	N	76	75	1.6	51	0.5	67 J	1.50	0.095 J	11	0.009	11	9.6	4
MW-88-107	12/10/20	N	89	88	1.9	47	0.3	61 J	0.26 J	0.088 J	9.3	0.0027	8.7	9.4	4.5
MW-88-107	02/24/21	N	81	80	1.6	54 J	0.49	75	0.42 J	0.021	12	0.00074	9.2	9 J	3.9
MW-88-107	05/19/21	N	120	110	1.5	51	0.4	95	0.076 J	0.024	12 J	0.00066	8.7	11 J	4.3
MW-88-107	08/20/21	N	120	130	3.8 J	50	0.42	100	0.17 J	0.024 J	14 J	<0.0005	9.4	13 J	3.8
MW-88-107	08/20/21	FD	120	130	1 J	50	0.42	100	0.22 J	0.072 J	14 J	<0.0005	9.3	14 J	4.4
MW-88-107	12/08/21	N	130	140	1.7	--	--	--	--	--	--	0.002 J	--	--	--
MW-89-183	02/19/20	N	0.89	1.7	<0.1	180	0.79 J	400 J	0.23	0.078 J	66 J	0.0021	7.8	15 J	1.9
MW-89-183	05/20/20	N	0.76 J	<1	<0.1	160	0.72	270	1.40	0.052	65	0.004	10	16 J	2.7
MW-89-183	08/19/20	N	0.83	1.3	<0.1	150	0.73	290 J	0.52	0.048 J	64	0.0019	9.5	15	2.7
MW-89-183	12/10/20	N	0.72	1.1	<0.1	130	0.66	300 J	0.38 J	0.075 J	66	0.016	8.1	15	2.4
MW-89-183	02/24/21	N	0.64	2.1	<0.1	150 J	0.78	420	0.87 J	0.072	75	0.0071	7.4	14 J	2.2
MW-89-183	05/19/21	N	1	1.4	<0.1	120	0.79	400	0.1 J	<0.02	59 J	<0.0005	9.7	16 J	3.1
MW-89-183	08/25/21	N	0.93	1.5	<0.1	130	0.63	310	0.32 J	0.031 J	48	<0.0005 J	8.3	21 J	2.8
MW-89-183	12/06/21	N	0.98	1.2 J	<0.1	--	--	--	--	--	--	<0.0005 J	7	--	2.5

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-87-192	09/30/20	N	0.77	1,700	6.8	47	<0.2	2,700	3.7	--	--	0.87	340	5,700	<1
MW-87-192	10/20/20	N	0.87	2,000	6.4	55	<0.2	2,800 J	3.7	--	--	0.81	340	5,700	<1
MW-87-192	12/17/20	N	1.1	1,600	7.1	47	<0.2	2,700	3.1	--	--	0.94	340	5,300	<1
MW-87-192	02/26/21	N	1.1	1,900	7.3	44	<0.2	2,800	3.7	--	--	0.94	340	5,400	<1
MW-87-192	05/20/21	N	1.5 J	1,600 J	7.5	47	<0.2	2,600	4	--	--	0.98	330	5,100	<1
MW-87-192	08/23/21	N	1.4	1,500	8.2	48	<0.2	2,700	3.5	--	--	1	330	5,700	<1
MW-87-192	11/30/21	N	1.7	--	--	--	--	--	--	--	--	1.1	--	--	--
MW-87-275	01/27/20	N	<1	2,700 J	4	44	0.04 J	3,500	4.5	--	--	0.77	430	7,100	<1
MW-87-275	02/18/20	N	<1	2,300	4.2	22	0.05 J	3,400	4.4	--	--	0.59	450	6,800	<1 J
MW-87-275	03/18/20	N	<1	2,200	3.3	43	<0.1	3,600	4.2	--	--	0.59 J	460	7,400	<1 J
MW-87-275	04/22/20	N	<1	2,300	3.9	29	<0.1	3,600	4.1	--	--	0.69	470	7,300	<1
MW-87-275	05/29/20	N	<1	2,400	3.9	42	<0.2	3,500	4.7	--	--	0.73	450	8,000	<1
MW-87-275	06/17/20	N	0.86	2,300	4.2	46	<0.2	3,500	4	--	--	0.7 J	440	7,600	<50
MW-87-275	07/22/20	N	0.85	1,900	4.3	42	<0.2	3,400	4.4	--	--	0.77	440	7,700	<1
MW-87-275	07/22/20	FD	<1	2,700	4.2	40	<0.2	3,400	4.5	--	--	0.82	440	7,600	<1
MW-87-275	08/26/20	N	<1	2,800 J	4.4	48	<0.2	3,400	4.2	--	--	0.67 J	430	7,700	<1 J
MW-87-275	08/26/20	FD	<1	2,200 J	4.3	45	<0.2	3,400	4	--	--	0.69 J	430	7,500	<1 J
MW-87-275	09/30/20	N	<1	2,300	4.3	44	<0.2	3,400	4.3	--	--	0.74	440	7,800	<50
MW-87-275	08/26/20	FD	<1	2,200 J	4.3	45	<0.2	3,400	4	--	--	0.69 J	430	7,500	<1 J
MW-87-275	09/30/20	N	<1	2,300	4.3	44	<0.2	3,400	4.3	--	--	0.74	440	7,800	<50
MW-87-275	09/30/20	FD	<1	2,100	4.3	45	<0.2	3,500	3.7	--	--	0.64	440	7,400	<1
MW-87-275	10/20/20	N	0.95	2,400	3.9	44	<0.2	3,400 J	4.1	--	--	0.78	440	7,600	<1
MW-87-275	10/20/20	FD	0.93	2,400	3.9	47	<0.2	3,400 J	4.3	--	--	0.73	440	7,400	<1
MW-87-275	12/17/20	N	1.1	2,000	4.5	46	<0.2	3,400	4.3	--	--	0.83	440	7,300	<1
MW-87-275	02/26/21	N	1	2,100	4.1	39	<0.2	3,300	4	--	--	0.8	430	6,400	<1
MW-87-275	05/20/21	N	1.1 J	2,100 J	4.6	45	<0.2	3,400	4.6	--	--	0.79	460	7,100	<1
MW-87-275	08/23/21	N	<1	1,800	5.1	47	<0.2	3,700	4.1	--	--	0.76	460	7,500	<1
MW-87-275	11/30/21	N	1.3	--	--	--	--	--	--	--	--	1	--	--	--
MW-88-107	01/29/20	N	49	300	8.6	140	<0.1	350	0.96	--	--	9.1	170	1,000	<1
MW-88-107	02/25/20	N	59	290	9.9	140	0.05 J	360	0.81	--	--	10	170	1,100	<1
MW-88-107	05/28/20	N	69	310	8.6	140	<0.2	380	1 J	--	--	10 J	180	1,100	<1
MW-88-107	08/19/20	N	76	310	9	140	<0.2	360	1.1	--	--	11 J	170	1,100	<1
MW-88-107	12/10/20	N	89	260	13	140	<0.2	350	1.1	--	--	11	170	1,100	<1
MW-88-107	02/24/21	N	81	290 J	12	130	<0.2	380	1.2	--	--	10	170	1,100	<1
MW-88-107	05/19/21	N	120	280	11	130	<0.2	420	1.1	--	--	11	180	1,200	<1
MW-88-107	08/20/21	N	120	330 J	14	130	<0.2	490	1	--	--	12	200	1,300	<1
MW-88-107	08/20/21	FD	120	270 J	13	120	<0.2	490	1	--	--	12	200	1,300	<1
MW-88-107	12/08/21	N	130	--	--	--	--	--	--	--	--	--	--	--	--
MW-89-183	02/19/20	N	0.89	1,100	3.1	55	0.08 J	2,100	2.9	--	--	2.2	460	4,700	<1 J
MW-89-183	05/20/20	N	0.76 J	990	3.5	50	<0.2	2,100	3.4	--	--	2.6	490	5,100	<10 J
MW-89-183	08/19/20	N	0.83	1,200	4	51	<0.2	2,100	3	--	--	3.3 J	480	5,200	<1
MW-89-183	12/10/20	N	0.72	1,100	3.6	51	<0.2	2,100	3.6	--	--	2.8	500	4,300	<1
MW-89-183	02/24/21	N	0.64	1,500 J	3.6	53	<0.2	2,100	3.4	--	--	2.6	480	4,400	<1
MW-89-183	05/19/21	N	1	1,100	3.9	53	<0.2	2,000	3.8	--	--	2.9	490	4,400	<1
MW-89-183	08/25/21	N	0.93	1,300	4.3	50	<0.2	2,100	3.2	--	--	2.7 J	490	5,000	<1
MW-89-183	12/06/21	N	0.98	--	--	--	--	--	--	--	--	2.8	--	--	--

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-89-273	02/19/20	N	0.86	1.7	4	32	1.4 J	140 J	0.15	0.058 J	7.9 J	0.0017	43	17 J	3.3
MW-89-273	05/20/20	N	0.58 J	1.9	3.3	36	1.2	100	2.80	0.057	8.6	0.0039	42	23 J	3.5
MW-89-273	08/19/20	N	0.61	1	3.5	32	1.2	100 J	0.03	0.025 J	8.6	<0.0005	39	18	3.9
MW-89-273	12/10/20	N	0.47	<1	3.3	30	1.1	100 J	0.52 J	0.064 J	8.8	0.0008	35	18	3.5
MW-89-273	02/24/21	N	0.43	<1	3.1	31 J	1.2	140	0.72 J	<0.02	8.2	0.00084	36	18 J	3.5
MW-89-273	05/19/21	N	0.58	<1	3	29	1.1	150	0.045 J	<0.02	7.7 J	0.00058	34	17 J	3.6
MW-89-273	08/25/21	N	0.51	<1	1.2	32	0.92	120	0.08 J	0.064 J	6.1	<0.0005 J	33	26 J	3.7
MW-89-273	12/06/21	N	0.52	1.4 J	3.5	--	--	--	--	--	--	0.0018 J	32	--	3.7
MW-90-031	02/25/20	N	<1	1.6	<0.1	120	2.1	360	9.30 J	9.70 J	250	0.35	16	19 J	0.68
MW-90-031	05/26/20	N	<1	<1	3.7 J	97	1.4	300	8.80 J	8.80 J	220 J	0.3	14 J	17 J	<0.5
MW-90-031	08/18/20	N	<1	<1	<0.1	100	1.5	210	11 J	6.90 J	180 J	0.3	16	16	0.56
MW-90-031	12/02/20	N	<1	<1	3.7	110	3.4 J	270 J	10	9.80 J	280 J	0.32	17	17 J	0.58
MW-90-031	02/17/21	N	<1	<1	<0.1	100	1.5	240	8.70 J	8.90 J	250	0.3	16	17 J	<0.5
MW-90-031	05/25/21	N	<1	<1	<0.1 J	88	1.7	520 J	8 J	8.80 J	250 J	0.26	16	23 J	<0.5
MW-90-031	08/18/21	N	<1	<1	<0.1 J	73	1.7	350 J	6.70 J	7.10 J	190 J	0.27	13	16	<0.5
MW-90-031	12/08/21	N	<1	<1	<0.1	97	--	--	--	7	--	0.25	18	--	<0.5
MW-90-031	03/04/22	N	<1	--	<0.1	97	--	--	--	3.60	--	0.24	--	--	--
MW-91-045	01/28/20	N	<0.2	<1	3.6 J	320 J	0.54	85 B	0.45	0.27 J	32 J	0.27 J	9.8 J	8.5 J	<0.5
MW-91-045	02/26/20	N	<0.2	<1	5.4	200 J	0.61	65	0.41 J	0.14 J	20	0.17	9.8	7 J	<0.5
MW-91-045	05/19/20	N	<0.2	<1	6.1	150	0.43	45	0.71 J	0.13 J	15	0.12	10	7.3 J	<0.5
MW-91-045	05/19/20	FD	<0.2	<1	5.8	140	0.46	48	2.50 J	0.073 J	16	0.12	10	6.9 J	<0.5
MW-91-045	08/20/20	N	<0.2 J	<1	6.1	200	0.52	68	0.19	0.12 J	27	0.19	8.9	6.9	<0.5
MW-91-045	12/08/20	N	<0.2	<1	6.9	150	0.6	46	0.68 J	0.095 J	17	0.14	9.1	4.1	<0.5
MW-91-045	02/23/21	N	<0.2	<1	6.4	120	0.44	40 J	0.13	0.038 J	13 J	0.11	7.5	4.2 J	0.82
MW-91-045	05/26/21	N	<0.2	<1	6.5	100	0.59	37	0.49 J	<0.02	13 J	0.088	9.2 J	4.3 J	<0.5
MW-91-045	06/08/21	N	<0.2	<10	<10	96	--	42	--	--	13.5	<0.1	<20	4.03	<10
MW-91-045	08/24/21	N	<0.2	<1	5.1	110	0.44	36	0.51 J	<0.02 J	13	0.089 J	9.4	5.5 J	<0.5
MW-91-045	12/14/21	N	<0.2	<1	7 J	--	--	--	--	--	--	0.144	<10 J	--	<10 J
MW-91-120	01/28/20	N	4.4	6.8	1 J	36 J	1.1	210 B	0.46	0.083 J	26 J	0.26 J	16 J	13 J	0.99
MW-91-120	02/26/20	N	<0.2	<1	<0.1	35 J	1.4	230	0.82 J	0.068 J	38	0.48	23	11 J	<0.5
MW-91-120	05/19/20	N	<0.2	2	<0.1	43	1.1	220	0.94 J	0.076 J	80	1.40	26	15 J	<0.5
MW-91-120	08/20/20	N	<0.2	<1	<0.1	41	1.2	200	0.058	<0.02 J	100	1.80	32	15	<0.5
MW-91-120	12/08/20	N	2.3	2.4	<0.1	33	1.1	190	0.055 J	<0.02	56	0.35	14	14	<0.5
MW-91-120	02/23/21	N	<0.2	1.8	<0.1	31	1	230 J	0.27	0.054 J	37 J	0.24	21	13 J	<0.5
MW-91-120	05/26/21	N	<0.2	<1	<0.1	33	1.3	180	1.10 J	<0.02	87 J	1.10	23 J	14 J	<0.5
MW-91-120	06/08/21	N	<1	<10	<10	31.5	--	203	--	--	82.8	1.13	<20	11.2	<10
MW-91-120	08/24/21	N	<0.2	<1	<0.1	33	0.94	190	0.064 J	<0.02 J	67	1 J	25	18 J	<0.5
MW-91-120	12/14/21	N	7.67	<10	<10	--	--	--	--	--	--	0.162	<100 J	--	<100 J
MW-91-170	01/28/20	N	1.3	1.8	3.5 J	64 J	1.3	120 B	0.13	0.16 J	5.4 J	0.2 J	190 J	17 J	<2.5
MW-91-170	02/26/20	N	<1	3.6	<0.1	55 J	1.7	140	0.48 J	0.24 J	4.6	0.14	180	16 J	0.81
MW-91-170	02/26/20	FD	<1	3.4	<0.1	56 J	1.6	130	0.73 J	0.22 J	4.2	0.14	180	16 J	0.78
MW-91-170	05/19/20	N	<0.2	<1	<0.1	67	1.2	130	0.26 J	0.061 J	5.8	0.27	120	17 J	<0.5
MW-91-170	08/20/20	N	<0.2	<1	<0.1	66	1.3	130	0.057	<0.02 J	7.5	0.28	110	16	<0.5
MW-91-170	12/08/20	N	2.1	2.5	<0.1	62	1.4	120	0.071 J	0.026 J	6.3	0.26	170	20	<0.5

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MW-89-273	02/19/20	N	0.86	1,500	13	63	0.06 J	2,000	4.8	--	--	2.9	470	4,400	<1 J
MW-89-273	05/20/20	N	0.58 J	1,600	14	58	<0.2	2,100	4.5	--	--	2.1 J	490	4,500	<1 J
MW-89-273	08/19/20	N	0.61	1,600	17	55	<0.2	2,100	4.6	--	--	2.8 J	480	4,600	<1
MW-89-273	12/10/20	N	0.47	1,400	16	57	<0.2	2,100	5.1	--	--	3	490	4,500	<1
MW-89-273	02/24/21	N	0.43	1,200 J	16	57	<0.2	2,100	5.6	--	--	2.7	480	4,500	<1
MW-89-273	05/19/21	N	0.58	1,600	16	62	<0.2	2,100	5	--	--	2.8	480	4,200	<1
MW-89-273	08/25/21	N	0.51	1,600	17	59	<0.2	2,100	4.8	--	--	2.8 J	460	4,300	<1
MW-89-273	12/06/21	N	0.52	--	--	--	--	--	--	--	--	2.7	--	--	--
MW-90-031	02/25/20	N	<1	3,600	2.2	820	8.9	4,400	1.6	--	--	0.082	1,600	11,000	1.7
MW-90-031	05/26/20	N	<1	3,600	1.9	830	9.7	3,900	1.7	--	--	0.14	1,500	10,000	1.5
MW-90-031	08/18/20	N	<1	2,900	2.3	810	9.4	3,900	1.7	--	--	0.094	1,500	9,900	1.7
MW-90-031	12/02/20	N	<1	2,600	2.2	870	10	4,100	2.1	--	--	<0.1	1,600	9,800	2
MW-90-031	02/17/21	N	<1	3,400	2.3	910	13	4,600	1.7	--	--	0.11	1,700	10,000	1.7
MW-90-031	05/25/21	N	<1	2,300 J	2.1	840	9	3,400	1.5	--	--	<0.05	1,500	8,600	<20
MW-90-031	08/18/21	N	<1	2,900 J	2.8	820	9.2	3,300	1.6	--	--	<0.1	1,500	8,200	2.5
MW-90-031	12/08/21	N	<1	--	--	--	--	--	--	--	--	<0.1	--	--	1.8
MW-90-031	03/04/22	N	<1	--	--	--	--	--	--	0.66	--	--	--	--	1.8
MW-91-045	01/28/20	N	<0.2	480	<1	180	0.16	810	2.7	--	--	0.17	120	1,700	<1 J
MW-91-045	02/26/20	N	<0.2	440	<1	170	<0.1	610	2.9	--	--	0.1	140	1,400	<1
MW-91-045	05/19/20	N	<0.2	440	<1	160	<0.2	470	2.7	--	--	<0.05	130	1,200	<1
MW-91-045	05/19/20	FD	<0.2	450	<1	150	<0.2	470	2.7	--	--	<0.05	130	1,200	<1
MW-91-045	08/20/20	N	<0.2 J	410	<1	170	<0.2	580	2.6	--	--	<0.05	120	1,400	<1
MW-91-045	12/08/20	N	<0.2	300 J	1.5	160	<0.2	450	3	--	--	0.53	110	1,100	<1
MW-91-045	02/23/21	N	<0.2	330	2	150	<0.2	390	3.2	--	--	0.44	110	960	<1
MW-91-045	05/26/21	N	<0.2	290	1.7	150	<0.2	350	3.5	--	--	0.19	100	890	<1
MW-91-045	06/08/21	N	<0.2	285	<10	--	--	391	2.81	--	--	<0.1	113	986	--
MW-91-045	08/24/21	N	<0.2	310	2.1	150	<0.2	360	3.2	--	--	0.19	100	910	<1
MW-91-045	12/14/21	N	<0.2	--	--	--	--	--	--	0.303	--	--	--	--	--
MW-91-120	01/28/20	N	4.4	2,400	<1	130	0.11	3,000	2.4	--	--	1.8	770	6,400	<1 J
MW-91-120	02/26/20	N	<0.2	2,000	<1	150	<0.1	2,900	2	--	--	0.54	890	7,200	<1
MW-91-120	05/19/20	N	<0.2	2,500	1.3	170	<0.2	2,700	2.3	--	--	0.66	910	7,000	<1
MW-91-120	08/20/20	N	<0.2	1,900	2	170	<0.2	2,600	2.4	--	--	0.82	880	6,600	<1
MW-91-120	12/08/20	N	2.3	1,800 J	<1	140	<0.2	2,900	2.2	--	--	1.2	850	6,700	<1
MW-91-120	02/23/21	N	<0.2	2,300	<1	140	<0.22	3,000	2.4	--	--	0.89	850	7,100	<1
MW-91-120	05/26/21	N	<0.2	1,900	2.1	160	<0.2	2,600	2.7	--	--	1.2	850	5,800	<1
MW-91-120	06/08/21	N	<1	1,840	<10	--	--	3,180	1.41	--	--	1.16	869	4,820	--
MW-91-120	08/24/21	N	<0.2	2,100	1.7	150	<0.2	2,600	2.5	--	--	0.83	850	6,500	<1
MW-91-120	12/14/21	N	7.67	--	--	--	--	--	--	1.3	--	--	--	--	--
MW-91-170	01/28/20	N	1.3	3,200	<1	43	0.08 J	3,900	6	--	--	0.85	640	8,000	<1 J
MW-91-170	02/26/20	N	<1	3,400	1.1	40	<0.1	3,700	5.4	--	--	0.93	620	7,700	<1
MW-91-170	02/26/20	FD	<1	3,300	1	41	<0.1	3,800	5.5	--	--	0.84	640	7,900	<1
MW-91-170	05/19/20	N	<0.2	3,600	<1	51	0.21	3,600	4.2	--	--	0.39	600	8,000	<1
MW-91-170	08/20/20	N	<0.2	2,200	<1	55	<0.2	3,400	4.2	--	--	0.39	580	7,600	<1
MW-91-170	12/08/20	N	2.1	2,500 J	<1	47	<0.2	3,800	5	--	--	0.72	630	7,700	<1

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-91-170	02/23/21	N	1.6	2	<0.1	48	2.4	200 J	0.51	<0.1	6.8 J	0.14	180	14 J	0.95
MW-91-170	05/26/21	N	<1	<1	<0.1	55	1.6	130	1.60 J	0.041	6.3 J	0.31	110 J	16 J	0.56
MW-91-170	06/08/21	N	<1	<10	<10	51.9	--	161	--	--	6.72	0.261	80.5	13.2	<10
MW-91-170	08/24/21	N	<1	<1	<0.1	55	1	150	0.14 J	0.2 J	5.1	0.27 J	94	24 J	<0.5
MW-91-170	12/14/21	N	1.66	<10	<10	--	--	--	--	--	--	0.256	130 J	--	<100 J
MW-91-320	01/28/20	N	<1	<1	<0.5 J	190 J	3.2	310 B	0.55	0.53 J	27 J	0.78 J	39 J	64 J	<2.5
MW-91-320	02/26/20	N	<1	3.1	3.1	160 J	3.6	350	0.82 J	0.59 J	24	0.8	39	78 J	<2.5
MW-91-320	05/19/20	N	<1	<1	<0.5	130	3	390	0.73 J	0.53 J	22	1	43	79 J	<2.5
MW-91-320	08/20/20	N	<1	<1	6.4	120	4.4	300	0.99	1 J	25	0.98	51	76	<0.5
MW-91-320	12/08/20	N	<0.2	<1	5.2	91	4	370	0.81 J	0.8 J	29	0.9	54	78	<0.5
MW-91-320	02/23/21	N	<1	<1	6.2	77	4.4	480 J	0.93	0.81 J	29 J	0.96	56	75 J	<0.5
MW-91-320	05/26/21	N	<1	<1	<0.1	72	4.7	370	1.90 J	2	28 J	1.70	46 J	76 J	<0.5
MW-91-320	06/08/21	N	<2	<10	<10	69.1	--	421	--	--	24.1	1.89	41.4	61.5	<10
MW-91-320	08/24/21	N	<1	<1	<0.1	77	2.5	410	0.77 J	0.66 J	13	1.50 J	60	89 J	<0.5
MW-91-320	12/14/21	N	<2	<10	<10	--	--	--	--	--	--	1.42	<100 J	--	<100 J
MW-92-037	01/28/20	N	<0.2	<1	21 J	14 J	0.54	8.1 B	0.34	0.057 J	1.2 J	0.0074 J	14 J	4.1 J	<0.5
MW-92-037	02/26/20	N	<1	<1	22	18 J	0.61	7.5	0.33 J	0.053 J	1.1	0.0068	14	5 J	<0.5
MW-92-037	05/19/20	N	0.25	<1	21	22	0.43	7.6	0.19 J	0.045 J	0.99	0.0094	15	5.1 J	<0.5
MW-92-037	08/20/20	N	<0.2	<1	25	35	0.59	8.9	0.44	0.056 J	1.3	0.013	17	5.2	<0.5
MW-92-037	12/08/20	N	<0.2	<1	22	60	0.58	9.5	0.14 J	0.032 J	1.3	0.02	16	3.6	<0.5
MW-92-037	02/23/21	N	<0.2	<1	21	53	0.55	10 J	0.091	<0.02	1.4 J	0.027	16	4.2 J	<0.5
MW-92-037	05/26/21	N	0.5	<1	12	99	0.71	19	0.15 J	0.045	2.8 J	0.057	26 J	4.5 J	<2.5
MW-92-037	05/26/21	FD	0.49	<1	12	97	0.82	19	0.2 J	0.042	3.2 J	0.057	25 J	4.3 J	<0.5
MW-92-037	06/08/21	N	<0.2	<10	13.7 J	75.9	--	18.8	--	--	2.8	<0.1	<20	3.33	<10
MW-92-037	08/24/21	N	0.21	<1	19	45	0.51	8.9	0.069 J	0.041 J	1.3	0.022 J	16	5 J	<0.5
MW-92-037	12/14/21	N	<0.2	<1	22.2 J	--	--	--	--	--	--	0.0327	12.9 J	--	<10 J
MW-92-072	01/28/20	N	<0.2	<1	17 J	60 J	0.64	15 B	0.079	0.089 J	1.4 J	0.014 J	20 J	8.1 J	0.61
MW-92-072	01/28/20	FD	<0.2	<1	17 J	62 J	0.66	15 B	0.085	0.094 J	1.5 J	0.015 J	20 J	7.8 J	0.56
MW-92-072	02/26/20	N	<0.2	<1	18	54 J	0.75	17	0.11 J	0.027 J	1.3	0.013	21	8.9 J	0.58
MW-92-072	05/19/20	N	<0.2	<1	17	53	0.56	14	0.08 J	0.04 J	1.2	0.011 J	22	9.2 J	0.57
MW-92-072	05/19/20	FD	<0.2	<1	17	55	0.54	14	0.068 J	0.068 J	1.2	0.017 J	22	9.4 J	<0.5
MW-92-072	08/20/20	N	<0.2	<1	19	60	0.91	16	0.11	0.058 J	1.7	0.012	24	9.7	0.61
MW-92-072	12/08/20	N	<0.2	<1	17	71	0.69	15	0.035 J	<0.02	1.5	0.016	21	8.5	0.7
MW-92-072	02/23/21	N	<0.2	<1	17	69	0.57	16 J	0.03	0.022 J	1.4 J	0.017	21	8.8 J	0.8
MW-92-072	05/26/21	N	<0.2	<1	16	65	0.72	16	0.026 J	<0.02	1.5 J	0.014	22 J	8.7 J	<0.5
MW-92-072	06/08/21	N	<0.2	<10	17.6 J	63.3	--	19.5	--	--	1.54	<0.1	<20	8.45	<10
MW-92-072	08/24/21	N	<0.2	<1	16	72	0.59	16	0.032 J	<0.02 J	1.4	0.014 J	23	14 J	<0.5
MW-92-072	12/14/21	N	<0.2	<1	17.1 J	--	--	--	--	--	--	0.0194	19 J	--	<10 J
MW-92-102	01/28/20	N	<0.2	<1	9.9 J	120 J	0.91	17 B	0.058	0.03 J	1.6 J	0.0096 J	42 J	10 J	0.57
MW-92-102	02/26/20	N	<0.2	<1	10	110 J	1.1	22	0.31 J	0.087 J	1.5	0.0084	41	12 J	<0.5
MW-92-102	05/19/20	N	<0.2	<1	9.4	110	0.83	20	0.19 J	0.033 J	1.8	0.01	42	13 J	<0.5
MW-92-102	08/20/20	N	<0.2	<1	10	120	0.98	19	0.31	0.031 J	1.8	0.0097	47	12	<0.5
MW-92-102	12/08/20	N	1.3	1.4	18	100	1	15	0.18 J	0.03 J	1.3	0.0067	46	11	0.74
MW-92-102	02/23/21	N	2.9	2.9	15	95	0.81	18 J	0.038	0.033 J	1.2 J	0.0051	42	10 J	0.82

Appendix B
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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-91-170	02/23/21	N	1.6	2,900	1.4	42	<0.2	3,800	5.8	--	--	1.3	630	8,200	<1
MW-91-170	05/26/21	N	<1	2,400	1.1	52	<0.2	3,500	4.1	--	--	0.78	590	7,200	<1
MW-91-170	06/08/21	N	<1	2,550	<10	--	--	3,970	2.84	--	--	0.857	618	6,660	--
MW-91-170	08/24/21	N	<1	2,900	1.1	55	<0.2	3,500	3.9	--	--	0.2	590	7,500	<1
MW-91-170	12/14/21	N	1.66	--	--	--	--	--	--	0.655	--	--	--	--	--
MW-91-320	01/28/20	N	<1	7,600	<1	75	0.2	11,000	6.9	--	--	<0.05	1,400	19,000 J	<20 J
MW-91-320	02/26/20	N	<1	10,000	<1	69	<0.1	11,000	5.2	--	--	<0.1	1,500	19,000 J	<1
MW-91-320	05/19/20	N	<1	9,200	<1	70	0.31	10,000	3.7	--	--	0.21	1,600	20,000	<1
MW-91-320	08/20/20	N	<1	7,300	<1	64	0.27	10,000	4.9	--	--	<0.05	1,600	19,000	<1
MW-91-320	12/08/20	N	<0.2	6,400 J	<1	61	0.26	11,000	5.1	--	--	<0.05	1,600	20,000	<1
MW-91-320	02/23/21	N	<1	8,500	<1	53	0.3	11,000	4.5	--	--	0.059	1,800	21,000	<1
MW-91-320	05/26/21	N	<1	8,400	<1	100	0.27	10,000	4.8	--	--	<0.05	1,700	19,000	<1
MW-91-320	06/08/21	N	<2	7,310	<10	--	--	11,900	2.28	--	--	<0.5	1,870	17,200	--
MW-91-320	08/24/21	N	<1	7,900	<1	66	0.27	12,000	2.9	--	--	<0.1	1,800	19,000	<1
MW-91-320	12/14/21	N	<2	--	--	--	--	--	--	<2	--	--	--	--	--
MW-92-037	01/28/20	N	<0.2	290	<1	130	0.07 J	370	4.2	--	--	<0.05	81	870	<1 J
MW-92-037	02/26/20	N	<1	300	<1	120	<0.1	360	4.1	--	--	<0.1	83	870	<10
MW-92-037	05/19/20	N	0.25	390	<1	110	<0.2	340	4.1	--	--	<0.05	94	870	<10
MW-92-037	08/20/20	N	<0.2	310	<1	130	0.22	350	4.4	--	--	<0.05	81	870	<10
MW-92-037	12/08/20	N	<0.2	300 J	<1	120	<0.2	390	4.1	--	--	0.067	83	930	<1
MW-92-037	02/23/21	N	<0.2	340	<1	140	<0.2	370	4.8	--	--	<0.05	89	890	<10
MW-92-037	05/26/21	N	0.5	480	1.2	270	0.38	460	7.5	--	--	<0.05	120	1,300	<1
MW-92-037	05/26/21	FD	0.49	440	1.2	270	0.37	460	7.4	--	--	<0.05	120	1,300	<1
MW-92-037	06/08/21	N	<0.2	429	<10	--	--	494	6.18	--	--	<0.1	111	1,310	--
MW-92-037	08/24/21	N	0.21	330	<1	140	0.24	330	4.4	--	--	<0.1	80	810	<5
MW-92-037	12/14/21	N	<0.2	--	--	--	--	--	--	<0.1	--	--	--	--	--
MW-92-072	01/28/20	N	<0.2	410	7	110	0.06 J	560	4.8	--	--	0.68	95	1,200	<1 J
MW-92-072	01/28/20	FD	<0.2	410	6.7	120	0.05 J	570	4.8	--	--	0.67	95	1,200	<1 J
MW-92-072	02/26/20	N	<0.2	460	6.4	120	<0.1	540	4.7	--	--	0.65	94	1,200	<1
MW-92-072	05/19/20	N	<0.2	450	6.7	120	<0.2	530	4.7	--	--	0.65 J	95	1,200	<1
MW-92-072	05/19/20	FD	<0.2	450	6.7	120	<0.2	520	4.4	--	--	0.37 J	94	1,200	<1
MW-92-072	08/20/20	N	<0.2	450	7.7	120	<0.2	540	4.9	--	--	0.44	97	1,200	<1
MW-92-072	12/08/20	N	<0.2	380 J	7.4	110	<0.2	600	4.6	--	--	0.77	100	1,300	<1
MW-92-072	02/23/21	N	<0.2	420	8.3	110	<0.2	570	5.2	--	--	0.57	97	1,200	<1
MW-92-072	05/26/21	N	<0.2	450	6.1	120	<0.2	570	5.3	--	--	0.1	98	1,200	<1
MW-92-072	06/08/21	N	<0.2	456	<10	--	--	615	4.41	--	--	<0.1	106	1,300	--
MW-92-072	08/24/21	N	<0.2	540	7.2	120	<0.2	580	4.5	--	--	0.26	100	1,200	<1
MW-92-072	12/14/21	N	<0.2	--	--	--	--	--	--	0.469	--	--	--	--	--
MW-92-102	01/28/20	N	<0.2	700	5.1	110	0.05 J	1,000	5.6	--	--	0.49	130	2,100	<1 J
MW-92-102	02/26/20	N	<0.2	820	5.2	110	<0.1	1,000	5.4	--	--	0.42	140	2,100	<1
MW-92-102	05/19/20	N	<0.2	840	3	120	<0.2	1,000	5.1	--	--	0.1	130	2,100	<1
MW-92-102	08/20/20	N	<0.2	760	6.2	110	<0.2	1,000	5.3	--	--	0.27	130	2,100	<1
MW-92-102	12/08/20	N	1.3	660 J	13	120	<0.2	1,000	5.7	--	--	0.95	130	2,000	<1
MW-92-102	02/23/21	N	2.9	770	13	120	<0.2	960	6	--	--	0.76	130	1,900	<1

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-92-102	05/26/21	N	0.3	<1	13	86	1.1	18	0.05 J	0.058	1.5 J	0.01	48 J	10 J	<0.5
MW-92-102	06/08/21	N	<0.2	<10	11.6 J	74.7	--	22.2	--	--	1.53	<0.1	38.1	9.88	<10
MW-92-102	06/08/21	FD	<0.2	<10	11.1 J	76.2	--	22	--	--	1.55	<0.1	37.4	9.89	<10
MW-92-102	08/24/21	N	1	1.3	0.55 J	4.8 J	0.77	16	<0.02 J	<0.02 J	1.1	<0.0005 J	1.5 J	11 J	<0.5
MW-92-102	08/24/21	FD	1	1.1	14 J	85 J	0.77	17	0.043 J	<0.02 J	1.2	0.005 J	45 J	13 J	0.77
MW-92-102	12/14/21	N	4.85	5.18 J	18.7 J	--	--	--	--	--	--	<0.01	33.3 J	--	<10 J
MW-92-122	01/28/20	N	<1	<1	4.6 J	92 J	3.5	59 B	0.25	0.28 J	5.4 J	0.19 J	210 J	31 J	<2.5
MW-92-122	02/26/20	N	<1	<1	4.4	91 J	3.2	71	0.44 J	0.14 J	3.9	0.2	220	30 J	<0.5
MW-92-122	05/19/20	N	<1	<1	1.9	93	2.6	65	0.33 J	0.27 J	4.7	0.15	230	37 J	<0.5
MW-92-122	08/20/20	N	<1	3.8	3.8	96	2.9	76	2.40	0.27 J	7	0.17	230	36	<0.5
MW-92-122	12/08/20	N	<1	<1	5.3	88	2.4	55	0.49 J	0.14 J	4.8	0.13	230	41	<0.5
MW-92-122	02/23/21	N	<1	<1	3.1	93	3.8	85 J	0.66	0.2 J	6.2 J	0.14	200	34 J	<0.5
MW-92-122	05/26/21	N	<1	<1	2.3	96	3.3	60	0.23 J	0.19	4.5 J	0.17	200 J	28 J	<0.5
MW-92-122	06/08/21	N	<1	<10	<10	98.1	--	80	--	--	4.76	0.188	174	30.4	<10
MW-92-122	08/24/21	N	<1	<1	<0.1	100	2.4	77	0.16 J	0.16 J	3.5	0.19 J	210	46 J	<0.5
MW-92-122	12/14/21	N	<1	<10	10.4 J	--	--	--	--	--	--	0.188	180 J	--	<100 J
MW-93-050	06/03/20	N	0.29	<1	--	--	--	--	--	--	--	--	--	--	--
MW-93-050	06/18/20	N	2.2	2.4	0.71 J	42	0.62	91	0.65 J	0.12	27 J	0.59	38	9	1.6
MW-93-050	07/21/20	N	0.81	1	<0.1 J	65	0.58	130	0.18	<0.02 J	33	0.17	27	11 J	1.2
MW-93-050	08/19/20	N	3.2 J	3.2	<0.1	70	0.54	130 J	0.48	<0.02	38	0.038	25	11	1.3
MW-93-050	09/29/20	N	3.5	3.6	<0.1	70	0.51 J	140 J	0.21 J	0.072 J	37 J	0.0024	24	7.6 J	1.5
MW-93-050	10/21/20	N	4.5	4.5	1.2	66	0.73	130 J	0.11	0.06	33	0.0049	25	14	1.7
MW-93-050	11/16/20	N	6.3	6.2 J	<0.1	53	1	110 J	1	<0.02	32	0.0051	28	11	1.8
MW-93-050	12/09/20	N	7.9	7.4	<0.1	59	0.82	130	0.14	<0.02	31	0.0033	26	6.8	1.4
MW-93-050	02/15/21	N	8.3	8	<0.1 J	60	0.5	100	0.51 J	0.026	29 J	0.0055 J	23 J	8.7 J	1.4
MW-93-050	05/18/21	N	12 J	11	<0.1 J	54	0.49	120	0.24 J	<0.02 J	28 J	<0.0005	30	8.2 J	1.6
MW-93-050	08/19/21	N	12	13	<0.1	58 J	0.5	140 J	0.18 J	0.046	35 J	0.0015	22	9.5	1.5
MW-93-050	12/13/21	N	17	19	<0.1	--	--	--	--	--	--	0.0053	--	--	--
MW-93-213	06/04/20	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-93-213	06/18/20	N	<1	<1	4.4 J	99	1	230	2.60 J	0.41	43 J	0.85	89	20	<0.5
MW-93-213	07/21/20	N	<1	<1	<0.1 J	110	1.1	280	0.43	0.095 J	52	1	80	22 J	0.8
MW-93-213	08/19/20	N	<1	2.6	<0.1	96	1.8	350 J	4.90	0.88 J	56	0.83	77	22	0.91
MW-93-213	09/29/20	N	<1	<1	0.62	90	0.65 J	130 J	0.59 J	0.36 J	40 J	0.84	99	19 J	<0.5
MW-93-213	10/21/20	N	4.3	4.6	1	69	1.3	260 J	0.13	0.048	57	0.42	71	35	1.3
MW-93-213	11/16/20	N	2	2.8 J	<0.1	64	1.4	270 J	1.10	0.057 J	65	0.33	68	26	1.2
MW-93-213	12/09/20	N	8.3	7.8	<0.1	56	0.85	260	0.59	<0.02	60	0.17	68	18	1
MW-93-213	02/15/21	N	4.7	5.8	<0.1 J	50	0.8	230	0.59 J	0.066	59 J	0.14 J	69 J	27 J	1.2
MW-93-213	02/15/21	FD	4.7	5.6	<0.1 J	53	0.78	240	0.39 J	0.095	59 J	0.15 J	70 J	24 J	1.1
MW-93-213	05/18/21	N	<1	<1	<0.1 J	55	0.92	260	0.11 J	0.025 J	40 J	0.33	71	19 J	1.3
MW-93-213	08/19/21	N	<1	1.5	<0.1	55 J	0.84	320 J	0.13 J	0.025	55 J	0.25	66	18	0.99
MW-93-213	12/13/21	N	4.7	6.8	<0.1	--	--	--	--	--	--	0.14	--	--	--
MW-95-113	06/10/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-95-113	06/18/20	N	0.32	<1	0.62 J	38	0.28	97	0.8 J	0.097	26 J	0.22	9	10	4.9
MW-95-113	07/21/20	N	0.44	1.2	0.59 J	40	0.26	100	0.19	0.049 J	26	0.049	6.4	10 J	5.5

Appendix B
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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-92-102	05/26/21	N	0.3	710	7.3	120	0.28	930	6	--	--	0.2	130	1,800	<1
MW-92-102	06/08/21	N	<0.2	706	<10	--	--	1,060	5.09	--	--	0.238	132	2,090	--
MW-92-102	06/08/21	FD	<0.2	695	<10	--	--	1,080	5	--	--	<0.1	133	2,000	--
MW-92-102	08/24/21	N	1	560	1 J	110	<0.2	950	5.6	--	--	0.84	130	1,900	<1
MW-92-102	08/24/21	FD	1	700	12 J	130	<0.2	940	5.4	--	--	0.86	130	1,900	<1
MW-92-102	12/14/21	N	4.85	--	--	--	--	--	--	1.23	--	--	--	--	--
MW-92-122	01/28/20	N	<1	4,000	<1	84	0.05 J	4,800	7.5	--	--	0.062	350	9,400	<1 J
MW-92-122	02/26/20	N	<1	3,300	<1	91	<0.1	4,700	7	--	--	<0.1	360	8,900	<1
MW-92-122	05/19/20	N	<1	4,300	<1	110	<0.2	4,500	6.7	--	--	<0.05	370	9,400	<1
MW-92-122	08/20/20	N	<1	3,200	<1	97	<0.2	4,800	7	--	--	<0.05	380	9,600	<1
MW-92-122	12/08/20	N	<1	2,900 J	<1	91	<0.2	5,000	7.5	--	--	0.069	380	8,700	<1
MW-92-122	02/23/21	N	<1	3,800	<1	100	0.25	4,800	7.8	--	--	<0.05	380	8,300	<1
MW-92-122	05/26/21	N	<1	3,200	<1	120	0.34	4,600	7.6	--	--	<0.05	390	8,700	<1
MW-92-122	06/08/21	N	<1	3,270	<10	--	--	5,100	5.18	--	--	<0.2	412	8,720	--
MW-92-122	08/24/21	N	<1	4,400	<1	110	0.2	4,700	6.6	--	--	<0.1	410	8,500	<1
MW-92-122	12/14/21	N	<1	--	--	--	--	--	--	<0.5	--	--	--	--	--
MW-93-050	06/03/20	N	0.29	--	--	--	--	--	--	--	--	--	--	--	--
MW-93-050	06/18/20	N	2.2	580	1.7	130	<0.2	990	2.6	--	--	1.6 J	210	2,200	<1
MW-93-050	07/21/20	N	0.81	790	1.5	110	<0.2	1,300	2.5	--	--	1.3 J	220	2,800	<1
MW-93-050	08/19/20	N	3.2 J	840	2	100	<0.2	1,300	2.4	--	--	2.1 J	220	3,000	<1
MW-93-050	09/29/20	N	3.5	690 J	2.2	100	<0.2	1,300	2.3	--	--	2	210	3,000	<1 J
MW-93-050	10/21/20	N	4.5	830	2.3	110	<0.2	1,200	2.2	--	--	2.1	210	2,700	<1 J
MW-93-050	11/16/20	N	6.3	680	2.1	110	<0.2	1,200	2.4	--	--	2.3	200	2,500	<1 J
MW-93-050	12/09/20	N	7.9	610	2.6	100	<0.2	1,300	2.5	--	--	2	220	2,600	<1
MW-93-050	02/15/21	N	8.3	690 J	2.7	93	<0.22	1,300	2.6	--	--	2.2	210	2,600	<1 J
MW-93-050	05/18/21	N	12 J	500 J	2.8	110	<0.2	1,100	3.1	--	--	2.6	200	2,400	<1
MW-93-050	08/19/21	N	12	580 J	2.8	100	<0.2	1,300	2.8	--	--	2.6	220	2,900	<1
MW-93-050	12/13/21	N	17	--	--	--	--	--	--	--	--	--	--	--	--
MW-93-213	06/04/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-93-213	06/18/20	N	<1	2,400	<1	65	0.31	4,200	3.6	--	--	0.43 J	630	8,600	<1
MW-93-213	07/21/20	N	<1	4,000	<1	59	0.21	4,600	3.7	--	--	0.74 J	800	9,600	<1
MW-93-213	08/19/20	N	<1	3,300	1.3	57	0.2	4,600	2.9	--	--	1.3 J	820	10,000	<1
MW-93-213	09/29/20	N	<1	2,300 J	<1	79	0.54	3,600	4	--	--	<0.05	550	7,900	<1 J
MW-93-213	10/21/20	N	4.3	4,200	<1	58	<0.2	4,600	4	--	--	1.7	830	11,000	<1 J
MW-93-213	11/16/20	N	2	3,100	<1	58	<0.2	4,800	3.5	--	--	1.4	850	10,000	<1 J
MW-93-213	12/09/20	N	8.3	2,400	<1	59	<0.2	4,800	3.6	--	--	1.8	900	10,000	<1
MW-93-213	02/15/21	N	4.7	2,700	<1	56	<0.22	4,700	3.6	--	--	2	880	10,000	<1 J
MW-93-213	02/15/21	FD	4.7	2,700	<1	56	<0.22	4,700	3.5	--	--	2.1	880	11,000	<1 J
MW-93-213	05/18/21	N	<1	3,000 J	<1	61	<0.2	4,200	3.8	--	--	1.7	710	8,800	<1
MW-93-213	08/19/21	N	<1	3,300 J	<1	60	<0.2	4,600	3.6	--	--	1.5	790	9,200	<1
MW-93-213	12/13/21	N	4.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-95-113	06/10/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-95-113	06/18/20	N	0.32	140	3.6	100	<0.2	310	0.56	--	--	5 J	150	1,000	<1
MW-95-113	07/21/20	N	0.44	140	4.1	110	<0.2	290	<0.5	--	--	5.7 J	150	950	<1

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-95-113	08/19/20	N	0.76	1.8	0.71	42	0.31	96 J	2.80	0.66 J	27	0.04	4.9	12	5.3
MW-95-113	09/30/20	N	1.4	1.6	0.51	42	0.31	100	2.10	0.11 J	30 J	0.019	4.5	9.7	5.2 J
MW-95-113	10/20/20	N	1.4	2.1	0.87 J	40	0.25	89	0.95 J	0.9 J	23 J	0.017	3.9	13 J	5.4
MW-95-113	11/18/20	N	1.6	1.7 J	0.93	39	0.37	88 J	0.75	0.12 J	27	0.0024	4.6	10	4.8
MW-95-113	12/15/20	N	<0.2	<1	1.1	35	0.17	72 J	3.50 J	0.12 J	22	0.13	6.4	9.6	3.8
MW-95-113	02/25/21	N	1.6	1.6	0.84	42	0.23	94	3 J	<0.02	23	0.019	4.2	8.4 J	4.8
MW-95-113	05/19/21	N	0.82	1.6	2.2	46	0.22	110	1 J	0.18	26 J	0.25	4.1	10 J	5
MW-95-113	08/25/21	N	2.1	2.3	0.97	44	0.24	80	0.82 J	0.031 J	21	0.018 J	4	12 J	4.7
MW-95-113	12/08/21	N	0.95	2.5	1.4	--	--	--	--	--	--	0.13 J	4.3	--	5.3
MW-95-157	06/09/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-95-157	06/25/20	N	0.63	16	<0.1	230	0.6	310	5	0.27	70	1.10	14	19	5.4
MW-95-157	07/21/20	N	2.3	2.6	<0.1 J	150	0.6	300	0.2	<0.02 J	67	0.16	8.5	19 J	6.3
MW-95-157	08/19/20	N	4.2 J	4	<0.1	120	0.67	250 J	0.66	0.027 J	72	0.087	7.4	18	6.3
MW-95-157	09/30/20	N	4.1	4.8	<0.1	110	0.64	270	0.076	0.044 J	72 J	0.038	6.8	17	7.7 J
MW-95-157	10/20/20	N	<0.2	<1	1.4 J	260	0.61	240	0.77 J	0.32 J	61 J	1	4.7	36 J	<0.5
MW-95-157	11/18/20	N	<0.2	1.7 J	1.3	300	0.68 J	200 J	0.033	0.36 J	64	1.10	3.5 J	23	0.55
MW-95-157	11/18/20	FD	<0.2	3.4 J	1.5	270	0.87 J	230 J	<0.02	0.45 J	71	1	5 J	23	0.63
MW-95-157	12/15/20	N	5.5	5.6	<0.1	93	0.62	290 J	0.099 J	<0.02	62	0.027	5.7	18	5.7
MW-95-157	02/25/21	N	7.8	7.6	<0.1	89	0.54	290	0.25 J	0.031	62	0.016	5	18 J	6.3
MW-95-157	05/19/21	N	9.9	9.3	<0.1	81	0.53	330	0.043 J	<0.02	65 J	0.0085	4.8	20 J	6.7
MW-95-157	08/25/21	N	8.7	9.9	<0.1	75	0.49	280	0.079 J	0.056 J	57	0.002 J	4.1	27 J	7
MW-95-157	12/08/21	N	8.6	11	<0.1	--	--	--	--	--	--	0.0057 J	3.8	--	6.5
MW-96-045	09/22/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	10/21/20	N	<0.2	<1	6.1	51	2.3	79 J	2.30	0.25	75	0.82	130	23	<0.5
MW-96-045	11/17/20	N	<1	<1 J	1.1	39	2.9	90 J	4.50	0.067 J	110	0.64	120	13	0.55
MW-96-045	12/02/20	N	<0.2	<1	4.1	38	2.3 J	80 J	0.89	0.085 J	83 J	0.68	110	8.7 J	0.91
MW-96-045	12/02/20	FD	<0.2	<1	4.1	39	3.6 J	85 J	0.79	<0.1	72 J	0.69	110	6.2 J	0.79
MW-96-045	01/26/21	N	<1	<1	<0.1 J	34	2.5	92 J	2.70	0.13 J	140	0.81	110	15 J	0.81
MW-96-045	02/17/21	N	<1	<1	<0.1	30	1.8	83	0.56 J	0.047 J	80	0.59	110	12 J	0.71
MW-96-045	03/17/21	N	<1	<1	3.4	57	1.8 J	160	2.40 J	0.067 J	32 J	1	91	7.7	0.81
MW-96-045	04/26/21	N	<0.2	<1	<0.1	56	1.4	150	0.84	0.1	34	1.20	79	7.4	0.71
MW-96-045	05/18/21	N	<0.2	<1	<0.1 J	56	1.3	150	3.10 J	0.091 J	31 J	1.20	72	6.1 J	0.67
MW-96-045	06/09/21	N	<0.2	<1	3.5	52	1.6 J	180	1.60 J	0.032 J	33	1	78	7.3 J	0.6
MW-96-045	08/19/21	N	<0.2	<1	<0.1	47 J	1.6	140 J	0.52 J	0.044	58 J	0.094	93	7.7	1.1
MW-96-045	12/15/21	N	<1	1.5	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	12/15/21	FD	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	03/02/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	09/16/20	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	10/21/20	N	<1	1.8	1.9	120	1.7	340 J	1.10	0.73	49	1.60	73	64	<0.5
MW-96-217	11/17/20	N	<1	2.6 J	<0.1	130	1.7	290 J	0.87	0.4 J	48	1.50	75	36	<0.5
MW-96-217	12/02/20	N	<1	1.4	1.5	110	1.5 J	300 J	0.62	0.22 J	52 J	1.20	74	35 J	<0.5
MW-96-217	01/26/21	N	<1	<1	<0.1 J	85	1.4	290 J	0.46	0.18 J	47	0.78	68	37 J	0.73
MW-96-217	02/17/21	N	<1	<1	<0.1	69	0.97	310	0.37 J	0.053 J	46	0.83	66	35 J	<0.5
MW-96-217	03/17/21	N	<1	<1	1.8	64	1.4 J	550	0.12 J	<0.1	51 J	0.93	65	30	<0.5

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-95-113	08/19/20	N	0.76	150	5.8	120	<0.2	290	0.58	--	--	5.6 J	150	970	<1
MW-95-113	09/30/20	N	1.4	140	6.2	110	<0.2	290	<0.5	--	--	5.7	150	930	<1
MW-95-113	10/20/20	N	1.4	140	6.6	110	<0.2	280 J	<0.5	--	--	4.8	150	930	<1
MW-95-113	11/18/20	N	1.6	140	5.5	120	<0.2	280	<0.5	--	--	5.2 J	150	840	<1 J
MW-95-113	12/15/20	N	<0.2	130	4.4	120	<0.2	250	0.71	--	--	4.4	130	730	<10
MW-95-113	02/25/21	N	1.6	180 J	6.6	110	<0.2	280	0.62	--	--	5.7	150	810	<1
MW-95-113	05/19/21	N	0.82	160	7	110	<0.22	300	0.62	--	--	5.6	150	850	<1
MW-95-113	08/25/21	N	2.1	160	11	92	<0.2	280	<0.5	--	--	6.2 J	140	910	<1
MW-95-113	12/08/21	N	0.95	--	--	--	--	--	--	--	--	6.1	--	--	--
MW-95-157	06/09/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-95-157	06/25/20	N	0.63	700	1.9	75	<0.2	1,500	1.1	--	--	6.2	280	3,500	<1
MW-95-157	07/21/20	N	2.3	720	2.7	76	<0.2	1,500	<1	--	--	6.7 J	290	3,800	<1
MW-95-157	08/19/20	N	4.2 J	710	3.7	75	<0.2	1,500	<1	--	--	7.1 J	290	4,100	<1
MW-95-157	09/30/20	N	4.1	630	4.2	75	<0.2	1,500	0.61	--	--	7.8	280	4,000	<1
MW-95-157	10/20/20	N	<0.2	1,100	<1	120	0.38	1,300 J	1.1	--	--	<0.05	200	3,200	<1
MW-95-157	11/18/20	N	<0.2	580	<1	78 J	<0.2	1,500	<1	--	--	8 J	290 J	3,500 J	<1 J
MW-95-157	11/18/20	FD	<0.2	540	<1	110 J	<0.2	1,400	1.3	--	--	8.3	230 J	2,800 J	<1 J
MW-95-157	12/15/20	N	5.5	710	4.4	76	<0.2	1,500	<1	--	--	7.8	290	3,200	<1
MW-95-157	11/18/20	FD	<0.2	540	<1	110 J	<0.2	1,400	1.3	--	--	8.3	230 J	2,800 J	<1 J
MW-95-157	12/15/20	N	5.5	710	4.4	76	<0.2	1,500	<1	--	--	7.8	290	3,200	<1
MW-95-157	02/25/21	N	7.8	670 J	5.5	54	<0.2	1,500	1	--	--	8.9	300	3,100	<1
MW-95-157	05/19/21	N	9.9	650	5.9	73	<0.22	1,500	<1	--	--	8.7	300	3,300	<1
MW-95-157	08/25/21	N	8.7	910	7.4	69	<0.2	1,600	<1	--	--	9.3 J	300	4,000	<1
MW-95-157	12/08/21	N	8.6	--	--	--	--	--	--	--	--	9.5	--	--	--
MW-96-045	09/22/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	10/21/20	N	<0.2	2,300	4.6	250	0.21	2,800	7.4	--	--	0.33	1,200	7,600	<1 J
MW-96-045	11/17/20	N	<1	2,400	4.5	280	<0.2	2,900	7.4	--	--	0.54	1,200	7,200	<1 J
MW-96-045	12/02/20	N	<0.2	2,100	5.9	250	<0.2	2,700	7.4	--	--	0.7	1,000	6,900	<1
MW-96-045	12/02/20	FD	<0.2	1,900	5.9	250	<0.2	2,700	7.6	--	--	0.72	1,100	7,100	<1
MW-96-045	01/26/21	N	<1	2,300 J	5.9	250	<0.2	3,100	6.8	--	--	0.79	1,300	7,600	<1 J
MW-96-045	02/17/21	N	<1	2,000	6.1	240	<0.22	3,000	6.8	--	--	0.7	1,100	6,700	<1
MW-96-045	03/17/21	N	<1	2,000	6.5	240	<0.2	2,500	6.3	--	--	0.56	820	6,200	<1
MW-96-045	04/26/21	N	<0.2	1,800	7.2	200	<0.2	2,400	6.3	--	--	0.83	620	5,200	<1
MW-96-045	05/18/21	N	<0.2	1,700 J	6.7	220	<0.2	2,400	6.2	--	--	0.84	610	5,400	<1
MW-96-045	06/09/21	N	<0.2	2,400	7.6	220	<0.2	2,500	5.8	--	--	0.84	610	5,000	<1
MW-96-045	08/19/21	N	<0.2	2,600 J	9.9	240	<0.2	2,800	6.6	--	--	0.71	1,100	6,700	<1
MW-96-045	12/15/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	12/15/21	FD	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-045	03/02/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	09/16/20	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	10/21/20	N	<1	5,200	<1	51	0.24	5,800	3.8	--	--	0.13	1,000	13,000	<1 J
MW-96-217	11/17/20	N	<1	3,900	<1	61	<0.2	5,500	3.6	--	--	<0.05	970	11,000	<1 J
MW-96-217	12/02/20	N	<1	3,400	<1	62	<0.2	5,500	4.1	--	--	<0.1	1,000	11,000	<1
MW-96-217	01/26/21	N	<1	4,200 J	<1	54	<0.22	6,200	3.3	--	--	1	1,000	13,000	<20 J
MW-96-217	02/17/21	N	<1	4,600	<1	49	<0.22	6,200	3.7	--	--	0.3	1,100	13,000	<1
MW-96-217	03/17/21	N	<1	4,500	<1	45	<0.2	6,100	3.4	--	--	0.62	1,200	13,000 J	<50

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-96-217	04/26/21	N	<1	<1	<0.1	63	1.7	610	0.13	<0.1	62	0.69	64	27	<0.5
MW-96-217	05/18/21	N	<1	<1	<0.1 J	56	1	670	0.061 J	0.079 J	42 J	0.61	62	26 J	<0.5
MW-96-217	06/09/21	N	<1	<1	1.8	48	1.2 J	570	0.12 J	<0.1	53	0.48	57	33 J	<0.5
MW-96-217	08/19/21	N	<1	<1	<0.1	47 J	0.93	490 J	0.078 J	<0.02	49 J	0.51	59	22	<0.5
MW-96-217	12/15/21	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	10/27/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	11/17/20	N	<0.2	<1 J	5.5	25	1.1	40 J	0.22	<0.1	11	0.28	42	9.5	1.3
MW-97-042	12/10/20	N	<0.2	<1	6.1	26	0.54	44 J	1.60 J	0.32 J	13	0.29	34	7.7	0.55
MW-97-042	01/26/21	N	11	13	4.7 J	24	0.62	38 J	0.57 J	0.11 J	10	0.19	31	6.9 J	1.5
MW-97-042	01/26/21	FD	12	14	4.7 J	22	0.62	38 J	1.40 J	0.031 J	10	0.2	32	6.5 J	1.5
MW-97-042	02/15/21	N	0.25	<1	2.9 J	59	0.38	78	0.41 J	0.077	20 J	0.38 J	18 J	8.3 J	0.63
MW-97-042	03/17/21	N	<0.2	1	3.2	71	0.55 J	140	0.25 J	0.13 J	25 J	0.45	12	11	0.8
MW-97-042	03/17/21	FD	<0.2	1.2	3.5	74	0.5 J	140	0.24 J	0.085 J	24 J	0.47	13	11	0.76
MW-97-042	04/26/21	N	1.4	1.6	1.5	96	0.46	170	0.19	0.022	31	0.33	9.9	11	0.8
MW-97-042	04/26/21	FD	1.4	1.8	1.4	95	0.51	170	0.26	0.13	28	0.33	9.6	10	0.72
MW-97-042	05/17/21	N	3.1	3.4	0.84	100	0.51	180	0.56	0.038	27	0.24	9	9.3 J	0.87
MW-97-042	06/09/21	N	2.1	2.4	3.1	82	0.58 J	180	0.042 J	0.025 J	29	0.16	13	11 J	0.7
MW-97-042	08/17/21	N	3.3	3.4	1.6	61	0.57	120	0.17 J	0.045	21 J	0.11	16	8.9 J	<0.5
MW-97-042	12/13/21	N	4.4	6	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	03/02/22	N	6.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	10/22/20	N	7.9	26	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	11/17/20	N	<1	<1 J	3	150	2	410 J	0.6	0.37 J	99	1	38	38	<0.5
MW-97-202	12/10/20	N	<1	<1	7.1	140	0.89	350 J	0.59 J	0.45 J	85	1.30	36	29	<0.5
MW-97-202	01/26/21	N	<1	<1	2.7 J	150	1.1	350 J	0.54	0.46 J	86	1.60	34	31 J	<0.5
MW-97-202	02/15/21	N	<1	<1	<0.1 J	130	0.77	370	0.51 J	0.47	87 J	1.50 J	34 J	36 J	<0.5
MW-97-202	03/16/21	N	<1	<1	5.9	130	1.6 J	640	0.83 J	0.58 J	110 J	1.40	35	31	<0.5
MW-97-202	04/26/21	N	<1	<1	<0.1	130	1.1	630	0.48	0.53	87	1.40	35	28	<0.5
MW-97-202	05/17/21	N	<1	<1	<0.1	130	1	590	0.46	0.42	83	1.40	34	24 J	<0.5
MW-97-202	06/09/21	N	<1	<1	8.3	120	1.5 J	670	0.58 J	0.63 J	120	1.30	31	38 J	<0.5
MW-97-202	08/17/21	N	<1	3	<0.1	120	0.96	560	0.47 J	0.52	65 J	1.70	30	31 J	<0.5
MW-97-202	08/17/21	FD	<1	3	<0.1	120	0.87	560	0.47 J	0.46	63 J	1.70	29	26 J	<0.5
MW-97-202	12/13/21	N	<1	<1	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-055	10/29/20	N	1.2	8.7	--	--	--	--	--	--	--	--	--	--	--
MW-98-055	10/29/20	FD	7.5	6.5	--	--	--	--	--	--	--	--	--	--	--
MW-98-055	11/17/20	N	3.1	7.1 J	2.5	110	1.1	79 J	0.44	0.094 J	30	0.25	47	18	2.3
MW-98-055	12/14/20	N	14	16	1.9	82	0.62	80 J	0.36	0.078 J	28	0.16	33	16	2.2
MW-98-055	01/25/21	N	11	15	1.6 J	82	0.64	80 J	1.80	0.11 J	23	0.16	22	13 J	3.4
MW-98-055	02/16/21	N	24	27	1.3 J	82	0.51	84 J	0.47 J	0.046	23 J	0.16	19 J	12 J	3.4
MW-98-055	03/16/21	N	4	3.5	3.6	78	0.57 J	120	0.28 J	0.038 J	23 J	0.16	18	13	5.1
MW-98-055	04/26/21	N	50	53	1.4	72	0.58	140	0.46	0.04	25	0.094	16	10	4.8
MW-98-055	05/20/21	N	69 J	69	1.6	64	0.55	140	0.19 J	<0.02	24 J	0.081	15	12 J	4.9
MW-98-055	06/09/21	N	66	67	3.2	63	0.65 J	140	0.79 J	0.043 J	29	0.087	15	12 J	4.9

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-96-217	04/26/21	N	<1	4,600	1.2	51	<0.2	6,100	3.5	--	--	0.67	1,200	12,000 J	<1
MW-96-217	05/18/21	N	<1	4,700 J	<1	53	<0.2	6,000	3.8	--	--	0.72	1,200	12,000	<1
MW-96-217	06/09/21	N	<1	4,900	1.4	51	<0.2	6,000	3.8	--	--	0.84	1,200	12,000	<50
MW-96-217	08/19/21	N	<1	3,800 J	1.4	50	<0.2	6,200	3.5	--	--	0.86	1,200	13,000	<1
MW-96-217	12/15/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-96-217	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	10/27/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	11/17/20	N	<0.2	610	<1	130	0.24	810	3.6	--	--	0.59	210	1,800	<1 J
MW-97-042	12/10/20	N	<0.2	570	<1	120	0.26	900	3.5	--	--	0.37	230	1,800	<1
MW-97-042	01/26/21	N	11	490 J	1.3	120	<0.22	780	3.4	--	--	0.83 J	200	1,700	<1 J
MW-97-042	01/26/21	FD	12	480 J	1.2	130	0.25	790	3.2	--	--	0.57 J	200	1,700	<1 J
MW-97-042	02/15/21	N	0.25	500	<1	98	<0.22	990	2.4	--	--	0.42	210	2,000	<1 J
MW-97-042	03/17/21	N	<0.2	630	<1	90	<0.2	1,000	2.2	--	--	0.59	220	2,200	<1
MW-97-042	03/17/21	FD	<0.2	600	<1	89	<0.22	1,100	2.2	--	--	0.65	220	2,200	<1
MW-97-042	04/26/21	N	1.4	620	1.1	89	<0.2	1,100	2	--	--	0.63	220	2,300	<1
MW-97-042	04/26/21	FD	1.4	620	1.1	82	<0.2	1,100	1.9	--	--	0.62	220	2,200	<1
MW-97-042	05/17/21	N	3.1	590 J	1.3	85	<0.2	1,100	1.9	--	--	0.99	220	2,400	<10
MW-97-042	06/09/21	N	2.1	650	2.1	92	<0.2	1,100	2.1	--	--	0.36	220	2,300	<1
MW-97-042	08/17/21	N	3.3	610 J	1.4	110	<0.2	940	2.1	--	--	0.47	210	2,100	<1
MW-97-042	12/13/21	N	4.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-042	03/02/22	N	6.7	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	10/22/20	N	7.9	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	11/17/20	N	<1	3,500	<1	77	0.34	6,000	3.1	--	--	<0.05	950	12,000	<1 J
MW-97-202	12/10/20	N	<1	3,500	<1	81	0.39	6,200	3.5	--	--	0.25	990	12,000	<1
MW-97-202	01/26/21	N	<1	3,500 J	<1	100	0.37	5,900	2.7	--	--	0.072	990	12,000	<1 J
MW-97-202	02/15/21	N	<1	3,300	<1	90	0.32	6,000	3	--	--	0.51	990	12,000	<20 J
MW-97-202	03/16/21	N	<1	4,200	<1	75	0.27	6,100	3	--	--	0.42	970	12,000	<1
MW-97-202	04/26/21	N	<1	4,200	<1	81	0.56	6,500	3.3	--	--	0.21	990	12,000	<1
MW-97-202	05/17/21	N	<1	4,300 J	<1	81	0.55	6,200	3.2	--	--	0.32	960	13,000	<1
MW-97-202	06/09/21	N	<1	5,600	<1	79	0.29	6,200	3.1	--	--	0.15	950	12,000	<1
MW-97-202	08/17/21	N	<1	3,900 J	<1	97	0.31	6,100	2.9	--	--	0.21	970	13,000	<1
MW-97-202	08/17/21	FD	<1	3,900 J	<1	94	0.26	6,100	3	--	--	0.18	980	14,000	<1
MW-97-202	12/13/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-97-202	03/02/22	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-055	10/29/20	N	1.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-055	10/29/20	FD	7.5	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-055	11/17/20	N	3.1	700	<1	170	0.35	900	1.9	--	--	1.5	470	2,400	1 J
MW-98-055	12/14/20	N	14	770	1.7	140	<0.2	870	2	--	--	1.8	430	2,200	<1
MW-98-055	01/25/21	N	11	630 J	2.3	140	0.22	840	1.6	--	--	2.8	500	2,200	<1
MW-98-055	02/16/21	N	24	530 J	2.4	120	<0.22	790	1.7	--	--	2.7	510	2,300	<1
MW-98-055	03/16/21	N	4	670	2.3	120	<0.2	820	1.7	--	--	4.2	520	2,300	<1
MW-98-055	04/26/21	N	50	650	3.6	110	<0.2	850	1.5	--	--	4.9	500	2,200	<10
MW-98-055	05/20/21	N	69 J	610 J	3.4	100	<0.2	830	1.7	--	--	4.5	490	2,200	<1
MW-98-055	06/09/21	N	66	700	3.6	110	<0.2	850	1.6	--	--	4.7	500	2,200	<1

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
MW-98-055	06/09/21	FD	66	67	3	65	0.68 J	150	0.7 J	0.085 J	31	0.089	16	13 J	4.4
MW-98-055	08/20/21	N	84	93	<0.1	56	0.54	100	0.27 J	0.029 J	19 J	0.031	18	13 J	5.7
MW-98-055	12/16/21	N	240	230	2.8	--	--	--	--	--	--	0.0013	--	--	--
MW-98-077	10/30/20	FD	250	260	--	--	--	--	--	--	--	--	--	--	--
MW-98-077	10/30/20	N	260	230	--	--	--	--	--	--	--	--	--	--	--
MW-98-077	11/17/20	N	26	29 J	<0.1	200	1.8	300 J	0.71	0.066 J	17	0.52	18	44	17
MW-98-077	12/14/20	N	140	140	<0.1	140	1.5	270 J	0.52	0.085 J	14	0.31	14	37	17
MW-98-077	01/25/21	N	310	310	<0.1 J	110	1.5	250 J	0.19	<0.02 J	11	0.12	15	36 J	21
MW-98-077	02/16/21	N	360	340	<0.1 J	93	1.2	230 J	0.3 J	<0.02	9.6 J	0.071	16 J	47 J	19
MW-98-077	03/16/21	N	440	410	3.5	100	1.4 J	410	0.043 J	<0.02	10 J	0.12	11	38	22
MW-98-077	04/26/21	N	480	480	<0.1	83	1.5	350	0.41	<0.02	8.9	0.065	16	32	21
MW-98-077	05/20/21	N	490 J	470	<0.1	86	1.4	390	0.13 J	<0.02	9.5 J	0.039	14	40 J	21
MW-98-077	06/09/21	N	540	510	4.6	84	1.7 J	420	0.42 J	0.025 J	11	0.053	13	43 J	20
MW-98-077	08/20/21	N	340	390	4.3	38	0.77	63	0.085 J	0.03 J	3.9 J	0.002	28	9.3 J	18
MW-98-077	12/16/21	N	340	320	3	--	--	--	--	--	--	0.0028	--	--	--
OW-01D	10/07/20	N	0.6	<1	--	--	--	--	--	--	--	--	18 J	--	--
OW-01D	10/07/20	FD	0.59	<1	--	--	--	--	--	--	--	--	18 J	--	--
OW-01D	12/15/21	N	0.5	2.8	<0.1	32	1.1 J	140	--	--	24 J	0.0047	23	17 J	8.2
OW-01M	10/07/20	N	2.3	5.1	--	--	--	--	--	--	--	--	18 J	--	--
OW-01M	12/15/21	N	1.2	4.1	<0.1	63	1 J	150	--	--	24 J	0.0048	24	15 J	8.2
OW-01S	10/07/20	N	2.6	5.2	--	--	--	--	--	--	--	--	2.1 J	--	--
OW-01S	12/15/21	N	8.4	31	<0.1	110	0.88 J	350	--	--	54 J	0.026	8.9	17 J	2.9
OW-02D	10/08/20	N	0.5	1.4	--	--	--	--	--	--	--	--	23	--	--
OW-02D	12/15/21	N	0.28	1.8	<0.1	24	1.1 J	190	--	--	31 J	0.0017	24	21 J	8.4
OW-02M	10/08/20	N	2	3.2	--	--	--	--	--	--	--	--	20	--	--
OW-02M	12/15/21	N	1.1	1.6	<0.1	38	1.1 J	150	--	--	25 J	<0.0005	23	14 J	7.8
OW-02S	10/08/20	N	16	16	--	--	--	--	--	--	--	--	22	--	--
OW-02S	12/15/21	N	15	15	<0.1	130	0.59 J	130	--	--	16 J	0.00083	21	11 J	2
OW-05D	10/08/20	N	0.63	1.8	3	25	1.2	110	0.085 J	0.096 J	30	0.00058	26	14	4.3
OW-05D	12/01/21	N	0.42	1.9	<0.1 J	28	1.1	200	--	--	31	<0.0005	29	17 J	9.3
OW-05M	10/08/20	N	0.49	16	1	33	1.1	97	2.90 J	0.23 J	26	0.016	23	11	4.6
OW-05M	12/01/21	N	0.59	1.1	<0.1 J	31	1.1	150	--	--	24	<0.0005	26	15 J	9.2
OW-05S	10/08/20	N	10	10	--	--	--	--	--	--	--	--	10	--	--
OW-05S	12/01/21	N	9.7	10	<0.1 J	130	0.34	430	--	--	69	<0.0005	7.6	17 J	2.4
PGE-07BR	12/03/20	N	<1	<1	--	--	2.9	430	--	0.14	16	0.32	8.1	--	<0.5 J
PGE-08	12/09/20	N	<1	<1	--	--	3.2 J	150 J	--	0.08 J	3.8 J	0.45	110	--	<0.5
PGE-08	12/08/21	N	<1	<1	<0.1	--	--	--	--	--	--	0.47 J	--	--	--
PM-03	12/14/20	N	9.6	9.5	--	--	0.11	76 J	--	0.11 J	19	0.0008	5.8	--	1.7
PM-04	12/14/20	N	16	16	--	--	0.33	110 J	--	0.039 J	34	0.0029	5.4	--	1.4
PT5D	12/16/21	N	31	29	1.5	20	--	--	--	<0.02	--	0.031	100	--	<0.5
PT5D	03/04/22	N	5.5	--	1.6	27	--	--	--	0.05	--	0.11	--	--	--
PT5M	12/16/21	N	<0.2	<1	1.7	23	--	--	--	<0.02	--	0.94	11	--	<0.5
PT5M	03/04/22	N	<0.2	--	1.1	32	--	--	--	0.14	--	1.20	--	--	--
PT5S	12/16/21	N	<0.2	<1	13	84	--	--	--	0.65 J	--	0.21	6.1	--	<0.5

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
MW-98-055	06/09/21	FD	66	770	3.5	100	<0.2	850	1.6	--	--	5.1	490	2,200	<1
MW-98-055	08/20/21	N	84	560 J	4.7	100	<0.2	870	1.4	--	--	6	470	2,200	<1
MW-98-055	12/16/21	N	240	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-077	10/30/20	FD	250	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-077	10/30/20	N	260	--	--	--	--	--	--	--	--	--	--	--	--
MW-98-077	11/17/20	N	26	2,400	1.1	70	0.23	4,000	2.2	--	--	2.8	630	8,200	<20 J
MW-98-077	12/14/20	N	140	2,300	2.2	70	<0.2	3,700	2.2	--	--	4.3	650	7,900	<1
MW-98-077	01/25/21	N	310	2,100 J	3.4	75	<0.22	3,500	2.1	--	--	5.5	610	7,400	<1
MW-98-077	02/16/21	N	360	1,900 J	4.1	80	<0.22	3,200	2.2	--	--	5	580	6,400	<1
MW-98-077	03/16/21	N	440	2,400	2.6	64	<0.2	4,000	1.8	--	--	4.3	640	8,300	<1
MW-98-077	04/26/21	N	480	2,100	4.2	77	<0.2	3,300	2.3	--	--	5.5	590	6,800	<1
MW-98-077	05/20/21	N	490 J	2,100 J	3.7	74	<0.2	3,500	2.6	--	--	4.6	640	7,300	<1
MW-98-077	06/09/21	N	540	3,000	3.6	73	<0.2	3,600	2.2	--	--	5.2	610	7,800	<1
MW-98-077	08/20/21	N	340	870 J	8	100	<0.2	1,100	2.6	--	--	7.9	470	2,600	<1
MW-98-077	12/16/21	N	340	--	--	--	--	--	--	--	--	--	--	--	--
OW-01D	10/07/20	N	0.6	1,400	--	--	--	2,200	2.2	--	--	2.5	480	4,300	--
OW-01D	10/07/20	FD	0.59	1,400	--	--	--	2,200	2	--	--	2.5	480	4,300	--
OW-01D	12/15/21	N	0.5	1,400	3.2	86	--	2,000	2.3	--	--	7 J	510	4,100	--
OW-01M	10/07/20	N	2.3	1,400	--	--	--	2,200	2.2	--	--	2.7	490	4,300	--
OW-01M	12/15/21	N	1.2	1,500	3	110	--	2,000	2.1	--	--	7.8 J	510	4,100	--
OW-01S	10/07/20	N	2.6	1,400	--	--	--	2,100	1.3	--	--	2.9	470	4,500	--
OW-01S	12/15/21	N	8.4	1,000	2.5	270	--	1,700	1.4	--	--	3 J	360	4,000	--
OW-02D	10/08/20	N	0.5	1,600	--	--	--	2,200	2.7	--	--	3.1	490	4,400	--
OW-02D	12/15/21	N	0.28	1,600	1.9	86	--	2,100	3.1	--	--	7.4 J	500	4,100	--
OW-02M	10/08/20	N	2	1,600	--	--	--	2,200	2.1	--	--	2.8	490	4,400	--
OW-02M	12/15/21	N	1.1	1,600	2.8	97	--	2,000	2.5	--	--	7.5 J	510	4,100	--
OW-02S	10/08/20	N	16	670	--	--	--	1,100	3.2	--	--	3.2	180	2,600	--
OW-02S	12/15/21	N	15	640	3.4	58	--	1,100	2.7	--	--	3.2 J	180	2,200	--
OW-05D	10/08/20	N	0.63	1,600	2.3	71	<0.2	2,100	3	--	--	2.4	470	4,500	--
OW-05D	12/01/21	N	0.42	1,300	2.4	76	--	2,000	2.8	--	--	7.8	500	4,000	--
OW-05M	10/08/20	N	0.49	1,500	2	86	<0.2	2,100	2.6	--	--	3.1	490	4,400	--
OW-05M	12/01/21	N	0.59	1,400	1.8	79	--	1,900	3	--	--	9	510	4,000	--
OW-05S	10/08/20	N	10	660	--	--	--	1,700	1.7	--	--	3.2	350	4,600	--
OW-05S	12/01/21	N	9.7	660	2	48	--	1,700	1.7	--	--	2.8	360	4,000	--
PGE-07BR	12/03/20	N	<1	4,000	--	17	--	7,400	--	--	--	--	410	10,000	--
PGE-08	12/09/20	N	<1	3,600 J	--	52	--	6,000	--	--	--	<0.05	2,000	14,000	--
PGE-08	12/08/21	N	<1	--	--	--	--	--	--	--	--	--	--	--	--
PM-03	12/14/20	N	9.6	170	--	85	--	320	--	--	--	3.2	62	760	--
PM-04	12/14/20	N	16	320	--	64	--	650	--	--	--	2.2	180	1,500	--
PT5D	12/16/21	N	31	--	--	--	--	--	--	--	--	<0.1	--	--	<1
PT5D	03/04/22	N	5.5	--	--	--	--	--	--	<0.5	--	--	--	--	<1
PT5M	12/16/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	<1
PT5M	03/04/22	N	<0.2	--	--	--	--	--	--	<0.5	--	--	--	--	<1
PT5S	12/16/21	N	<0.2	--	--	--	--	--	--	--	--	<0.1	--	--	3

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
PT5S	03/04/22	N	<0.2	--	9.5	90	--	--	--	0.87	--	0.24	--	--	--
PT8D	10/06/20	N	390	370	--	--	--	--	--	--	--	--	--	--	--
PT8D	05/04/21	N	240	230	<0.1	--	--	660	--	--	--	0.23	62	47	0.76
PT8D	12/10/21	N	200	200	<0.1	--	--	--	--	--	--	0.27	--	--	--
PT9D	10/06/20	N	5,200	5,200	--	--	--	--	--	--	--	--	--	--	--
PT9D	05/05/21	N	4,900	5,100 J	<0.1	--	--	100	--	--	--	0.0023	88	44 J	3.3
PT9D	12/10/21	N	7,000	6,100	<0.1	--	--	--	--	--	--	0.0035	90	--	4.6
PT9M	10/06/20	N	690	660	--	--	--	--	--	--	--	--	--	--	--
PT9M	05/05/21	N	570	580 J	<0.1	--	--	160	--	--	--	0.03	5.1	38 J	2.6
PT9M	12/10/21	N	64	87	<0.1	--	--	--	--	--	--	0.11	7.2	--	5.7
PT9S	10/06/20	N	42	58	--	--	--	--	--	--	--	--	--	--	--
PT9S	05/05/21	N	28	29 J	0.77	--	--	160	--	--	--	0.97	18	9.5 J	1.8
PT9S	12/10/21	N	34	35	<0.1	--	--	--	--	--	--	0.32	8.6	--	6
R-19	01/30/20	N	<0.2	<1	2.1	110	--	--	0.047	0.038 J	--	0.0025 J	4.7	--	1.6
R-19	02/20/20	N	<0.2	<1	2.1	120	--	--	0.093 J	0.027 J	--	0.0013	4.7 J	--	1.5
R-19	04/30/20	N	<0.2	<1	2.1	110	--	--	0.047	0.026 J	--	0.0014	4.4	--	1.5
R-19	08/20/20	N	<0.2	<1	2.5	110 J	--	--	0.041 J	<0.02 J	--	0.00072	4.5	--	1.5
R-19	11/19/20	N	<0.2	<1	2.4	110	--	--	<0.02	<0.02	--	0.0016	4.7	--	1.4
R-19	01/28/21	N	<0.2	<1	2.2	120	--	--	0.076	0.023	--	0.0018	4.7	--	1.7
R-19	01/28/21	FD	<0.2	<1	2.3	120	--	--	0.043	0.029	--	0.0016	4.5	--	1.6
R-19	02/18/21	N	<0.2	<1	2.5	120	--	--	0.035 J	<0.02 J	--	0.0014	4.7	--	1.6
R-19	05/20/21	N	<0.2	<1	2	100	--	--	<0.02	<0.02	--	<0.0005	4.3	--	1.3
R-19	08/19/21	N	<0.2	<1	2.3	100	--	--	0.021	<0.02 J	--	<0.0005	4	--	1.5
R-19	08/19/21	FD	<0.2	<1	2.1	100	--	--	0.022	<0.02 J	--	<0.0005	4.1	--	1.5
R-19	11/18/21	N	<0.2	<1	3.1 J	--	--	--	--	--	--	0.00056	4.4	--	1.9
R-19	02/17/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005	--	--	--
R-28	01/29/20	N	<0.2	<1	2.2	120	--	--	0.18	<0.02	--	0.0026	4.7	--	1.6
R-28	02/19/20	N	<0.2	<1	2.1	120 J	--	--	0.15 J	0.063 J	--	0.0018	4.6	--	1.6
R-28	04/29/20	N	<0.2	<1	2.3	120	--	--	0.075 J	0.088 J	--	0.0016	4.5	--	1.7
R-28	08/19/20	N	<0.2	<1	2.5	110 J	--	--	0.038 J	0.041 J	--	0.00095	4.7	--	1.5
R-28	11/18/20	N	<0.2	<1	2.5	110	<100	58	0.04	<0.02	25	0.0015	4.5	4.7	1.6
R-28	11/18/20	FD	<0.2	<1	2.5	110	0.13	59	0.045	<0.02	25	0.0013	4.5	4.7	1.5
R-28	01/27/21	N	<0.2	<1	2.2	120	--	--	0.025	0.02 J	--	0.0023	4.7	--	1.5
R-28	02/17/21	N	<0.2	<1	2.4	120	--	--	0.085 J	<0.02 J	--	0.0016	4.8	--	1.7
R-28	05/19/21	N	<0.2	<1	1.9	100	--	--	<0.02	<0.02 J	--	0.00085	4.3	--	1.4
R-28	08/18/21	N	<0.2	<1	2.1	100	--	--	0.022 J	<0.02	--	<0.0005	4.3	--	1.6
R-28	11/17/21	N	<0.2	<1	3.3	--	--	--	--	--	--	0.00095	4.7 J	--	2
R-28	02/16/22	N	<0.2	--	2	--	--	--	--	--	--	<0.0005 J	--	--	--
R-63	01/29/20	N	<0.2	<1	2.1	110	--	--	0.11	<0.02	--	0.0036	4.4	--	1.6
R-63	02/19/20	N	<0.2	<1	2.3	120 J	--	--	0.17 J	0.043 J	--	0.0029	4.8	--	1.6
R-63	04/29/20	N	<0.2	<1	2.2	120	--	--	0.073 J	0.058 J	--	0.0018	4.7	--	1.6
R-63	08/19/20	N	<0.2 J	<1	2.6	120 J	--	--	0.028 J	<0.02 J	--	0.0024	4.9	--	1.5
R-63	11/18/20	N	<0.2	<1	2.3	110	--	--	0.067	<0.02	--	0.0024	4.6	--	1.5
R-63	01/27/21	N	<0.2	<1	2.2	120	--	--	0.043	0.027 J	--	0.0019	4.7	--	1.6

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
PT5S	03/04/22	N	<0.2	--	--	--	--	--	--	<0.25	--	--	--	--	1.9
PT8D	10/06/20	N	390	--	--	--	--	--	--	--	--	--	--	--	--
PT8D	05/04/21	N	240	5,500 J	--	--	--	7,200	--	--	--	0.76	780	12,000 J	--
PT8D	12/10/21	N	200	--	--	--	--	--	--	--	--	--	--	--	--
PT9D	10/06/20	N	5,200	--	--	--	--	--	--	--	--	--	--	--	--
PT9D	05/05/21	N	4,900	5,200	--	--	--	6,700	--	--	--	3.5	960	13,000	--
PT9D	12/10/21	N	7,000	--	--	--	--	--	--	--	--	6.4	--	--	--
PT9M	10/06/20	N	690	--	--	--	--	--	--	--	--	--	--	--	--
PT9M	05/05/21	N	570	2,500	--	--	--	3,600	--	--	--	2.4	690	8,700	--
PT9M	12/10/21	N	64	--	--	--	--	--	--	--	--	7.2	--	--	--
PT9S	10/06/20	N	42	--	--	--	--	--	--	--	--	--	--	--	--
PT9S	05/05/21	N	28	550	--	--	--	860	--	--	--	2.6	270	1,900	--
PT9S	12/10/21	N	34	--	--	--	--	--	--	--	--	5	--	--	--
R-19	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
R-19	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
R-19	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
R-19	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
R-19	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
R-19	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
R-19	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
R-19	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.4	--	--	--
R-19	01/28/21	FD	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
R-19	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
R-19	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
R-19	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
R-19	08/19/21	FD	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
R-19	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.31	--	--	--
R-19	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
R-28	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.32	--	--	--
R-28	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.33	--	--	--
R-28	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.41	--	--	--
R-28	08/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
R-28	11/18/20	N	<0.2	86	--	140	--	88	--	--	--	0.28	210	580	--
R-28	11/18/20	FD	<0.2	86	--	140	--	88	--	--	--	0.3	210	580	--
R-28	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.27	--	--	--
R-28	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.47	--	--	--
R-28	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.36	--	--	--
R-28	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
R-28	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
R-28	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
R-63	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
R-63	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
R-63	04/29/20	N	<0.2	--	--	--	--	--	--	--	--	0.42	--	--	--
R-63	08/19/20	N	<0.2 J	--	--	--	--	--	--	--	--	0.35	--	--	--
R-63	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--
R-63	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	0.28	--	--	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
R-63	02/17/21	N	<0.2	<1	2.4	120	--	--	0.053 J	0.041 J	--	0.0033	4.6	--	1.9
R-63	05/19/21	N	<0.2	<1	2.1	100	--	--	0.13 J	<0.02 J	--	0.0036	4.4	--	1.3
R-63	05/19/21	FD	<0.2	<1	2.2	110	--	--	0.097 J	<0.02 J	--	0.0036	4.7	--	1.4
R-63	08/18/21	N	<0.2	<1	2	100	--	--	0.029 J	<0.02	--	0.0017	4.1	--	1.4
R-63	11/17/21	N	<0.2	<1	2.8	--	--	--	--	--	--	0.0018	4.4 J	--	1.7
R-63	02/16/22	N	<0.2	--	2	--	--	--	--	--	--	0.0007 J	--	--	--
RRB	01/30/20	N	<0.2	<1	2.4	80	--	--	1.10	<0.1 J	--	0.021 J	7	--	2.3
RRB	02/20/20	N	<0.2	<1	2.1	97 J	--	--	0.16	0.021	--	0.0027	4.8	--	1.5
RRB	04/30/20	N	<0.2	<1	2.2	110	--	--	0.024	<0.02	--	0.0018	4.7	--	2.9
RRB	08/20/20	N	<0.2	<1	2.3	110 J	--	--	0.03 J	<0.02 J	--	0.0071	4.7	--	1.4
RRB	11/19/20	N	<0.2	<1	2.2	110	--	--	0.041	<0.02	--	0.0052	4.6	--	1.4
RRB	01/28/21	N	<0.2	<1	0.63	98	--	--	35	0.041	--	0.01	4.4	--	0.61
RRB	02/18/21	N	<0.2	<1	2.3	120	--	--	0.087 J	<0.02 J	--	0.0041	4.7	--	1.3
RRB	05/20/21	N	<0.2	<1	2.2	110	--	--	<0.02	<0.02	--	0.016	4.4	--	1.2
RRB	08/19/21	N	<0.2	<1	2.2	110	--	--	0.057	<0.02 J	--	0.0064	4.3	--	1.3
RRB	11/18/21	N	<0.2	<1	2.8 J	--	--	--	--	--	--	0.024	4.5	--	1.6
RRB	11/18/21	FD	<0.2	<1	2.9 J	--	--	--	--	--	--	0.025	4.4	--	1.5
RRB	02/17/22	N	<0.2	--	1.5	--	--	--	--	--	--	0.014	--	--	--
SW1	01/29/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	02/19/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	04/30/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	08/20/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	11/18/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	01/27/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	02/17/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	05/19/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	08/18/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW1	11/17/21	N	<0.2	<1	2.2	--	--	--	--	--	--	0.0069	5.6 J	--	1.1
SW1	02/16/22	N	<0.2	--	1.4	--	--	--	--	--	--	0.021 J	--	--	--
SW2	01/29/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	02/19/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	04/30/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	08/20/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	11/18/20	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	01/27/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	02/17/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	05/19/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	08/18/21	N	<0.2	<1	--	--	--	--	--	--	--	--	--	--	--
SW2	11/17/21	N	<0.2	<1	2.3	--	--	--	--	--	--	0.0076	5.1 J	--	0.99
SW2	02/16/22	N	<0.2	--	1.7	--	--	--	--	--	--	0.015 J	--	--	--
TOPOCK-2	09/20/21	N	11.8	13	12.1	51.9	0.557	37	--	<0.1	4.2	<0.01	19.1	6.71	<1
TOPOCK-3	09/20/21	N	14.2	14.9	13.4	69.3	0.508	30.1	--	<0.1	4.1	<0.01	16.3	5.67	<1
TW-01	11/04/20	N	1,400	1,400	0.71	26	1.6	170	0.065 J	<0.02	21	<0.0005	26	17 J	10
TW-01	06/10/21	N	1,400	1,500	<0.1	30	1.3 J	200	--	<0.02	17	<0.0005	25	18 J	10

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Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
R-63	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.39	--	--	--
R-63	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.37	--	--	--
R-63	05/19/21	FD	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
R-63	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.35	--	--	--
R-63	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	0.3	--	--	--
R-63	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
RRB	01/30/20	N	<0.2	--	--	--	--	--	--	--	--	1.1	--	--	--
RRB	02/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.22	--	--	--
RRB	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	0.31	--	--	--
RRB	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	0.25	--	--	--
RRB	11/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
RRB	01/28/21	N	<0.2	--	--	--	--	--	--	--	--	0.076	--	--	--
RRB	02/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.38	--	--	--
RRB	05/20/21	N	<0.2	--	--	--	--	--	--	--	--	0.32	--	--	--
RRB	08/19/21	N	<0.2	--	--	--	--	--	--	--	--	0.23	--	--	--
RRB	11/18/21	N	<0.2	--	--	--	--	--	--	--	--	0.2	--	--	--
RRB	11/18/21	FD	<0.2	--	--	--	--	--	--	--	--	0.22	--	--	--
RRB	02/17/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW1	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
SW1	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	01/29/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	02/19/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	04/30/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	08/20/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	11/18/20	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	01/27/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	02/17/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	05/19/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	08/18/21	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
SW2	11/17/21	N	<0.2	--	--	--	--	--	--	--	--	<0.05	--	--	--
SW2	02/16/22	N	<0.2	--	--	--	--	--	--	--	--	--	--	--	--
TOPOCK-2	09/20/21	N	11.8	259	17.9	--	--	343	4.22	--	--	--	83.9	765	--
TOPOCK-3	09/20/21	N	14.2	203	18.1	--	--	333	4.21	--	--	--	72	549	--
TW-01	11/04/20	N	1,400	1,000	9.4	--	<0.2	--	2.9	--	--	13	520	3,500	<1
TW-01	06/10/21	N	1,400	1,100	9.3	--	<0.2	1,600	2.6	--	--	14	550	3,600	<1

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Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
TW-01	06/10/21	FD	1,400	1,500	<0.1	29	1.6 J	210	--	<0.02	19	<0.0005	24	19 J	10
TW-01	06/15/21	N	1,400	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/16/21	N	1,400	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/17/21	N	1,400	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/18/21	N	1,400	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/19/21	N	1,500	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/20/21	N	1,500	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/21/21	N	1,400	1,500	--	--	--	--	--	--	--	--	--	--	--
TW-01	06/28/21	N	1,500	1,600	<0.1	32	1.2	200	--	0.023 J	20 J	<0.0005	34 J	17	10
TW-01	07/08/21	N	--	--	<0.1	--	--	210	--	--	24	<0.0005	35	19 J	11
TW-01	07/12/21	N	1,500	1,700	<0.1	--	--	210	--	--	22 J	--	35	20 J	10
TW-01	07/12/21	FD	1,500	1,700	<0.1	--	--	210	--	--	24 J	--	35	20 J	9.8
TW-01	07/20/21	N	--	--	<0.1	--	--	230	--	--	22	<0.0005	30	17 J	11
TW-01	07/26/21	N	1,400	1,500	<0.1	--	--	230	--	--	22	--	30	17 J	10
TW-01	08/03/21	N	--	--	<0.1	--	--	240	--	--	25	<0.0005	30	18	12
TW-01	08/16/21	N	1,400	1,400	<0.1	35	1.3	230	--	<0.02	24 J	<0.0005	30	17	12
TW-01	08/16/21	FD	1,400	1,500	<0.1	34	1.3	220	--	<0.02	24 J	<0.0005	29	24	12
TW-01	08/25/21	N	--	--	<0.1 J	--	--	250	--	--	23	<0.0005	31	18	12
TW-01	09/01/21	N	--	1,500 J	<0.1	--	--	240	--	--	23	<0.0005	22	18	9.2
TW-01	09/02/21	N	1,200	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	09/09/21	N	1,200	1,300	<0.1	42	1.2	240	--	<0.02 J	23 J	<0.0005	39	18	14
TW-01	09/09/21	FD	1,300	1,500	<0.1	42	1.2	230	--	<0.02 J	23 J	<0.0005	38	17	14
TW-01	09/15/21	N	--	--	<0.1	--	--	240	--	--	23 J	<0.0005	37	20 J	14
TW-01	09/23/21	N	1,200	1,400 J	<0.1 J	--	--	280 J	--	--	25	<0.0005	38 J	19	12
TW-01	09/23/21	FD	1,200	1,400 J	<0.1 J	--	--	270 J	--	--	24	<0.0005	39 J	18	13
TW-01	09/30/21	N	--	--	<0.1 J	--	--	310 J	--	--	30	<0.0005	40	20	14
TW-01	10/07/21	N	1,300	1,300	0.79	37	1.4	260	--	<0.02	25 J	<0.0005	34	22 J	12
TW-01	10/07/21	FD	1,300	1,300	0.72	36	1.5	250	--	<0.02	26 J	<0.0005	34	21 J	12
TW-01	10/20/21	N	1,300	1,400	0.92	--	--	270 J	--	--	26	<0.0005	33	19	13
TW-01	10/20/21	FD	1,300	1,400	1	--	--	290 J	--	--	27	<0.0005	34	20	14
TW-01	11/02/21	N	1,300	1,300	1.1	38 J	1.4	280	--	<0.02	26 J	<0.0005	32	18 J	13
TW-01	11/02/21	FD	1,300	1,300	1	41 J	1.4	260	--	<0.02	25 J	<0.0005	31	18 J	14
TW-01	11/11/21	N	1,300	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	11/15/21	N	1,300	1,300	1.7 J	--	--	240	--	--	24 J	--	32 J	18 J	13
TW-01	11/22/21	N	1,200	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	12/02/21	N	1,200	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	12/08/21	N	1,200	1,300	0.76	--	--	--	--	--	--	<0.0005 J	31	--	13
TW-02D	02/19/20	N	740	670	--	--	--	--	--	--	--	0.14	18	--	3.4

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Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
TW-01	06/10/21	FD	1,400	1,200	9.3	--	<0.2	1,500	2.6	--	--	15	540	3,600	<1
TW-01	06/15/21	N	1,400	--	--	--	--	--	--	--	--	--	--	3,600	--
TW-01	06/16/21	N	1,400	--	--	--	--	--	--	--	--	--	--	3,500	--
TW-01	06/17/21	N	1,400	--	--	--	--	--	--	--	--	--	--	3,600	--
TW-01	06/18/21	N	1,400	--	--	--	--	--	--	--	--	--	--	3,600	--
TW-01	06/19/21	N	1,500	--	--	--	--	--	--	--	--	--	--	3,600	--
TW-01	06/20/21	N	1,500	--	--	--	--	--	--	--	--	--	--	3,600	--
TW-01	06/21/21	N	1,400	--	--	--	--	--	--	--	--	--	--	3,300	--
TW-01	06/28/21	N	1,500	1,100	11	--	<0.2	1,500	3.5	--	--	14	530	3,600	<10
TW-01	07/08/21	N	--	1,000	--	--	--	1,600	--	--	--	14	530	--	--
TW-01	07/12/21	N	1,500	1,000	--	--	--	1,600	--	--	--	14	520	3,800	--
TW-01	07/12/21	FD	1,500	1,100	--	--	--	1,600	--	--	--	15	520	3,700	--
TW-01	07/20/21	N	--	1,200	--	--	--	1,600	--	--	--	13	510	--	--
TW-01	07/26/21	N	1,400	1,200	--	--	--	1,600	--	--	--	14	510	3,900	--
TW-01	08/03/21	N	--	1,100	--	--	--	1,600	--	--	--	13	520	--	--
TW-01	08/16/21	N	1,400	1,100	10	--	<0.2	1,700	3.4	--	--	12	530	4,000	<5
TW-01	08/16/21	FD	1,400	1,300	10	--	<0.2	1,700	3.2	--	--	13	530	3,900	<1
TW-01	08/25/21	N	--	1,100	--	--	--	1,700	--	--	--	12	510	--	--
TW-01	09/01/21	N	--	1,200	--	--	--	1,700	3.5	--	--	12	510	4,000	--
TW-01	09/02/21	N	1,200	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	09/09/21	N	1,200	700 J	14	--	<0.2	1,700	3.5	--	--	12	510	4,000	<1
TW-01	09/09/21	FD	1,300	1,300 J	14	--	<0.2	1,700	3.4	--	--	11	500	4,100	<1
TW-01	09/15/21	N	--	1,200 J	--	--	--	1,700	--	--	--	12	520	--	--
TW-01	09/23/21	N	1,200	1,200	--	--	--	1,700	--	--	--	11	520	4,100	--
TW-01	09/23/21	FD	1,200	1,200	--	--	--	1,700	--	--	--	11	510	3,900	--
TW-01	09/30/21	N	--	1,300	--	--	--	1,700	--	--	--	15	540	--	--
TW-01	10/07/21	N	1,300	1,200	12	--	<0.2	1,800	3.9	--	--	11	520	3,800	<1
TW-01	10/07/21	FD	1,300	1,200	12	--	<0.2	1,800	4.2	--	--	12	510	4,000	<1
TW-01	10/20/21	N	1,300	1,200 J	--	--	--	1,800	--	--	--	11	510	3,900	--
TW-01	10/20/21	FD	1,300	1,300 J	--	--	--	1,800	--	--	--	11	520	3,900	--
TW-01	11/02/21	N	1,300	1,300 J	13	--	<0.2	1,800	3.8	--	--	11	510	3,900	<1
TW-01	11/02/21	FD	1,300	1,600 J	13	--	<0.2	1,700	4.1	--	--	11	510	4,000	<1
TW-01	11/11/21	N	1,300	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	11/15/21	N	1,300	1,200	--	--	--	1,800	--	--	--	11	500	3,800	--
TW-01	11/22/21	N	1,200	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	12/02/21	N	1,200	--	--	--	--	--	--	--	--	--	--	--	--
TW-01	12/08/21	N	1,200	--	--	--	--	--	--	--	--	11	--	--	--
TW-02D	02/19/20	N	740	--	--	260	--	1,400	--	--	--	--	390	3,400	--

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Total Dissolved Chromium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Barium (µg/L)	Dissolved Boron (mg/L)	Dissolved Calcium (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Manganese (mg/L)	Dissolved Molybdenum (µg/L)	Dissolved Potassium (mg/L)	Dissolved Selenium (µg/L)
TW-02D	07/08/21	N	340	370	--	--	--	190	--	<0.02	28	0.067	--	--	--
TW-02D	08/04/21	N	350	360	--	--	--	170	--	<0.02	20	0.052	--	--	--
TW-02D	09/08/21	N	27	35	--	--	--	200	--	<0.02	34 J	0.13	18	--	0.92
TW-02D	09/08/21	FD	27	34	--	--	--	--	--	--	--	0.14	18	--	0.73
TW-02D	03/09/22	N	64	62	5.8	52	--	--	--	0.039 J	--	0.14	92	--	0.63
TW-02S	03/09/22	N	110	99	1.4	42	--	--	--	0.031 J	--	<0.0005	9.7	--	2.5
TW-03D	01/08/20	N	470	460	--	--	--	190	--	<0.02	36	0.02	--	--	--
TW-03D	02/05/20	N	460	480	--	--	--	210	--	<0.02	41 J	0.021	--	--	--
TW-03D	03/04/20	N	450	390	--	--	--	230	--	<0.02	33	0.019 J	--	--	--
TW-03D	04/07/20	N	440	420	--	--	--	200	--	<0.1 J	30	0.021	--	--	--
TW-03D	05/05/20	N	450	410	--	--	--	200	--	<0.02	27	0.019	--	--	--
TW-03D	07/23/20	N	390	410	--	--	--	170	--	<0.02	27	0.019	--	--	--
TW-03D	08/04/20	N	440	430	--	--	--	190	--	<0.1	26	0.019	--	--	--
TW-03D	09/01/20	N	430	420	--	--	--	200	--	0.036 J	29	0.02	--	--	--
TW-03D	10/07/20	N	420	400	--	--	--	190	--	0.093 J	37 J	0.019	--	--	--
TW-03D	11/03/20	N	440	420	--	--	--	160	--	0.079 J	30	0.019	--	--	--
TW-03D	12/03/20	N	440	430	--	--	--	160 J	--	<0.02	32	0.017	--	--	--
TW-03D	01/06/21	N	440	410	--	--	--	180	--	<0.02	29	0.018	--	--	--
TW-03D	02/03/21	N	420	430	--	--	--	150	--	0.093 J	26	0.019	--	--	--
TW-03D	03/03/21	N	400	420	--	--	--	170 J	--	0.12 J	36 J	0.019	--	--	--
TW-03D	04/07/21	N	410	400	--	--	--	180	--	0.027	24 J	0.019	--	--	--
TW-03D	05/05/21	N	390	360	--	--	--	200	--	0.18 J	24	0.019	--	--	--
TW-03D	06/02/21	N	390	370	--	--	--	160 J	--	<0.02	26 J	0.019	--	--	--
TW-03D	10/07/21	N	390	380	--	--	--	210	--	<0.02	28	0.0071	--	--	--
TW-03D	11/02/21	N	400	390	--	--	--	230 J	--	<0.02	30	0.01	--	--	--
TW-03D	12/16/21	N	400	390	<0.1	36	--	--	--	<0.02	--	0.013	22	--	3.4
TW-03D	03/09/22	N	920	840	<0.1	42	--	--	--	<0.02 J	--	0.03	65	--	1.1
TW-04	06/25/20	N	3.7	4.1	--	--	--	--	--	--	--	0.07	41	--	0.58
TW-04	11/30/20	N	6.4	6.6	--	--	3.2 J	330 J	--	<0.1	71 J	0.048	56	--	0.63
TW-04	06/07/21	N	7.9	7.4	--	--	--	--	--	--	--	0.0063 J	28	--	<0.5
TW-04	12/06/21	N	9.1	9.3 J	--	--	--	--	--	--	--	--	--	--	--
TW-04	03/03/22	N	12	--	--	--	--	--	--	--	--	--	--	--	--
TW-05	06/25/20	N	12	12	--	--	--	--	--	--	--	0.0046	32	--	0.58
TW-05	12/07/20	N	18	16 J	--	--	2.5 J	380 J	--	<0.1 J	36 J	0.0015	25 J	--	0.96 J
TW-05	05/28/21	N	12	12	--	--	--	--	--	--	--	--	32	--	0.77
TW-05	12/13/21	N	14	15	<0.1	--	--	--	--	--	--	0.0014	--	--	--

Abbreviations:
-- = not applicable or not available
< = not detected at reporting limit, as shown
N = primary sample
FD = field duplicate
J = estimated concentration
mg/L= milligram(s) per liter

Appendix B
January 2020 to March 2022 Analytical Results
First Quarter 2022 Quarterly Progress Report
Pacific Gas and Electric Company,
Topock Compressor Station, Needles, California

Location ID	Sample Date	Sample Type	Hexavalent Chromium (µg/L)	Dissolved Sodium (mg/L)	Dissolved Vanadium (µg/L)	Alkalinity (mg/L)	Ammonia (as Nitrogen) (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate (as Nitrogen) (mg/L)	Nitrite (as Nitrogen) (mg/L)	Nitrate/ Nitrite as N (mg/L)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)
TW-02D	07/08/21	N	340	1,400	--	150	--	2,100	--	--	--	2.4	470	4,400	--
TW-02D	08/04/21	N	350	1,300	--	160	--	2,100	--	--	--	2.4	480	4,500	--
TW-02D	09/08/21	N	27	1,500	--	190	--	1,900	--	--	--	1.1	460	4,100	--
TW-02D	09/08/21	FD	27	--	--	190	--	1,900	--	--	--	--	460	4,200	--
TW-02D	03/09/22	N	64	--	--	--	<0.2	--	--	1.1	--	--	940	--	<50
TW-02S	03/09/22	N	110	--	--	--	<0.2	--	--	4	--	--	180	--	<1
TW-03D	01/08/20	N	470	1,800	--	160	--	2,100	--	--	--	2.6	510	4,500	--
TW-03D	02/05/20	N	460	1,300	--	150	--	2,200	--	--	--	2.5	510	4,500	--
TW-03D	03/04/20	N	450	1,400	--	160	--	2,100	--	--	--	2.9	500	4,600	--
TW-03D	04/07/20	N	440	1,500	--	170	--	2,100	--	--	--	2.9	500	4,700	--
TW-03D	05/05/20	N	450	1,400	--	160	--	2,300	--	--	--	3.4	500	4,700	--
TW-03D	07/23/20	N	390	1,400	--	150	--	2,100	--	--	--	2.3	490	4,500	--
TW-03D	08/04/20	N	440	1,300 J	--	150	--	2,100	--	--	--	2.5	490	4,600	--
TW-03D	09/01/20	N	430	1,400	--	150	--	2,000	--	--	--	2.9	470	4,500	--
TW-03D	10/07/20	N	420	1,500	--	150	--	2,100	--	--	--	2.8	480	4,400	--
TW-03D	11/03/20	N	440	1,500 J	--	150	--	2,000	--	--	--	2.5	470	4,300	--
TW-03D	12/03/20	N	440	1,600 J	--	160	--	2,000	--	--	--	--	480	4,500	--
TW-03D	01/06/21	N	440	1,500 J	--	150	--	2,100	--	--	--	2.8	470	4,400	--
TW-03D	12/03/20	N	440	1,600 J	--	160	--	2,000	--	--	--	--	480	4,500	--
TW-03D	01/06/21	N	440	1,500 J	--	150	--	2,100	--	--	--	2.8	470	4,400	--
TW-03D	02/03/21	N	420	1,300	--	150	--	2,100	--	--	--	3	500	4,400	--
TW-03D	03/03/21	N	400	1,500	--	140	--	2,100	--	--	--	2.6	480	4,400	--
TW-03D	04/07/21	N	410	1,500	--	150	--	2,100	--	--	--	2.8	490	4,400	--
TW-03D	05/05/21	N	390	1,400	--	160	--	2,100	--	--	--	2.6	470	4,400	--
TW-03D	06/02/21	N	390	1,600 J	--	160	--	2,000	--	--	--	2.7	480	4,300	--
TW-03D	10/07/21	N	390	1,500 J	--	150	--	2,100	--	--	--	2.4 J	480	4,400	--
TW-03D	11/02/21	N	400	1,400 J	--	150	--	2,100	--	--	--	2.6	480	4,500	--
TW-03D	12/16/21	N	400	--	--	--	<0.23	--	--	--	<5	2.4	500	--	<1
TW-03D	03/09/22	N	920	--	--	--	<0.2	--	--	1.5	--	--	920	--	<1
TW-04	06/25/20	N	3.7	--	--	--	--	--	--	--	--	--	--	--	--
TW-04	11/30/20	N	6.4	4,000 J	--	68	--	6,700	--	--	--	--	1,100	14,000	--
TW-04	06/07/21	N	7.9	--	--	--	--	--	--	--	--	--	--	--	--
TW-04	12/06/21	N	9.1	--	--	--	--	--	--	--	--	--	--	--	--
TW-04	03/03/22	N	12	--	--	--	--	--	--	--	--	--	--	--	--
TW-05	06/25/20	N	12	--	--	--	--	--	--	--	--	--	--	--	--
TW-05	12/07/20	N	18	2,600 J	--	38	--	5,200	--	--	--	--	600	11,000	--
TW-05	05/28/21	N	12	--	--	--	--	--	--	--	--	--	--	--	--
TW-05	12/13/21	N	14	--	--	--	--	--	--	--	--	--	--	--	--

Abbreviations:
-- = not applicable or not available
< = not detected at reporting limit, as shown
N = primary sample
FD = field duplicate
J = estimated concentration
mg/L= milligram(s) per liter

Appendix C

Laboratory Reports, First Quarter 2022

For additional help with the information provided in the lab reports, please contact Alison Schaffer, Arcadis Report Lead, at 303.471.3575

January 21, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N048719

RE: PG&E Topock - OMM, 30106892

Attention: Dan Bush

Enclosed are the results for sample(s) received on January 07, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM, 30106892
Lab Order: N048719

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM, 30106892
Lab Order: N048719
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N048719-001A	CAB_MIXER_606-010622	Groundwater	1/6/2022 11:05:00 AM	1/7/2022	1/21/2022
N048719-002A	CAB_MIXER_607-010622	Groundwater	1/6/2022 10:50:00 AM	1/7/2022	1/21/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_606-010622
Lab Order:	N048719	**Collection Date:**	1/6/2022 11:05:00 AM
Project:	PG&E Topock - OMM, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N048719-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220120A**	QC Batch: **R159677**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	5.9	0.084	1.0		mg/L	1	1/20/2022 02:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_607-010622
Lab Order:	N048719	**Collection Date:**	1/6/2022 10:50:00 AM
Project:	PG&E Topock - OMM, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N048719-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220120A**	QC Batch: **R159677**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	8.0	0.084	1.0		mg/L	1	1/20/2022 02:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N048719
Project: PG&E Topock - OMM, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R159677**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159677**
Client ID: **PBW**	Batch ID: **R159677**	TestNo: **SM 5310C**		Analysis Date: **1/20/2022**	SeqNo: **4504789**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R159677**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159677**
Client ID: **LCSW**	Batch ID: **R159677**	TestNo: **SM 5310C**		Analysis Date: **1/20/2022**	SeqNo: **4504790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.718	1.0	5.000	0	94.4	85	115				

Sample ID: **N048736-001C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159677**
Client ID: **ZZZZZZ**	Batch ID: **R159677**	TestNo: **SM 5310C**		Analysis Date: **1/20/2022**	SeqNo: **4504816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.671	1.0	5.000	0.2449	88.5	75	125				

Sample ID: **N048736-001C-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159677**
Client ID: **ZZZZZZ**	Batch ID: **R159677**	TestNo: **SM 5310C**		Analysis Date: **1/20/2022**	SeqNo: **4504817**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.803	1.0	5.000	0.2449	91.2	75	125	4.671	2.77	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

ARCUS02
FOLDER
N048719-003A

C: 1/21/2022 12:00 AM
R: 1/7/2022
1 of 1

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB; Global ID:
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@criticen.com	Address:	Sample Receipt Condition: 1. Chilled ✓; 2. Headspace; 3. Container Intact ✓; 4. Seal Present ✓; 5. IR number 3; 6. Method of Cooling: Ice
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330, Roseville, CA 95661	Email to: mbloes@pivox.com	P.O.# SWA-ASSET-C9817-051
Submitted By:	Phone: 916-786-3302 Fax:	Phone: 949-727-1400. ext 200	Fax:
Title: Document Preparer	Sampled By: Kevin Ashley	Sample Temp: 2-8°C	
Signature: Date: 1-6-22	Signature: Date: 1-6-22	Courier: ASSET	
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may	Tracking No.:	
Project Name: PG&E Topock - OMM			
Project Number: 30106892			

Matrix: Ground x Sediment; Potable Soil; NPDES Other Solid; Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered 250 mL poly	Silica (EPA6010), HNO3; Filtered 16 oz poly	Hardness SM 2340B), HNO3 18 oz poly	Ammonia as Nitrogen (SM4500-NH3C); H2SO4 18 oz poly	Total Kjeldahl Nitrogen (SM4500-Norg); H2SO4 16 oz poly	Biochemical Oxygen Demand (SM5210Bg); None 32 oz poly	Nitrate, Bromide, Nitrite, Sulfate, Fluoride, Chloride, Phosphate (EPA 300.0) 1 liter poly	Total Dissolved Solids (SM92540) 1 liter poly	Sulfide (SM2330B); ZnAc/NaOH 16 oz poly	Alkalinity Total (2320B); None 32 oz poly	Bicarbonate (SM 2320B); None 32 oz poly	Biological Activity Test (HACH); None 32 oz poly	Carbonate (SM 2320B); None 32 oz poly	Modified Fouling Index (ASTM); None 32 oz poly	Total Organic Carbon (SM5310C); H2SO4 40mL poly	Mercury Dissolved (EPA7470A) HNO3; Filtered 500 mL poly	Dissolved metals Title 22 (SW 6020), HNO3; filtered 500 mL poly	Calcium, Magnesium, Potassium, Sodium, Iron (SW6010B); HNO3 500 mL poly	Mercury (SW 7470A); HNO3 500 mL poly	Total metals Title 22 (SW 6020), HNO3 500 mL poly	Total Phophorus(EPA365.3) H2SO4 8 oz poly	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N048719-01	CAB_MIXER_606-010622	1-6-22	1050A																X							E	3	PV	BNS	
2	-02	CAB_MIXER_607-010622	1-6-22	1050A																X							E	3	PV	BNS	
3																																	
4																																	
5																																	
6																																	
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13																																	
14																																	

Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Kevin Ashley	1-6-22 16:15	Jones, Deeda	1-6-22 16:15
[signature]	1-6-22 18:10	[signature]	1-6-22 18:10
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35% 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of reports needed
9. For subcontract analysis, TAT and Surcharges will vary.

White=Laboratory Copy

Turn Around Time (TAT)
- A = < 24 Hrs or Same Day TAT
- B = Next Workday
- C = 2 Workdays
- D = 3 Workdays
- X E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:
Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Preservatives:			
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B	(NH4)2SO4/NH4OH	

Container Type:		
T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/7/2022	Workorder:	N048719
Rep sample Temp (Deg C):	2.8	IR Gun ID:	3

Temp Blank: ☑ Yes ☐ No

Carrier name: ASSET

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 1/12/2022

Reviewed By: MBC 1/11/2022

Subject: RE: PG&E Topock - OMM, 30106892 (ASSET Labs No. N048719)
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 1/11/2022, 9:36 AM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>
CC: Tina Rice <Tina.Rice@critigen.com>, "rustico.aquino@assetlaboratoriesph.com" <rustico.aquino@assetlaboratoriesph.com>, "maryann.balilu@assetlaboratoriesph.com" <maryann.balilu@assetlaboratoriesph.com>

Hi Yoandra,
We collected them on 1/6 and I believe Marlon picked them up on 1/7 from our sample fridge in the trailer. So the date the courier used when he picked them up should be 1/7, unless I'm mistaken.

Thanks,
Laura

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Tuesday, January 11, 2022 10:53 AM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: Tina Rice <Tina.Rice@critigen.com>; rustico.aquino@assetlaboratoriesph.com; maryann.balilu@assetlaboratoriesph.com
Subject: Fwd: PG&E Topock - OMM, 30106892 (ASSET Labs No. N048719)

Hi Laura,

Please follow up.

Thanks,

-------- Forwarded Message --------
Subject:PG&E Topock - OMM, 30106892 (ASSET Labs No. N048719)
Date: Mon, 10 Jan 2022 12:30:53 -0800
From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
To: Madsen, Laura <Laura.Madsen@arcadis.com>
CC:maryann.balilu@assetlaboratoriesph.com <maryann.balilu@assetlaboratoriesph.com>, rustico.aquino@assetlaboratoriesph.com <rustico.aquino@assetlaboratoriesph.com>, giselle@assetlaboratories.com <giselle@assetlaboratories.com>

Hi Laura,

Please kindly check the attached COC. It should be relinquished on 1/7/22 instead 1/6/22.

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

ASSET Laboratories

WORK ORDER Summary

10-Jan-22

WorkOrder: N048719

Client ID: ARCUS02

Project: PG&E Topock - OMM, 30106892 **QC Level:** Level IV **Date Received:** 1/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N048719-001A	CAB_MIXER_606-010622	1/6/2022 11:05:00 AM	1/21/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N048719-002A	CAB_MIXER_607-010622	1/6/2022 10:50:00 AM	1/21/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N048719-003A	FOLDER	1/21/2022	1/21/2022		Folder	Folder	☐	☐	☐	LAB
			1/21/2022		Folder	Level IV Report	☐	☐	☐	LAB
			1/21/2022		Folder	Folder	☐	☐	☐	LAB

February 08, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049097

RE: PG&E Topock - PCM, 30110373.4Q21GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on January 25, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049097

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049097
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049097-001A	IRZ-23-0122	Groundwater	1/25/2022 10:00:00 AM	1/25/2022	2/8/2022
N049097-001B	IRZ-23-0122	Groundwater	1/25/2022 10:00:00 AM	1/25/2022	2/8/2022
N049097-001C	IRZ-23-0122	Groundwater	1/25/2022 10:00:00 AM	1/25/2022	2/8/2022
N049097-001D	IRZ-23-0122	Groundwater	1/25/2022 10:00:00 AM	1/25/2022	2/8/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-23-0122
Lab Order:	N049097	**Collection Date:**	1/25/2022 10:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049097-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220126A**	QC Batch: **R159854**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	780	2.5	20		µg/L	100	1/26/2022 02:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R159854	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	PBW	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515176		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	ND	0.20											

Sample ID	LCS-R159854	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	LCSW	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515177		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	4.904	0.20	5.000	0	98.1	90	110						

Sample ID	N049100-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	ZZZZZZ	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515179		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	44.347	1.0	25.00	19.22	100	90	110						

Sample ID	N049100-001AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	ZZZZZZ	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515180		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	44.052	1.0	25.00	19.22	99.3	90	110	44.35	0.669	20			

Sample ID	N049097-001ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	ZZZZZZ	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515184		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	786.320	20						779.1	0.920	20			

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049097-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1304.700	20	500.0	779.1	105	90	110				

Sample ID **N049099-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515187**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1137.700	20	500.0	636.2	100	90	110				

Sample ID **N049099-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515189**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1161.300	20	500.0	630.4	106	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-23-0122
Lab Order:	N049097	**Collection Date:**	1/25/2022 10:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049097-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220126A**	QC Batch: **R159841**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	1/26/2022 03:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **MB-R159841**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **PBW**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513810**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID **LCS-R159841**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **LCSW**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.691	1.0	5.000	0	93.8	85	115				

Sample ID **N049034-017C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.966	1.0	5.000	0.6162	87.0	75	125				

Sample ID **N049034-017C-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.049	1.0	5.000	0.6162	88.7	75	125	4.966	1.67	20	

Sample ID **N049034-022C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.947	1.0	5.000	0.3673	91.6	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **N049034-022C-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513817**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.014	1.0	5.000	0.3673	92.9	75	125	4.947	1.35	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049097-001

Client Sample ID: IRZ-23-0122
Collection Date: 1/25/2022 10:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220131B**	QC Batch: **91264**			PrepDate:		**1/31/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	1/31/2022 01:33 PM
TOTAL METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220131C**	QC Batch: **91263**			PrepDate:		**1/31/2022**	Analyst: **DJ**
Iron	130	13	20		µg/L	1	1/31/2022 02:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	LCS1-91264	SampType:	LCS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	LCSW	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518475

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	112.531	20	100.0	0	113	85	115				

Sample ID	N049097-001B-MS1	SampType:	MS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	ZZZZZZ	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518479

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	103.350	20	100.0	19.07	84.3	75	125				

Sample ID	N049097-001B-MSD	SampType:	MSD	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	ZZZZZZ	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518480

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	116.931	20	100.0	19.07	97.9	75	125	103.4	12.3	20	

Sample ID	MB-91264	SampType:	MBLK	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	PBW	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518494

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WPGEPPB

Sample ID	MB-91263	SampType:	MBLK	TestCode:	6010_WPGE	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159919
Client ID:	PBW	Batch ID:	91263	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518921

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID	LCS1-91263	SampType:	LCS	TestCode:	6010_WPGE	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159919
Client ID:	LCSW	Batch ID:	91263	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518922

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	106.595	20	100.0	0	107	85	115				

Sample ID	N049097-001D-MS1	SampType:	MS	TestCode:	6010_WPGE	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159919
Client ID:	ZZZZZZ	Batch ID:	91263	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518926

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	205.767	20	100.0	126.8	78.9	75	125				

Sample ID	N049097-001D-MSD	SampType:	MSD	TestCode:	6010_WPGE	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159919
Client ID:	ZZZZZZ	Batch ID:	91263	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518927

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	222.128	20	100.0	126.8	95.3	75	125	205.8	7.65	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *08-Feb-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-23-0122
Lab Order:	N049097	**Collection Date:**	1/25/2022 10:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049097-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220131B**	QC Batch: **91251**			PrepDate:	**1/28/2022**		Analyst: **CEI**
Manganese	ND	0.026	0.50		µg/L	1	1/31/2022 06:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049097
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	MB-91251	SampType:	MBLK	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	PBW	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519642

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Sample ID	LCS-91251	SampType:	LCS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	LCSW	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519643

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	99.509	0.50	100.0	0	99.5	85	115				

Sample ID	N049097-001B-MS	SampType:	MS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	ZZZZZZ	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519649

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	90.453	0.50	100.0	0	90.5	75	125				

Sample ID	N049097-001B-MSD	SampType:	MSD	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	ZZZZZZ	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519651

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	89.941	0.50	100.0	0	89.9	75	125	90.45	0.568	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition	Y N
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	1. Chilled	✓
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Geotracker	RWQCB ✓	2. Headspace	
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	3. Container Intact	✓
Submitted By: B Pound		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	4. Seal Present	✓
Title: Engineer	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	5. IR number	3
Signature: Date: 1/25/22	Sampled By: B Pound		Global ID:	Regulatory	6. Method of Cooling: ICE	
I hereby authorize ASSET Labs to perform the tests indicated below.	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*			Specify State:	Sample Temp: 2.3 °C	
Project Name: PG&E Topock - PCM	Signature: Date: 1/25/22				Courier: ASSET	
Project Number: 30110373.4Q21GW					Tracking No.:	

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate/Nitrite (SM4500NO3) Nitrogen; H2SO4 (125 mL poly)	Dissolved metals (SW6020) FF; HNO3 Iron, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049097-01	IRZ-23-012522	1/25/22	1000		X		X			X	X	E	2	P	BNS	
2													E	2	P	BNS	
3													E	6	P	BNS	
4													E	6	P	BNS	
5													E	1	P	BNS	
													E	1	P	BNS	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Brian Pound	1/25/22 1030	ALFONSO ALCANTARA	1/25/22 1100
ALFONSO ALCANTARA	1/25/22 1415	Giselle Garcia	1/25/22 1415
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B	(NH4)2SO4/NH4OH		M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/25/2022	Workorder:	N049097
Rep sample Temp (Deg C):	2.3	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 1/25/2022

Reviewed By: MBC 1/28/2022

Subject: RE: N049097, N049098, N049099, and N049100 COCs and Work Order Summaries for Samples Received 1/25/2022
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 1/27/2022, 8:49 AM
To: ASSET Sample Control CA <samplecontrol@assetlaboratories.com>, "yoandra@assetlaboratories.com" <yoandra@assetlaboratories.com>, "marlon@assetlaboratories.com" <marlon@assetlaboratories.com>
CC: Tina Rice <Tina.Rice@critigen.com>

Hi Yoandra,
Can we change the sample ID for Sample N049097-01 to end in “0122” rather than “012522”?

Thanks,
Laura

From: ASSET Sample Control CA <samplecontrol@assetlaboratories.com>
Sent: Wednesday, January 26, 2022 9:44 PM
To: Bush, Dan <Dan.Bush@arcadis.com>; Dan Moore <Daniel.Moore@critigen.com>; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: Tina Rice <Tina.Rice@critigen.com>; Harmon, Alison <Ali.Harmon@arcadis.com>; Serna, Erica <Erica.Serna@arcadis.com>; Bloes, Marty <mbloes@pivox.com>; ntep@blainetech.com
Subject: N049097, N049098, N049099, and N049100 COCs and Work Order Summaries for Samples Received 1/25/2022

Hi Dan Bush:

Enclosed are COC and WO Summary for samples received 1/25/2022. If you have any questions, please contact your Project Manager listed below.

A new column “Matrix_Spike” has been added in the excel file. If the “MS/MSD” field is ticked when logging in the testcode, the “Matrix_Spike” column will be marked ”YES”.

Marlon Cartin
3151 W. Post Road
Las Vegas, Nevada
89118
Tel. No.: (702)-307-2659 Ext. 410
Cel. No.: (702)-439-0421
Email: marlon@assetlaboratories.com

Thank you for using ASSET Laboratories.

Sincerely,
Mary Ann Balilu
Sample Control Officer

ASSET Laboratories

WORK ORDER Summary

28-Jan-22

WorkOrder: N049097

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 1/25/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049097-001A	IRZ-23-0122	1/25/2022 10:00:00 AM	2/8/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049097-001B			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049097-001C			2/8/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049097-001D			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6010B	TOTAL METALS BY ICP	☐	☐	☐	WW
N049097-002A	FOLDER	2/8/2022	2/8/2022		Folder	Folder	☐	☐	☐	LAB
			2/8/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/8/2022		Folder	Folder	☐	☐	☐	LAB

February 04, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049098

RE: PG&E Topock - OMM CAB, 30106892

Attention: Dan Bush

Enclosed are the results for sample(s) received on January 25, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM CAB, 30106892
Lab Order: N049098

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in QC samples N049241-001D-MS and N049241-001D-MSD are outside recovery criteria at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049241-001 and MS/MSD were reported at 25x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM CAB, 30106892
Lab Order: N049098
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049098-001A	CAB_MIXER_606-012422	Groundwater	1/24/2022 11:00:00 AM	1/25/2022	2/4/2022
N049098-002A	CAB_MIXER_607-012422	Groundwater	1/24/2022 11:11:00 AM	1/25/2022	2/4/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_606-012422
Lab Order:	N049098	**Collection Date:**	1/24/2022 11:00:00 AM
Project:	PG&E Topock - OMM CAB, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049098-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220126A**	QC Batch: **R159841**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	3.0	0.084	1.0		mg/L	1	1/26/2022 03:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_607-012422
Lab Order:	N049098	**Collection Date:**	1/24/2022 11:11:00 AM
Project:	PG&E Topock - OMM CAB, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049098-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	3.7	0.084	1.0		mg/L	1	2/2/2022 03:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049098
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R159841**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **PBW**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513810**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R159841**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **LCSW**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.691	1.0	5.000	0	93.8	85	115				

Sample ID: **N049034-017C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.966	1.0	5.000	0.6162	87.0	75	125				

Sample ID: **N049034-017C-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.049	1.0	5.000	0.6162	88.7	75	125	4.966	1.67	20	

Sample ID: **N049034-022C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.947	1.0	5.000	0.3673	91.6	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049098
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **N049034-022C-MSD** SampType: **MSD** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **159841**
Client ID: **ZZZZZZ** Batch ID: **R159841** TestNo: **SM 5310C** Analysis Date: **1/26/2022** SeqNo: **4513817**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.014	1.0	5.000	0.3673	92.9	75	125	4.947	1.35	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049098
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R159977** SampType: **MBLK** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **159977**
Client ID: **PBW** Batch ID: **R159977** TestNo: **SM 5310C** Analysis Date: **2/2/2022** SeqNo: **4521846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R159977** SampType: **LCS** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **159977**
Client ID: **LCSW** Batch ID: **R159977** TestNo: **SM 5310C** Analysis Date: **2/2/2022** SeqNo: **4521847**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.046	1.0	5.000	0	101	85	115				

Sample ID: **N049241-001D-MS** SampType: **MS** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **159977**
Client ID: **ZZZZZZ** Batch ID: **R159977** TestNo: **SM 5310C** Analysis Date: **2/3/2022** SeqNo: **4522458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	125.023	25	125.0	0	100	75	125				

Sample ID: **N049241-001D-MSD** SampType: **MSD** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **159977**
Client ID: **ZZZZZZ** Batch ID: **R159977** TestNo: **SM 5310C** Analysis Date: **2/3/2022** SeqNo: **4522459**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	122.318	25	125.0	0	97.9	75	125	125.0	2.19	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓ (Specify: RWQCB)
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95678	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Suite 200, Roseville, CA 95678	Email to: mbloes@pivox.com	P.O.# SWA-ASSET-C9817-051
Submitted By: Brian Pound	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200	Fax:
Title: Engineer			Global ID:
Signature: Date: 1/24/22	Sampled By: B Pound		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.		
Project Name: PG&E Topock - OMM CAB	Signature:	Date: 1/29/22	
Project Number: 30106892			

Matrix: Ground x; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Sample Receipt Condition

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present		✓
5. IR number	3	
6. Method of Cooling: ICE		

Sample Temp: 2.3°C

Courier: ASSET

Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	250 mL poly: Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered	16 oz poly: Silica (EPA6010), HNO3; Filtered	16 oz poly: Hardness SM 2340B), HNO3	16 oz poly: Ammonia as Nitrogen (SM4500-NH3C); H2SO4	16 oz poly: Total Kjeldahl Nitrogen (SM4500-Norg); H2SO4	32 oz poly: Biochemical Oxygen Demand (SM5210Bg); None	1 liter poly: Nitrate, Bromide, Nitrite, Sulfate, Fluoride, Chloride, Phosphate (EPA 300.0)	1 liter poly: Total Dissolved Solids (SM92540)	16 oz poly: Sulfide (SM2320B); ZnAc/NaOH	32 oz poly: Alkalinity Total (2320B); None	32 oz poly: Bicarbonate (SM 2320B); None	32 oz poly: Biological Activity Test (HACH); None	32 oz poly: Carbonate (SM 2320B); None	32 oz poly: Modified Fouling Index (ASTM); None	3x40 mL poly: Total Organic Carbon (SM5310C); H2SO4	500 mL poly: Mercury Dissolved (EPA7470A) HNO3; Filtered	500 mL poly: Dissolved metals Title 22 (SW 6020), HNO3; filtered	500 mL poly: Calcium, Magnesium, Potassium, Sodium, Iron (SW6010B); HNO3	500 mL poly: Mercury (SW 7470A); HNO3	500 mL poly: Total metals Title 22 (SW 6020), HNO3	8 oz poly: Total Phosphorus(EPA365.3) H2SO4	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049098-01	CAB_MIXER_606-012422	1/24	1100																X							E	3	PV	BNS	0.04 gal/min
2	-02	CAB_MIXER_607-012422	1/24	1131																X							E	3	PV	BNS	0.08-0.10 gal/min
3																																
4																																
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14																																

Relinquished by (Signature and Printed Name): Brian Pound Date/Time: 1/24/22 1700

Received by (Signature and Printed Name): [illegible] 1/25/22 1100

Relinquished by (Signature and Printed Name): [illegible] 1/25/22 1415

Received by (Signature and Printed Name): Giselle Garcia Date/Time: 1/25/22 1415

Relinquished by (Signature and Printed Name): Date/Time:

Received by (Signature and Printed Name): Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms

1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/25/2022	Workorder:	N049098
Rep sample Temp (Deg C):	2.3	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 1/25/2022

Reviewed By: MBC 1/28/2022

ASSET Laboratories

WORK ORDER Summary

28-Jan-22

WorkOrder: N049098

Client ID: ARCUS02

Project: PG&E Topock - OMM CAB, 30106892 **QC Level:** Level IV **Date Received:** 1/25/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049098-001A	CAB_MIXER_606-012422	1/24/2022 11:00:00 AM	2/8/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049098-002A	CAB_MIXER_607-012422	1/24/2022 11:11:00 AM	2/8/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049098-003A	FOLDER	2/8/2022	2/8/2022		Folder	Folder	☐	☐	☐	LAB
			2/8/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/8/2022		Folder	Folder	☐	☐	☐	LAB

February 10, 2022

Brian Prowd
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049099

RE: PG&E Topock - OMM TCS PWTF, 30106892

Attention: Brian Prowd

Enclosed are the results for sample(s) received on January 25, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 6020_Total:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049099-001C-MS and N049099-001C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *10-Feb-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab Order: N049099
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049099-001A	Backwash Pre-filter-012522	Water	1/25/2022 9:40:00 AM	1/25/2022	2/10/2022
N049099-001B	Backwash Pre-filter-012522	Water	1/25/2022 9:40:00 AM	1/25/2022	2/10/2022
N049099-001C	Backwash Pre-filter-012522	Water	1/25/2022 9:40:00 AM	1/25/2022	2/10/2022
N049099-002A	Backwash Post-filter-012522	Water	1/25/2022 9:50:00 AM	1/25/2022	2/10/2022
N049099-002B	Backwash Post-filter-012522	Water	1/25/2022 9:50:00 AM	1/25/2022	2/10/2022
N049099-002C	Backwash Post-filter-012522	Water	1/25/2022 9:50:00 AM	1/25/2022	2/10/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-012522
Lab Order:	N049099	**Collection Date:**	1/25/2022 9:40:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049099-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220126A**	QC Batch: **R159854**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	640	2.5	20		µg/L	100	1/26/2022 02:57 PM
TOTAL METALS BY ICPMS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220131C**	QC Batch: **91252**			PrepDate:	**1/28/2022**		Analyst: **CEI**
Chromium	640	0.18	5.0		µg/L	5	1/31/2022 08:59 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-012522
Lab Order:	N049099	**Collection Date:**	1/25/2022 9:50:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049099-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220126A**	QC Batch: **R159854**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	630	2.5	20		µg/L	100	1/26/2022 03:16 PM
TOTAL METALS BY ICPMS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220131C**	QC Batch: **91252**			PrepDate:	**1/28/2022**		Analyst: **CEI**
Chromium	650	0.18	5.0		µg/L	5	1/31/2022 10:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049099
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R159854	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	PBW	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515176		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	ND	0.20											

Sample ID	LCS-R159854	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	LCSW	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515177		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	4.904	0.20	5.000	0	98.1	90	110						

Sample ID	N049100-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	ZZZZZZ	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515179		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	44.347	1.0	25.00	19.22	100	90	110						

Sample ID	N049100-001AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	ZZZZZZ	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515180		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	44.052	1.0	25.00	19.22	99.3	90	110	44.35	0.669	20			

Sample ID	N049097-001ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159854		
Client ID:	ZZZZZZ	Batch ID:	R159854	TestNo:	EPA 218.6			Analysis Date:	1/26/2022	SeqNo:	4515184		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	786.320	20						779.1	0.920	20			

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049099
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049097-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1304.700	20	500.0	779.1	105	90	110				

Sample ID **N049099-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515187**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1137.700	20	500.0	636.2	100	90	110				

Sample ID **N049099-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515189**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1161.300	20	500.0	630.4	106	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049099
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID	MB-91252	SampType:	MBLK	TestCode:	6020_W_CRP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159941
Client ID:	PBW	Batch ID:	91252	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519784

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID	LCS-91252	SampType:	LCS	TestCode:	6020_W_CRP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159941
Client ID:	LCSW	Batch ID:	91252	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519785

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.181	1.0	10.00	0	102	85	115				

Sample ID	N049099-001C-MS	SampType:	MS	TestCode:	6020_W_CRP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159941
Client ID:	ZZZZZZ	Batch ID:	91252	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519792

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	665.963	5.0	10.00	641.8	242	75	125				S

Sample ID	N049099-001C-MSD	SampType:	MSD	TestCode:	6020_W_CRP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159941
Client ID:	ZZZZZZ	Batch ID:	91252	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519796

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	678.123	5.0	10.00	641.8	363	75	125	666.0	1.81	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049099
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID	**N049099-001C-PS**	SampType: **PS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date:	RunNo: **159941**
Client ID:	**ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	658.202	5.0	10.00	641.8	164	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-012522
Lab Order:	N049099	**Collection Date:**	1/25/2022 9:40:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049099-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220131B**	QC Batch: **91264**				PrepDate:	**1/31/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	1/31/2022 02:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-012522
Lab Order:	N049099	**Collection Date:**	1/25/2022 9:50:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049099-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220210A**	QC Batch: **91264**				PrepDate:	**1/31/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/10/2022 02:43 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049099
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	LCS1-91264	SampType:	LCS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	LCSW	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518475

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	112.531	20	100.0	0	113	85	115				

Sample ID	N049097-001B-MS1	SampType:	MS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	ZZZZZZ	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518479

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	103.350	20	100.0	19.07	84.3	75	125				

Sample ID	N049097-001B-MSD	SampType:	MSD	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	ZZZZZZ	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518480

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	116.931	20	100.0	19.07	97.9	75	125	103.4	12.3	20	

Sample ID	MB-91264	SampType:	MBLK	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	1/31/2022	RunNo:	159912
Client ID:	PBW	Batch ID:	91264	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4518494

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-012522
Lab Order:	N049099	**Collection Date:**	1/25/2022 9:40:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049099-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220131B**	QC Batch: **91251**			PrepDate:		**1/28/2022**	Analyst: **CEI**
Manganese	4.8	0.026	0.50		µg/L	1	1/31/2022 07:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-012522
Lab Order:	N049099	**Collection Date:**	1/25/2022 9:50:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049099-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220131B**	QC Batch: **91251**			PrepDate:	**1/28/2022**		Analyst: **CEI**
Manganese	4.8	0.026	0.50		µg/L	1	1/31/2022 07:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049099
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	MB-91251	SampType:	MBLK	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	PBW	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519642

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Sample ID	LCS-91251	SampType:	LCS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	LCSW	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519643

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	99.509	0.50	100.0	0	99.5	85	115				

Sample ID	N049097-001B-MS	SampType:	MS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	ZZZZZZ	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519649

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	90.453	0.50	100.0	0	90.5	75	125				

Sample ID	N049097-001B-MSD	SampType:	MSD	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	1/28/2022	RunNo:	159940
Client ID:	ZZZZZZ	Batch ID:	91251	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	1/31/2022	SeqNo:	4519651

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	89.941	0.50	100.0	0	89.9	75	125	90.45	0.568	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Brian Prowd	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95678	Email: brian.prowd@arcadis.com daniel.moore@crdgen.com	Address:	Geotracker	RWQCB ✓	1. Chilled Y
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Ste 200 Roseville, CA 95678	Email to: mbloes@pivox.com P.O.# SWA-ASSET-C9817-051	Labspec	CalTrans	2. Headspace
Submitted By: B Prowd		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact Y
Title: Driver	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	4. Seal Present Y
Signature: Date: 1/25/22	Sampled By: B Prowd		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.			Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - OMM TCS PWTF	Signature: Date: 1/25/22				Sample Temp: 2.3°C
Project Number: 30106892					Courier: ASSET Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Matrix: Ground	Matrix: Sediment	Matrix: Potable	Matrix: Soil	Matrix: NPDES	Matrix: Other Solid	Matrix: Surface	Matrix: Water	250 mL poly: Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered	500 mL poly: Dissolved metals: iron, manganese (SW6020) HN03; Filtered	500 mL poly: Total chromium (SW6020) HN03; NOT Filtered	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049099-01	Backwash Pre-filter--012522	1/25/22	940										x	x	x	E	2	PV	BNS	
2	-02	Backwash Post-filter-012522	1/25/22	950										x	x	x	E	2	PV	BNS	
3																	E	2	PV	BNS	
4																	E	2	PV	BNS	
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

Relinquished by (Signature and Printed Name): Brian Prowd	Date/Time: 1/25/22 1000	Received by (Signature and Printed Name): Ronco Alcantara	Date/Time: 1/25/22 1100
Relinquished by (Signature and Printed Name): Ronco Alcantara 1/25/22	Date/Time: 1415	Received by (Signature and Printed Name): Cyrille Ponce	Date/Time: 1/25/22 1415
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms

1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B	(NH4)2SO4/NH4OH		M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/25/2022	Workorder:	N049099
Rep sample Temp (Deg C):	2.3	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 1/25/2022

Reviewed By: MBC 1/28/2022

ASSET Laboratories

WORK ORDER Summary

28-Jan-22

WorkOrder: N049099

Client ID: ARCUS02

Project: PG&E Topock - OMM TCS PWTF, 30106892 **QC Level:** Level IV **Date Received:** 1/25/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049099-001A	Backwash Pre-filter-012522	1/25/2022 9:40:00 AM	2/8/2022	Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049099-001B			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049099-001C			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049099-002A	Backwash Post-filter-012522	1/25/2022 9:50:00 AM	2/8/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049099-002B			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049099-002C			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049099-003A	FOLDER	2/8/2022	2/8/2022		Folder	Folder	☐	☐	☐	LAB
			2/8/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/8/2022		Folder	Folder	☐	☐	☐	LAB

February 14, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049100

RE: PG&E Topock- Rem Well Baseline, 30106892

Attention: Dan Bush

Enclosed are the results for sample(s) received on January 25, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab Order: N049100

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Ammonia, TKN, BOD and Sulfide were subcontracted to BC Labs- Bakersfield, CA.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of sample upon the addition of eluent.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Orthophosphate, Dissolved (as P) in QC samples N049100-001EMS and N049100-001EMSD possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6010B_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery and RPD criteria for Silica in QC samples N049097-001B-MS1, N049097-001B-MSD1 possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Matrix Spike Duplicate (MSD) is outside recovery criteria for some analytes in QC samples N049097-001B-MSD1 and N049100-001I-MSD2 since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6010B_Total:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049097-001D-MS1, N049097-001D-MSD1, N049100-001J-MS2 and N049100-001J-MSD2 since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049097-001B-MS and N049097-001B-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049097-001B-MSand N049097-001B-MSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Nickel at lower dilution possibly due to matrix interference. The whole batch was re-digested and reanalyzed for Nickel and PS/MS/MSD at 25x dilution was recovered at above 70%. Thus sample reference and MS/MSD were reported at 25x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020_Total:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049099-001C-MS and N049099-001C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049099-001C-MS, N049099-001C-MSD and N049100-001JMS possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Nickel at lower

dilution possibly due to matrix interference. The whole batch was re-digested and reanalyzed for Nickel and PS/MS/MSD at 25x dilution was recovered at above 70%. Thus sample reference and MS/MSD were reported at 25x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab Order: N049100
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049100-001A	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001B	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001C	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001D	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001E	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001F	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001G	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001H	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001I	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001J	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022
N049100-001K	IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	1/25/2022	2/14/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-09-100-012522
Lab Order:	N049100	**Collection Date:**	1/25/2022 9:30:00 AM
Project:	PG&E Topock- Rem Well Baseline, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049100-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL FILTERABLE RESIDUE							
			SM2540C				
RunID: **NV00922-WC_220127C**	QC Batch: **91242**			PrepDate:	**1/27/2022**		Analyst: **LR**
Total Dissolved Solids (Residue, Filterable)	6800	100	100		mg/L	1	1/27/2022 02:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.1_2540C_W

Sample ID: **LCS-91242**	SampType: **LCS**	TestCode: **160.1_2540C_**	Units: **mg/L**	Prep Date: **1/27/2022**	RunNo: **159884**
Client ID: **LCSW**	Batch ID: **91242**	TestNo: **SM2540C**		Analysis Date: **1/27/2022**	SeqNo: **4517072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	994.000	10	1000	0	99.4	80	120				

Sample ID: **MB-91242**	SampType: **MBLK**	TestCode: **160.1_2540C_**	Units: **mg/L**	Prep Date: **1/27/2022**	RunNo: **159884**
Client ID: **PBW**	Batch ID: **91242**	TestNo: **SM2540C**		Analysis Date: **1/27/2022**	SeqNo: **4517073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	ND	10									

Sample ID: **N049100-001EDUP**	SampType: **DUP**	TestCode: **160.1_2540C_**	Units: **mg/L**	Prep Date: **1/27/2022**	RunNo: **159884**
Client ID: **ZZZZZZ**	Batch ID: **91242**	TestNo: **SM2540C**		Analysis Date: **1/27/2022**	SeqNo: **4517075**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	6510.000	100						6790	4.21	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab ID: N049100-001

Client Sample ID: IRZ-09-100-012522
Collection Date: 1/25/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220126A** QC Batch: **R159854**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	19	0.13	1.0		µg/L	5	1/26/2022 01:41 PM
TOTAL METALS BY ICPMS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220131C** QC Batch: **91252**				PrepDate:	**1/28/2022**		Analyst: **CEI**
Chromium	18	0.035	1.0		µg/L	1	1/31/2022 10:10 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220131B** QC Batch: **91251**				PrepDate:	**1/28/2022**		Analyst: **CEI**
Chromium	18	0.035	1.0		µg/L	1	1/31/2022 08:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R159854**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **PBW**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515176**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R159854**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **LCSW**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.904	0.20	5.000	0	98.1	90	110				

Sample ID: **N049100-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515179**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	44.347	1.0	25.00	19.22	100	90	110				

Sample ID: **N049100-001AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515180**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	44.052	1.0	25.00	19.22	99.3	90	110	44.35	0.669	20	

Sample ID: **N049097-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515184**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	786.320	20						779.1	0.920	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049097-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1304.700	20	500.0	779.1	105	90	110				

Sample ID: **N049099-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515187**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1137.700	20	500.0	636.2	100	90	110				

Sample ID: **N049099-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159854**
Client ID: **ZZZZZZ**	Batch ID: **R159854**	TestNo: **EPA 218.6**		Analysis Date: **1/26/2022**	SeqNo: **4515189**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1161.300	20	500.0	630.4	106	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **MB-91252**	SampType: **MBLK**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159941**
Client ID: **PBW**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519784**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91252**	SampType: **LCS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159941**
Client ID: **LCSW**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.181	1.0	10.00	0	102	85	115				

Sample ID: **N049099-001C-MS**	SampType: **MS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159941**
Client ID: **ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	665.963	5.0	10.00	641.8	242	75	125				S

Sample ID: **N049099-001C-MSD**	SampType: **MSD**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159941**
Client ID: **ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519796**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	678.123	5.0	10.00	641.8	363	75	125	666.0	1.81	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91251**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159940**
Client ID: **PBW**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519577**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91251**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159940**
Client ID: **LCSW**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519578**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.265	1.0	10.00	0	103	85	115				

Sample ID: **N049097-001B-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159940**
Client ID: **ZZZZZZ**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519585**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	762.670	5.0	10.00	770.3	-76.8	75	125				S

Sample ID: **N049097-001B-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159940**
Client ID: **ZZZZZZ**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519589**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	784.974	5.0	10.00	770.3	146	75	125	762.7	2.88	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **N049099-001C-PS** SampType: **PS** TestCode: **6020_W_CRP** Units: **µg/L** Prep Date: RunNo: **159941**
Client ID: **ZZZZZZ** Batch ID: **91252** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	658.202	5.0	10.00	641.8	164	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **N049097-001B-PS**	SampType: **PS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **159940**
Client ID: **ZZZZZZ**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519583**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	795.349	5.0	10.00	770.3	250	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-09-100-012522
Lab Order:	N049100	**Collection Date:**	1/25/2022 9:30:00 AM
Project:	PG&E Topock- Rem Well Baseline, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049100-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ALKALINITY, SPECIATED							
			SM 2320 B				
RunID: **NV00922-WC_220129A**	QC Batch: **R159894**			PrepDate:			Analyst: **LR**
Alkalinity, Bicarbonate (As CaCO3)	52	1.2	5.0		mg/L	1	1/29/2022 10:00 AM
Alkalinity, Carbonate (As CaCO3)	ND	1.2	5.0		mg/L	1	1/29/2022 10:00 AM
Alkalinity, Total (As CaCO3)	52	1.2	5.0		mg/L	1	1/29/2022 10:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 2320_W_SP

Sample ID: **LCS-R159894** SampType: **LCS** TestCode: **2320_W_SP** Units: **mg/L** Prep Date: RunNo: **159894**
Client ID: **LCSW** Batch ID: **R159894** TestNo: **SM 2320 B** Analysis Date: **1/29/2022** SeqNo: **4517394**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	97.077	5.0	100.0	0	97.1	85	115				
Alkalinity, Total (As CaCO3)	97.077	5.0	100.0	0	97.1	85	115				

Sample ID: **MB-R159894** SampType: **MBLK** TestCode: **2320_W_SP** Units: **mg/L** Prep Date: RunNo: **159894**
Client ID: **PBW** Batch ID: **R159894** TestNo: **SM 2320 B** Analysis Date: **1/29/2022** SeqNo: **4517395**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	5.0									
Alkalinity, Carbonate (As CaCO3)	ND	5.0									
Alkalinity, Total (As CaCO3)	ND	5.0									

Sample ID: **N049100-001EDUP** SampType: **DUP** TestCode: **2320_W_SP** Units: **mg/L** Prep Date: RunNo: **159894**
Client ID: **ZZZZZZ** Batch ID: **R159894** TestNo: **SM 2320 B** Analysis Date: **1/29/2022** SeqNo: **4517397**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	51.148	5.0						52.19	2.02	30	
Alkalinity, Carbonate (As CaCO3)	ND	5.0						0	0	30	
Alkalinity, Total (As CaCO3)	51.148	5.0						52.19	2.02	30	

Sample ID: **N049100-001EMS** SampType: **MS** TestCode: **2320_W_SP** Units: **mg/L** Prep Date: RunNo: **159894**
Client ID: **ZZZZZZ** Batch ID: **R159894** TestNo: **SM 2320 B** Analysis Date: **1/29/2022** SeqNo: **4517398**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	145.094	5.0	100.0	52.19	92.9	75	125				
Alkalinity, Total (As CaCO3)	145.094	5.0	100.0	52.19	92.9	75	125				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 2320_W_SP

Sample ID: **N049100-001EMSD**	SampType: **MSD**	TestCode: **2320_W_SP**	Units: **mg/L**	Prep Date:	RunNo: **159894**
Client ID: **ZZZZZZ**	Batch ID: **R159894**	TestNo: **SM 2320 B**		Analysis Date: **1/29/2022**	SeqNo: **4517399**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	146.138	5.0	100.0	52.19	93.9	75	125	145.1	0.717	20	
Alkalinity, Total (As CaCO3)	146.138	5.0	100.0	52.19	93.9	75	125	145.1	0.717	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab ID: N049100-001

Client Sample ID: IRZ-09-100-012522
Collection Date: 1/25/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Bromide	ND	0.23	5.0		mg/L	10	1/26/2022 02:15 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Chloride	3000	65	500		mg/L	1000	1/26/2022 06:30 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Fluoride	3.2	0.13	1.0		mg/L	10	1/26/2022 02:15 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Nitrogen, Nitrite	ND	0.029	5.0		mg/L	10	1/26/2022 02:15 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Orthophosphate, Dissolved (as P)	ND	0.93	1.0		mg/L	10	1/26/2022 02:15 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Sulfate	480	3.0	25		mg/L	50	1/26/2022 06:46 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220126A** QC Batch: **R159836**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.8	0.095	0.50		mg/L	10	1/26/2022 02:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_BRPGE

Sample ID: **MB-R159836_BR**	SampType: **MBLK**	TestCode: **300_W_BRP**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **PBW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521072**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	0.50									

Sample ID: **LCS-R159836_BR**	SampType: **LCS**	TestCode: **300_W_BRP**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **LCSW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	1.174	0.50	1.250	0	93.9	90	110				

Sample ID: **N049100-001EMS**	SampType: **MS**	TestCode: **300_W_BRP**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521075**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	12.831	5.0	12.50	0	103	80	120				

Sample ID: **N049100-001EMSD**	SampType: **MSD**	TestCode: **300_W_BRP**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521076**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	12.599	5.0	12.50	0	101	80	120	12.83	1.83	20	

Sample ID: **N049100-001EDUP**	SampType: **DUP**	TestCode: **300_W_BRP**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521077**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	ND	5.0						0	0	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_CLPGE

Sample ID: **MB-R159836_CL**	SampType: **MBLK**	TestCode: **300_W_CLPG**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **PBW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521007**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.50									

Sample ID: **LCS-R159836_CL**	SampType: **LCS**	TestCode: **300_W_CLPG**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **LCSW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1.970	0.50	2.000	0	98.5	90	110				

Sample ID: **N049092-001FMS**	SampType: **MS**	TestCode: **300_W_CLPG**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521012**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	271.590	25	100.0	172.2	99.4	80	120				

Sample ID: **N049092-001FMSD**	SampType: **MSD**	TestCode: **300_W_CLPG**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	271.835	25	100.0	172.2	99.7	80	120	271.6	0.0902	20	

Sample ID: **N049093-001HDUP**	SampType: **DUP**	TestCode: **300_W_CLPG**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521015**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	179.395	25						179.1	0.153	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_FPGE

Sample ID: **MB-R159836_F** SampType: **MBLK** TestCode: **300_W_FPGE** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **PBW** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4520995**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.10									

Sample ID: **LCS-R159836_F** SampType: **LCS** TestCode: **300_W_FPGE** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **LCSW** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4520996**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.253	0.10	1.250	0	100	90	110				

Sample ID: **N049100-001EMS** SampType: **MS** TestCode: **300_W_FPGE** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **ZZZZZZ** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4520998**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	15.960	1.0	12.50	3.180	102	80	120				

Sample ID: **N049100-001EMSD** SampType: **MSD** TestCode: **300_W_FPGE** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **ZZZZZZ** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4520999**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	16.220	1.0	12.50	3.180	104	80	120	15.96	1.62	20	

Sample ID: **N049100-001EDUP** SampType: **DUP** TestCode: **300_W_FPGE** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **ZZZZZZ** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4521000**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	3.120	1.0						3.180	1.90	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_NO2PGE

Sample ID: **MB-R159836_NO2**	SampType: **MBLK**	TestCode: **300_W_NO2P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **PBW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521021**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	ND	0.50									

Sample ID: **LCS-R159836_NO2**	SampType: **LCS**	TestCode: **300_W_NO2P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **LCSW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521022**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	1.251	0.50	1.250	0	100	90	110				

Sample ID: **N049100-001EDUP**	SampType: **DUP**	TestCode: **300_W_NO2P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521025**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	ND	5.0						0	0	20	

Sample ID: **N049093-001HMS**	SampType: **MS**	TestCode: **300_W_NO2P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521028**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	5.491	2.5	6.250	0	87.9	80	120				

Sample ID: **N049093-001HMSD**	SampType: **MSD**	TestCode: **300_W_NO2P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	5.534	2.5	6.250	0	88.5	80	120	5.491	0.780	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_PO4PGE

Sample ID: **MB-R159836_PO4**	SampType: **MBLK**	TestCode: **300_W_PO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **PBW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate, Dissolved (as P)	ND	0.10									

Sample ID: **LCS-R159836_PO4**	SampType: **LCS**	TestCode: **300_W_PO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **LCSW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521047**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate, Dissolved (as P)	1.159	0.10	1.250	0	92.7	90	110				

Sample ID: **N049100-001EMS**	SampType: **MS**	TestCode: **300_W_PO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521049**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate, Dissolved (as P)	20.956	1.0	12.50	0	168	80	120				S

Sample ID: **N049100-001EMSD**	SampType: **MSD**	TestCode: **300_W_PO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521050**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate, Dissolved (as P)	23.231	1.0	12.50	0	186	80	120	20.96	10.3	20	S

Sample ID: **N049100-001EDUP**	SampType: **DUP**	TestCode: **300_W_PO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521051**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Orthophosphate, Dissolved (as P)	ND	1.0						0	0	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **MB-R159836_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **PBW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **LCS-R159836_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **LCSW**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521059**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.946	0.50	4.000	0	98.6	90	110				

Sample ID: **N049092-001FMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	441.360	25	200.0	247.1	97.2	80	120				

Sample ID: **N049092-001FMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521064**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	448.285	25	200.0	247.1	101	80	120	441.4	1.56	20	

Sample ID: **N049093-001HDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **159836**
Client ID: **ZZZZZZ**	Batch ID: **R159836**	TestNo: **EPA 300.0**		Analysis Date: **1/26/2022**	SeqNo: **4521066**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	238.290	25						234.5	1.60	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R159836_NO3** SampType: **MBLK** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **PBW** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4521034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R159836_NO3** SampType: **LCS** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **LCSW** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4521035**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.178	0.050	1.250	0	94.3	90	110				

Sample ID: **N049100-001EMS** SampType: **MS** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **ZZZZZZ** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4521037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.864	0.50	12.50	1.843	96.2	80	120				

Sample ID: **N049100-001EMSD** SampType: **MSD** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **ZZZZZZ** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4521038**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.633	0.50	12.50	1.843	94.3	80	120	13.86	1.68	20	

Sample ID: **N049100-001EDUP** SampType: **DUP** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **159836**
Client ID: **ZZZZZZ** Batch ID: **R159836** TestNo: **EPA 300.0** Analysis Date: **1/26/2022** SeqNo: **4521039**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.795	0.50						1.843	2.64	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-09-100-012522
Lab Order:	N049100	**Collection Date:**	1/25/2022 9:30:00 AM
Project:	PG&E Topock- Rem Well Baseline, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049100-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL PHOSPHORUS							
			EPA 365.3				
RunID: **NV00922-WC_220131A**	QC Batch: **91232**			PrepDate:		**1/26/2022**	Analyst: **CEI**
Phosphorus, Total (As P)	ND	0.0062	0.020		mg/L	1	1/31/2022

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 365.3_W_T

Sample ID: **LCS-91232**	SampType: **LCS**	TestCode: **365.3_W_T**	Units: **mg/L**	Prep Date: **1/26/2022**	RunNo: **159906**
Client ID: **LCSW**	Batch ID: **91232**	TestNo: **EPA 365.3**		Analysis Date: **1/31/2022**	SeqNo: **4518132**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	0.401	0.020	0.4000	0	100	80	120				

Sample ID: **MB-91232**	SampType: **MBLK**	TestCode: **365.3_W_T**	Units: **mg/L**	Prep Date: **1/26/2022**	RunNo: **159906**
Client ID: **PBW**	Batch ID: **91232**	TestNo: **EPA 365.3**		Analysis Date: **1/31/2022**	SeqNo: **4518133**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	ND	0.020									

Sample ID: **N049100-001K-MS**	SampType: **MS**	TestCode: **365.3_W_T**	Units: **mg/L**	Prep Date: **1/26/2022**	RunNo: **159906**
Client ID: **ZZZZZZ**	Batch ID: **91232**	TestNo: **EPA 365.3**		Analysis Date: **1/31/2022**	SeqNo: **4518139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	0.398	0.020	0.4000	0	99.5	80	120				

Sample ID: **N049100-001K-MSD**	SampType: **MSD**	TestCode: **365.3_W_T**	Units: **mg/L**	Prep Date: **1/26/2022**	RunNo: **159906**
Client ID: **ZZZZZZ**	Batch ID: **91232**	TestNo: **EPA 365.3**		Analysis Date: **1/31/2022**	SeqNo: **4518140**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total (As P)	0.401	0.020	0.4000	0	100	80	120	0.3980	0.751	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-09-100-012522
Lab Order:	N049100	**Collection Date:**	1/25/2022 9:30:00 AM
Project:	PG&E Topock- Rem Well Baseline, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049100-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220126A**	QC Batch: **R159841**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	1/26/2022 03:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R159841**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **PBW**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513810**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R159841**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **LCSW**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.691	1.0	5.000	0	93.8	85	115				

Sample ID: **N049034-017C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.966	1.0	5.000	0.6162	87.0	75	125				

Sample ID: **N049034-017C-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.049	1.0	5.000	0.6162	88.7	75	125	4.966	1.67	20	

Sample ID: **N049034-022C-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.947	1.0	5.000	0.3673	91.6	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **N049034-022C-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159841**
Client ID: **ZZZZZZ**	Batch ID: **R159841**	TestNo: **SM 5310C**		Analysis Date: **1/26/2022**	SeqNo: **4513817**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.014	1.0	5.000	0.3673	92.9	75	125	4.947	1.35	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab ID: N049100-001

Client Sample ID: IRZ-09-100-012522
Collection Date: 1/25/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HARDNESS BY CALCULATION							
	EPA 3010A			**SM 2340 B**			
RunID: **NV00922-ICP2_220131B**	QC Batch: **91264**			PrepDate:	**1/31/2022**		Analyst: **DJ**
Hardness, Calcium (As CaCO3)	830	0.50	0.50		mg/L	1	1/31/2022 02:21 PM
Hardness, Magnesium (As CaCO3)	110	0.50	0.50		mg/L	1	1/31/2022 02:21 PM
Total Hardness (As CaCO3)	940	1.0	1.0		mg/L	1	1/31/2022 02:21 PM
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220202A**	QC Batch: **91264**			PrepDate:	**1/31/2022**		Analyst: **DJ**
Silica (SiO2)	31	0.081	0.50		mg/L	5	2/2/2022 11:30 AM
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220211A**	QC Batch: **91264**			PrepDate:	**1/31/2022**		Analyst: **DJ**
Aluminum	ND	20	50		µg/L	1	2/11/2022 04:03 PM
Iron	ND	13	20		µg/L	1	2/10/2022 02:48 PM
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220131B**	QC Batch: **91264**			PrepDate:	**1/31/2022**		Analyst: **DJ**
Boron	1.0	0.035	0.10		mg/L	1	1/31/2022 02:21 PM
Calcium	330	0.18	0.50		mg/L	1	2/11/2022 04:03 PM
Magnesium	27	0.017	0.10		mg/L	1	1/31/2022 02:21 PM
Potassium	19	0.69	2.5		mg/L	5	2/3/2022 10:24 AM
Sodium	1900	85	120		mg/L	250	2/3/2022 10:33 AM
TOTAL METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220211B**	QC Batch: **91263**			PrepDate:	**1/31/2022**		Analyst: **DJ**
Aluminum	ND	20	50		µg/L	1	2/11/2022 04:08 PM
Boron	970	35	100		µg/L	1	1/31/2022 03:03 PM
Calcium	310000	180	500		µg/L	1	2/11/2022 04:08 PM
Iron	ND	13	20		µg/L	1	1/31/2022 03:03 PM
Magnesium	26000	17	100		µg/L	1	1/31/2022 03:03 PM
Potassium	21000	690	2500		µg/L	5	2/3/2022 11:14 AM
Sodium	2000000	85000	120000		µg/L	250	2/3/2022 11:22 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference
- Results are wet unless otherwise specified
- DO Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WD_SiO2

Sample ID: **MB-91264**	SampType: **MBLK**	TestCode: **6010_WD_Si**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159954**
Client ID: **PBW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/2/2022**	SeqNo: **4520471**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silica (SiO2)	ND	0.10									

Sample ID: **N049097-001B-MS1**	SampType: **MS**	TestCode: **6010_WD_Si**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159954**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/2/2022**	SeqNo: **4520477**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silica (SiO2)	56.259	0.50	10.70	21.66	323	75	125				S

Sample ID: **N049097-001B-MSD**	SampType: **MSD**	TestCode: **6010_WD_Si**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159954**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/2/2022**	SeqNo: **4520478**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silica (SiO2)	74.722	0.50	10.70	21.66	496	75	125	56.26	28.2	20	SR

Sample ID: **LCS1-91264**	SampType: **LCS**	TestCode: **6010_WD_Si**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159954**
Client ID: **LCSW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/2/2022**	SeqNo: **4520480**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silica (SiO2)	10.191	0.10	10.70	0	95.2	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **LCS1-91264**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **LCSW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518475**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9512.107	50	10000	0	95.1	85	115				
Iron	112.531	20	100.0	0	113	85	115				

Sample ID: **N049097-001B-MS1**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518479**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10640.440	50	10000	48.86	106	75	125				
Iron	103.350	20	100.0	19.07	84.3	75	125				

Sample ID: **N049097-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518480**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10822.138	50	10000	48.86	108	75	125	10640	1.69	20	
Iron	116.931	20	100.0	19.07	97.9	75	125	103.4	12.3	20	

Sample ID: **MB-91264**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **PBW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518494**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	50									
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPM

Sample ID: **LCS1-91264**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **LCSW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518676**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	4.689	0.10	5.000	0	93.8	85	115				
Calcium	8.902	0.50	10.00	0	89.0	85	115				
Magnesium	9.514	0.10	10.00	0	95.1	85	115				

Sample ID: **N049097-001B-MS1**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	5.998	0.10	5.000	1.003	99.9	75	125				
Calcium	281.138	0.50	10.00	273.0	81.9	75	125				
Magnesium	39.163	0.10	10.00	29.77	93.9	75	125				

Sample ID: **N049097-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	6.067	0.10	5.000	1.003	101	75	125	5.998	1.15	20	
Calcium	288.827	0.50	10.00	273.0	159	75	125	281.1	2.70	20	S
Magnesium	39.625	0.10	10.00	29.77	98.6	75	125	39.16	1.17	20	

Sample ID: **MB-91264**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159912**
Client ID: **PBW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518695**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.10									
Calcium	ND	0.50									
Magnesium	ND	0.10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPM

Sample ID: **MB-91264**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **PBW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522247**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	ND	0.50									
Sodium	ND	0.50									

Sample ID: **LCS2-91264**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **LCSW**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522248**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	19.626	0.50	20.00	0	98.1	85	115				
Sodium	19.503	0.50	20.00	0	97.5	85	115				

Sample ID: **N049100-001I-MS2**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522255**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	39.761	2.5	20.00	18.74	105	75	125				

Sample ID: **N049100-001I-MS2**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522256**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1892.114	120	20.00	1873	95.2	75	125				

Sample ID: **N049100-001I-MSD2**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	38.873	2.5	20.00	18.74	101	75	125	39.76	2.26	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPM

Sample ID: **N049100-001I-MSD2** SampType: **MSD** TestCode: **6010_WDPGE** Units: **mg/L** Prep Date: **1/31/2022** RunNo: **159992**
Client ID: **ZZZZZZ** Batch ID: **91264** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **2/3/2022** SeqNo: **4522260**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1978.488	120	20.00	1873	527	75	125	1892	4.46	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WPGEPPB

Sample ID: **MB-91263**	SampType: **MBLK**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159919**
Client ID: **PBW**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518921**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	50									
Boron	ND	100									
Calcium	ND	500									
Iron	ND	20									
Magnesium	ND	100									

Sample ID: **LCS1-91263**	SampType: **LCS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159919**
Client ID: **LCSW**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9572.156	50	10000	0	95.7	85	115				
Boron	4716.114	100	5000	0	94.3	85	115				
Calcium	8926.009	500	10000	0	89.3	85	115				
Iron	106.595	20	100.0	0	107	85	115				
Magnesium	9566.879	100	10000	0	95.7	85	115				

Sample ID: **N049097-001D-MS1**	SampType: **MS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159919**
Client ID: **ZZZZZZ**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518926**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10531.112	50	10000	34.81	105	75	125				
Boron	5974.685	100	5000	991.4	99.7	75	125				
Calcium	267306.249	500	10000	277700	-104	75	125				S
Iron	205.767	20	100.0	126.8	78.9	75	125				
Magnesium	38491.074	100	10000	29520	89.8	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WPGEPPB

Sample ID: **N049097-001D-MSD**	SampType: **MSD**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159919**
Client ID: **ZZZZZZ**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518927**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10646.427	50	10000	34.81	106	75	125	10530	1.09	20	
Boron	6044.763	100	5000	991.4	101	75	125	5975	1.17	20	
Calcium	274031.698	500	10000	277700	-36.6	75	125	267300	2.48	20	S
Iron	222.128	20	100.0	126.8	95.3	75	125	205.8	7.65	20	
Magnesium	39314.074	100	10000	29520	98.0	75	125	38490	2.12	20	

Sample ID: **MB-91263**	SampType: **MBLK**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **PBW**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522298**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	ND	500									
Sodium	ND	500									

Sample ID: **LCS2-91263**	SampType: **LCS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **LCSW**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522299**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	19511.865	500	20000	0	97.6	85	115				
Sodium	18760.228	500	20000	0	93.8	85	115				

Sample ID: **N049100-001J-MS2**	SampType: **MS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522308**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	40607.663	2500	20000	20720	99.4	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WPGEPPB

Sample ID: **N049100-001J-MS2**	SampType: **MS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522309**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1445600.140	120000	20000	2010000	-2820	75	125				S

Sample ID: **N049100-001J-MSD2**	SampType: **MSD**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522310**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	37715.312	2500	20000	20720	85.0	75	125	40610	7.39	20	

Sample ID: **N049100-001J-MSD2**	SampType: **MSD**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **1/31/2022**	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91263**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522311**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1397800.642	120000	20000	2010000	-3060	75	125	1446000	3.36	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WD_SiO2

Sample ID: **N049097-001B-PS** SampType: **PS** TestCode: **6010_WD_Si** Units: **mg/L** Prep Date: RunNo: **159954**
Client ID: **ZZZZZZ** Batch ID: **91264** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **2/2/2022** SeqNo: **4520476**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silica (SiO2)	57.241	0.50	10.70	21.66	333	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **N049097-001B-PS** SampType: **PS** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **159912**
Client ID: **ZZZZZZ** Batch ID: **91264** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4518478**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10680.285	50	10000	48.86	106	80	120				
Iron	117.158	20	100.0	19.07	98.1	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPM

Sample ID: **N049097-001B-PS**	SampType: **PS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date:	RunNo: **159912**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4518679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	6.006	0.10	5.000	1.003	100	80	120				
Calcium	282.299	0.50	10.00	273.0	93.5	80	120				
Magnesium	39.449	0.10	10.00	29.77	96.8	80	120				

Sample ID: **N049100-001I-PS**	SampType: **PS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date:	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522253**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	117.461	2.5	100.0	18.74	98.7	80	120				

Sample ID: **N049100-001I-PS**	SampType: **PS**	TestCode: **6010_WDPGE**	Units: **mg/L**	Prep Date:	RunNo: **159992**
Client ID: **ZZZZZZ**	Batch ID: **91264**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4522254**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	6943.030	120	5000	1873	101	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WPGEPPB

Sample ID: **N049097-001D-PS** SampType: **PS** TestCode: **6010_WPGEP** Units: **µg/L** Prep Date: RunNo: **159919**
Client ID: **ZZZZZZ** Batch ID: **91263** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4518925**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10541.367	50	10000	34.81	105	80	120				
Boron	5986.557	100	5000	991.4	99.9	80	120				
Calcium	268778.526	500	10000	277700	-89.1	80	120				S
Iron	215.239	20	100.0	126.8	88.4	80	120				
Magnesium	39057.965	100	10000	29520	95.4	80	120				

Sample ID: **N049100-001J-PS** SampType: **PS** TestCode: **6010_WPGEP** Units: **µg/L** Prep Date: RunNo: **159992**
Client ID: **ZZZZZZ** Batch ID: **91263** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **2/3/2022** SeqNo: **4522304**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	117778.065	2500	100000	20720	97.1	80	120				

Sample ID: **N049100-001J-PS** SampType: **PS** TestCode: **6010_WPGEP** Units: **µg/L** Prep Date: RunNo: **159992**
Client ID: **ZZZZZZ** Batch ID: **91263** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **2/3/2022** SeqNo: **4522305**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	6828284.155	120000	5000000	2010000	96.4	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Client Sample ID: IRZ-09-100-012522
Lab Order: N049100
Collection Date: 1/25/2022 9:30:00 AM
Project: PG&E Topock- Rem Well Baseline, 30106892
Matrix: GROUNDWATER
Lab ID: N049100-001

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A				**EPA 6020**		
RunID: **NV00922-ICP8_220131B**	QC Batch: **91251**				PrepDate:	**1/28/2022**	Analyst: **CEI**
Antimony	ND	0.22	0.50		µg/L	1	1/31/2022 08:00 PM
Arsenic	ND	0.050	0.10		µg/L	1	1/31/2022 08:00 PM
Barium	75	0.083	1.0		µg/L	1	1/31/2022 08:00 PM
Beryllium	ND	0.030	0.50		µg/L	1	1/31/2022 08:00 PM
Cadmium	ND	0.045	0.50		µg/L	1	1/31/2022 08:00 PM
Cobalt	ND	0.017	0.50		µg/L	1	1/31/2022 08:00 PM
Copper	5.2	0.046	1.0		µg/L	1	2/9/2022 07:51 PM
Lead	ND	0.018	1.0		µg/L	1	1/31/2022 08:00 PM
Manganese	2.7	0.026	0.50		µg/L	1	1/31/2022 08:00 PM
Molybdenum	13	0.12	0.50		µg/L	1	1/31/2022 08:00 PM
Nickel	ND	0.86	25		µg/L	1	2/3/2022 01:39 PM
Selenium	0.83	0.044	0.50		µg/L	1	2/9/2022 07:51 PM
Silver	ND	0.028	0.50		µg/L	1	2/3/2022 12:26 PM
Thallium	ND	0.12	0.50		µg/L	1	1/31/2022 08:00 PM
Vanadium	3.0	0.067	1.0		µg/L	1	1/31/2022 08:00 PM
Zinc	ND	0.26	10		µg/L	1	1/31/2022 08:00 PM
TOTAL METALS BY ICPMS							
	EPA 3010A				**EPA 6020**		
RunID: **NV00922-ICP8_220131C**	QC Batch: **91252**				PrepDate:	**1/28/2022**	Analyst: **CEI**
Antimony	ND	0.22	0.50		µg/L	1	1/31/2022 10:10 PM
Arsenic	ND	0.050	0.10		µg/L	1	1/31/2022 10:10 PM
Barium	64	0.083	1.0		µg/L	1	2/3/2022 06:44 PM
Beryllium	ND	0.030	0.50		µg/L	1	2/3/2022 06:44 PM
Cadmium	ND	0.045	0.50		µg/L	1	1/31/2022 10:10 PM
Cobalt	ND	0.017	0.50		µg/L	1	1/31/2022 10:10 PM
Copper	ND	0.046	1.0		µg/L	1	2/3/2022 06:44 PM
Lead	ND	0.018	1.0		µg/L	1	1/31/2022 10:10 PM
Manganese	2.6	0.026	0.50		µg/L	1	1/31/2022 10:10 PM
Molybdenum	13	0.12	0.50		µg/L	1	1/31/2022 10:10 PM
Nickel	ND	0.86	25		µg/L	1	2/3/2022 03:55 PM
Selenium	0.92	0.044	0.50		µg/L	1	2/3/2022 06:44 PM
Silver	ND	0.028	0.50		µg/L	1	2/3/2022 02:44 PM
Thallium	ND	0.12	0.50		µg/L	1	1/31/2022 10:10 PM
Vanadium	2.9	0.067	1.0		µg/L	1	1/31/2022 10:10 PM
Zinc	ND	0.26	10		µg/L	1	1/31/2022 10:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91251** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159940**
Client ID: **PBW** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.50									
Arsenic	ND	0.10									
Barium	ND	1.0									
Beryllium	ND	0.50									
Cadmium	ND	0.50									
Cobalt	ND	0.50									
Lead	ND	1.0									
Manganese	ND	0.50									
Molybdenum	ND	0.50									
Selenium	ND	0.50									
Thallium	ND	0.50									
Vanadium	ND	1.0									
Zinc	ND	10									

Sample ID: **LCS-91251** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159940**
Client ID: **LCSW** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	9.834	0.50	10.00	0	98.3	85	115				
Arsenic	10.104	0.10	10.00	0	101	85	115				
Barium	9.871	1.0	10.00	0	98.7	85	115				
Beryllium	9.521	0.50	10.00	0	95.2	85	115				
Cadmium	10.052	0.50	10.00	0	101	85	115				
Cobalt	9.945	0.50	10.00	0	99.5	85	115				
Lead	10.325	1.0	10.00	0	103	85	115				
Manganese	99.509	0.50	100.0	0	99.5	85	115				
Molybdenum	10.085	0.50	10.00	0	101	85	115				
Selenium	9.150	0.50	10.00	0	91.5	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **LCS-91251** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159940**
Client ID: **LCSW** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	9.817	0.50	10.00	0	98.2	85	115				
Vanadium	10.083	1.0	10.00	0	101	85	115				
Zinc	99.466	10	100.0	0	99.5	85	115				

Sample ID: **N049097-001B-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159940**
Client ID: **ZZZZZZ** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.096	0.50	10.00	0	101	75	125				
Arsenic	11.855	0.10	10.00	0.5140	113	75	125				
Barium	59.312	1.0	10.00	48.88	104	75	125				
Beryllium	7.179	0.50	10.00	0	71.8	75	125				S
Cadmium	9.853	0.50	10.00	0	98.5	75	125				
Cobalt	8.549	0.50	10.00	0.1026	84.5	75	125				
Lead	10.060	1.0	10.00	0.05954	100	75	125				
Manganese	90.453	0.50	100.0	0	90.5	75	125				
Molybdenum	21.207	0.50	10.00	10.27	109	75	125				
Selenium	17.614	0.50	10.00	8.627	89.9	75	125				
Thallium	9.654	0.50	10.00	0	96.5	75	125				
Vanadium	17.493	1.0	10.00	8.036	94.6	75	125				
Zinc	89.813	10	100.0	0	89.8	75	125				

Sample ID: **N049097-001B-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159940**
Client ID: **ZZZZZZ** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.361	0.50	10.00	0	104	75	125	10.10	2.59	20	
Arsenic	11.844	0.10	10.00	0.5140	113	75	125	11.86	0.0972	20	
Barium	58.652	1.0	10.00	48.88	97.7	75	125	59.31	1.12	20	
Beryllium	7.225	0.50	10.00	0	72.2	75	125	7.179	0.638	20	S

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049097-001B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159940**
Client ID: **ZZZZZZ**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	9.767	0.50	10.00	0	97.7	75	125	9.853	0.876	20	
Cobalt	8.589	0.50	10.00	0.1026	84.9	75	125	8.549	0.464	20	
Lead	10.055	1.0	10.00	0.05954	100	75	125	10.06	0.0454	20	
Manganese	89.941	0.50	100.0	0	89.9	75	125	90.45	0.568	20	
Molybdenum	21.112	0.50	10.00	10.27	108	75	125	21.21	0.448	20	
Selenium	16.456	0.50	10.00	8.627	78.3	75	125	17.61	6.80	20	
Thallium	9.599	0.50	10.00	0	96.0	75	125	9.654	0.579	20	
Vanadium	17.463	1.0	10.00	8.036	94.3	75	125	17.49	0.171	20	
Zinc	88.016	10	100.0	0	88.0	75	125	89.81	2.02	20	

Sample ID: **MB-91251**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160140**
Client ID: **PBW**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/9/2022**	SeqNo: **4530276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	1.0									

Sample ID: **LCS-91251**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160140**
Client ID: **LCSW**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/9/2022**	SeqNo: **4530277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.928	1.0	10.00	0	99.3	85	115				

Sample ID: **N049097-001B-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160140**
Client ID: **ZZZZZZ**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/9/2022**	SeqNo: **4530281**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.540	1.0	10.00	0	75.4	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049097-001B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160140**
Client ID: **ZZZZZZ**	Batch ID: **91251**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/9/2022**	SeqNo: **4530282**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.191	1.0	10.00	0	71.9	75	125	7.540	4.74	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91316**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **PBW**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	1.0									
Silver	ND	0.50									

Sample ID: **LCS-91316**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **LCSW**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524326**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	9.835	1.0	10.00	0	98.3	85	115				
Silver	10.400	0.50	10.00	0	104	85	115				

Sample ID: **N049100-001I-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524330**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	9.802	0.50	10.00	0.04659	97.6	75	125				

Sample ID: **N049100-001I-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524331**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	9.688	0.50	10.00	0.04659	96.4	75	125	9.802	1.16	20	

Sample ID: **N049100-001I-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	193.272	25	250.0	0	77.3	75	125				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049100-001I-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524343**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	189.455	25	250.0	0	75.8	75	125	193.3	1.99	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **MB-91252**	SampType: **MBLK**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159941**
Client ID: **PBW**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519848**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.50									
Arsenic	ND	0.10									
Barium	ND	1.0									
Cadmium	ND	0.50									
Cobalt	ND	0.50									
Lead	ND	1.0									
Manganese	ND	0.50									
Molybdenum	ND	0.50									
Selenium	ND	0.50									
Thallium	ND	0.50									
Vanadium	ND	1.0									
Zinc	ND	10									

Sample ID: **LCS-91252**	SampType: **LCS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **159941**
Client ID: **LCSW**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.109	0.50	10.00	0	101	85	115				
Arsenic	10.354	0.10	10.00	0	104	85	115				
Barium	10.160	1.0	10.00	0	102	85	115				
Cadmium	10.021	0.50	10.00	0	100	85	115				
Cobalt	9.998	0.50	10.00	0	100	85	115				
Lead	9.963	1.0	10.00	0	99.6	85	115				
Manganese	99.549	0.50	100.0	0	99.5	85	115				
Molybdenum	9.689	0.50	10.00	0	96.9	85	115				
Selenium	9.655	0.50	10.00	0	96.5	85	115				
Thallium	9.670	0.50	10.00	0	96.7	85	115				
Vanadium	10.038	1.0	10.00	0	100	85	115				
Zinc	100.255	10	100.0	0	100	85	115				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **N049099-001C-MS** SampType: **MS** TestCode: **6020_W_TPK** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159941**
Client ID: **ZZZZZZ** Batch ID: **91252** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.429	0.50	10.00	0	104	75	125				
Arsenic	12.326	0.10	10.00	0.6249	117	75	125				
Barium	70.628	1.0	10.00	57.64	130	75	125				S
Cadmium	9.768	0.50	10.00	0	97.7	75	125				
Cobalt	8.976	0.50	10.00	0.3116	86.6	75	125				
Lead	10.074	1.0	10.00	0.1007	99.7	75	125				
Manganese	101.282	0.50	100.0	10.06	91.2	75	125				
Molybdenum	24.753	0.50	10.00	13.55	112	75	125				
Selenium	17.406	0.50	10.00	6.944	105	75	125				
Thallium	9.916	0.50	10.00	0	99.2	75	125				
Vanadium	16.739	1.0	10.00	6.853	98.9	75	125				
Zinc	90.813	10	100.0	0	90.8	75	125				

Sample ID: **N049099-001C-MSD** SampType: **MSD** TestCode: **6020_W_TPK** Units: **µg/L** Prep Date: **1/28/2022** RunNo: **159941**
Client ID: **ZZZZZZ** Batch ID: **91252** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.930	0.50	10.00	0	109	75	125	10.43	4.70	20	
Arsenic	12.448	0.10	10.00	0.6249	118	75	125	12.33	0.987	20	
Barium	69.059	1.0	10.00	57.64	114	75	125	70.63	2.25	20	
Cadmium	9.855	0.50	10.00	0	98.5	75	125	9.768	0.887	20	
Cobalt	8.996	0.50	10.00	0.3116	86.8	75	125	8.976	0.227	20	
Lead	10.199	1.0	10.00	0.1007	101	75	125	10.07	1.24	20	
Manganese	102.282	0.50	100.0	10.06	92.2	75	125	101.3	0.983	20	
Molybdenum	24.681	0.50	10.00	13.55	111	75	125	24.75	0.290	20	
Selenium	17.538	0.50	10.00	6.944	106	75	125	17.41	0.758	20	
Thallium	10.266	0.50	10.00	0	103	75	125	9.916	3.47	20	
Vanadium	16.860	1.0	10.00	6.853	100	75	125	16.74	0.720	20	
Zinc	94.113	10	100.0	0	94.1	75	125	90.81	3.57	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **MB-91252**	SampType: **MBLK**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160044**
Client ID: **PBW**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524479**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	ND	0.50									
Copper	ND	1.0									

Sample ID: **LCS-91252**	SampType: **LCS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160044**
Client ID: **LCSW**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524480**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	9.521	0.50	10.00	0	95.2	85	115				
Copper	10.274	1.0	10.00	0	103	85	115				

Sample ID: **N049099-001C-MS**	SampType: **MS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	7.096	0.50	10.00	0	71.0	75	125				S
Copper	8.573	1.0	10.00	0	85.7	75	125				

Sample ID: **N049099-001C-MSD**	SampType: **MSD**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **1/28/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	7.018	0.50	10.00	0	70.2	75	125	7.096	1.10	20	S
Copper	8.753	1.0	10.00	0	87.5	75	125	8.573	2.07	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **MB-91315**	SampType: **MBLK**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **PBW**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524445**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	1.0									
Silver	ND	0.50									

Sample ID: **LCS-91315**	SampType: **LCS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **LCSW**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524446**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	9.690	1.0	10.00	0	96.9	85	115				
Silver	10.648	0.50	10.00	0	106	85	115				

Sample ID: **N049100-001JMS**	SampType: **MS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	9.261	0.50	10.00	0.03226	92.3	75	125				

Sample ID: **N049100-001JMSD**	SampType: **MSD**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	9.301	0.50	10.00	0.03226	92.7	75	125	9.261	0.431	20	

Sample ID: **N049100-001JMS**	SampType: **MS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524462**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	187.298	25	250.0	0	74.9	75	125				S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **N049100-001JMSD**	SampType: **MSD**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524463**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	190.179	25	250.0	0	76.1	75	125	187.3	1.53	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049097-001B-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **159940**
Client ID: **ZZZZZZ** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **1/31/2022** SeqNo: **4519647**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.269	0.50	10.00	0	103	80	120				
Arsenic	11.262	0.10	10.00	0.5140	107	80	120				
Barium	58.272	1.0	10.00	48.88	93.9	80	120				
Beryllium	6.831	0.50	10.00	0	68.3	80	120				S
Cadmium	9.717	0.50	10.00	0	97.2	80	120				
Cobalt	8.698	0.50	10.00	0.1026	86.0	80	120				
Lead	10.058	1.0	10.00	0.05954	100	80	120				
Manganese	91.053	0.50	100.0	0	91.1	80	120				
Molybdenum	20.779	0.50	10.00	10.27	105	80	120				
Selenium	18.216	0.50	10.00	8.627	95.9	80	120				
Thallium	9.626	0.50	10.00	0	96.3	80	120				
Vanadium	17.736	1.0	10.00	8.036	97.0	80	120				
Zinc	87.810	10	100.0	0	87.8	80	120				

Sample ID: **N049097-001B-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160140**
Client ID: **ZZZZZZ** Batch ID: **91251** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/9/2022** SeqNo: **4530280**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	8.561	1.0	10.00	0	85.6	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049100-001I-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	9.144	0.50	10.00	0.04659	91.0	80	120				

Sample ID: **N049100-001I-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91316**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	191.432	25	250.0	0	76.6	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **N049099-001C-PS**	SampType: **PS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date:	RunNo: **159941**
Client ID: **ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **1/31/2022**	SeqNo: **4519853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.604	0.50	10.00	0	106	80	120				
Arsenic	12.212	0.10	10.00	0.6249	116	80	120				
Barium	71.603	1.0	10.00	57.64	140	80	120				S
Cadmium	9.834	0.50	10.00	0	98.3	80	120				
Cobalt	9.059	0.50	10.00	0.3116	87.5	80	120				
Lead	10.253	1.0	10.00	0.1007	102	80	120				
Manganese	102.331	0.50	100.0	10.06	92.3	80	120				
Molybdenum	24.401	0.50	10.00	13.55	109	80	120				
Selenium	17.054	0.50	10.00	6.944	101	80	120				
Thallium	10.127	0.50	10.00	0	101	80	120				
Vanadium	16.948	1.0	10.00	6.853	101	80	120				
Zinc	92.972	10	100.0	0	93.0	80	120				

Sample ID: **N049099-001C-PS**	SampType: **PS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date:	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91252**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524483**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	7.082	0.50	10.00	0	70.8	80	120				S
Copper	8.453	1.0	10.00	0	84.5	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_TPK

Sample ID: **N049100-001J-PS**	SampType: **PS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date:	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524449**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	8.950	0.50	10.00	0.03226	89.2	80	120				

Sample ID: **N049100-001J-PS**	SampType: **PS**	TestCode: **6020_W_TPK**	Units: **µg/L**	Prep Date:	RunNo: **160044**
Client ID: **ZZZZZZ**	Batch ID: **91315**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/3/2022**	SeqNo: **4524461**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	193.682	25	250.0	0	77.5	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab ID: N049100-001

Client Sample ID: IRZ-09-100-012522
Collection Date: 1/25/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED MERCURY BY COLD VAPOR TECHNIQUE							
			EPA 7470A				
RunID: **NV00922-AA2_220202B** QC Batch: **91306**				PrepDate:		**2/2/2022**	Analyst: **DJ**
Mercury	ND	0.12	0.20		µg/L	1	2/2/2022 03:32 PM
TOTAL MERCURY BY COLD VAPOR TECHNIQUE							
			EPA 7470A				
RunID: **NV00922-AA2_220127B** QC Batch: **91227**				PrepDate:		**1/27/2022**	Analyst: **DJ**
Mercury	ND	0.12	0.20		µg/L	1	1/27/2022 03:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 7470_W_DISSPGE

Sample ID: **MB-91306**	SampType: **MBLK**	TestCode: **7470_W_DIS**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **159985**
Client ID: **PBW**	Batch ID: **91306**	TestNo: **EPA 7470A**		Analysis Date: **2/2/2022**	SeqNo: **4522087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.20									

Sample ID: **LCS-91306**	SampType: **LCS**	TestCode: **7470_W_DIS**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **159985**
Client ID: **LCSW**	Batch ID: **91306**	TestNo: **EPA 7470A**		Analysis Date: **2/2/2022**	SeqNo: **4522089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.560	0.20	5.000	0	111	85	115				

Sample ID: **N049100-001I-MS**	SampType: **MS**	TestCode: **7470_W_DIS**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **159985**
Client ID: **ZZZZZZ**	Batch ID: **91306**	TestNo: **EPA 7470A**		Analysis Date: **2/2/2022**	SeqNo: **4522093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.440	0.20	5.000	0	88.8	75	125				

Sample ID: **N049100-001I-MSD**	SampType: **MSD**	TestCode: **7470_W_DIS**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **159985**
Client ID: **ZZZZZZ**	Batch ID: **91306**	TestNo: **EPA 7470A**		Analysis Date: **2/2/2022**	SeqNo: **4522094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.970	0.20	5.000	0	79.4	75	125	4.440	11.2	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 7470_W_PGE

Sample ID: **MB-91227**	SampType: **MBLK**	TestCode: **7470_W_PGE**	Units: **µg/L**	Prep Date: **1/27/2022**	RunNo: **159867**
Client ID: **PBW**	Batch ID: **91227**	TestNo: **EPA 7470A**		Analysis Date: **1/27/2022**	SeqNo: **4515485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.20									

Sample ID: **LCS-91227**	SampType: **LCS**	TestCode: **7470_W_PGE**	Units: **µg/L**	Prep Date: **1/27/2022**	RunNo: **159867**
Client ID: **LCSW**	Batch ID: **91227**	TestNo: **EPA 7470A**		Analysis Date: **1/27/2022**	SeqNo: **4515486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.560	0.20	5.000	0	91.2	85	115				

Sample ID: **N049100-001J-MS**	SampType: **MS**	TestCode: **7470_W_PGE**	Units: **µg/L**	Prep Date: **1/27/2022**	RunNo: **159867**
Client ID: **ZZZZZZ**	Batch ID: **91227**	TestNo: **EPA 7470A**		Analysis Date: **1/27/2022**	SeqNo: **4515490**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.670	0.20	5.000	0	93.4	75	125				

Sample ID: **N049100-001J-MSD**	SampType: **MSD**	TestCode: **7470_W_PGE**	Units: **µg/L**	Prep Date: **1/27/2022**	RunNo: **159867**
Client ID: **ZZZZZZ**	Batch ID: **91227**	TestNo: **EPA 7470A**		Analysis Date: **1/27/2022**	SeqNo: **4515491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.950	0.20	5.000	0	99.0	75	125	4.670	5.82	20	

Sample ID: **N049100-001J-DUP**	SampType: **DUP**	TestCode: **7470_W_PGE**	Units: **µg/L**	Prep Date: **1/27/2022**	RunNo: **159867**
Client ID: **ZZZZZZ**	Batch ID: **91227**	TestNo: **EPA 7470A**		Analysis Date: **1/27/2022**	SeqNo: **4515492**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.20						0	0	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab ID: N049100-001

Client Sample ID: IRZ-09-100-012522
Collection Date: 1/25/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
APPROXIMATE IRB POPULATION BY IRB-BART				**BART**			
RunID: **WETCHEM_220126B** QC Batch: **R159991**				PrepDate:			Analyst: **GGJ**
Iron Related Bacteria	9000	0	0		cfu/mL	1	1/26/2022 09:45 AM
APPROXIMATE SLIME POPULATION BY SLYM-BART				**BART**			
RunID: **WETCHEM_220126C** QC Batch: **R159993**				PrepDate:			Analyst: **GGJ**
Slime Forming Bacteria	Absent	0	0		cfu/mL	1	1/26/2022 09:50 AM
APPROXIMATE SRB POPULATION BY SRB-BART				**BART**			
RunID: **WETCHEM_220126A** QC Batch: **R159990**				PrepDate:			Analyst: **GGJ**
Sulfate Reducing Bacteria	Absent	0	0		cfu/mL	1	1/26/2022 09:40 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: IRB-BART

Sample ID: **N049100-001DDUP** SampType: **DUP** TestCode: **IRB-BART** Units: **cfu/mL** Prep Date: RunNo: **159991**
Client ID: **ZZZZZZ** Batch ID: **R159991** TestNo: **BART** Analysis Date: **1/26/2022** SeqNo: **4522329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron Related Bacteria	9000.000	0						9000	0	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: SLYM-BART

Sample ID: **N049100-001DDUP** SampType: **DUP** TestCode: **SLYM-BART** Units: **cfu/mL** Prep Date: RunNo: **159993**
Client ID: **ZZZZZZ** Batch ID: **R159993** TestNo: **BART** Analysis Date: **1/26/2022** SeqNo: **4522317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Slime Forming Bacteria	Absent	0						0	0	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: SRB-BART

Sample ID: **N049100-001DDUP** SampType: **DUP** TestCode: **SRB-BART** Units: **cfu/mL** Prep Date: RunNo: **159990**
Client ID: **ZZZZZZ** Batch ID: **R159990** TestNo: **BART** Analysis Date: **1/26/2022** SeqNo: **4522239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate Reducing Bacteria	Absent	0						0	0	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049100
Project: PG&E Topock- Rem Well Baseline, 30106892
Lab ID: N049100-001

Client Sample ID: IRZ-09-100-012522
Collection Date: 1/25/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
MODIFIED FOULING INDEX							
				MFI			
RunID: **NV00922-WC_220125C** QC Batch: **R160122**				PrepDate:			Analyst: **MBC**
Modified Fouling Index (MFI-0.45)	3.0	0.10	0.10		s/L2	1	1/25/2022 04:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com daniel.moore@critigen.com	Address:	Geotracker	RWQCB ✓	1. Chilled Y
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.# SWA-ASSET-C9817-051	Labspec	CalTrans	2. Headspace
Submitted By: GARY Smith		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact Y
Title: OandM	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	4. Seal Present Y
Signature: Date: GARY Smith	Sampled By: GARY Smith	Matrix: Ground x Sediment; Potable Soil; NPDES Other Solid; Surface	Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.			Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - Rem Well Baseline	Signature: GARY Smith Date: 1-25-22				Sample Temp: 2.3 °C
Project Number: 30106892					Courier: ASSET Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered 250 mL poly	Silica (EPA6010), HNO3; Filtered 16 oz poly	Hardness SM 2340B), HNO3 16 oz poly	Ammonia as Nitrogen (SM4500-NH3C); H2SO4 16 oz poly	Total Kjeldahl Nitrogen (SM4500-Norg); H2SO4 16 oz poly	Biochemical Oxygen Demand (SM5210Bg); None 32 oz poly	Nitrate, Bromide, Nitrite, Sulfate, Fluoride, Chloride, Phosphate (EPA 300.0) 1 liter poly	Total Dissolved Solids (SM92540) 1 liter poly	Sulfide (SM2320B); ZnAc/NaOH 16 oz poly	Alkalinity Total (2320B); None 32 oz poly	Bicarbonate (SM 2320B); None 32 oz poly	Biological Activity Test (HACH); None 32 oz poly	Carbonate (SM 2320B); None 32 oz poly	Modified Fouling Index (ASTM); None 32 oz poly	Total Organic Carbon (SM5310C); H2SO4 3x40 mL poly	Mercury Dissolved (EPA7470A) HNO3; Filtered 500 mL poly	Dissolved metals Title 22 (SW 6020), HNO3; filtered 500 mL poly	Calcium, Magnesium, Potassium, Sodium, Iron (SW6010B); HNO3. No filter 500 mL poly	Mercury (SW 7470A); HNO3 no filter 500 mL poly	Total metals Title 22 (SW 6020), HNO3, no filter 500 mL poly	Total Phosphorus(EPA365.3) H2SO4 8 oz poly	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049100-01	IRZ-09-100-012522	1-25-22	0904		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	E	15	PV	BNS	
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															

Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Brian Proud	1-25-22 1070	JUAN ROMERO ALCANTARA	1/25/22 1100
JUAN ROMERO ALCANTARA	1/25/22 1415	Gisella Padilla	1/25/22 1415
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special instruction:

Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.

5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/25/2022	Workorder:	N049100
Rep sample Temp (Deg C):	2.3	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 1/25/2022

Reviewed By: MBC 1/31/2022

ASSET Laboratories

WORK ORDER Summary

26-Jan-22

WorkOrder: N049100

Client ID: ARCUS02

Project: PG&E Topock- Rem Well Baseline, 30106892 **QC Level:** Level IV **Date Received:** 1/25/2022

Comments: Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049100-001A	IRZ-09-100-012522	1/25/2022 9:30:00 AM	2/8/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049100-001B			2/8/2022		MFI	Modified Fouling Index	☐	☐	☐	WW
N049100-001C			2/8/2022		SM4500-NH3C	AMMONIA-N	☐	☐	☑	SUB
			2/8/2022		SM4500-NH3C	TOTAL KJELDAHL NITROGEN	☐	☐	☑	SUB
N049100-001D			2/8/2022		BART	Approximate IRB Population by IRB-BART	☐	☐	☐	WW
			2/8/2022		BART	Approximate Slime Population by SLYM-BART	☐	☐	☐	WW
			2/8/2022		BART	Approximate SRB Population by SRB-BART	☐	☐	☐	WW
N049100-001E			2/8/2022		SM2540C	TOTAL FILTERABLE RESIDUE	☐	☐	☐	WW
			2/8/2022			Total Dissolved Solids Prep	☐	☐	☐	WW
			2/8/2022		SM 2320 B	ALKALINITY, SPECIATED	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/8/2022		SM 1030F1	Cation-Anion Balance Calculation	☐	☐	☐	WW
N049100-001F			2/8/2022		SM 5210 B	BIOCHEMICAL OXYGEN DEMAND	☐	☐	☑	SUB
N049100-001G			2/8/2022		SM4500-S-2D	SULFIDE, TOTAL	☐	☐	☑	SUB
N049100-001H			2/8/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW

ASSET Laboratories

WORK ORDER Summary

26-Jan-22

WorkOrder: N049100

Client ID: ARCUS02

Project: PG&E Topock- Rem Well Baseline, 30106892 **QC Level:** Level IV **Date Received:** 1/25/2022

Comments: Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049100-001I	IRZ-09-100-012522	1/25/2022 9:30:00 AM	2/8/2022	Groundwater	SM 2340 B	Hardness by Calculation	☐	☐	☐	WW
			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			2/8/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			2/8/2022			DISSOLVED MERCURY PREP	☐	☐	☐	WW
			2/8/2022		EPA 7470A	DISSOLVED MERCURY BY COLD VAPOR TECHNIQUE	☐	☐	☐	WW
N049100-001J			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/8/2022		EPA 6010B	TOTAL METALS BY ICP	☐	☐	☐	WW
			2/8/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
			2/8/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
			2/8/2022			MERCURY PREP	☐	☐	☐	WW
			2/8/2022		EPA 7470A	TOTAL MERCURY BY COLD VAPOR TECHNIQUE	☐	☐	☐	WW
N049100-001K			2/8/2022		EPA 365.3	TOTAL PHOSPHORUS	☐	☐	☐	WW
			2/8/2022			Total Phosphorus Prep	☐	☐	☐	WW
N049100-002A	FOLDER	2/8/2022	2/8/2022		Folder	Folder	☐	☐	☐	LAB
			2/8/2022		Folder	Level IV Report	☐	☐	☐	LAB

ASSET Laboratories

WORK ORDER Summary

26-Jan-22

WorkOrder: N049100

Client ID: ARCUS02

Project: PG&E Topock- Rem Well Baseline, 30106892 **QC Level:** Level IV **Date Received:** 1/25/2022

Comments: Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049100-002A	FOLDER	2/8/2022	2/8/2022			QA Review	☐	☐	☐	LAB
			2/8/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Signed

25-Jan-22

				Requested Tests			
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**SM 5210 B**	**SM4500-NH3C**	**SM4500-S-2D**	**TKN**
N049100-001C / IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	16OZP		~~2~~ 1		1
N049100-001F / IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	32OZP	1			
N049100-001G / IRZ-09-100-012522	Groundwater	1/25/2022 9:30:00 AM	8OZP			1	

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49100A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Standard TAT

Please analyze for Biochemical Oxygen Demand (BOD), Ammonia as Nitrogen, Total Kjeldahl Nitrogen and Sulfide. EDD requirement Labspec7 edata.

GSO #: 555892194

		Date/Time			Date/Time
Relinquished by:	GGarcia	1/25/2022 16:30	**Received by:**		
Relinquished by:			**Received by:**		

February 15, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049208

RE: PG&E Topock - PCM, 30110373.4Q21GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on January 31, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for sample N049208-002 due to matrix interference. Sample was analyzed at lower dilution however matrix spike recovery and retention time criteria were not met indicating possible matrix interference. Sample was reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Iron in QC samples N049208-001C-MS and N049208-001C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Dilution was necessary for samples N049208-002 and -004 since plasma was extinguished when samples were analyzed at lower dilution.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in QC samples N049241-001D-MS and N049241-001D-MSD are outside recovery criteria at lower dilutions possibly due to matrix

interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049241-001 and MS/MSD were reported at 25x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049208
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049208-001A	MW-76-039-0222	Groundwater	1/31/2022 1:39:00 PM	1/31/2022	2/15/2022
N049208-001B	MW-76-039-0222	Groundwater	1/31/2022 1:39:00 PM	1/31/2022	2/15/2022
N049208-001C	MW-76-039-0222	Groundwater	1/31/2022 1:39:00 PM	1/31/2022	2/15/2022
N049208-001D	MW-76-039-0222	Groundwater	1/31/2022 1:39:00 PM	1/31/2022	2/15/2022
N049208-002A	MW-76-156-0222	Groundwater	1/31/2022 1:06:00 PM	1/31/2022	2/15/2022
N049208-002B	MW-76-156-0222	Groundwater	1/31/2022 1:06:00 PM	1/31/2022	2/15/2022
N049208-002C	MW-76-156-0222	Groundwater	1/31/2022 1:06:00 PM	1/31/2022	2/15/2022
N049208-002D	MW-76-156-0222	Groundwater	1/31/2022 1:06:00 PM	1/31/2022	2/15/2022
N049208-003A	MW-76-181-0222	Groundwater	1/31/2022 2:56:00 PM	1/31/2022	2/15/2022
N049208-003B	MW-76-181-0222	Groundwater	1/31/2022 2:56:00 PM	1/31/2022	2/15/2022
N049208-003C	MW-76-181-0222	Groundwater	1/31/2022 2:56:00 PM	1/31/2022	2/15/2022
N049208-003D	MW-76-181-0222	Groundwater	1/31/2022 2:56:00 PM	1/31/2022	2/15/2022
N049208-004A	MW-76-218-0222	Groundwater	1/31/2022 2:18:00 PM	1/31/2022	2/15/2022
N049208-004B	MW-76-218-0222	Groundwater	1/31/2022 2:18:00 PM	1/31/2022	2/15/2022
N049208-004C	MW-76-218-0222	Groundwater	1/31/2022 2:18:00 PM	1/31/2022	2/15/2022
N049208-004D	MW-76-218-0222	Groundwater	1/31/2022 2:18:00 PM	1/31/2022	2/15/2022
N049208-005A	EB-700-Q122	Groundwater	1/31/2022 3:10:00 PM	1/31/2022	2/15/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:39:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220201B**	QC Batch: **R159952**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	36	0.13	1.0		µg/L	5	2/1/2022 05:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220201B**	QC Batch: **R159952**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	2/1/2022 05:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:56:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220201B**	QC Batch: **R159952**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1500	5.0	40		µg/L	200	2/1/2022 04:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:18:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220201B**	QC Batch: **R159952**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	370	1.3	10		µg/L	50	2/1/2022 04:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-700-Q122
Lab Order:	N049208	**Collection Date:**	1/31/2022 3:10:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220201B**	QC Batch: **R159952**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/1/2022 06:12 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	LCS-R159952	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159952		
Client ID:	LCSW	Batch ID:	R159952	TestNo:	EPA 218.6			Analysis Date:	2/1/2022	SeqNo:	4520415		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Hexavalent Chromium		4.999	0.20	5.000	0	100	90	110					

Sample ID	MB-R159952	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159952		
Client ID:	PBW	Batch ID:	R159952	TestNo:	EPA 218.6			Analysis Date:	2/1/2022	SeqNo:	4520416		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Hexavalent Chromium		ND	0.20										

Sample ID	N049203-021ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159952		
Client ID:	ZZZZZZ	Batch ID:	R159952	TestNo:	EPA 218.6			Analysis Date:	2/1/2022	SeqNo:	4520422		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Hexavalent Chromium		2.078	0.20						2.112	1.65	20		

Sample ID	N049208-003AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159952		
Client ID:	ZZZZZZ	Batch ID:	R159952	TestNo:	EPA 218.6			Analysis Date:	2/1/2022	SeqNo:	4520423		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Hexavalent Chromium		2575.580	40	1000	1539	104	90	110					

Sample ID	N049208-003AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159952		
Client ID:	ZZZZZZ	Batch ID:	R159952	TestNo:	EPA 218.6			Analysis Date:	2/1/2022	SeqNo:	4520424		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Hexavalent Chromium		2569.380	40	1000	1539	103	90	110	2576	0.241	20		

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049208-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159952**
Client ID: **ZZZZZZ**	Batch ID: **R159952**	TestNo: **EPA 218.6**		Analysis Date: **2/1/2022**	SeqNo: **4520426**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	624.305	10	250.0	374.9	99.8	90	110				

Sample ID **N049208-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159952**
Client ID: **ZZZZZZ**	Batch ID: **R159952**	TestNo: **EPA 218.6**		Analysis Date: **2/1/2022**	SeqNo: **4520431**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.036	1.0	5.000	0	101	90	110				

Sample ID **N049208-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159952**
Client ID: **ZZZZZZ**	Batch ID: **R159952**	TestNo: **EPA 218.6**		Analysis Date: **2/1/2022**	SeqNo: **4520433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.047	0.20	1.000	0	105	90	110				

Sample ID **N049208-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159952**
Client ID: **ZZZZZZ**	Batch ID: **R159952**	TestNo: **EPA 218.6**		Analysis Date: **2/1/2022**	SeqNo: **4520435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	61.673	1.0	25.00	35.77	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:39:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Sulfate	200	1.2	10		mg/L	20	2/1/2022 09:50 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Nitrate as N	2.5	0.048	0.25		mg/L	5	2/1/2022 07:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Sulfate	870	6.1	50		mg/L	100	2/1/2022 10:36 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.3	0.095	0.50		mg/L	10	2/1/2022 08:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049208-003

Client Sample ID: MW-76-181-0222
Collection Date: 1/31/2022 2:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Sulfate	850	6.1	50		mg/L	100	2/1/2022 11:38 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Nitrate as N	2.1	0.095	0.50		mg/L	10	2/1/2022 08:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:18:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Sulfate	870	6.1	50		mg/L	100	2/1/2022 11:53 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220201C**	QC Batch: **R159929**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.3	0.095	0.50		mg/L	10	2/1/2022 08:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID	LCS-R159929_SO4	SampType:	LCS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159929		
Client ID:	LCSW	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520130		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	3.874	0.50	4.000	0	96.8	90	110						

Sample ID	MB-R159929_SO4	SampType:	MBLK	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159929		
Client ID:	PBW	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520131		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	ND	0.50											

Sample ID	N049208-001BMS	SampType:	MS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159929		
Client ID:	ZZZZZZ	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520135		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	277.522	10	80.00	195.7	102	80	120						

Sample ID	N049208-001BMSD	SampType:	MSD	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159929		
Client ID:	ZZZZZZ	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520136		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	277.122	10	80.00	195.7	102	80	120	277.5	0.144	20			

Sample ID	N049208-002BDUP	SampType:	DUP	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159929		
Client ID:	ZZZZZZ	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520140		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	860.510	50						870.6	1.17	20			

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID	LCS-R159929_NO3	SampType:	LCS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159929
Client ID:	LCSW	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520111

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.181	0.050	1.250	0	94.4	90	110				

Sample ID	MB-R159929_NO3	SampType:	MBLK	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159929
Client ID:	PBW	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520112

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID	N049208-002BMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159929
Client ID:	ZZZZZZ	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520119

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.077	0.50	12.50	1.252	94.6	80	120				

Sample ID	N049208-002BMSD	SampType:	MSD	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159929
Client ID:	ZZZZZZ	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520120

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.152	0.50	12.50	1.252	95.2	80	120	13.08	0.572	20	

Sample ID	N049208-001BDUP	SampType:	DUP	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159929
Client ID:	ZZZZZZ	Batch ID:	R159929	TestNo:	EPA 300.0			Analysis Date:	2/1/2022	SeqNo:	4520121

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.469	0.25						2.468	0.0220	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:39:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 03:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 04:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:56:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 04:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:18:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 05:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **MB-R159977**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **PBW**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/2/2022**	SeqNo: **4521846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID **LCS-R159977**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **LCSW**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/2/2022**	SeqNo: **4521847**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.046	1.0	5.000	0	101	85	115				

Sample ID **N049241-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **ZZZZZZ**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/3/2022**	SeqNo: **4522458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	125.023	25	125.0	0	100	75	125				

Sample ID **N049241-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **ZZZZZZ**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/3/2022**	SeqNo: **4522459**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	122.318	25	125.0	0	97.9	75	125	125.0	2.19	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:39:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**				PrepDate:	**2/2/2022**	Analyst: **DJ**
Iron	280	13	20		µg/L	1	2/9/2022 03:10 PM

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	2/11/2022 11:12 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:56:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/11/2022 11:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:18:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	2/11/2022 11:29 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	MB-91312	SampType:	MBLK	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	PBW	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529675

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID	LCS-91312	SampType:	LCS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	LCSW	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529676

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	94.080	20	100.0	0	94.1	85	115				

Sample ID	N049208-001C-MS	SampType:	MS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	ZZZZZZ	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529680

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	434.952	20	100.0	280.2	155	75	125				S

Sample ID	N049208-001C-MSD	SampType:	MSD	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	ZZZZZZ	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529681

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	442.502	20	100.0	280.2	162	75	125	435.0	1.72	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	**N049208-001C-PS**	SampType: **PS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date:	RunNo: **160119**
Client ID:	**ZZZZZZ**	Batch ID: **91312**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/9/2022**	SeqNo: **4529679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	443.082	20	100.0	280.2	163	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 1:39:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**				PrepDate:	**2/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/4/2022 10:07 PM
Barium	59	0.083	1.0		µg/L	1	2/4/2022 10:07 PM
Manganese	34	0.026	0.50		µg/L	1	2/4/2022 10:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049208-002

Client Sample ID: MW-76-156-0222
Collection Date: 1/31/2022 1:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/4/2022 10:36 PM
Barium	60	0.083	1.0		µg/L	1	2/4/2022 10:36 PM
Manganese	130	0.026	0.50		µg/L	1	2/4/2022 10:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049208-003

Client Sample ID: MW-76-181-0222
Collection Date: 1/31/2022 2:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/4/2022 10:42 PM
Barium	71	0.083	1.0		µg/L	1	2/4/2022 10:42 PM
Manganese	64	0.026	0.50		µg/L	1	2/4/2022 10:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-0222
Lab Order:	N049208	**Collection Date:**	1/31/2022 2:18:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049208-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**				PrepDate:	**2/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/4/2022 11:06 PM
Barium	74	0.083	1.0		µg/L	1	2/4/2022 11:06 PM
Manganese	350	0.13	2.5		µg/L	5	2/4/2022 11:12 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049208
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **MB-91314**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160072**
Client ID: **PBW**	Batch ID: **91314**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/4/2022**	SeqNo: **4525727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									

Sample ID **LCS-91314**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160072**
Client ID: **LCSW**	Batch ID: **91314**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/4/2022**	SeqNo: **4525728**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.913	0.10	10.00	0	99.1	85	115				
Barium	9.977	1.0	10.00	0	99.8	85	115				
Manganese	94.418	0.50	100.0	0	94.4	85	115				

Sample ID **N049208-001C-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160072**
Client ID: **ZZZZZZ**	Batch ID: **91314**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/4/2022**	SeqNo: **4525732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.434	0.10	10.00	0	104	75	125				
Barium	67.803	1.0	10.00	58.97	88.3	75	125				
Manganese	111.901	0.50	100.0	34.08	77.8	75	125				

Sample ID **N049208-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/2/2022**	RunNo: **160072**
Client ID: **ZZZZZZ**	Batch ID: **91314**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/4/2022**	SeqNo: **4525733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.420	0.10	10.00	0	104	75	125	10.43	0.134	20	
Barium	69.405	1.0	10.00	58.97	104	75	125	67.80	2.34	20	
Manganese	112.283	0.50	100.0	34.08	78.2	75	125	111.9	0.341	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Global ID:
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Specify State:
Submitted By: John Tran	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	
Title: Field Tech			
Signature: Date: 1/31/22	Sampled By: John Tran		

I hereby authorize ASSET Labs to perform the tests indicated below.

I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for

Project Name: PG&E Topock - PCM — Signature: Date: 1/31/22

Project Number: 30110373.4Q21GW

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Sample Receipt Condition: 1. Chilled Y; 2. Headspace; 3. Container Intact Y; 4. Seal Present Y; 5. IR number 3; 6. Method of Cooling: Ice

Sample Temp: 3.1 °C

Courier:

Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, Sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049208-01	MW-76-039-0222	1/31/2022	13:39		X	X	X			X		E	6	P	BNS	
2	-02	MW-76-156-0222	1/31/2022	13:06		X	X	X			X		E	6	P	BNS	
3	-03	MW-76-181-0222	1/31/2022	14:56		X	X	X			X		E	6	P	BNS	
4	-04	MW-76-218-0222	1/31/2022	14:18		X	X	X			X		E	6	P	BNS	
5	-05	EB-700-Q122	1/31/2022	15:10		X							E	1	P	BNS	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

Relinquished by (Signature and Printed Name)	Date/Time	Received by (Signature and Printed Name)	Date/Time
John Tran	1/31/22 1600	Jonas Deada	1/31/22 16:00
Jonas Deada	1/31/22 18:55	Jonas Deada	1/31/22 18:55

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages. 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B (NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/31/2022	Workorder:	N049208
Rep sample Temp (Deg C):	3.1	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 2/2/2022

Reviewed By: MBC 2/4/2022

ASSET Laboratories

WORK ORDER Summary

01-Feb-22

WorkOrder: N049208

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 1/31/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049208-001A	MW-76-039-0222	1/31/2022 1:39:00 PM	2/14/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049208-001B			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049208-001C			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049208-001D			2/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049208-002A	MW-76-156-0222	1/31/2022 1:06:00 PM	2/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049208-002B			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049208-002C			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049208-002D			2/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049208-003A	MW-76-181-0222	1/31/2022 2:56:00 PM	2/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049208-003B			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049208-003C			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

01-Feb-22

WorkOrder: N049208

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 1/31/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049208-003C	MW-76-181-0222	1/31/2022 2:56:00 PM	2/14/2022	Groundwater	EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049208-003D			2/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049208-004A	MW-76-218-0222	1/31/2022 2:18:00 PM	2/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049208-004B			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049208-004C			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049208-004D			2/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049208-005A	EB-700-Q122	1/31/2022 3:10:00 PM	2/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049208-006A	FOLDER	2/14/2022	2/14/2022		Folder	Folder	☐	☐	☐	LAB
			2/14/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/14/2022		Folder	Folder	☐	☐	☐	LAB

February 15, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049241

RE: PG&E Topock - PCM, 30110373.4Q21GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 01, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

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CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for sample N049241-001 due to matrix interference. Sample was analyzed at lower dilution however matrix spike recovery and retention time criteria were not met indicating possible matrix interference. Sample was reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Iron in QC samples N049208-001C-MS and N049208-001C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in QC samples N049241-001D-MS and N049241-001D-MSD are outside recovery criteria at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049241-001 and MS/MSD were reported at 25x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049241
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049241-001A	MW-31-060-0222	Groundwater	2/1/2022 8:11:00 AM	2/1/2022	2/15/2022
N049241-001B	MW-31-060-0222	Groundwater	2/1/2022 8:11:00 AM	2/1/2022	2/15/2022
N049241-001C	MW-31-060-0222	Groundwater	2/1/2022 8:11:00 AM	2/1/2022	2/15/2022
N049241-001D	MW-31-060-0222	Groundwater	2/1/2022 8:11:00 AM	2/1/2022	2/15/2022
N049241-002A	MW-31-135-0222	Groundwater	2/1/2022 8:51:00 AM	2/1/2022	2/15/2022
N049241-002B	MW-31-135-0222	Groundwater	2/1/2022 8:51:00 AM	2/1/2022	2/15/2022
N049241-002C	MW-31-135-0222	Groundwater	2/1/2022 8:51:00 AM	2/1/2022	2/15/2022
N049241-002D	MW-31-135-0222	Groundwater	2/1/2022 8:51:00 AM	2/1/2022	2/15/2022
N049241-003A	MW-78-142-0222	Groundwater	2/1/2022 9:31:00 AM	2/1/2022	2/15/2022
N049241-003B	MW-78-142-0222	Groundwater	2/1/2022 9:31:00 AM	2/1/2022	2/15/2022
N049241-003C	MW-78-142-0222	Groundwater	2/1/2022 9:31:00 AM	2/1/2022	2/15/2022
N049241-003D	MW-78-142-0222	Groundwater	2/1/2022 9:31:00 AM	2/1/2022	2/15/2022
N049241-004A	MW-78-070-0222	Groundwater	2/1/2022 10:06:00 AM	2/1/2022	2/15/2022
N049241-004B	MW-78-070-0222	Groundwater	2/1/2022 10:06:00 AM	2/1/2022	2/15/2022
N049241-004C	MW-78-070-0222	Groundwater	2/1/2022 10:06:00 AM	2/1/2022	2/15/2022
N049241-004D	MW-78-070-0222	Groundwater	2/1/2022 10:06:00 AM	2/1/2022	2/15/2022
N049241-005A	MW-914-Q122	Groundwater	2/1/2022 10:16:00 AM	2/1/2022	2/15/2022
N049241-005B	MW-914-Q122	Groundwater	2/1/2022 10:16:00 AM	2/1/2022	2/15/2022
N049241-005C	MW-914-Q122	Groundwater	2/1/2022 10:16:00 AM	2/1/2022	2/15/2022
N049241-005D	MW-914-Q122	Groundwater	2/1/2022 10:16:00 AM	2/1/2022	2/15/2022
N049241-006A	MW-79-058-0222	Groundwater	2/1/2022 11:51:00 AM	2/1/2022	2/15/2022
N049241-006B	MW-79-058-0222	Groundwater	2/1/2022 11:51:00 AM	2/1/2022	2/15/2022
N049241-006C	MW-79-058-0222	Groundwater	2/1/2022 11:51:00 AM	2/1/2022	2/15/2022
N049241-006D	MW-79-058-0222	Groundwater	2/1/2022 11:51:00 AM	2/1/2022	2/15/2022
N049241-007A	MW-79-102-0222	Groundwater	2/1/2022 11:06:00 AM	2/1/2022	2/15/2022
N049241-007B	MW-79-102-0222	Groundwater	2/1/2022 11:06:00 AM	2/1/2022	2/15/2022
N049241-007C	MW-79-102-0222	Groundwater	2/1/2022 11:06:00 AM	2/1/2022	2/15/2022
N049241-007D	MW-79-102-0222	Groundwater	2/1/2022 11:06:00 AM	2/1/2022	2/15/2022
N049241-008A	MW-80-057-0222	Groundwater	2/1/2022 2:06:00 PM	2/1/2022	2/15/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049241
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049241-008B	MW-80-057-0222	Groundwater	2/1/2022 2:06:00 PM	2/1/2022	2/15/2022
N049241-008C	MW-80-057-0222	Groundwater	2/1/2022 2:06:00 PM	2/1/2022	2/15/2022
N049241-008D	MW-80-057-0222	Groundwater	2/1/2022 2:06:00 PM	2/1/2022	2/15/2022
N049241-009A	MW-80-082-0222	Groundwater	2/1/2022 1:21:00 PM	2/1/2022	2/15/2022
N049241-009B	MW-80-082-0222	Groundwater	2/1/2022 1:21:00 PM	2/1/2022	2/15/2022
N049241-009C	MW-80-082-0222	Groundwater	2/1/2022 1:21:00 PM	2/1/2022	2/15/2022
N049241-009D	MW-80-082-0222	Groundwater	2/1/2022 1:21:00 PM	2/1/2022	2/15/2022
N049241-010A	MW-915-Q122	Groundwater	2/1/2022 1:31:00 PM	2/1/2022	2/15/2022
N049241-010B	MW-915-Q122	Groundwater	2/1/2022 1:31:00 PM	2/1/2022	2/15/2022
N049241-010C	MW-915-Q122	Groundwater	2/1/2022 1:31:00 PM	2/1/2022	2/15/2022
N049241-010D	MW-915-Q122	Groundwater	2/1/2022 1:31:00 PM	2/1/2022	2/15/2022
N049241-011A	EB-701-Q122	Groundwater	2/1/2022 2:15:00 PM	2/1/2022	2/15/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:11:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	2/2/2022 04:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	15	0.13	1.0		µg/L	5	2/2/2022 10:29 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 9:31:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	5800	25	200		µg/L	1000	2/2/2022 10:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2600	13	100		µg/L	500	2/2/2022 10:48 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-914-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:16:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2700	13	100		µg/L	500	2/2/2022 10:57 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2900	13	100		µg/L	500	2/2/2022 11:07 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	3500	13	100		µg/L	500	2/2/2022 11:16 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 2:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	780	2.5	20		µg/L	100	2/2/2022 11:25 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:21:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2000	5.0	40		µg/L	200	2/2/2022 11:54 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-915-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:31:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2000	5.0	40		µg/L	200	2/2/2022 12:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-701-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 2:15:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220202A**	QC Batch: **R159995**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/2/2022 02:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R159995	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	PBW	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522355

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID	LCS-R159995	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	LCSW	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522356

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.102	0.20	5.000	0	102	90	110				

Sample ID	N049241-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522368

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	41.102	1.0	25.00	15.36	103	90	110				

Sample ID	N049241-003AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522369

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10881.500	200	5000	5804	102	90	110				

Sample ID	N049241-004AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522370

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5200.400	100	2500	2638	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049241-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159995**
Client ID: **ZZZZZZ**	Batch ID: **R159995**	TestNo: **EPA 218.6**		Analysis Date: **2/2/2022**	SeqNo: **4522371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5216.800	100	2500	2658	102	90	110				

Sample ID **N049241-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159995**
Client ID: **ZZZZZZ**	Batch ID: **R159995**	TestNo: **EPA 218.6**		Analysis Date: **2/2/2022**	SeqNo: **4522372**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5447.750	100	2500	2887	102	90	110				

Sample ID **N049241-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159995**
Client ID: **ZZZZZZ**	Batch ID: **R159995**	TestNo: **EPA 218.6**		Analysis Date: **2/2/2022**	SeqNo: **4522373**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5979.350	100	2500	3478	100	90	110				

Sample ID **N049241-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159995**
Client ID: **ZZZZZZ**	Batch ID: **R159995**	TestNo: **EPA 218.6**		Analysis Date: **2/2/2022**	SeqNo: **4522374**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1274.360	20	500.0	778.9	99.1	90	110				

Sample ID **N049241-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **159995**
Client ID: **ZZZZZZ**	Batch ID: **R159995**	TestNo: **EPA 218.6**		Analysis Date: **2/2/2022**	SeqNo: **4522375**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2988.640	40	1000	2021	96.8	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049241-010AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522378

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3009.900	40	1000	2032	97.8	90	110				

Sample ID	N049241-010AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522379

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3000.000	40	1000	2032	96.8	90	110	3010	0.329	20	

Sample ID	N049241-011AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522381

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.041	0.20	1.000	0	104	90	110				

Sample ID	N049246-003ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522390

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2.371	0.20						2.359	0.512	20	

Sample ID	N049241-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	159995
Client ID:	ZZZZZZ	Batch ID:	R159995	TestNo:	EPA 218.6			Analysis Date:	2/2/2022	SeqNo:	4522393

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.052	1.0	5.000	0.5090	90.9	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:11:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B** QC Batch: **R159965**				PrepDate:			Analyst: **RAB**
Sulfate	48	0.30	2.5		mg/L	5	2/2/2022 09:57 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A** QC Batch: **R159964**				PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	2/2/2022 09:56 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049241-002

Client Sample ID: MW-31-135-0222
Collection Date: 2/1/2022 8:51:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B**	QC Batch: **R159965**			PrepDate:			Analyst: **RAB**
Sulfate	570	3.0	25		mg/L	50	2/2/2022 10:28 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A**	QC Batch: **R159964**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.4	0.095	0.50		mg/L	10	2/2/2022 10:11 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 9:31:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B**	QC Batch: **R159965**			PrepDate:			Analyst: **RAB**
Sulfate	890	6.1	50		mg/L	100	2/2/2022 10:43 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A**	QC Batch: **R159964**			PrepDate:			Analyst: **RAB**
Nitrate as N	8.6	0.095	0.50		mg/L	10	2/2/2022 10:27 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B**	QC Batch: **R159965**			PrepDate:			Analyst: **RAB**
Sulfate	310	3.0	25		mg/L	50	2/2/2022 10:58 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A**	QC Batch: **R159964**			PrepDate:			Analyst: **RAB**
Nitrate as N	7.1	0.048	0.25		mg/L	5	2/2/2022 10:42 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-914-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:16:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B**	QC Batch: **R159965**			PrepDate:			Analyst: **RAB**
Sulfate	300	3.0	25		mg/L	50	2/2/2022 11:14 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A**	QC Batch: **R159964**			PrepDate:			Analyst: **RAB**
Nitrate as N	7.2	0.048	0.25		mg/L	5	2/2/2022 10:57 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B**	QC Batch: **R159965**			PrepDate:			Analyst: **RAB**
Sulfate	400	3.0	25		mg/L	50	2/2/2022 11:29 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A**	QC Batch: **R159964**			PrepDate:			Analyst: **RAB**
Nitrate as N	9.3	0.095	0.50		mg/L	10	2/2/2022 11:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B** QC Batch: **R159965**				PrepDate:			Analyst: **RAB**
Sulfate	890	6.1	50		mg/L	100	2/2/2022 08:41 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A** QC Batch: **R159964**				PrepDate:			Analyst: **RAB**
Nitrate as N	16	0.095	0.50		mg/L	10	2/2/2022 11:45 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 2:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B** QC Batch: **R159965**				PrepDate:			Analyst: **RAB**
Sulfate	510	3.0	25		mg/L	50	2/2/2022 11:44 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A** QC Batch: **R159964**				PrepDate:			Analyst: **RAB**
Nitrate as N	16	0.095	0.50		mg/L	10	2/2/2022 12:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049241-009

Client Sample ID: MW-80-082-0222
Collection Date: 2/1/2022 1:21:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B** QC Batch: **R159965**				PrepDate:			Analyst: **RAB**
Sulfate	550	3.0	25		mg/L	50	2/3/2022
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A** QC Batch: **R159964**				PrepDate:			Analyst: **RAB**
Nitrate as N	10	0.095	0.50		mg/L	10	2/2/2022 12:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049241-010

Client Sample ID: MW-915-Q122
Collection Date: 2/1/2022 1:31:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202B**	QC Batch: **R159965**			PrepDate:			Analyst: **RAB**
Sulfate	550	3.0	25		mg/L	50	2/3/2022 12:15 AM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220202A**	QC Batch: **R159964**			PrepDate:			Analyst: **RAB**
Nitrate as N	10	0.095	0.50		mg/L	10	2/2/2022 01:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID	LCS-R159965_SO4	SampType:	LCS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159965		
Client ID:	LCSW	Batch ID:	R159965	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4522041		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	3.953	0.50	4.000	0	98.8	90	110						

Sample ID	MB-R159965_SO4	SampType:	MBLK	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159965		
Client ID:	PBW	Batch ID:	R159965	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4522042		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	ND	0.50											

Sample ID	N049241-007BMS	SampType:	MS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159965		
Client ID:	ZZZZZZ	Batch ID:	R159965	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4522046		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	1298.100	50	400.0	891.4	102	80	120						

Sample ID	N049241-007BMSD	SampType:	MSD	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159965		
Client ID:	ZZZZZZ	Batch ID:	R159965	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4522047		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	1299.630	50	400.0	891.4	102	80	120	1298	0.118	20			

Sample ID	N049241-001BDUP	SampType:	DUP	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	159965		
Client ID:	ZZZZZZ	Batch ID:	R159965	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4522051		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Sulfate	47.627	2.5						48.23	1.26	20			

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID	MB-R159964_NO3	SampType:	MBLK	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159964
Client ID:	PBW	Batch ID:	R159964	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4521313

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID	LCS-R159964_NO3	SampType:	LCS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159964
Client ID:	LCSW	Batch ID:	R159964	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4521314

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.213	0.050	1.250	0	97.0	90	110				

Sample ID	N049241-002BMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159964
Client ID:	ZZZZZZ	Batch ID:	R159964	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4521327

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	12.928	0.50	12.50	1.395	92.3	80	120				

Sample ID	N049241-002BMSD	SampType:	MSD	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159964
Client ID:	ZZZZZZ	Batch ID:	R159964	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4521328

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	12.988	0.50	12.50	1.395	92.7	80	120	12.93	0.463	20	

Sample ID	N049241-006BDUP	SampType:	DUP	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159964
Client ID:	ZZZZZZ	Batch ID:	R159964	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4521329

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	9.798	0.50						9.317	5.03	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID	N049246-001BMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159964
Client ID:	ZZZZZZ	Batch ID:	R159964	TestNo:	EPA 300.0			Analysis Date:	2/2/2022	SeqNo:	4521341

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.860	0.10	2.500	0.4354	97.0	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:11:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	2.1	25		mg/L	25	2/3/2022 04:58 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 05:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 9:31:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 05:47 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 06:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-914-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:16:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 06:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 06:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 06:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 2:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 07:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:21:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 07:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-915-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:31:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220202A**	QC Batch: **R159977**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/2/2022 07:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **MB-R159977**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **PBW**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/2/2022**	SeqNo: **4521846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID **LCS-R159977**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **LCSW**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/2/2022**	SeqNo: **4521847**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.046	1.0	5.000	0	101	85	115				

Sample ID **N049241-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **ZZZZZZ**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/3/2022**	SeqNo: **4522458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	125.023	25	125.0	0	100	75	125				

Sample ID **N049241-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **159977**
Client ID: **ZZZZZZ**	Batch ID: **R159977**	TestNo: **SM 5310C**		Analysis Date: **2/3/2022**	SeqNo: **4522459**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	122.318	25	125.0	0	97.9	75	125	125.0	2.19	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:11:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**			PrepDate:		**2/2/2022**	Analyst: **DJ**
Iron	31	13	20		µg/L	1	2/9/2022 04:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	24	13	20		µg/L	1	2/9/2022 04:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 9:31:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	72	13	20		µg/L	1	2/9/2022 04:23 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/9/2022 04:29 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-914-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 10:16:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/9/2022 04:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**				PrepDate:	**2/2/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/9/2022 04:40 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	390	64	100		µg/L	5	2/11/2022 11:32 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 2:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**				PrepDate:	**2/2/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/9/2022 04:57 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:21:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**			PrepDate:	**2/2/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/9/2022 05:03 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit	
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified	
	DO	Surrogate Diluted Out			

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-915-Q122
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:31:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220209A**	QC Batch: **91312**				PrepDate:	**2/2/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/9/2022 05:09 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	MB-91312	SampType:	MBLK	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	PBW	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529675

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID	LCS-91312	SampType:	LCS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	LCSW	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529676

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	94.080	20	100.0	0	94.1	85	115				

Sample ID	N049208-001C-MS	SampType:	MS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	ZZZZZZ	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529680

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	434.952	20	100.0	280.2	155	75	125				S

Sample ID	N049208-001C-MSD	SampType:	MSD	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	2/2/2022	RunNo:	160119
Client ID:	ZZZZZZ	Batch ID:	91312	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	2/9/2022	SeqNo:	4529681

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	442.502	20	100.0	280.2	162	75	125	435.0	1.72	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	**N049208-001C-PS**	SampType: **PS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date:	RunNo: **160119**
Client ID:	**ZZZZZZ**	Batch ID: **91312**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/9/2022**	SeqNo: **4529679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	443.082	20	100.0	280.2	163	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:11:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	6.9	0.050	0.10		µg/L	1	2/4/2022 11:18 PM
Barium	480	0.42	5.0		µg/L	5	2/4/2022 11:24 PM
Manganese	7800	1.3	25		µg/L	50	2/4/2022 11:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 8:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**				PrepDate:	**2/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/4/2022 11:36 PM
Barium	49	0.083	1.0		µg/L	1	2/4/2022 11:36 PM
Manganese	6.7	0.026	0.50		µg/L	1	2/4/2022 11:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 9:31:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**				PrepDate:	**2/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/4/2022 11:42 PM
Barium	32	0.083	1.0		µg/L	1	2/4/2022 11:42 PM
Manganese	6.4	0.026	0.50		µg/L	1	2/4/2022 11:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049241-004

Client Sample ID: MW-78-070-0222
Collection Date: 2/1/2022 10:06:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	0.54	0.050	0.10		µg/L	1	2/4/2022 11:48 PM
Barium	42	0.083	1.0		µg/L	1	2/4/2022 11:48 PM
Manganese	3.0	0.026	0.50		µg/L	1	2/4/2022 11:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049241-005

Client Sample ID: MW-914-Q122
Collection Date: 2/1/2022 10:16:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220209A**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	0.56	0.050	0.10		µg/L	1	2/9/2022 01:21 PM
Barium	42	0.083	1.0		µg/L	1	2/4/2022 11:54 PM
Manganese	3.2	0.026	0.50		µg/L	1	2/4/2022 11:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:51:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220207C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	0.70	0.050	0.10		µg/L	1	2/7/2022 05:22 PM
Barium	96	0.083	1.0		µg/L	1	2/7/2022 04:41 PM
Manganese	ND	0.026	0.50		µg/L	1	2/5/2022 12:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 11:06:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**				PrepDate:	**2/2/2022**	Analyst: **CEI**
Arsenic	0.94	0.050	0.10		µg/L	1	2/5/2022 12:24 AM
Barium	41	0.083	1.0		µg/L	1	2/7/2022 04:53 PM
Manganese	3.1	0.026	0.50		µg/L	1	2/5/2022 12:24 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit	
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified	
	DO	Surrogate Diluted Out			

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 2:06:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	1.0	0.050	0.10		µg/L	1	2/5/2022 12:30 AM
Barium	54	0.083	1.0		µg/L	1	2/7/2022 04:59 PM
Manganese	2.8	0.026	0.50		µg/L	1	2/5/2022 12:30 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-0222
Lab Order:	N049241	**Collection Date:**	2/1/2022 1:21:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049241-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	0.54	0.050	0.10		µg/L	1	2/5/2022 12:35 AM
Barium	44	0.083	1.0		µg/L	1	2/7/2022 05:04 PM
Manganese	0.71	0.026	0.50		µg/L	1	2/5/2022 12:35 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit	
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified	
	DO	Surrogate Diluted Out			

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049241-010

Client Sample ID: MW-915-Q122
Collection Date: 2/1/2022 1:31:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220204C**	QC Batch: **91314**			PrepDate:		**2/2/2022**	Analyst: **CEI**
Arsenic	0.58	0.050	0.10		µg/L	1	2/5/2022 12:41 AM
Barium	44	0.083	1.0		µg/L	1	2/7/2022 05:10 PM
Manganese	0.71	0.026	0.50		µg/L	1	2/5/2022 12:41 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049241
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **MB-91314** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/2/2022** RunNo: **160072**
Client ID: **PBW** Batch ID: **91314** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/4/2022** SeqNo: **4525727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									

Sample ID **LCS-91314** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/2/2022** RunNo: **160072**
Client ID: **LCSW** Batch ID: **91314** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/4/2022** SeqNo: **4525728**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.913	0.10	10.00	0	99.1	85	115				
Barium	9.977	1.0	10.00	0	99.8	85	115				
Manganese	94.418	0.50	100.0	0	94.4	85	115				

Sample ID **N049208-001C-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/2/2022** RunNo: **160072**
Client ID: **ZZZZZZ** Batch ID: **91314** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/4/2022** SeqNo: **4525732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.434	0.10	10.00	0	104	75	125				
Barium	67.803	1.0	10.00	58.97	88.3	75	125				
Manganese	111.901	0.50	100.0	34.08	77.8	75	125				

Sample ID **N049208-001C-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/2/2022** RunNo: **160072**
Client ID: **ZZZZZZ** Batch ID: **91314** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/4/2022** SeqNo: **4525733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.420	0.10	10.00	0	104	75	125	10.43	0.134	20	
Barium	69.405	1.0	10.00	58.97	104	75	125	67.80	2.34	20	
Manganese	112.283	0.50	100.0	34.08	78.2	75	125	111.9	0.341	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ARCUS02 C: 2/15/2022 12:00 AM
FOLDER R: 2/1/2022
N049241-012A 1 of 1

ASSET LABORATORIES

ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Geotracker
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec
Submitted By: John Tran		Phone: 949-727-1400, ext 200 Fax:	Others ✓
Title: Field Tech	Phone: 916-786-3302 Fax:		Specify: RWQCB
Signature: Date: 2/1/22	Sampled By: John Tran		Global ID:
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for		
Project Name: PG&E Topock - PCM	Signature: Date: 2/1/22		
Project Number: 30110373.4Q21GW			

EDD Requirement		QA/QC	
Excel EDD		RTNE	
Geotracker		RWQCB	✓
Labspec		CalTrans	
Others	✓	LEVEL III	
Specify: RWQCB		LEVEL IV	
Global ID:		Regulatory	
		Specify State:	

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present	✓	
5. IR number 3		
6. Method of Cooling: Ice		

Sample Temp: 2.1°C / 2.3°C

Courier: ASSET

Tracking No.:

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH 250 mL poly	Nitrate, Sulfate (EPA 300.0) 1 L poly	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese 500mL poly	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, 500mL poly	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium 500mL poly	Total Organic Carbon (SM5310C); H2SO4 3x40 mL VOA	Total metals (SW6010) No filter; HNO3 Total Iron 500mL poly	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049241-01	MW-31-060-0222	2/1/2022	08:11		X	X	X			X		E	6	P	BNS	
2	-02	MW-31-135-0222	2/1/2022	08:51		X	X	X			X		E	6	P	BNS	
3	-03	MW-78-142-0222	2/1/2022	9:31		X	X	X			X		E	6	P	BNS	
4	-04	MW-78-070-0222	2/1/2022	10:06		X	X	X			X		E	6	P	BNS	
5	-05	MW-914-Q122	2/1/2022	10:16		X	X	X			X		E	6	P	BNS	
	-06	MW-79-058-0222	2/1/2022	11:51		X	X	X			X		E	6	P	BNS	
7	-07	MW-79-102-0222	2/1/2022	11:06		X	X	X			X		E	6	P	BNS	
8	-08	MW-80-057-0222	2/1/2022	14:06		X	X	X			X		E	6	P	BNS	
9	-09	MW-80-082-0222	2/1/2022	13:21		X	X	X			X		E	6	P	BNS	
10	-10	MW-915-Q122	2/1/2022	13:31		X	X	X			X		E	6	P	BNS	
11	-11	EB-701-Q122	2/1/2022	14:15		X							E	1	P	BNS	
12																	
13																	
14																	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
John Tran	2/1/22 1600	Jonas Deada	2/1/22 16.00
Jonas Deada	2/1/22 18:37	Jonas Deada	2/1/22 18:37
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days. Surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B	(NH4)2SO4/NH4OH		M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/1/2022	Workorder:	N049241
Rep sample Temp (Deg C):	3.1/2.3	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 2/2/2022

Reviewed By: MBC 2/4/2022

ASSET Laboratories

WORK ORDER Summary

02-Feb-22

WorkOrder: N049241

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049241-001A	MW-31-060-0222	2/1/2022 8:11:00 AM	2/15/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-001B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-001C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-001D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-002A	MW-31-135-0222	2/1/2022 8:51:00 AM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-002B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-002C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-002D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-003A	MW-78-142-0222	2/1/2022 9:31:00 AM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-003B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-003C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

02-Feb-22

WorkOrder: N049241

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049241-003C	MW-78-142-0222	2/1/2022 9:31:00 AM	2/15/2022	Groundwater	EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-003D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-004A	MW-78-070-0222	2/1/2022 10:06:00 AM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-004B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-004C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-004D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-005A	MW-914-Q122	2/1/2022 10:16:00 AM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-005B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-005C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-005D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-006A	MW-79-058-0222	2/1/2022 11:51:00 AM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-006B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-006C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

02-Feb-22

WorkOrder: N049241

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049241-006C	MW-79-058-0222	2/1/2022 11:51:00 AM	2/15/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-006D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-007A	MW-79-102-0222	2/1/2022 11:06:00 AM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-007B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-007C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-007D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-008A	MW-80-057-0222	2/1/2022 2:06:00 PM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-008B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-008C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-008D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-009A	MW-80-082-0222	2/1/2022 1:21:00 PM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-009B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

02-Feb-22

WorkOrder: N049241

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049241-009B	MW-80-082-0222	2/1/2022 1:21:00 PM	2/15/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-009C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-009D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-010A	MW-915-Q122	2/1/2022 1:31:00 PM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-010B			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049241-010C			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049241-010D			2/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049241-011A	EB-701-Q122	2/1/2022 2:15:00 PM	2/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049241-012A	FOLDER	2/15/2022	2/15/2022		Folder	Folder	☐	☐	☐	LAB
			2/15/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/15/2022		Folder	Folder	☐	☐	☐	LAB

February 15, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049273

RE: PG&E Topock - PCM, 30110373.4Q21GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 02, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for sample N049273-003 due to matrix interference. Sample was analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Sample was reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049273-001C-MS and N049273-001C-MSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) in QC samples N049273-001D-MS and N049273-001D-MSD are outside recovery criteria at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049273-001 and MS/MSD were reported at 5x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049273
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049273-001A	MW-26-0222	Groundwater	2/2/2022 12:09:00 PM	2/2/2022	2/15/2022
N049273-001B	MW-26-0222	Groundwater	2/2/2022 12:09:00 PM	2/2/2022	2/15/2022
N049273-001C	MW-26-0222	Groundwater	2/2/2022 12:09:00 PM	2/2/2022	2/15/2022
N049273-001D	MW-26-0222	Groundwater	2/2/2022 12:09:00 PM	2/2/2022	2/15/2022
N049273-002A	MW-51-0222	Groundwater	2/2/2022 12:51:00 PM	2/2/2022	2/15/2022
N049273-002B	MW-51-0222	Groundwater	2/2/2022 12:51:00 PM	2/2/2022	2/15/2022
N049273-002C	MW-51-0222	Groundwater	2/2/2022 12:51:00 PM	2/2/2022	2/15/2022
N049273-002D	MW-51-0222	Groundwater	2/2/2022 12:51:00 PM	2/2/2022	2/15/2022
N049273-003A	MW-71-035-0222	Groundwater	2/2/2022 8:41:00 AM	2/2/2022	2/15/2022
N049273-003B	MW-71-035-0222	Groundwater	2/2/2022 8:41:00 AM	2/2/2022	2/15/2022
N049273-003C	MW-71-035-0222	Groundwater	2/2/2022 8:41:00 AM	2/2/2022	2/15/2022
N049273-003D	MW-71-035-0222	Groundwater	2/2/2022 8:41:00 AM	2/2/2022	2/15/2022
N049273-004A	EB-702-Q122	Groundwater	2/2/2022 1:05:00 PM	2/2/2022	2/15/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:09:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220203B**	QC Batch: **R160024**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1800	5.0	40		µg/L	200	2/3/2022 05:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:51:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220207A**	QC Batch: **R160064**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2600	13	100		µg/L	500	2/7/2022 12:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 8:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220203B**	QC Batch: **R160024**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	2/3/2022 06:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-702-Q122
Lab Order:	N049273	**Collection Date:**	2/2/2022 1:05:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220203B**	QC Batch: **R160024**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/3/2022 06:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	LCS-R160024	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160024
Client ID:	LCSW	Batch ID:	R160024	TestNo:	EPA 218.6			Analysis Date:	2/3/2022	SeqNo:	4523710

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.959	0.20	5.000	0	99.2	90	110				

Sample ID	MB-R160024	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160024
Client ID:	PBW	Batch ID:	R160024	TestNo:	EPA 218.6			Analysis Date:	2/3/2022	SeqNo:	4523711

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID	N049277-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160024
Client ID:	ZZZZZZ	Batch ID:	R160024	TestNo:	EPA 218.6			Analysis Date:	2/3/2022	SeqNo:	4523713

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.091	0.20	1.000	2.114	97.8	90	110				

Sample ID	N049277-001AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160024
Client ID:	ZZZZZZ	Batch ID:	R160024	TestNo:	EPA 218.6			Analysis Date:	2/3/2022	SeqNo:	4523714

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.155	0.20	1.000	2.114	104	90	110	3.091	2.04	20	

Sample ID	N049276-001ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160024
Client ID:	ZZZZZZ	Batch ID:	R160024	TestNo:	EPA 218.6			Analysis Date:	2/3/2022	SeqNo:	4523716

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.148	0.20						1.173	2.14	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049275-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160024**
Client ID: **ZZZZZZ**	Batch ID: **R160024**	TestNo: **EPA 218.6**		Analysis Date: **2/3/2022**	SeqNo: **4523720**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.160	0.20	1.000	0.1537	101	90	110				

Sample ID **N049273-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160024**
Client ID: **ZZZZZZ**	Batch ID: **R160024**	TestNo: **EPA 218.6**		Analysis Date: **2/3/2022**	SeqNo: **4523722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2778.160	40	1000	1769	101	90	110				

Sample ID **N049273-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160024**
Client ID: **ZZZZZZ**	Batch ID: **R160024**	TestNo: **EPA 218.6**		Analysis Date: **2/3/2022**	SeqNo: **4523724**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.063	1.0	5.000	0	101	90	110				

Sample ID **N049273-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160024**
Client ID: **ZZZZZZ**	Batch ID: **R160024**	TestNo: **EPA 218.6**		Analysis Date: **2/3/2022**	SeqNo: **4523726**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.980	0.20	1.000	0	98.0	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R160064	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160064		
Client ID:	PBW	Batch ID:	R160064	TestNo:	EPA 218.6			Analysis Date:	2/7/2022	SeqNo:	4525054		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	ND	0.20											

Sample ID	LCS-R160064	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160064		
Client ID:	LCSW	Batch ID:	R160064	TestNo:	EPA 218.6			Analysis Date:	2/7/2022	SeqNo:	4525055		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	5.057	0.20	5.000	0	101	90	110						

Sample ID	N049273-002ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160064		
Client ID:	ZZZZZZ	Batch ID:	R160064	TestNo:	EPA 218.6			Analysis Date:	2/7/2022	SeqNo:	4525057		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	2606.600	100						2585	0.838	20			

Sample ID	N049273-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160064		
Client ID:	ZZZZZZ	Batch ID:	R160064	TestNo:	EPA 218.6			Analysis Date:	2/7/2022	SeqNo:	4525058		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	5167.850	100	2500	2585	103	90	110						

Sample ID	N049273-002AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160064		
Client ID:	ZZZZZZ	Batch ID:	R160064	TestNo:	EPA 218.6			Analysis Date:	2/7/2022	SeqNo:	4525059		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Hexavalent Chromium	5210.350	100	2500	2585	105	90	110	5168	0.819	20			

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:09:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	400	3.0	25		mg/L	50	2/4/2022 03:31 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220203B**	QC Batch: **R159999**			PrepDate:			Analyst: **RAB**
Nitrate as N	12	0.095	0.50		mg/L	10	2/3/2022 07:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:51:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	660	6.1	50		mg/L	100	2/4/2022 03:46 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220203B**	QC Batch: **R159999**			PrepDate:			Analyst: **RAB**
Nitrate as N	6.8	0.095	0.50		mg/L	10	2/3/2022 07:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 8:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	1100	6.1	50		mg/L	100	2/4/2022 04:01 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220203B**	QC Batch: **R159999**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	2/3/2022 07:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID	MB-R160051_SO4	SampType:	MBLK	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	160051
Client ID:	PBW	Batch ID:	R160051	TestNo:	EPA 300.0			Analysis Date:	2/4/2022	SeqNo:	4525322

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID	LCS-R160051_SO4	SampType:	LCS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	160051
Client ID:	LCSW	Batch ID:	R160051	TestNo:	EPA 300.0			Analysis Date:	2/4/2022	SeqNo:	4525323

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.943	0.50	4.000	0	98.6	90	110				

Sample ID	N049291-004BMS	SampType:	MS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	160051
Client ID:	ZZZZZZ	Batch ID:	R160051	TestNo:	EPA 300.0			Analysis Date:	2/4/2022	SeqNo:	4525329

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	26.338	1.0	8.000	18.65	96.1	80	120				

Sample ID	N049291-004BMSD	SampType:	MSD	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	160051
Client ID:	ZZZZZZ	Batch ID:	R160051	TestNo:	EPA 300.0			Analysis Date:	2/4/2022	SeqNo:	4525330

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	26.652	1.0	8.000	18.65	100	80	120	26.34	1.18	20	

Sample ID	N049291-002BDUP	SampType:	DUP	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	160051
Client ID:	ZZZZZZ	Batch ID:	R160051	TestNo:	EPA 300.0			Analysis Date:	2/4/2022	SeqNo:	4525331

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	16.315	1.0						16.28	0.212	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID	N049288-005BMS	SampType:	MS	TestCode:	300_W_SO4P	Units:	mg/L	Prep Date:		RunNo:	160051
Client ID:	ZZZZZZ	Batch ID:	R160051	TestNo:	EPA 300.0			Analysis Date:	2/4/2022	SeqNo:	4525337

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1277.830	50	400.0	874.2	101	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID	LCS-R159999_NO3	SampType:	LCS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159999
Client ID:	LCSW	Batch ID:	R159999	TestNo:	EPA 300.0			Analysis Date:	2/3/2022	SeqNo:	4523502

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.181	0.050	1.250	0	94.5	90	110				

Sample ID	MB-R159999_NO3	SampType:	MBLK	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159999
Client ID:	PBW	Batch ID:	R159999	TestNo:	EPA 300.0			Analysis Date:	2/3/2022	SeqNo:	4523503

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID	N049274-010BMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159999
Client ID:	ZZZZZZ	Batch ID:	R159999	TestNo:	EPA 300.0			Analysis Date:	2/3/2022	SeqNo:	4523505

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.504	0.10	2.500	0.1440	94.4	80	120				

Sample ID	N049274-010BMSD	SampType:	MSD	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159999
Client ID:	ZZZZZZ	Batch ID:	R159999	TestNo:	EPA 300.0			Analysis Date:	2/3/2022	SeqNo:	4523506

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.546	0.10	2.500	0.1440	96.1	80	120	2.504	1.66	20	

Sample ID	N049274-016BMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	159999
Client ID:	ZZZZZZ	Batch ID:	R159999	TestNo:	EPA 300.0			Analysis Date:	2/3/2022	SeqNo:	4523516

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	7.089	0.25	6.250	0.9640	98.0	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID **N049274-012BDUP** SampType: **DUP** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **159999**
Client ID: **ZZZZZZ** Batch ID: **R159999** TestNo: **EPA 300.0** Analysis Date: **2/3/2022** SeqNo: **4523517**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.788	0.25						2.754	1.25	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:09:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220203B**	QC Batch: **R160040**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.42	5.0		mg/L	5	2/4/2022 01:35 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:51:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220203B**	QC Batch: **R160040**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/3/2022 08:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 8:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220203B**	QC Batch: **R160040**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/3/2022 08:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **MB-R160040**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160040**
Client ID: **PBW**	Batch ID: **R160040**	TestNo: **SM 5310C**		Analysis Date: **2/3/2022**	SeqNo: **4524146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID **LCS-R160040**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160040**
Client ID: **LCSW**	Batch ID: **R160040**	TestNo: **SM 5310C**		Analysis Date: **2/3/2022**	SeqNo: **4524147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.950	1.0	5.000	0	99.0	85	115				

Sample ID **N049273-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160040**
Client ID: **ZZZZZZ**	Batch ID: **R160040**	TestNo: **SM 5310C**		Analysis Date: **2/4/2022**	SeqNo: **4524172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	20.989	5.0	25.00	1.268	78.9	75	125				

Sample ID **N049273-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160040**
Client ID: **ZZZZZZ**	Batch ID: **R160040**	TestNo: **SM 5310C**		Analysis Date: **2/4/2022**	SeqNo: **4524173**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	20.820	5.0	25.00	1.268	78.2	75	125	20.99	0.811	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:09:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91353**			PrepDate:		**2/4/2022**	Analyst: **DJ**
Iron	37	13	20		µg/L	1	2/11/2022 03:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:51:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220211A**	QC Batch: **91353**				PrepDate:	**2/4/2022**	Analyst: **DJ**
Iron	150	13	20		µg/L	1	2/11/2022 03:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 8:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91353**			PrepDate:		**2/4/2022**	Analyst: **DJ**
Iron	120	13	20		µg/L	1	2/11/2022 03:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	**MB-91353**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160165**
Client ID:	**PBW**	Batch ID: **91353**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531229**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID	**LCS-91353**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160165**
Client ID:	**LCSW**	Batch ID: **91353**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531230**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	94.545	20	100.0	0	94.5	85	115				

Sample ID	**N049274-001D-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160165**
Client ID:	**ZZZZZZ**	Batch ID: **91353**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531238**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	120.590	20	100.0	13.31	107	75	125				

Sample ID	**N049274-001D-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160165**
Client ID:	**ZZZZZZ**	Batch ID: **91353**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	119.493	20	100.0	13.31	106	75	125	120.6	0.913	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:09:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220207C**	QC Batch: **91354**			PrepDate:	**2/4/2022**		Analyst: **CEI**
Arsenic	1.2	0.050	0.10		µg/L	1	2/7/2022 09:24 PM
Barium	36	0.083	1.0		µg/L	1	2/7/2022 09:24 PM
Manganese	6.0	0.026	0.50		µg/L	1	2/7/2022 09:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 12:51:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220209A**	QC Batch: **91354**				PrepDate:	**2/4/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/9/2022 03:07 PM
Barium	47	0.083	1.0		µg/L	1	2/7/2022 10:29 PM
Manganese	5.3	0.026	0.50		µg/L	1	2/7/2022 10:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-0222
Lab Order:	N049273	**Collection Date:**	2/2/2022 8:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049273-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220207C**	QC Batch: **91354**				PrepDate:	**2/4/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/7/2022 10:41 PM
Barium	47	0.083	1.0		µg/L	1	2/7/2022 10:41 PM
Manganese	5.7	0.026	0.50		µg/L	1	2/7/2022 10:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **MB-91354**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160104**
Client ID: **PBW**	Batch ID: **91354**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/7/2022**	SeqNo: **4528705**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	0.111	0.50									

Sample ID **LCS-91354**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160104**
Client ID: **LCSW**	Batch ID: **91354**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/7/2022**	SeqNo: **4528706**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.941	0.10	10.00	0	109	85	115				
Barium	11.195	1.0	10.00	0	112	85	115				
Manganese	103.331	0.50	100.0	0	103	85	115				

Sample ID **N049273-001C-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160104**
Client ID: **ZZZZZZ**	Batch ID: **91354**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/7/2022**	SeqNo: **4528712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.454	0.10	10.00	1.198	133	75	125				S
Barium	48.334	1.0	10.00	36.05	123	75	125				
Manganese	96.419	0.50	100.0	5.974	90.4	75	125				

Sample ID **N049273-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/4/2022**	RunNo: **160104**
Client ID: **ZZZZZZ**	Batch ID: **91354**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/7/2022**	SeqNo: **4528714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.330	0.10	10.00	1.198	131	75	125	14.45	0.865	20	S
Barium	49.034	1.0	10.00	36.05	130	75	125	48.33	1.44	20	S
Manganese	96.975	0.50	100.0	5.974	91.0	75	125	96.42	0.575	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049273
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **N049273-001C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160104**
Client ID: **ZZZZZZ** Batch ID: **91354** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/7/2022** SeqNo: **4528710**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.165	0.10	10.00	1.198	130	80	120				S
Barium	47.177	1.0	10.00	36.05	111	80	120				
Manganese	98.038	0.50	100.0	5.974	92.1	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@gritgen.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted By: John Tran		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Fieldtech	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: Date: 2/2/22	Sampled By: John Tran		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for			Specify State:	6. Method of Cooling: Ice
Project Name: PG&E Topock - PCM	Signature: Date: 2/2/22				Sample Temp: 3.7 °C
Project Number: 30110373.4Q21GW					Courier: ASSET
					Tracking No.:

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, Sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1																	
2																	
3																	
4																	
5																	
6	N049273-01	MW-26-0222	2/2/2022	12:09		X	X	X			X		E	6	P	BNS	
7	-02	MW-51-0222	2/2/2022	12:51		X	X	X			X		E	6	P	BNS	
8	-03	MW-71-035-0222	2/2/2022	8:41		X	X	X			X		E	6	P	BNS	
9	-04	EB-702-Q122	2/2/2022	13:05		X							E	1	P	BNS	
10																	
11																	
12																	
13																	
14																	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
	2/2/22 15:45	Jonas Deada	2/2/22 15:45
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Jonas Deada	2/2/22 19.00	Jonas Deada	2/2/22 19.00
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/2/2022	Workorder:	N049273
Rep sample Temp (Deg C):	3.7	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

For:

Checklist Completed By: GGJ YRJ 2/3/2022

Reviewed By: MBC 2/4/2022

ASSET Laboratories

WORK ORDER Summary

03-Feb-22

WorkOrder: N049273

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/2/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049273-001A	MW-26-0222	2/2/2022 12:09:00 PM	2/16/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049273-001B			2/16/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/16/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049273-001C			2/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/16/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049273-001D			2/16/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049273-002A	MW-51-0222	2/2/2022 12:51:00 PM	2/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049273-002B			2/16/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/16/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049273-002C			2/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/16/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049273-002D			2/16/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049273-003A	MW-71-035-0222	2/2/2022 8:41:00 AM	2/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049273-003B			2/16/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/16/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049273-003C			2/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

03-Feb-22

WorkOrder: N049273

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/2/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049273-003C	MW-71-035-0222	2/2/2022 8:41:00 AM	2/16/2022	Groundwater	EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049273-003D			2/16/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049273-004A	EB-702-Q122	2/2/2022 1:05:00 PM	2/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049273-005A	FOLDER	2/16/2022	2/16/2022		Folder	Folder	☐	☐	☐	LAB
			2/16/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/16/2022		Folder	Folder	☐	☐	☐	LAB

February 15, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049288

RE: PG&E Topock - PCM, 30110373.4Q21GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 03, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049273-001C-MS and N049273-001C-MSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049288-001D-MS and N049288-001D-MSD at lower dilutions possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049288-001 and MS/MSD were reported at 25x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab Order: N049288
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049288-001A	MW-21-0222	Groundwater	2/3/2022 8:00:00 AM	2/3/2022	2/15/2022
N049288-001B	MW-21-0222	Groundwater	2/3/2022 8:00:00 AM	2/3/2022	2/15/2022
N049288-001C	MW-21-0222	Groundwater	2/3/2022 8:00:00 AM	2/3/2022	2/15/2022
N049288-001D	MW-21-0222	Groundwater	2/3/2022 8:00:00 AM	2/3/2022	2/15/2022
N049288-002A	MW-21-EB-0222	Groundwater	2/3/2022 8:10:00 AM	2/3/2022	2/15/2022
N049288-003A	MW-20-070-0222	Groundwater	2/3/2022 9:41:00 AM	2/3/2022	2/15/2022
N049288-003B	MW-20-070-0222	Groundwater	2/3/2022 9:41:00 AM	2/3/2022	2/15/2022
N049288-003C	MW-20-070-0222	Groundwater	2/3/2022 9:41:00 AM	2/3/2022	2/15/2022
N049288-003D	MW-20-070-0222	Groundwater	2/3/2022 9:41:00 AM	2/3/2022	2/15/2022
N049288-004A	MW-20-100-0222	Groundwater	2/3/2022 10:21:00 AM	2/3/2022	2/15/2022
N049288-004B	MW-20-100-0222	Groundwater	2/3/2022 10:21:00 AM	2/3/2022	2/15/2022
N049288-004C	MW-20-100-0222	Groundwater	2/3/2022 10:21:00 AM	2/3/2022	2/15/2022
N049288-004D	MW-20-100-0222	Groundwater	2/3/2022 10:21:00 AM	2/3/2022	2/15/2022
N049288-005A	MW-20-130-0222	Groundwater	2/3/2022 9:04:00 AM	2/3/2022	2/15/2022
N049288-005B	MW-20-130-0222	Groundwater	2/3/2022 9:04:00 AM	2/3/2022	2/15/2022
N049288-005C	MW-20-130-0222	Groundwater	2/3/2022 9:04:00 AM	2/3/2022	2/15/2022
N049288-005D	MW-20-130-0222	Groundwater	2/3/2022 9:04:00 AM	2/3/2022	2/15/2022
N049288-006A	EB-703-Q122	Groundwater	2/3/2022 12:00:00 PM	2/3/2022	2/15/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 8:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220204A**	QC Batch: **R160063**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	6.7	0.025	0.20		µg/L	1	2/4/2022 09:06 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-EB-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 8:10:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220204A**	QC Batch: **R160063**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/4/2022 11:01 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220204A**	QC Batch: **R160063**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	520	2.5	20		µg/L	100	2/4/2022 09:27 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220204A**	QC Batch: **R160063**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1300	5.0	40		µg/L	200	2/4/2022 09:45 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:04:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220204A**	QC Batch: **R160063**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	6000	25	200		µg/L	1000	2/4/2022 10:23 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-703-Q122
Lab Order:	N049288	**Collection Date:**	2/3/2022 12:00:00 PM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220204A**	QC Batch: **R160063**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/4/2022 11:20 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160063**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **PBW**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524908**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160063**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **LCSW**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524909**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.990	0.20	5.000	0	99.8	90	110				

Sample ID: **N049288-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524912**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1022.410	20	500.0	522.7	99.9	90	110				

Sample ID: **N049288-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524916**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2268.900	40	1000	1276	99.3	90	110				

Sample ID: **N049288-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524918**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	11026.400	200	5000	6023	100	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049288-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524919**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	12.046	0.20	5.000	6.732	106	90	110				

Sample ID: **N049288-003AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524920**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1018.550	20	500.0	522.7	99.2	90	110	1022	0.378	20	

Sample ID: **N049288-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.022	0.20	1.000	0	102	90	110				

Sample ID: **N049288-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524924**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.047	0.20	1.000	0	105	90	110				

Sample ID: **N049291-010ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160063**
Client ID: **ZZZZZZ**	Batch ID: **R160063**	TestNo: **EPA 218.6**		Analysis Date: **2/4/2022**	SeqNo: **4524939**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.945	0.20						0.9190	2.83	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 8:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	1100	6.1	50		mg/L	100	2/4/2022 02:45 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Nitrate as N	4.8	0.095	0.50		mg/L	10	2/4/2022 08:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	330	3.0	25		mg/L	50	2/4/2022 03:00 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Nitrate as N	21	0.095	0.50		mg/L	10	2/4/2022 08:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	270	1.2	10		mg/L	20	2/4/2022 03:15 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Nitrate as N	6.0	0.048	0.25		mg/L	5	2/4/2022 09:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:04:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Sulfate	870	6.1	50		mg/L	100	2/4/2022 02:14 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220204A**	QC Batch: **R160051**			PrepDate:			Analyst: **RAB**
Nitrate as N	9.3	0.095	0.50		mg/L	10	2/4/2022 09:23 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **MB-R160051_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **PBW**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525322**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **LCS-R160051_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **LCSW**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525323**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.943	0.50	4.000	0	98.6	90	110				

Sample ID: **N049291-004BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	26.338	1.0	8.000	18.65	96.1	80	120				

Sample ID: **N049291-004BMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525330**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	26.652	1.0	8.000	18.65	100	80	120	26.34	1.18	20	

Sample ID: **N049291-002BDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525331**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	16.315	1.0						16.28	0.212	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049288-005BMS** SampType: **MS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160051**
Client ID: **ZZZZZZ** Batch ID: **R160051** TestNo: **EPA 300.0** Analysis Date: **2/4/2022** SeqNo: **4525337**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1277.830	50	400.0	874.2	101	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160051_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **PBW**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525263**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160051_NO3**	SampType: **LCS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **LCSW**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525264**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.150	0.050	1.250	0	92.0	90	110				

Sample ID: **N049291-004BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.553	0.10	2.500	0.1132	97.6	80	120				

Sample ID: **N049291-004BMSD**	SampType: **MSD**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525275**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.528	0.10	2.500	0.1132	96.6	80	120	2.553	0.992	20	

Sample ID: **N049291-002BDUP**	SampType: **DUP**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	0.044	0.10						0.05600	0	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049288-001BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160051**
Client ID: **ZZZZZZ**	Batch ID: **R160051**	TestNo: **EPA 300.0**		Analysis Date: **2/4/2022**	SeqNo: **4525285**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.255	0.50	12.50	4.809	99.6	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 8:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220204B**	QC Batch: **R160042**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	2.1	25		mg/L	25	2/5/2022 01:11 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220204B**	QC Batch: **R160042**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/4/2022 08:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220204B**	QC Batch: **R160042**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/4/2022 08:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:04:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220204B**	QC Batch: **R160042**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	2/4/2022 08:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160042**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160042**
Client ID: **PBW**	Batch ID: **R160042**	TestNo: **SM 5310C**		Analysis Date: **2/4/2022**	SeqNo: **4524250**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160042**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160042**
Client ID: **LCSW**	Batch ID: **R160042**	TestNo: **SM 5310C**		Analysis Date: **2/4/2022**	SeqNo: **4524251**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.677	1.0	5.000	0	93.5	85	115				

Sample ID: **N049288-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160042**
Client ID: **ZZZZZZ**	Batch ID: **R160042**	TestNo: **SM 5310C**		Analysis Date: **2/5/2022**	SeqNo: **4524276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	105.045	25	125.0	0	84.0	75	125				

Sample ID: **N049288-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160042**
Client ID: **ZZZZZZ**	Batch ID: **R160042**	TestNo: **SM 5310C**		Analysis Date: **2/5/2022**	SeqNo: **4524277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	104.203	25	125.0	0	83.4	75	125	105.0	0.805	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 8:00:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91449**			PrepDate:	**2/11/2022**		Analyst: **DJ**
Iron	770	13	20		µg/L	1	2/11/2022 04:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220211A**	QC Batch: **91449**				PrepDate:	**2/11/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/11/2022 05:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91449**			PrepDate:	**2/11/2022**		Analyst: **DJ**
Iron	22	13	20		µg/L	1	2/11/2022 05:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:04:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220211A**	QC Batch: **91449**			PrepDate:	**2/11/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/11/2022 05:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91449**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **PBW**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531265**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91449**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **LCSW**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531266**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	97.416	20	100.0	0	97.4	85	115				

Sample ID: **N049288-001C-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **ZZZZZZ**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	866.153	20	100.0	772.8	93.3	75	125				

Sample ID: **N049288-001C-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **ZZZZZZ**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531275**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	864.285	20	100.0	772.8	91.5	75	125	866.2	0.216	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW
Lab ID: N049288-001

Client Sample ID: MW-21-0222
Collection Date: 2/3/2022 8:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220207C**	QC Batch: **91354**			PrepDate:		**2/4/2022**	Analyst: **CEI**
Arsenic	6.4	0.050	0.10		µg/L	1	2/7/2022 10:53 PM
Barium	32	0.083	1.0		µg/L	1	2/7/2022 10:53 PM
Manganese	40	0.026	0.50		µg/L	1	2/7/2022 10:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:41:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220207C**	QC Batch: **91354**			PrepDate:		**2/4/2022**	Analyst: **CEI**
Arsenic	2.1	0.050	0.10		µg/L	1	2/7/2022 11:05 PM
Barium	32	0.083	1.0		µg/L	1	2/7/2022 11:05 PM
Manganese	4.6	0.026	0.50		µg/L	1	2/7/2022 11:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220207C**	QC Batch: **91354**			PrepDate:		**2/4/2022**	Analyst: **CEI**
Arsenic	1.6	0.050	0.10		µg/L	1	2/7/2022 11:17 PM
Barium	31	0.083	1.0		µg/L	1	2/7/2022 11:17 PM
Manganese	5.2	0.026	0.50		µg/L	1	2/7/2022 11:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-0222
Lab Order:	N049288	**Collection Date:**	2/3/2022 9:04:00 AM
Project:	PG&E Topock - PCM, 30110373.4Q21GW	**Matrix:**	GROUNDWATER
Lab ID:	N049288-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220209A**	QC Batch: **91354**				PrepDate:	**2/4/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	2/9/2022 03:19 PM
Barium	29	0.083	1.0		µg/L	1	2/7/2022 11:40 PM
Manganese	5.3	0.026	0.50		µg/L	1	2/7/2022 11:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91354** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/4/2022** RunNo: **160104**
Client ID: **PBW** Batch ID: **91354** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/7/2022** SeqNo: **4528705**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	0.111	0.50									

Sample ID: **LCS-91354** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/4/2022** RunNo: **160104**
Client ID: **LCSW** Batch ID: **91354** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/7/2022** SeqNo: **4528706**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.941	0.10	10.00	0	109	85	115				
Barium	11.195	1.0	10.00	0	112	85	115				
Manganese	103.331	0.50	100.0	0	103	85	115				

Sample ID: **N049273-001C-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/4/2022** RunNo: **160104**
Client ID: **ZZZZZZ** Batch ID: **91354** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/7/2022** SeqNo: **4528712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.454	0.10	10.00	1.198	133	75	125				S
Barium	48.334	1.0	10.00	36.05	123	75	125				
Manganese	96.419	0.50	100.0	5.974	90.4	75	125				

Sample ID: **N049273-001C-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **2/4/2022** RunNo: **160104**
Client ID: **ZZZZZZ** Batch ID: **91354** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/7/2022** SeqNo: **4528714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.330	0.10	10.00	1.198	131	75	125	14.45	0.865	20	S
Barium	49.034	1.0	10.00	36.05	130	75	125	48.33	1.44	20	S
Manganese	96.975	0.50	100.0	5.974	91.0	75	125	96.42	0.575	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049288
Project: PG&E Topock - PCM, 30110373.4Q21GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049273-001C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160104**
Client ID: **ZZZZZZ** Batch ID: **91354** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **2/7/2022** SeqNo: **4528710**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.165	0.10	10.00	1.198	130	80	120				S
Barium	47.177	1.0	10.00	36.05	111	80	120				
Manganese	98.038	0.50	100.0	5.974	92.1	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

N049288

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com daniel.moore@citizen.com	Address:	Geotracker	RWQCB ✓	1. Chilled X
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted by: John Tran			Others ✓	LEVEL III	3. Container Intact Y
Title: Field Tech	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Specify: RWQCB	LEVEL IV	4. Seal Present Y
Signature: Date: 2/3/22	Sampled By: John Tran		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for			Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - PCM	Signature: Date: 2/3/22				Sample Temp: 2.6°C
Project Number: 30110373.4Q21GW					Courier: ASSET Tracking No.:

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, Sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049288-01	MW-21-0222	2/3/2022	8:00		X	X	X			X		E	6	P	BNS	
2	-02	MW-21-EB-0222	2/3/2022	8:10		X							E	1	P	BNS	
3	-03	MW-20-070-0222	2/3/2022	9:41		X	X	X			X		E	6	P	BNS	
4	-04	MW-20-100-0222	2/3/2022	10:21		X	X	X			X		E	6	P	BNS	
5	-05	MW-20-130-0222	2/3/2022	9:04		X	X	X			X		E	6	P	BNS	
	-06	EB-703-Q122	2/3/2022	12:00		X							E	1	P	BNS	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
John Tran	2/3/22 16:00	Jonas Deada	2/0/22 16:00
Jonas Deada	2/3/22 18:53	Jonas Deada	2/3/22 18:53
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B (NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/3/2022	Workorder:	N049288
Rep sample Temp (Deg C):	2.6	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 2/4/2022

Reviewed By: MBC 2/4/2022

ASSET Laboratories

WORK ORDER Summary

04-Feb-22

WorkOrder: N049288

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/3/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049288-001A	MW-21-0222	2/3/2022 8:00:00 AM	2/17/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049288-001B			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049288-001C			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049288-001D			2/17/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049288-002A	MW-21-EB-0222	2/3/2022 8:10:00 AM	2/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049288-003A	MW-20-070-0222	2/3/2022 9:41:00 AM	2/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049288-003B			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049288-003C			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049288-003D			2/17/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049288-004A	MW-20-100-0222	2/3/2022 10:21:00 AM	2/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049288-004B			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049288-004C			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

04-Feb-22

WorkOrder: N049288

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30110373.4Q21GW **QC Level:** Level IV **Date Received:** 2/3/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049288-004C	MW-20-100-0222	2/3/2022 10:21:00 AM	2/17/2022	Groundwater	EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049288-004D			2/17/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049288-005A	MW-20-130-0222	2/3/2022 9:04:00 AM	2/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049288-005B			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			2/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049288-005C			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/17/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049288-005D			2/17/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049288-006A	EB-703-Q122	2/3/2022 12:00:00 PM	2/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049288-007A	FOLDER	2/17/2022	2/17/2022		Folder	Folder	☐	☐	☐	LAB
			2/17/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/17/2022		Folder	Folder	☐	☐	☐	LAB

February 10, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049362

RE: PG&E Topock - OMM CAB, 30106892

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 08, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM CAB, 30106892
Lab Order: N049362

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Sample was analyzed within method holding time.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria at 1x dilution possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049362-001 and MS/MSD were reported at 5x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM CAB, 30106892
Lab Order: N049362
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049362-001A	CAB_MIXER_606-020722	Groundwater	2/7/2022 9:00:00 AM	2/8/2022	2/10/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_606-020722
Lab Order:	N049362	**Collection Date:**	2/7/2022 9:00:00 AM
Project:	PG&E Topock - OMM CAB, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049362-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220210A**	QC Batch: **R160141**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.42	5.0		mg/L	5	2/10/2022 02:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049362
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **MB-R160141**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160141**
Client ID: **PBW**	Batch ID: **R160141**	TestNo: **SM 5310C**		Analysis Date: **2/10/2022**	SeqNo: **4530293**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID **LCS-R160141**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160141**
Client ID: **LCSW**	Batch ID: **R160141**	TestNo: **SM 5310C**		Analysis Date: **2/10/2022**	SeqNo: **4530294**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.581	1.0	5.000	0	91.6	85	115				

Sample ID **N049362-001A-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160141**
Client ID: **ZZZZZZ**	Batch ID: **R160141**	TestNo: **SM 5310C**		Analysis Date: **2/10/2022**	SeqNo: **4530304**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	28.053	5.0	25.00	4.696	93.4	75	125				

Sample ID **N049362-001A-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160141**
Client ID: **ZZZZZZ**	Batch ID: **R160141**	TestNo: **SM 5310C**		Analysis Date: **2/10/2022**	SeqNo: **4530305**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	28.077	5.0	25.00	4.696	93.5	75	125	28.05	0.0837	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

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P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95678	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Geotracker	RWQCB ✓	1. Chilled Y
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Suite 200 Roseville, CA 95678	Email to: mbloes@pivox.com	Labspec	CalTrans	2. Headspace
Submitted By: B Proud		P.O.# SWA-ASSET-C9817-051	Others ✓	LEVEL III	3. Container Intact Y
Title: Driver	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Specify: RWQCB	LEVEL IV	4. Seal Present Y
Signature: Date: 2/8/22	Sampled By:		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.	Matrix: Ground x Sediment; Potable Soil; NPDES Other Solid; Surface		Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - OMM CAB	Signature: Date: 2/8/22				Sample Temp: 1.6 °C
Project Number: 30106892					Courier: ASSET Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered 250 mL poly	Silica (EPA6010); HNO3; Filtered 16 oz poly	Hardness SM 2340B), HNO3 16 oz poly	Ammonia as Nitrogen (SM4500-NH3C); H2SO4 16 oz poly	Total Kjeldahl Nitrogen (SM4500-Norg); H2SO4 16 oz poly	Biochemical Oxygen Demand (SM5210Bg); None 32 oz poly	Nitrate, Bromide, Nitrite, Sulfate, Fluoride, Chloride, Phosphate (EPA 300.0) 1 liter poly	Total Dissolved Solids (SM92540) 1 liter poly	Sulfide (SM2320B); ZnAc/NaOH 16 oz poly	Alkalinity Total (2320B); None 32 oz poly	Bicarbonate (SM 2320B); None 32 oz poly	Biological Activity Test (HACH); None 32 oz poly	Carbonate (SM 2320B); None 32 oz poly	Modified Fouling Index (ASTM); None 32 oz poly	Total Organic Carbon (SM5310C); H2SO4 3x40 mL poly	Mercury Dissolved (EPA7470A) HNO3; Filtered 500 mL poly	Dissolved metals Title 22 (SW 6020), HNO3; filtered 500 mL poly	Calcium, Magnesium, Potassium, Sodium, Iron (SW6010B); HNO3 500 mL poly	Mercury (SW 7470A); HNO3 500 mL poly	Total metals Title 22 (SW 6020), HNO3 500 mL poly	Total Phosphorus(EPA365.3) H2SO4 8 oz poly	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049362-01	CAB_MIXER_606-020722	2/7/22	905																X							E	3	PV	BNS	
2		~~CAB_MIXER_607-020722~~																		X							E	3	PV	BNS	
3																																
4																																
5																																
6																																
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8																																
9																																
10																																
11																																
12																																
13																																
14																																

Relinquished by (Signature and Printed Name): Brian Proud	Date/Time: 2/8/22 0900	Received by (Signature and Printed Name):	Date/Time:
Relinquished by (Signature and Printed Name): FEDEX NONSTARR	Date/Time: 2/8/22 1503	Received by (Signature and Printed Name): Giselle Pavia	Date/Time: 2/8/22 1503
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [x] C = 2 Workdays
- [ ] D = 3 Workdays
- [ ] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms

1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/8/2022	Workorder:	N049362
Rep sample Temp (Deg C):	1.5	IR Gun ID:	3

Temp Blank: ☑ Yes ☐ No

Carrier name: ASSET

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

For:

Checklist Completed By: GGJ YRJ 2/9/2022

Reviewed By: MBC 2/10/2022

Subject: RE: PG&E Topock - OMM CAB, 30106892 (ASSET Labs No. N049362)
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 2/9/2022, 12:30 PM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>
CC: "maryann.balilu@assetlaboratoriesph.com" <maryann.balilu@assetlaboratoriesph.com>, "giselle@assetlaboratories.com" <giselle@assetlaboratories.com>, "rustico.aquino@assetlaboratoriesph.com" <rustico.aquino@assetlaboratoriesph.com>

Hi Yoandra,
48 hrs is the correct requested TAT.

Thanks,
Laura

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Wednesday, February 9, 2022 2:31 PM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com; giselle@assetlaboratories.com; rustico.aquino@assetlaboratoriesph.com
Subject: PG&E Topock - OMM CAB, 30106892 (ASSET Labs No. N049362)

Hi Laura,

Please confirm TAT for the attached COC. Both E and C are marked.

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

ASSET LABORATORIES - Serving Clients with Passion and Professionalism

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ASSET Laboratories

WORK ORDER Summary

09-Feb-22

WorkOrder: N049362

Client ID: ARCUS02

Project: PG&E Topock - OMM CAB, 30106892 **QC Level:** Level IV **Date Received:** 2/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049362-001A	CAB_MIXER_606-020722	2/7/2022 9:00:00 AM	2/10/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049362-002A	FOLDER	2/10/2022	2/10/2022		Folder	Folder	☐	☐	☐	LAB
			2/10/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/10/2022		Folder	Folder	☐	☐	☐	LAB

February 17, 2022

Brian Prowd
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049363

RE: PG&E Topock - OMM TCS PWTF, 30106892

Attention: Brian Prowd

Enclosed are the results for sample(s) received on February 08, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab Order: N049363

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

ASSET Laboratories

Date: *17-Feb-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab Order: N049363
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049363-001A	Backwash Pre-filter-020822	Water	2/8/2022 8:00:00 AM	2/8/2022	2/17/2022
N049363-001B	Backwash Pre-filter-020822	Water	2/8/2022 8:00:00 AM	2/8/2022	2/17/2022
N049363-001C	Backwash Pre-filter-020822	Water	2/8/2022 8:00:00 AM	2/8/2022	2/17/2022
N049363-002A	Backwash Post-filter-020822	Water	2/8/2022 8:00:00 AM	2/8/2022	2/17/2022
N049363-002B	Backwash Post-filter-020822	Water	2/8/2022 8:00:00 AM	2/8/2022	2/17/2022
N049363-002C	Backwash Post-filter-020822	Water	2/8/2022 8:00:00 AM	2/8/2022	2/17/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-020822
Lab Order:	N049363	**Collection Date:**	2/8/2022 8:00:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049363-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220209A**	QC Batch: **R160117**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	680	2.5	20		µg/L	100	2/9/2022 11:08 AM
TOTAL METALS BY ICPMS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220211B**	QC Batch: **91448**			PrepDate:	**2/11/2022**		Analyst: **CEI**
Chromium	660	0.18	5.0		µg/L	5	2/11/2022 03:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049363
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab ID: N049363-002

Client Sample ID: Backwash Post-filter-020822
Collection Date: 2/8/2022 8:00:00 AM
Matrix: WATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220209A**	QC Batch: **R160117**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	710	2.5	20		µg/L	100	2/9/2022 11:38 AM
TOTAL METALS BY ICPMS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220211B**	QC Batch: **91448**			PrepDate:	**2/11/2022**		Analyst: **CEI**
Chromium	710	0.18	5.0		µg/L	5	2/11/2022 04:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049363
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160117**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160117**
Client ID: **PBW**	Batch ID: **R160117**	TestNo: **EPA 218.6**		Analysis Date: **2/9/2022**	SeqNo: **4529038**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160117**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160117**
Client ID: **LCSW**	Batch ID: **R160117**	TestNo: **EPA 218.6**		Analysis Date: **2/9/2022**	SeqNo: **4529039**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.906	0.20	5.000	0	98.1	90	110				

Sample ID: **N049363-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160117**
Client ID: **ZZZZZZ**	Batch ID: **R160117**	TestNo: **EPA 218.6**		Analysis Date: **2/9/2022**	SeqNo: **4529042**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1155.400	20	500.0	676.6	95.8	90	110				

Sample ID: **N049363-001AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160117**
Client ID: **ZZZZZZ**	Batch ID: **R160117**	TestNo: **EPA 218.6**		Analysis Date: **2/9/2022**	SeqNo: **4529043**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1150.360	20	500.0	676.6	94.8	90	110	1155	0.437	20	

Sample ID: **N049363-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160117**
Client ID: **ZZZZZZ**	Batch ID: **R160117**	TestNo: **EPA 218.6**		Analysis Date: **2/9/2022**	SeqNo: **4529045**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1211.320	20	500.0	710.2	100	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049363
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049360-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160117**
Client ID: **ZZZZZZ**	Batch ID: **R160117**	TestNo: **EPA 218.6**		Analysis Date: **2/9/2022**	SeqNo: **4529049**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2590.060	40						2536	2.12	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049363
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **MB-91448**	SampType: **MBLK**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **PBW**	Batch ID: **91448**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.045	1.0									

Sample ID: **LCS-91448**	SampType: **LCS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **LCSW**	Batch ID: **91448**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534438**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.298	1.0	10.00	0	103	85	115				

Sample ID: **N049363-001C-MS**	SampType: **MS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **ZZZZZZ**	Batch ID: **91448**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	669.182	5.0	10.00	660.2	90.2	75	125				

Sample ID: **N049363-001C-MSD**	SampType: **MSD**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **ZZZZZZ**	Batch ID: **91448**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534449**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	672.121	5.0	10.00	660.2	120	75	125	669.2	0.438	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-020822
Lab Order:	N049363	**Collection Date:**	2/8/2022 8:00:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049363-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220211A**	QC Batch: **91449**				PrepDate:	**2/11/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	2/11/2022 06:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-020822
Lab Order:	N049363	**Collection Date:**	2/8/2022 8:00:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049363-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220211A**	QC Batch: **91449**				PrepDate:	**2/11/2022**	Analyst: **DJ**
Iron	160	13	20		µg/L	1	2/11/2022 06:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049363
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91449**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **PBW**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531265**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91449**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **LCSW**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531266**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	97.416	20	100.0	0	97.4	85	115				

Sample ID: **N049288-001C-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **ZZZZZZ**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	866.153	20	100.0	772.8	93.3	75	125				

Sample ID: **N049288-001C-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160165**
Client ID: **ZZZZZZ**	Batch ID: **91449**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4531275**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	864.285	20	100.0	772.8	91.5	75	125	866.2	0.216	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *17-Feb-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-020822
Lab Order:	N049363	**Collection Date:**	2/8/2022 8:00:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049363-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220211B**	QC Batch: **91447**			PrepDate:		**2/11/2022**	Analyst: **CEI**
Manganese	33	0.026	0.50		µg/L	1	2/11/2022 02:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-020822
Lab Order:	N049363	**Collection Date:**	2/8/2022 8:00:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049363-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220211B** QC Batch: **91447**				PrepDate:		**2/11/2022**	Analyst: **CEI**
Manganese	35	0.026	0.50		µg/L	1	2/11/2022 03:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049363
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91447**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **PBW**	Batch ID: **91447**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534357**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.203	0.50									

Sample ID: **LCS-91447**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **LCSW**	Batch ID: **91447**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534358**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	101.250	0.50	100.0	0	101	85	115				

Sample ID: **N049363-001B-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **ZZZZZZ**	Batch ID: **91447**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534364**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	123.642	0.50	100.0	33.02	90.6	75	125				

Sample ID: **N049363-001B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/11/2022**	RunNo: **160220**
Client ID: **ZZZZZZ**	Batch ID: **91447**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/11/2022**	SeqNo: **4534366**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	123.531	0.50	100.0	33.02	90.5	75	125	123.6	0.0899	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Brian Prowd	Bill to: Marty Bloes		EDD Requirement		QA/QC		Sample Receipt Condition	Y	N
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:		Excel EDD		RTNE		1. Chilled	✓	
Address: Roseville, CA 95678	Email: brian.prowd@arcadis.com; daniel.moore@critigen.com	Address:		Geotracker		RWQCB	✓	2. Headspace		
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Ste 200 Roseville, CA 95678	Email to: mbloes@pivox.com	P.O.# SWA-ASSET-C9817-051	Labspec		CalTrans		3. Container Intact	✓	
Submitted By: Kevin Ashley/Gary S.		Phone: 949-727-1400, ext 200	Fax:	Others	✓	LEVEL III		4. Seal Present		✓
Title: Owner Operator	Phone: 916-786-3302 Fax:			Specify: RWQCB		LEVEL IV		5. IR number	3	
Signature: Date: 2-8-22	Sampled By: Kevin Ashley/Gary S.			Global ID:		Regulatory		6. Method of Cooling: ICE		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.					Specify State:		Sample Temp: 1.6 °C		
Project Name: PG&E Topock - OMM TCS PWTF	Signature: Date: 2-8-22							Courier: ASSET		
Project Number: 30106892								Tracking No.:		

Matrix: Ground | Sediment | Potable | Soil | NPDES | Other Solid | Surface | Water X

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered; 250 mL poly	Dissolved metals: iron, manganese (SW6020) HNO3; Filtered; 500 mL poly	Total chromium (SW6020) HNO3; NOT Filtered; 500 mL poly	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049363-01	Backwash Pre-filter--020822	2-8-22	08:00		x	x	x	E	2	PV	BNS	
2	-02	Backwash Post-filter-020822	2-8-22	08:00		x	x	x	E	2	PV	BNS	
3									E	2	PV	BNS	
4									E	2	PV	BNS	
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

Relinquished by (Signature and Printed Name): Kevin Ashley Date/Time: 2/8/22 1600
Relinquished by (Signature and Printed Name): Romeo Kicaminara Date/Time: 2/8/22 1503
Relinquished by (Signature and Printed Name): Date/Time:

Received by (Signature and Printed Name): Romeo Kicaminara Date/Time: 2/8/22 01225
Received by (Signature and Printed Name): Date/Time:
Received by (Signature and Printed Name): Date/Time: 2/8/22 1503

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:
Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 9% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:
H=HCL | N=HNO_3 | S=H_2SO_4 | C=4°C
Z=$Zn(AC)_2$ | O=NaOH | T=$Na_2S_2O_3$
Others/Specify: B (NH4)2SO4/NH4OH

Container Type:
T=Tube | V=VOA | P=Pint
J=Jar | B=Tedlar | G=Glass
M=Metal | M=Metal | C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/8/2022	Workorder:	N049363
Rep sample Temp (Deg C):	1.6	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

For:

Checklist Completed By: GGJ YRJ 2/9/2022

Reviewed By: MBC 2/15/2022

ASSET Laboratories

WORK ORDER Summary

09-Feb-22

WorkOrder: N049363

Client ID: ARCUS02

Project: PG&E Topock - OMM TCS PWTF, 30106892 **QC Level:** Level IV **Date Received:** 2/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049363-001A	Backwash Pre-filter-020822	2/8/2022 8:00:00 AM	2/22/2022	Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049363-001B			2/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049363-001C			2/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/22/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049363-002A	Backwash Post-filter-020822		2/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049363-002B			2/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			2/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049363-002C			2/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/22/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049363-003A	FOLDER	2/22/2022	2/22/2022		Folder	Folder	☐	☐	☐	LAB
			2/22/2022		Folder	Level IV Report	☐	☐	☐	LAB
			2/22/2022		Folder	Folder	☐	☐	☐	LAB

February 22, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049475

RE: PG&E Topock - RCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 16, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049475

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Samples N049475-007 (AmbientBlank-1-Q122) and N049475-009 (AmbientBlank-2-Q122) were not analyzed as per COC.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049475
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049475-001A	MW-920-Q122	Surface Water	2/16/2022 10:05:00 AM	2/16/2022	2/22/2022
N049475-001B	MW-920-Q122	Surface Water	2/16/2022 10:05:00 AM	2/16/2022	2/22/2022
N049475-002A	C-R22A-D-Q122	Surface Water	2/16/2022 9:45:00 AM	2/16/2022	2/22/2022
N049475-002B	C-R22A-D-Q122	Surface Water	2/16/2022 9:45:00 AM	2/16/2022	2/22/2022
N049475-003A	C-R22A-S-Q122	Surface Water	2/16/2022 9:55:00 AM	2/16/2022	2/22/2022
N049475-003B	C-R22A-S-Q122	Surface Water	2/16/2022 9:55:00 AM	2/16/2022	2/22/2022
N049475-004A	C-R27-D-Q122	Surface Water	2/16/2022 10:30:00 AM	2/16/2022	2/22/2022
N049475-004B	C-R27-D-Q122	Surface Water	2/16/2022 10:30:00 AM	2/16/2022	2/22/2022
N049475-005A	C-R27-S-Q122	Surface Water	2/16/2022 10:40:00 AM	2/16/2022	2/22/2022
N049475-005B	C-R27-S-Q122	Surface Water	2/16/2022 10:40:00 AM	2/16/2022	2/22/2022
N049475-006A	C-TAZ-D-Q122	Surface Water	2/16/2022 8:30:00 AM	2/16/2022	2/22/2022
N049475-006B	C-TAZ-D-Q122	Surface Water	2/16/2022 8:30:00 AM	2/16/2022	2/22/2022
N049475-007A	AmbientBlank-1-Q122	Surface Water	2/16/2022 8:55:00 AM	2/16/2022	2/22/2022
N049475-008A	C-TAZ-S-Q122	Surface Water	2/16/2022 8:50:00 AM	2/16/2022	2/22/2022
N049475-008B	C-TAZ-S-Q122	Surface Water	2/16/2022 8:50:00 AM	2/16/2022	2/22/2022
N049475-009A	AmbientBlank-2-Q122	Surface Water	2/16/2022 10:55:00 AM	2/16/2022	2/22/2022
N049475-010A	R-28-Q122	Surface Water	2/16/2022 10:50:00 AM	2/16/2022	2/22/2022
N049475-010B	R-28-Q122	Surface Water	2/16/2022 10:50:00 AM	2/16/2022	2/22/2022
N049475-011A	R63-Q122	Surface Water	2/16/2022 9:30:00 AM	2/16/2022	2/22/2022
N049475-011B	R63-Q122	Surface Water	2/16/2022 9:30:00 AM	2/16/2022	2/22/2022
N049475-012A	C-BNS-Q122	Surface Water	2/16/2022 10:15:00 AM	2/16/2022	2/22/2022
N049475-012B	C-BNS-Q122	Surface Water	2/16/2022 10:15:00 AM	2/16/2022	2/22/2022
N049475-013A	C-I-3-D-Q122	Surface Water	2/16/2022 9:10:00 AM	2/16/2022	2/22/2022
N049475-013B	C-I-3-D-Q122	Surface Water	2/16/2022 9:10:00 AM	2/16/2022	2/22/2022
N049475-014A	C-I-3-S-Q122	Surface Water	2/16/2022 9:20:00 AM	2/16/2022	2/22/2022
N049475-014B	C-I-3-S-Q122	Surface Water	2/16/2022 9:20:00 AM	2/16/2022	2/22/2022
N049475-015A	MW-921-Q122	Surface Water	2/16/2022 8:40:00 AM	2/16/2022	2/22/2022
N049475-015B	MW-921-Q122	Surface Water	2/16/2022 8:40:00 AM	2/16/2022	2/22/2022
N049475-016A	SW1-Q122	Surface Water	2/16/2022 12:00:00 PM	2/16/2022	2/22/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049475
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049475-016B	SW1-Q122	Surface Water	2/16/2022 12:00:00 PM	2/16/2022	2/22/2022
N049475-017A	SW2-Q122	Surface Water	2/16/2022 12:20:00 PM	2/16/2022	2/22/2022
N049475-017B	SW2-Q122	Surface Water	2/16/2022 12:20:00 PM	2/16/2022	2/22/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-920-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:05:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 11:34 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R22A-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:45:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 11:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R22A-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:55:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 12:12 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R27-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 10:11 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R27-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:40:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 12:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-TAZ-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 8:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 01:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-TAZ-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 8:50:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 01:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	R-28-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:50:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 01:47 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	R63-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 02:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-BNS-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:15:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 02:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-I-3-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:10:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 10:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-I-3-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 03:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-921-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 8:40:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 10:45 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	SW1-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 12:00:00 PM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 03:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	SW2-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 12:20:00 PM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220217B**	QC Batch: **R160308**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/17/2022 03:59 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **LCS-R160308** SampType: **LCS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160308**
Client ID: **LCSW** Batch ID: **R160308** TestNo: **EPA 218.6** Analysis Date: **2/17/2022** SeqNo: **4537585**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.096	0.20	5.000	0	102	90	110				

Sample ID **MB-R160308** SampType: **MBLK** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160308**
Client ID: **PBW** Batch ID: **R160308** TestNo: **EPA 218.6** Analysis Date: **2/17/2022** SeqNo: **4537586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID **N049475-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160308**
Client ID: **ZZZZZZ** Batch ID: **R160308** TestNo: **EPA 218.6** Analysis Date: **2/17/2022** SeqNo: **4537588**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.077	0.20	1.000	0	108	90	110				

Sample ID **N049475-015ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160308**
Client ID: **ZZZZZZ** Batch ID: **R160308** TestNo: **EPA 218.6** Analysis Date: **2/17/2022** SeqNo: **4537592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20						0	0	20	

Sample ID **N049475-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160308**
Client ID: **ZZZZZZ** Batch ID: **R160308** TestNo: **EPA 218.6** Analysis Date: **2/17/2022** SeqNo: **4537594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.066	0.20	1.000	0	107	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049475-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537596

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.047	0.20	1.000	0	105	90	110				

Sample ID	N049475-003AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537598

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.063	0.20	1.000	0	106	90	110				

Sample ID	N049475-005AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537600

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.094	0.20	1.000	0	109	90	110				

Sample ID	N049475-006AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537604

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.084	0.20	1.000	0	108	90	110				

Sample ID	N049475-008AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537606

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.080	0.20	1.000	0	108	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049475-010AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537608

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.075	0.20	1.000	0	107	90	110				

Sample ID	N049475-011AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537610

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.068	0.20	1.000	0	107	90	110				

Sample ID	N049475-014AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537616

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.041	0.20	1.000	0	104	90	110				

Sample ID	N049475-016AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537618

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.053	0.20	1.000	0	105	90	110				

Sample ID	N049475-017AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160308
Client ID:	ZZZZZZ	Batch ID:	R160308	TestNo:	EPA 218.6			Analysis Date:	2/17/2022	SeqNo:	4537620

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049475-004AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160308**
Client ID: **ZZZZZZ**	Batch ID: **R160308**	TestNo: **EPA 218.6**		Analysis Date: **2/17/2022**	SeqNo: **4537621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.063	0.20	1.000	0	106	90	110	1.077	1.27	20	

Sample ID **N049475-015AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160308**
Client ID: **ZZZZZZ**	Batch ID: **R160308**	TestNo: **EPA 218.6**		Analysis Date: **2/17/2022**	SeqNo: **4537622**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.036	0.20	1.000	0	104	90	110				

Sample ID **N049475-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160308**
Client ID: **ZZZZZZ**	Batch ID: **R160308**	TestNo: **EPA 218.6**		Analysis Date: **2/17/2022**	SeqNo: **4537625**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R160364	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364	
Client ID:	PBW	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540487	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium		ND	0.20									

Sample ID	LCS-R160364	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364	
Client ID:	LCSW	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540488	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium		5.063	0.20	5.000	0	101	90	110				

Sample ID	N049475-013AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364	
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540491	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium		1.094	0.20	1.000	0	109	90	110				

Sample ID	N049500-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364	
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540493	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium		1.088	0.20	1.000	0	109	90	110				

Sample ID	N049500-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364	
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540495	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium		1.077	0.20	1.000	0	108	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049498-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	634.845	10	250.0	381.8	101	90	110				

Sample ID **N049500-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540500**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.033	0.20	1.000	0	103	90	110				

Sample ID **N049500-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540502**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.089	0.20	1.000	0	109	90	110				

Sample ID **N049500-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540504**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID **N049500-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.070	0.20	1.000	0	107	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049500-007AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.063	0.20	1.000	0	106	90	110	1.070	0.609	20	

Sample ID **N049498-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540508**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	376.910	10						381.8	1.30	20	

Sample ID **N049500-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540511**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.094	0.20	1.000	0	109	90	110				

Sample ID **N049500-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540514**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.072	0.20	1.000	0	107	90	110				

Sample ID **N049500-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160364**
Client ID: **ZZZZZZ**	Batch ID: **R160364**	TestNo: **EPA 218.6**		Analysis Date: **2/18/2022**	SeqNo: **4540516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.093	0.20	1.000	0	109	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049500-010AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540518

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.068	0.20	1.000	0	107	90	110				

Sample ID	N049500-011AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540520

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.075	0.20	1.000	0	108	90	110				

Sample ID	N049500-012AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540524

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.050	0.20	1.000	0	105	90	110				

Sample ID	N049500-014AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540526

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.087	0.20	1.000	0	109	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-920-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:05:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:	**2/18/2022**		Analyst: **CEI**
Arsenic	2.1	0.050	0.10		µg/L	1	2/18/2022 10:33 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 10:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R22A-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:45:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/18/2022 10:39 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 10:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R22A-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:55:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/18/2022 10:45 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 10:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-R27-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/18/2022 10:51 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 10:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab ID: N049475-005

Client Sample ID: C-R27-S-Q122
Collection Date: 2/16/2022 10:40:00 AM
Matrix: SURFACE WATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/18/2022 10:57 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 10:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-TAZ-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 8:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/18/2022 11:03 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-TAZ-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 8:50:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/18/2022 11:09 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	R-28-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:50:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/18/2022 11:15 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	R63-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/18/2022 11:21 PM
Manganese	0.70	0.026	0.50		µg/L	1	2/18/2022 11:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-BNS-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 10:15:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/18/2022 11:27 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-I-3-D-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:10:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.1	0.050	0.10		µg/L	1	2/18/2022 11:44 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-I-3-S-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 9:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/18/2022 11:50 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-921-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 8:40:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/18/2022 11:56 PM
Manganese	ND	0.026	0.50		µg/L	1	2/18/2022 11:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	SW1-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 12:00:00 PM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.4	0.050	0.10		µg/L	1	2/19/2022 12:02 AM
Manganese	21	0.026	0.50		µg/L	1	2/19/2022 12:02 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	SW2-Q122
Lab Order:	N049475	**Collection Date:**	2/16/2022 12:20:00 PM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049475-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91545**			PrepDate:	**2/18/2022**		Analyst: **CEI**
Arsenic	1.7	0.050	0.10		µg/L	1	2/19/2022 12:08 AM
Manganese	15	0.026	0.50		µg/L	1	2/19/2022 12:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049475
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **MB-91545**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/18/2022**	RunNo: **160328**
Client ID: **PBW**	Batch ID: **91545**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/18/2022**	SeqNo: **4538136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Manganese	ND	0.50									

Sample ID **LCS-91545**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/18/2022**	RunNo: **160328**
Client ID: **LCSW**	Batch ID: **91545**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/18/2022**	SeqNo: **4538137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.682	0.10	10.00	0	96.8	85	115				
Manganese	98.090	0.50	100.0	0	98.1	85	115				

Sample ID **N049498-001B-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/18/2022**	RunNo: **160328**
Client ID: **ZZZZZZ**	Batch ID: **91545**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/18/2022**	SeqNo: **4538143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.414	0.10	10.00	0	94.1	75	125				
Manganese	129.540	0.50	100.0	40.76	88.8	75	125				

Sample ID **N049498-001B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **2/18/2022**	RunNo: **160328**
Client ID: **ZZZZZZ**	Batch ID: **91545**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **2/18/2022**	SeqNo: **4538147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.743	0.10	10.00	0	97.4	75	125	9.414	3.44	20	
Manganese	127.004	0.50	100.0	40.76	86.2	75	125	129.5	1.98	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

N049475

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

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| | | |

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CHAIN OF CUSTODY RECORD

Page 2 of 2

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dbush@arcadis.com dbush@moore2critical.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted By: Nana Tey		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Project Manager	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: Date: 2/16/22	Sampled By: Nana Tey		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for			Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - RCM	Signature: Date: 2/16/22				Sample Temp: 4.1 °C
Project Number: 30121866.1Q22GW					Courier: ASSET Tracking No.:

Matrix: Ground; Sediment; Potable; Soil; NPDES; Other Solid; Surface (X)

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate/Nitrite (SM4500N03) Nitrogen; H2SO4 (125 mL poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Manganese, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049475-15	MW-921-Q122	2/16/2022	8:40		X		X		E	2	P	BN	
2	-16	SW1-Q122	2/16/2022	12:00		X		X		E	2	P	BN	
3	-17	SW2-Q122	2/16/2022	12:20		X		X		E	2	P	BN	
4														
5														
7														
8														
9														
10														
11														
12														
13														
14														

Reliquished by (Signature and Printed Name):	Date/Time:	Reliquished by (Signature and Printed Name):	Date/Time:
Nana Tey	2/16/22 1630	Jonas Deada	2/16/22 16:30
Reliquished by (Signature and Printed Name):	Date/Time:	Reliquished by (Signature and Printed Name):	Date/Time:
Jonas Deada	2/16/22 19:40	Jonas Deada	2/16/22 19:40
Reliquished by (Signature and Printed Name):	Date/Time:	Reliquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 5% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B	(NH4)2SO4/NH4OH		M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/16/2022	Workorder:	N049475
Rep sample Temp (Deg C):	4.1	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 2/17/2022

Reviewed By: MBC 2/19/2022

ASSET Laboratories

WORK ORDER Summary

19-Feb-22

WorkOrder: N049475

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/16/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049475-001A	MW-920-Q122	2/16/2022 10:05:00 AM	3/2/2022	Surface Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-001B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-002A	C-R22A-D-Q122	2/16/2022 9:45:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-002B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-003A	C-R22A-S-Q122	2/16/2022 9:55:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-003B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-004A	C-R27-D-Q122	2/16/2022 10:30:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-004B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-005A	C-R27-S-Q122	2/16/2022 10:40:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-005B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-006A	C-TAZ-D-Q122	2/16/2022 8:30:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-006B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-007A	AmbientBlank-1-Q122	2/16/2022 8:55:00 AM					☐	☐	☐	WW
N049475-008A	C-TAZ-S-Q122	2/16/2022 8:50:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-008B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

19-Feb-22

WorkOrder: N049475

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/16/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049475-009A	AmbientBlank-2-Q122	2/16/2022 10:55:00 AM		Surface Water			☐	☐	☐	WW
N049475-010A	R-28-Q122	2/16/2022 10:50:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-010B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-011A	R63-Q122	2/16/2022 9:30:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-011B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-012A	C-BNS-Q122	2/16/2022 10:15:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-012B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-013A	C-I-3-D-Q122	2/16/2022 9:10:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-013B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-014A	C-I-3-S-Q122	2/16/2022 9:20:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-014B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-015A	MW-921-Q122	2/16/2022 8:40:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-015B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-016A	SW1-Q122	2/16/2022 12:00:00 PM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-016B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

19-Feb-22

WorkOrder: N049475

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/16/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049475-017A	SW2-Q122	2/16/2022 12:20:00 PM	3/2/2022	Surface Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049475-017B			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049475-018A	FOLDER	3/2/2022	3/2/2022		Folder	Folder	☐	☐	☐	LAB
			3/2/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/2/2022		Folder	Folder	☐	☐	☐	LAB

February 25, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049500

RE: PG&E Topock - RCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 17, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049500

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Sample N049500-013 (AmbientBlank-3-Q122) was not analyzed as per attached correspondence.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049500
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049500-001A	C-CON-D-Q122	Surface Water	2/17/2022 8:20:00 AM	2/17/2022	2/25/2022
N049500-001B	C-CON-D-Q122	Surface Water	2/17/2022 8:20:00 AM	2/17/2022	2/25/2022
N049500-002A	C-CON-S-Q122	Surface Water	2/17/2022 8:30:00 AM	2/17/2022	2/25/2022
N049500-002B	C-CON-S-Q122	Surface Water	2/17/2022 8:30:00 AM	2/17/2022	2/25/2022
N049500-003A	C-NR4-S-Q122	Surface Water	2/17/2022 9:45:00 AM	2/17/2022	2/25/2022
N049500-003B	C-NR4-S-Q122	Surface Water	2/17/2022 9:45:00 AM	2/17/2022	2/25/2022
N049500-004A	C-NR1-D-Q122	Surface Water	2/17/2022 8:40:00 AM	2/17/2022	2/25/2022
N049500-004B	C-NR1-D-Q122	Surface Water	2/17/2022 8:40:00 AM	2/17/2022	2/25/2022
N049500-005A	C-NR1-S-Q122	Surface Water	2/17/2022 8:55:00 AM	2/17/2022	2/25/2022
N049500-005B	C-NR1-S-Q122	Surface Water	2/17/2022 8:55:00 AM	2/17/2022	2/25/2022
N049500-006A	C-NR3-D-Q122	Surface Water	2/17/2022 9:10:00 AM	2/17/2022	2/25/2022
N049500-006B	C-NR3-D-Q122	Surface Water	2/17/2022 9:10:00 AM	2/17/2022	2/25/2022
N049500-007A	C-MAR-D-Q122	Surface Water	2/17/2022 10:10:00 AM	2/17/2022	2/25/2022
N049500-007B	C-MAR-D-Q122	Surface Water	2/17/2022 10:10:00 AM	2/17/2022	2/25/2022
N049500-008A	C-MAR-S-Q122	Surface Water	2/17/2022 10:20:00 AM	2/17/2022	2/25/2022
N049500-008B	C-MAR-S-Q122	Surface Water	2/17/2022 10:20:00 AM	2/17/2022	2/25/2022
N049500-009A	C-NR3-S-Q122	Surface Water	2/17/2022 9:20:00 AM	2/17/2022	2/25/2022
N049500-009B	C-NR3-S-Q122	Surface Water	2/17/2022 9:20:00 AM	2/17/2022	2/25/2022
N049500-010A	R-19-Q122	Surface Water	2/17/2022 10:30:00 AM	2/17/2022	2/25/2022
N049500-010B	R-19-Q122	Surface Water	2/17/2022 10:30:00 AM	2/17/2022	2/25/2022
N049500-011A	RRB-Q122	Surface Water	2/17/2022 10:45:00 AM	2/17/2022	2/25/2022
N049500-011B	RRB-Q122	Surface Water	2/17/2022 10:45:00 AM	2/17/2022	2/25/2022
N049500-012A	MW-919-Q122	Surface Water	2/17/2022 8:50:00 AM	2/17/2022	2/25/2022
N049500-012B	MW-919-Q122	Surface Water	2/17/2022 8:50:00 AM	2/17/2022	2/25/2022
N049500-013A	AmbientBlank-3-Q122	Surface Water	2/17/2022 10:50:00 AM	2/17/2022	2/25/2022
N049500-014A	C-NR4-D-Q122	Surface Water	2/17/2022 9:35:00 AM	2/17/2022	2/25/2022
N049500-014B	C-NR4-D-Q122	Surface Water	2/17/2022 9:35:00 AM	2/17/2022	2/25/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-CON-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 11:12 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-CON-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 11:31 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR4-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:45:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 12:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR1-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:40:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 12:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR1-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:55:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 12:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR3-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:10:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 02:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-MAR-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:10:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 01:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-MAR-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 02:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR3-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 02:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	R-19-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 03:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	RRB-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:45:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 03:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-919-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:50:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 04:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR4-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:35:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220218A**	QC Batch: **R160364**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	2/18/2022 04:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049500
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R160364	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	PBW	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540487

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID	LCS-R160364	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	LCSW	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540488

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.063	0.20	5.000	0	101	90	110				

Sample ID	N049475-013AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540491

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.094	0.20	1.000	0	109	90	110				

Sample ID	N049500-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540493

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.088	0.20	1.000	0	109	90	110				

Sample ID	N049500-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540495

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.077	0.20	1.000	0	108	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049500
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049498-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540496

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	634.845	10	250.0	381.8	101	90	110				

Sample ID	N049500-003AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540500

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.033	0.20	1.000	0	103	90	110				

Sample ID	N049500-004AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540502

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.089	0.20	1.000	0	109	90	110				

Sample ID	N049500-005AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540504

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID	N049500-007AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540506

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.070	0.20	1.000	0	107	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049500
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049500-007AMSD	SampType:	MSD	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540507

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.063	0.20	1.000	0	106	90	110	1.070	0.609	20	

Sample ID	N049498-001ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540508

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	376.910	10						381.8	1.30	20	

Sample ID	N049500-006AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540511

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.094	0.20	1.000	0	109	90	110				

Sample ID	N049500-008AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540514

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.072	0.20	1.000	0	107	90	110				

Sample ID	N049500-009AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540516

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.093	0.20	1.000	0	109	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049500
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049500-010AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540518

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.068	0.20	1.000	0	107	90	110				

Sample ID	N049500-011AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540520

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.075	0.20	1.000	0	108	90	110				

Sample ID	N049500-012AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540524

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.050	0.20	1.000	0	105	90	110				

Sample ID	N049500-014AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160364
Client ID:	ZZZZZZ	Batch ID:	R160364	TestNo:	EPA 218.6			Analysis Date:	2/18/2022	SeqNo:	4540526

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.087	0.20	1.000	0	109	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-CON-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.2	0.050	0.10		µg/L	1	2/19/2022 12:49 AM
Manganese	0.71	0.026	0.50		µg/L	1	2/19/2022 12:49 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-CON-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 01:19 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 01:19 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR4-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:45:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/19/2022 01:25 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 01:25 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR1-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:40:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 01:31 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 01:31 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR1-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:55:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 01:48 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 01:48 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR3-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:10:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/19/2022 01:54 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 01:54 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-MAR-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:10:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	1.8	0.050	0.10		µg/L	1	2/19/2022 02:00 AM
Manganese	5.4	0.026	0.50		µg/L	1	2/19/2022 02:00 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-MAR-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 02:06 AM
Manganese	7.0	0.026	0.50		µg/L	1	2/19/2022 02:06 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR3-S-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:20:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 02:12 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 02:12 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	R-19-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:30:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 02:18 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 02:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	RRB-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 10:45:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:	**2/18/2022**		Analyst: **CEI**
Arsenic	1.5	0.050	0.10		µg/L	1	2/19/2022 02:24 AM
Manganese	14	0.026	0.50		µg/L	1	2/19/2022 02:24 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-919-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 8:50:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:	**2/18/2022**		Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	2/19/2022 02:30 AM
Manganese	1.7	0.026	0.50		µg/L	1	2/19/2022 02:30 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	C-NR4-D-Q122
Lab Order:	N049500	**Collection Date:**	2/17/2022 9:35:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	SURFACE WATER
Lab ID:	N049500-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220218B**	QC Batch: **91546**			PrepDate:		**2/18/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	2/19/2022 02:36 AM
Manganese	ND	0.026	0.50		µg/L	1	2/19/2022 02:36 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049500
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	MB-91546	SampType:	MBLK	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	2/18/2022	RunNo:	160328
Client ID:	PBW	Batch ID:	91546	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	2/19/2022	SeqNo:	4538180

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Manganese	ND	0.50									

Sample ID	LCS-91546	SampType:	LCS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	2/18/2022	RunNo:	160328
Client ID:	LCSW	Batch ID:	91546	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	2/19/2022	SeqNo:	4538181

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.857	0.10	10.00	0	98.6	85	115				
Manganese	99.387	0.50	100.0	0	99.4	85	115				

Sample ID	N049500-001B-MS	SampType:	MS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	2/18/2022	RunNo:	160328
Client ID:	ZZZZZZ	Batch ID:	91546	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	2/19/2022	SeqNo:	4538185

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	11.149	0.10	10.00	2.203	89.5	75	125				
Manganese	92.195	0.50	100.0	0.7101	91.5	75	125				

Sample ID	N049500-001B-MSD	SampType:	MSD	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	2/18/2022	RunNo:	160328
Client ID:	ZZZZZZ	Batch ID:	91546	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	2/19/2022	SeqNo:	4538186

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	11.755	0.10	10.00	2.203	95.5	75	125	11.15	5.29	20	
Manganese	93.895	0.50	100.0	0.7101	93.2	75	125	92.19	1.83	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB; Global ID:
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Specify State:
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	
Submitted By: Nava Tey		Phone: 949-727-1400, ext 200 Fax:	
Title: Project Manager	Phone: 916-786-3302 Fax:		
Signature: Date: 2/17/22	Sampled By: Nava Tey		
Project Name: PG&E Topock - RCM	Signature: Date: 2/17/22		
Project Number: 30121866.1Q22GW			

I hereby authorize ASSET Labs to perform the tests indicated below.

I attest to the validity and authenticity of this sample. I am aware that tempering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Matrix: Ground; Sediment; Potable; Soil; NPDES; Other Solid; Surface: X

Sample Receipt Condition

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present		
5. IR number	2	

6. Method of Cooling: ICE

Sample Temp: 4.8°C

Courier: ASSET

Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate/Nitrite (SM4500N03) Nitrogen; H2SO4 (125 mL poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049500-01	C-CON-D-Q122	2/17/2022	8:20		X		X		E	2	P	BNS	
2	-02	C-CON-S-Q122	2/17/2022	8:30		X		X		E	2	P	BNS	
3	-03	C-NR4-S-Q122	2/17/2022	9:45		X		X		E	2	P	BNS	
4	-04	C-NR1-D-Q122	2/17/2022	8:40		X		X		E	2	P	BNS	
5	-05	C-NR1-S-Q122	2/17/2022	8:55		X		X		E	2	P	BNS	
	-06	C-NR3-D-Q122	2/17/2022	9:10		X		X		E	2	P	BNS	
7	-07	C-MAR-D-Q122	2/17/2022	10:10		X		X		E	2	P	BNS	
8	-08	C-MAR-S-Q122	2/17/2022	10:20		X		X		E	2	P	BNS	
9	-09	C-NR3-S-Q122	2/17/2022	9:20		X		X		E	2	P	BNS	
10	-10	R-19-Q122	2/17/2022	10:30		X		X		E	2	P	BNS	
11	-11	RRB-Q122	2/17/2022	10:45		X		X		E	2	P	BNS	
12	-12	MW-919-Q122	2/17/2022	8:50		X		X		E	2	P	BNS	
13	-13	AmbientBlank-3-Q122	2/17/2022	10:50		X				E	1	P	BNS	
14	-14	C-NR4-D-Q122	2/17/2022	9:35		X		X		E	2	P	BNS	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Nava Tey	2/17/22 1450	Romeo Kucantara	2/17/22 1750
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
for Romeo Kucantara	2/17/22 1745	for Romeo Kucantara	2/17/22 1745
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B	(NH4)2SO4/NH4OH	

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/17/2022	Workorder:	N049500
Rep sample Temp (Deg C):	4.8	IR Gun ID:	3

Temp Blank: ☑ Yes ☐ No

Carrier name: ASSET

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 2/18/2022

Reviewed By: MBC 2/19/2022

Subject: Re: PG&E Topock - RCM, 30110373.4Q21GW (ASSET Labs No. N049500)
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 2/18/2022, 4:41 PM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>
CC: "maryann.balilu@assetlaboratoriesph.com" <maryann.balilu@assetlaboratoriesph.com>, "rustico.aquino@assetlaboratoriesph.com" <rustico.aquino@assetlaboratoriesph.com>, "giselle@assetlaboratories.com" <giselle@assetlaboratories.com>

Please hold sample 13 the ambient blank and do not analyze.

Thanks
Laura

Get Outlook for iOS

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Friday, February 18, 2022 6:45:49 PM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com <maryann.balilu@assetlaboratoriesph.com>; rustico.aquino@assetlaboratoriesph.com <rustico.aquino@assetlaboratoriesph.com>; giselle@assetlaboratories.com <giselle@assetlaboratories.com>
Subject: PG&E Topock - RCM, 30110373.4Q21GW (ASSET Labs No. N049500)

Hi Laura,

Please confirm if sample 13 (Ambient blank) should be analyzed.

COC is attached for reference.

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

ASSET LABORATORIES - Serving Clients with Passion and Professionalism

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ASSET Laboratories

WORK ORDER Summary

19-Feb-22

WorkOrder: N049500

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/17/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049500-001A	C-CON-D-Q122	2/17/2022 8:20:00 AM	3/3/2022	Surface Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-001B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-002A	C-CON-S-Q122	2/17/2022 8:30:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-002B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-003A	C-NR4-S-Q122	2/17/2022 9:45:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-003B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-004A	C-NR1-D-Q122	2/17/2022 8:40:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-004B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-005A	C-NR1-S-Q122	2/17/2022 8:55:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-005B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-006A	C-NR3-D-Q122	2/17/2022 9:10:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-006B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-007A	C-MAR-D-Q122	2/17/2022 10:10:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-007B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-008A	C-MAR-S-Q122	2/17/2022 10:20:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

19-Feb-22

WorkOrder: N049500

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/17/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049500-008B	C-MAR-S-Q122	2/17/2022 10:20:00 AM	3/3/2022	Surface Water	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-009A	C-NR3-S-Q122	2/17/2022 9:20:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-009B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-010A	R-19-Q122	2/17/2022 10:30:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-010B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-011A	RRB-Q122	2/17/2022 10:45:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-011B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-012A	MW-919-Q122	2/17/2022 8:50:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-012B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-013A	AmbientBlank-3-Q122	2/17/2022 10:50:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☑	☐	☐	WW
N049500-014A	C-NR4-D-Q122	2/17/2022 9:35:00 AM	3/3/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049500-014B			3/3/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/3/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049500-015A	FOLDER	3/3/2022	3/3/2022		Folder	Folder	☐	☐	☐	LAB
			3/3/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/3/2022			QA Review	☐	☐	☐	LAB
			3/3/2022		Folder	Folder	☐	☐	☐	LAB

March 14, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049585

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on February 28, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

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SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B:

Sample N049585-005 was reported ND with dilution. Dilution was necessary due to associated internal standard not meeting method criteria possibly due to matrix interference.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049585
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049585-001A	MW-39-040-Q122	Groundwater	2/28/2022 2:20:00 PM	2/28/2022	3/14/2022
N049585-001B	MW-39-040-Q122	Groundwater	2/28/2022 2:20:00 PM	2/28/2022	3/14/2022
N049585-001C	MW-39-040-Q122	Groundwater	2/28/2022 2:20:00 PM	2/28/2022	3/14/2022
N049585-001D	MW-39-040-Q122	Groundwater	2/28/2022 2:20:00 PM	2/28/2022	3/14/2022
N049585-002A	MW-39-050-Q122	Groundwater	2/28/2022 1:19:00 PM	2/28/2022	3/14/2022
N049585-002B	MW-39-050-Q122	Groundwater	2/28/2022 1:19:00 PM	2/28/2022	3/14/2022
N049585-002C	MW-39-050-Q122	Groundwater	2/28/2022 1:19:00 PM	2/28/2022	3/14/2022
N049585-002D	MW-39-050-Q122	Groundwater	2/28/2022 1:19:00 PM	2/28/2022	3/14/2022
N049585-003A	MW-39-060-Q122	Groundwater	2/28/2022 12:15:00 PM	2/28/2022	3/14/2022
N049585-003B	MW-39-060-Q122	Groundwater	2/28/2022 12:15:00 PM	2/28/2022	3/14/2022
N049585-003C	MW-39-060-Q122	Groundwater	2/28/2022 12:15:00 PM	2/28/2022	3/14/2022
N049585-003D	MW-39-060-Q122	Groundwater	2/28/2022 12:15:00 PM	2/28/2022	3/14/2022
N049585-004A	MW-39-070-Q122	Groundwater	2/28/2022 1:51:00 PM	2/28/2022	3/14/2022
N049585-004B	MW-39-070-Q122	Groundwater	2/28/2022 1:51:00 PM	2/28/2022	3/14/2022
N049585-004C	MW-39-070-Q122	Groundwater	2/28/2022 1:51:00 PM	2/28/2022	3/14/2022
N049585-004D	MW-39-070-Q122	Groundwater	2/28/2022 1:51:00 PM	2/28/2022	3/14/2022
N049585-005A	MW-39-080-Q122	Groundwater	2/28/2022 12:48:00 PM	2/28/2022	3/14/2022
N049585-005B	MW-39-080-Q122	Groundwater	2/28/2022 12:48:00 PM	2/28/2022	3/14/2022
N049585-005C	MW-39-080-Q122	Groundwater	2/28/2022 12:48:00 PM	2/28/2022	3/14/2022
N049585-005D	MW-39-080-Q122	Groundwater	2/28/2022 12:48:00 PM	2/28/2022	3/14/2022
N049585-006A	MW-39-100-Q122	Groundwater	2/28/2022 11:42:00 AM	2/28/2022	3/14/2022
N049585-006B	MW-39-100-Q122	Groundwater	2/28/2022 11:42:00 AM	2/28/2022	3/14/2022
N049585-006C	MW-39-100-Q122	Groundwater	2/28/2022 11:42:00 AM	2/28/2022	3/14/2022
N049585-006D	MW-39-100-Q122	Groundwater	2/28/2022 11:42:00 AM	2/28/2022	3/14/2022
N049585-007A	EB-707-Q122	Groundwater	2/28/2022 2:30:00 PM	2/28/2022	3/14/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-040-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 2:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220301A**	QC Batch: **R160532**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/1/2022 11:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-050-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:19:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220301A**	QC Batch: **R160532**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/1/2022 12:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-060-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:15:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220301A**	QC Batch: **R160532**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/1/2022 12:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-070-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220301A**	QC Batch: **R160532**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/1/2022 01:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-080-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220301A**	QC Batch: **R160532**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/1/2022 01:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-100-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 11:42:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	9.8	0.025	0.20		µg/L	1	3/2/2022 09:03 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-707-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 2:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220301A**	QC Batch: **R160532**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/1/2022 01:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160532**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160532**
Client ID: **PBW**	Batch ID: **R160532**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4548819**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160532**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160532**
Client ID: **LCSW**	Batch ID: **R160532**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4548820**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.063	0.20	5.000	0	101	90	110				

Sample ID: **N049585-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160532**
Client ID: **ZZZZZZ**	Batch ID: **R160532**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4548822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.044	0.20	1.000	0.07920	96.5	90	110				

Sample ID: **N049585-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160532**
Client ID: **ZZZZZZ**	Batch ID: **R160532**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4548824**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.035	0.20	1.000	0	104	90	110				

Sample ID: **N049585-002AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160532**
Client ID: **ZZZZZZ**	Batch ID: **R160532**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4548825**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110	1.035	2.15	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049585-003AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160532**
Client ID: **ZZZZZZ** Batch ID: **R160532** TestNo: **EPA 218.6** Analysis Date: **3/1/2022** SeqNo: **4548827**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.034	0.20	1.000	0	103	90	110				

Sample ID: **N049585-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160532**
Client ID: **ZZZZZZ** Batch ID: **R160532** TestNo: **EPA 218.6** Analysis Date: **3/1/2022** SeqNo: **4548832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.053	0.20	1.000	0	105	90	110				

Sample ID: **N049585-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160532**
Client ID: **ZZZZZZ** Batch ID: **R160532** TestNo: **EPA 218.6** Analysis Date: **3/1/2022** SeqNo: **4548834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.036	0.20	1.000	0	104	90	110				

Sample ID: **N049585-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160532**
Client ID: **ZZZZZZ** Batch ID: **R160532** TestNo: **EPA 218.6** Analysis Date: **3/1/2022** SeqNo: **4548837**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.047	0.20	1.000	0	105	90	110				

Sample ID: **N049586-002ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160532**
Client ID: **ZZZZZZ** Batch ID: **R160532** TestNo: **EPA 218.6** Analysis Date: **3/1/2022** SeqNo: **4548846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.552	0.20						3.451	2.87	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160554**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **PBW**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160554**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **LCSW**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.101	0.20	5.000	0	102	90	110				

Sample ID: **N049585-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	15.005	0.20	5.000	9.792	104	90	110				

Sample ID: **N049610-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549839**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.096	0.20	1.000	0	110	90	110				

Sample ID: **N049610-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549843**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.126	0.20	1.000	0.09060	104	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049610-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160554**
Client ID: **ZZZZZZ** Batch ID: **R160554** TestNo: **EPA 218.6** Analysis Date: **3/2/2022** SeqNo: **4549845**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.078	0.20	1.000	0	108	90	110				

Sample ID: **N049610-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160554**
Client ID: **ZZZZZZ** Batch ID: **R160554** TestNo: **EPA 218.6** Analysis Date: **3/2/2022** SeqNo: **4549849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.082	0.20	1.000	0	108	90	110				

Sample ID: **N049610-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160554**
Client ID: **ZZZZZZ** Batch ID: **R160554** TestNo: **EPA 218.6** Analysis Date: **3/2/2022** SeqNo: **4549851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Sample ID: **N049610-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160554**
Client ID: **ZZZZZZ** Batch ID: **R160554** TestNo: **EPA 218.6** Analysis Date: **3/2/2022** SeqNo: **4549855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	78.718	1.0	25.00	52.32	106	90	110				

Sample ID: **N049610-007AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160554**
Client ID: **ZZZZZZ** Batch ID: **R160554** TestNo: **EPA 218.6** Analysis Date: **3/2/2022** SeqNo: **4549856**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	79.266	1.0	25.00	52.32	108	90	110	78.72	0.694	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049610-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.630	1.0	5.000	1.215	108	90	110				

Sample ID: **N049610-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549860**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	8.309	1.0	5.000	2.862	109	90	110				

Sample ID: **N049610-009ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549862**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	16.534	0.40						16.51	0.121	20	

Sample ID: **N049610-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	26.876	0.40	10.00	16.51	104	90	110				

Sample ID: **N049610-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549867**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.486	1.0	5.000	0	110	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049610-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	15.981	1.0	5.000	10.50	110	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-040-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 2:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220301A**	QC Batch: **R160510**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/1/2022 10:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-050-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:19:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220301A**	QC Batch: **R160510**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/1/2022 11:06 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-060-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:15:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220301A**	QC Batch: **R160510**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/1/2022 11:22 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-070-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220301A**	QC Batch: **R160510**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/1/2022 11:37 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-080-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220301A**	QC Batch: **R160510**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.15	0.019	0.10		mg/L	2	3/1/2022 11:52 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-100-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 11:42:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220301A**	QC Batch: **R160510**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/1/2022 12:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **LCS-R160510_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160510**
Client ID: **LCSW**	Batch ID: **R160510**	TestNo: **EPA 300.0**		Analysis Date: **3/1/2022**	SeqNo: **4547100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.270	0.050	1.250	0	102	90	110				

Sample ID: **MB-R160510_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160510**
Client ID: **PBW**	Batch ID: **R160510**	TestNo: **EPA 300.0**		Analysis Date: **3/1/2022**	SeqNo: **4547101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **N049585-004BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160510**
Client ID: **ZZZZZZ**	Batch ID: **R160510**	TestNo: **EPA 300.0**		Analysis Date: **3/1/2022**	SeqNo: **4547108**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	0.090	0.10						0.07800	0	20	

Sample ID: **N049585-002BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160510**
Client ID: **ZZZZZZ**	Batch ID: **R160510**	TestNo: **EPA 300.0**		Analysis Date: **3/1/2022**	SeqNo: **4547111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.349	0.10	2.500	0.06600	91.3	80	120				

Sample ID: **N049585-002BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160510**
Client ID: **ZZZZZZ**	Batch ID: **R160510**	TestNo: **EPA 300.0**		Analysis Date: **3/1/2022**	SeqNo: **4547112**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.384	0.10	2.500	0.06600	92.7	80	120	2.349	1.45	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-040-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 2:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	2.7	0.084	1.0		mg/L	1	3/3/2022 02:39 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-050-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:19:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 02:54 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-060-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:15:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 03:10 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-070-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 03:25 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-080-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 03:41 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-100-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 11:42:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 03:56 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160552**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **PBW**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/2/2022**	SeqNo: **4550519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160552**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **LCSW**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/2/2022**	SeqNo: **4550520**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.778	1.0	5.000	0	95.6	85	115				

Sample ID: **N049610-007DMS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **ZZZZZZ**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/3/2022**	SeqNo: **4550553**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	245.555	50	250.0	4.720	96.3	75	125				

Sample ID: **N049610-007DMSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **ZZZZZZ**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/3/2022**	SeqNo: **4550554**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	239.935	50	250.0	4.720	94.1	75	125	245.6	2.32	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-040-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 2:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:		**3/2/2022**	Analyst: **DJ**
Iron	320	13	20		µg/L	1	3/2/2022 07:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-050-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:19:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	76	13	20		µg/L	1	3/2/2022 07:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-060-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:15:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:		**3/2/2022**	Analyst: **DJ**
Iron	1800	13	20		µg/L	1	3/2/2022 07:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-070-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/2/2022 07:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-080-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/2/2022 07:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-100-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 11:42:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:		**3/2/2022**	Analyst: **DJ**
Iron	160	64	100		µg/L	5	3/2/2022 08:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91698**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **PBW**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549085**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91698**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **LCSW**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	101.092	20	100.0	0	101	85	115				

Sample ID: **N049610-007CMS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **ZZZZZZ**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	98.053	100	100.0	0	98.1	75	125				

Sample ID: **N049610-007CMSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **ZZZZZZ**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.392	100	100.0	0	99.4	75	125	98.05	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049585-001

Client Sample ID: MW-39-040-Q122
Collection Date: 2/28/2022 2:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A** QC Batch: **91697**				PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	15	0.050	0.10		µg/L	1	3/4/2022 05:13 AM
Barium	85	0.083	1.0		µg/L	1	3/2/2022 09:22 PM
Manganese	110	0.026	0.50		µg/L	1	3/2/2022 09:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049585-002

Client Sample ID: MW-39-050-Q122
Collection Date: 2/28/2022 1:19:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A** QC Batch: **91697**				PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	1.4	0.050	0.10		µg/L	1	3/4/2022 05:19 AM
Barium	42	0.083	1.0		µg/L	1	3/2/2022 09:34 PM
Manganese	170	0.026	0.50		µg/L	1	3/2/2022 09:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049585-003

Client Sample ID: MW-39-060-Q122
Collection Date: 2/28/2022 12:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A** QC Batch: **91697**				PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	3/4/2022 05:42 AM
Barium	36	0.083	1.0		µg/L	1	3/2/2022 09:46 PM
Manganese	150	0.026	0.50		µg/L	1	3/2/2022 09:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049585-004

Client Sample ID: MW-39-070-Q122
Collection Date: 2/28/2022 1:51:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A** QC Batch: **91697**				PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	3/4/2022 05:48 AM
Barium	21	0.083	1.0		µg/L	1	3/2/2022 10:16 PM
Manganese	7.6	0.026	0.50		µg/L	1	3/2/2022 10:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049585-005

Client Sample ID: MW-39-080-Q122
Collection Date: 2/28/2022 12:48:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**			PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	0.49	0.050	0.10		µg/L	1	3/4/2022 06:05 AM
Barium	21	0.083	1.0		µg/L	1	3/2/2022 10:28 PM
Manganese	5.8	0.026	0.50		µg/L	1	3/2/2022 10:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-39-100-Q122
Lab Order:	N049585	**Collection Date:**	2/28/2022 11:42:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049585-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**			PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/4/2022 06:00 AM
Barium	35	0.083	1.0		µg/L	1	3/2/2022 10:40 PM
Manganese	13	0.026	0.50		µg/L	1	3/2/2022 10:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91697**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160553**
Client ID: **PBW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549768**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	1.0									
Manganese	ND	0.50									

Sample ID: **LCS-91697**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160553**
Client ID: **LCSW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	10.137	1.0	10.00	0	101	85	115				
Manganese	101.334	0.50	100.0	0	101	85	115				

Sample ID: **N049610-007CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160553**
Client ID: **ZZZZZZ**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549775**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	57.101	1.0	10.00	49.00	81.0	75	125				
Manganese	157.893	0.50	100.0	68.04	89.9	75	125				

Sample ID: **N049610-007CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160553**
Client ID: **ZZZZZZ**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549779**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	57.664	1.0	10.00	49.00	86.7	75	125	57.10	0.980	20	
Manganese	153.040	0.50	100.0	68.04	85.0	75	125	157.9	3.12	20	

Sample ID: **MB-91697**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **PBW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049585
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91697**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **PBW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									

Sample ID: **LCS-91697**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **LCSW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.111	0.10	10.00	0	101	85	115				

Sample ID: **N049610-007CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **ZZZZZZ**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.386	0.10	10.00	0	104	75	125				

Sample ID: **N049610-007CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **ZZZZZZ**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.180	0.10	10.00	0	102	75	125	10.39	2.00	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us: N049585
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

| | | |

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	2/28/2022	Workorder:	N049585
Rep sample Temp (Deg C):	2.4	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 3/1/2022

Reviewed By: MBC 3/8/2022

ASSET Laboratories

WORK ORDER Summary

01-Mar-22

WorkOrder: N049585

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/28/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049585-001A	MW-39-040-Q122	2/28/2022 2:20:00 PM	3/14/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049585-001B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049585-001C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049585-001D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049585-002A	MW-39-050-Q122	2/28/2022 1:19:00 PM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049585-002B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049585-002C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049585-002D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049585-003A	MW-39-060-Q122	2/28/2022 12:15:00 PM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049585-003B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049585-003C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049585-003D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049585-004A	MW-39-070-Q122	2/28/2022 1:51:00 PM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

01-Mar-22

WorkOrder: N049585

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/28/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049585-004B	MW-39-070-Q122	2/28/2022 1:51:00 PM	3/14/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049585-004C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049585-004D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049585-005A	MW-39-080-Q122	2/28/2022 12:48:00 PM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049585-005B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049585-005C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049585-005D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049585-006A	MW-39-100-Q122	2/28/2022 11:42:00 AM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049585-006B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049585-006C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049585-006D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049585-007A	EB-707-Q122	2/28/2022 2:30:00 PM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049585-008A	FOLDER	3/14/2022	3/14/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories

WORK ORDER Summary

01-Mar-22

WorkOrder: N049585

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 2/28/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049585-008A	FOLDER	3/14/2022	3/14/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/14/2022		Folder	Folder	☐	☐	☐	LAB

March 04, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049610

RE: PG&E Topock - PCM, 30121866.1Q22GW

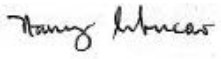
Attention: Dan Bush

Enclosed are the results for sample(s) received on March 01, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

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SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for some samples due to matrix interference. Samples were analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Samples were reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B:

Dilution was necessary since plasma was extinguished when samples were analyzed at lower dilution.

N049610-002C was analyzed for several times due to RSD not meeting the <15% criteria for Iron. RSD of all runs failed acceptance criteria. Iron was reported at 109ug/L with the lowest RSD value of 19.84%.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria at several dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049610-007 and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

% RSD of sample N049610-001 failed at1x dilution. Several runs at 1x all failed RSD thus sample was reported at 2xdilution.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049610
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049610-001A	MW-82-046-Q122	Groundwater	3/1/2022 8:52:00 AM	3/1/2022	3/4/2022
N049610-001B	MW-82-046-Q122	Groundwater	3/1/2022 8:52:00 AM	3/1/2022	3/4/2022
N049610-001C	MW-82-046-Q122	Groundwater	3/1/2022 8:52:00 AM	3/1/2022	3/4/2022
N049610-001D	MW-82-046-Q122	Groundwater	3/1/2022 8:52:00 AM	3/1/2022	3/4/2022
N049610-002A	MW-82-112-Q122	Groundwater	3/1/2022 9:30:00 AM	3/1/2022	3/4/2022
N049610-002B	MW-82-112-Q122	Groundwater	3/1/2022 9:30:00 AM	3/1/2022	3/4/2022
N049610-002C	MW-82-112-Q122	Groundwater	3/1/2022 9:30:00 AM	3/1/2022	3/4/2022
N049610-002D	MW-82-112-Q122	Groundwater	3/1/2022 9:30:00 AM	3/1/2022	3/4/2022
N049610-003A	MW-82-168-Q122	Groundwater	3/1/2022 10:10:00 AM	3/1/2022	3/4/2022
N049610-003B	MW-82-168-Q122	Groundwater	3/1/2022 10:10:00 AM	3/1/2022	3/4/2022
N049610-003C	MW-82-168-Q122	Groundwater	3/1/2022 10:10:00 AM	3/1/2022	3/4/2022
N049610-003D	MW-82-168-Q122	Groundwater	3/1/2022 10:10:00 AM	3/1/2022	3/4/2022
N049610-004A	MW-82-198-Q122	Groundwater	3/1/2022 10:55:00 AM	3/1/2022	3/4/2022
N049610-004B	MW-82-198-Q122	Groundwater	3/1/2022 10:55:00 AM	3/1/2022	3/4/2022
N049610-004C	MW-82-198-Q122	Groundwater	3/1/2022 10:55:00 AM	3/1/2022	3/4/2022
N049610-004D	MW-82-198-Q122	Groundwater	3/1/2022 10:55:00 AM	3/1/2022	3/4/2022
N049610-005A	MW-77-046-Q122	Groundwater	3/1/2022 9:26:00 AM	3/1/2022	3/4/2022
N049610-005B	MW-77-046-Q122	Groundwater	3/1/2022 9:26:00 AM	3/1/2022	3/4/2022
N049610-005C	MW-77-046-Q122	Groundwater	3/1/2022 9:26:00 AM	3/1/2022	3/4/2022
N049610-005D	MW-77-046-Q122	Groundwater	3/1/2022 9:26:00 AM	3/1/2022	3/4/2022
N049610-006A	MW-77-102-Q122	Groundwater	3/1/2022 10:13:00 AM	3/1/2022	3/4/2022
N049610-006B	MW-77-102-Q122	Groundwater	3/1/2022 10:13:00 AM	3/1/2022	3/4/2022
N049610-006C	MW-77-102-Q122	Groundwater	3/1/2022 10:13:00 AM	3/1/2022	3/4/2022
N049610-006D	MW-77-102-Q122	Groundwater	3/1/2022 10:13:00 AM	3/1/2022	3/4/2022
N049610-007A	MW-77-158-Q122	Groundwater	3/1/2022 11:22:00 AM	3/1/2022	3/4/2022
N049610-007B	MW-77-158-Q122	Groundwater	3/1/2022 11:22:00 AM	3/1/2022	3/4/2022
N049610-007C	MW-77-158-Q122	Groundwater	3/1/2022 11:22:00 AM	3/1/2022	3/4/2022
N049610-007D	MW-77-158-Q122	Groundwater	3/1/2022 11:22:00 AM	3/1/2022	3/4/2022
N049610-008A	MW-77-187-Q122	Groundwater	3/1/2022 12:27:00 PM	3/1/2022	3/4/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049610
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049610-008B	MW-77-187-Q122	Groundwater	3/1/2022 12:27:00 PM	3/1/2022	3/4/2022
N049610-008C	MW-77-187-Q122	Groundwater	3/1/2022 12:27:00 PM	3/1/2022	3/4/2022
N049610-008D	MW-77-187-Q122	Groundwater	3/1/2022 12:27:00 PM	3/1/2022	3/4/2022
N049610-009A	MW-81-043-Q122	Groundwater	3/1/2022 12:01:00 PM	3/1/2022	3/4/2022
N049610-009B	MW-81-043-Q122	Groundwater	3/1/2022 12:01:00 PM	3/1/2022	3/4/2022
N049610-009C	MW-81-043-Q122	Groundwater	3/1/2022 12:01:00 PM	3/1/2022	3/4/2022
N049610-009D	MW-81-043-Q122	Groundwater	3/1/2022 12:01:00 PM	3/1/2022	3/4/2022
N049610-010A	MW-81-098-Q122	Groundwater	3/1/2022 12:36:00 PM	3/1/2022	3/4/2022
N049610-010B	MW-81-098-Q122	Groundwater	3/1/2022 12:36:00 PM	3/1/2022	3/4/2022
N049610-010C	MW-81-098-Q122	Groundwater	3/1/2022 12:36:00 PM	3/1/2022	3/4/2022
N049610-010D	MW-81-098-Q122	Groundwater	3/1/2022 12:36:00 PM	3/1/2022	3/4/2022
N049610-011A	EB-709-Q122	Groundwater	3/1/2022 1:20:00 PM	3/1/2022	3/4/2022
N049610-012A	EB-708-Q122	Groundwater	3/1/2022 12:46:00 PM	3/1/2022	3/4/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 8:52:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/3/2022 02:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-112-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/2/2022 10:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-168-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:10:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1.2	0.13	1.0		µg/L	5	3/2/2022 03:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-198-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2.9	0.13	1.0		µg/L	5	3/2/2022 04:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:26:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/2/2022 11:50 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-102-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/2/2022 12:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-158-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 11:22:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	52	0.13	1.0		µg/L	5	3/2/2022 02:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-187-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	10	0.13	1.0		µg/L	5	3/2/2022 05:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-043-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:01:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	17	0.050	0.40		µg/L	2	3/2/2022 04:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-098-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/2/2022 05:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-709-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 1:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/2/2022 02:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-708-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:46:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220302A**	QC Batch: **R160554**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/2/2022 02:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160554**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **PBW**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160554**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **LCSW**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.101	0.20	5.000	0	102	90	110				

Sample ID: **N049610-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549839**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.096	0.20	1.000	0	110	90	110				

Sample ID: **N049610-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549843**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.126	0.20	1.000	0.09060	104	90	110				

Sample ID: **N049610-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549845**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.078	0.20	1.000	0	108	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049610-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.082	0.20	1.000	0	108	90	110				

Sample ID: **N049610-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Sample ID: **N049610-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	78.718	1.0	25.00	52.32	106	90	110				

Sample ID: **N049610-007AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549856**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	79.266	1.0	25.00	52.32	108	90	110	78.72	0.694	20	

Sample ID: **N049610-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160554**
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**	SeqNo: **4549858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.630	1.0	5.000	1.215	108	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049610-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:			RunNo: **160554**			
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**			SeqNo: **4549860**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	8.309	1.0	5.000	2.862	109	90	110				

Sample ID: **N049610-009ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:			RunNo: **160554**			
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**			SeqNo: **4549862**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	16.534	0.40						16.51	0.121	20	

Sample ID: **N049610-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:			RunNo: **160554**			
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**			SeqNo: **4549863**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	26.876	0.40	10.00	16.51	104	90	110				

Sample ID: **N049610-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:			RunNo: **160554**			
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**			SeqNo: **4549867**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.486	1.0	5.000	0	110	90	110				

Sample ID: **N049610-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:			RunNo: **160554**			
Client ID: **ZZZZZZ**	Batch ID: **R160554**	TestNo: **EPA 218.6**		Analysis Date: **3/2/2022**			SeqNo: **4549869**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	15.981	1.0	5.000	10.50	110	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160569**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **PBW**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550829**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160569**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **LCSW**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550830**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.136	0.20	5.000	0	103	90	110				

Sample ID: **N049639-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550838**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	43.106	1.0						43.98	2.01	20	

Sample ID: **N049629-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.663	1.0	25.00	20.28	106	90	110				

Sample ID: **N049610-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550844**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.122	1.0	5.000	0	102	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049629-009AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4550845**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.340	1.0	25.00	20.28	104	90	110	46.66	0.694	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 8:52:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/2/2022 10:32 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-112-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.60	0.095	0.50		mg/L	10	3/2/2022 03:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-168-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:10:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.3	0.095	0.50		mg/L	10	3/2/2022 03:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-198-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.7	0.095	0.50		mg/L	10	3/2/2022 11:17 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:26:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/2/2022 12:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-102-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.93	0.095	0.50		mg/L	10	3/2/2022 03:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-158-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 11:22:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.6	0.095	0.50		mg/L	10	3/2/2022 12:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-187-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.4	0.048	0.25		mg/L	5	3/2/2022 12:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-043-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:01:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.99	0.095	0.50		mg/L	10	3/2/2022 03:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-098-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220302A**	QC Batch: **R160542**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.94	0.095	0.50		mg/L	10	3/2/2022 04:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160542_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160542**
Client ID: **PBW**	Batch ID: **R160542**	TestNo: **EPA 300.0**		Analysis Date: **3/2/2022**	SeqNo: **4549267**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160542_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160542**
Client ID: **LCSW**	Batch ID: **R160542**	TestNo: **EPA 300.0**		Analysis Date: **3/2/2022**	SeqNo: **4549268**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.201	0.050	1.250	0	96.1	90	110				

Sample ID: **N049610-007BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160542**
Client ID: **ZZZZZZ**	Batch ID: **R160542**	TestNo: **EPA 300.0**		Analysis Date: **3/2/2022**	SeqNo: **4549280**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.222	0.50	12.50	1.616	92.8	80	120				

Sample ID: **N049610-007BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160542**
Client ID: **ZZZZZZ**	Batch ID: **R160542**	TestNo: **EPA 300.0**		Analysis Date: **3/2/2022**	SeqNo: **4549281**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.378	0.50	12.50	1.616	94.1	80	120	13.22	1.17	20	

Sample ID: **N049613-004BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160542**
Client ID: **ZZZZZZ**	Batch ID: **R160542**	TestNo: **EPA 300.0**		Analysis Date: **3/2/2022**	SeqNo: **4549287**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.432	0.10						1.409	1.61	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049613-004BMS** SampType: **MS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160542**
Client ID: **ZZZZZZ** Batch ID: **R160542** TestNo: **EPA 300.0** Analysis Date: **3/2/2022** SeqNo: **4549288**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	3.734	0.10	2.500	1.409	93.0	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 8:52:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	3.4	0.17	2.0		mg/L	2	3/3/2022 09:40 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-112-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 12:03 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-168-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:10:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 12:19 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-198-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 12:34 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:26:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 12:50 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-102-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 01:36 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-158-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 11:22:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	4.2	50		mg/L	50	3/3/2022 07:49 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-187-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 01:52 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-043-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:01:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 02:07 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-098-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220302B**	QC Batch: **R160552**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/3/2022 02:23 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160552**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **PBW**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/2/2022**	SeqNo: **4550519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160552**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **LCSW**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/2/2022**	SeqNo: **4550520**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.778	1.0	5.000	0	95.6	85	115				

Sample ID: **N049610-007DMS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **ZZZZZZ**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/3/2022**	SeqNo: **4550553**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	245.555	50	250.0	4.720	96.3	75	125				

Sample ID: **N049610-007DMSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160552**
Client ID: **ZZZZZZ**	Batch ID: **R160552**	TestNo: **SM 5310C**		Analysis Date: **3/3/2022**	SeqNo: **4550554**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	239.935	50	250.0	4.720	94.1	75	125	245.6	2.32	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 8:52:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**				PrepDate:	**3/2/2022**	Analyst: **DJ**
Iron	6600	64	100		µg/L	5	3/2/2022 05:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-112-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**				PrepDate:	**3/2/2022**	Analyst: **DJ**
Iron	110	64	100		µg/L	5	3/2/2022 05:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-168-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:10:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/2/2022 05:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-198-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	320	500		µg/L	25	3/2/2022 06:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:26:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**				PrepDate:	**3/2/2022**	Analyst: **DJ**
Iron	1500	64	100		µg/L	5	3/2/2022 06:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-102-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/2/2022 06:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-158-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 11:22:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/2/2022 04:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-187-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	320	500		µg/L	25	3/2/2022 08:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-043-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:01:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/2/2022 09:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-098-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220302A**	QC Batch: **91698**			PrepDate:	**3/2/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/2/2022 07:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91698**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **PBW**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549085**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91698**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **LCSW**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	101.092	20	100.0	0	101	85	115				

Sample ID: **N049610-007CMS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **ZZZZZZ**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	98.053	100	100.0	0	98.1	75	125				

Sample ID: **N049610-007CMSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160541**
Client ID: **ZZZZZZ**	Batch ID: **91698**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/2/2022**	SeqNo: **4549094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.392	100	100.0	0	99.4	75	125	98.05	0	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 8:52:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**			PrepDate:	**3/2/2022**		Analyst: **CEI**
Arsenic	13	0.050	0.10		µg/L	1	3/4/2022 04:01 AM
Barium	68	0.083	1.0		µg/L	1	3/2/2022 06:31 PM
Manganese	210	0.13	2.5		µg/L	5	3/2/2022 06:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-112-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/4/2022 04:07 AM
Barium	38	0.083	1.0		µg/L	1	3/2/2022 06:43 PM
Manganese	58	0.026	0.50		µg/L	1	3/2/2022 06:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-168-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:10:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**			PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	1.9	0.050	0.10		µg/L	1	3/4/2022 04:31 AM
Barium	50	0.083	1.0		µg/L	1	3/2/2022 06:55 PM
Manganese	200	0.13	2.5		µg/L	5	3/2/2022 07:01 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit	
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified	
	DO	Surrogate Diluted Out			

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-82-198-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	3.1	0.050	0.10		µg/L	1	3/4/2022 04:37 AM
Barium	52	0.083	1.0		µg/L	1	3/2/2022 07:07 PM
Manganese	160	0.026	0.50		µg/L	1	3/2/2022 07:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-046-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 9:26:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**			PrepDate:		**3/2/2022**	Analyst: **CEI**
Arsenic	0.89	0.050	0.10		µg/L	1	3/4/2022 04:43 AM
Barium	43	0.083	1.0		µg/L	1	3/2/2022 07:41 PM
Manganese	270	0.13	2.5		µg/L	5	3/2/2022 07:47 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-102-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 10:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/4/2022 04:49 AM
Barium	48	0.083	1.0		µg/L	1	3/2/2022 07:53 PM
Manganese	29	0.026	0.50		µg/L	1	3/2/2022 07:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-158-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 11:22:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/4/2022 03:31 AM
Barium	49	0.083	1.0		µg/L	1	3/2/2022 05:19 PM
Manganese	68	0.026	0.50		µg/L	1	3/2/2022 05:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-77-187-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	4.4	0.050	0.10		µg/L	1	3/4/2022 04:55 AM
Barium	44	0.083	1.0		µg/L	1	3/2/2022 08:05 PM
Manganese	35	0.026	0.50		µg/L	1	3/2/2022 08:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-043-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:01:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/4/2022 05:01 AM
Barium	110	0.083	1.0		µg/L	1	3/2/2022 08:17 PM
Manganese	150	0.026	0.50		µg/L	1	3/2/2022 08:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-81-098-Q122
Lab Order:	N049610	**Collection Date:**	3/1/2022 12:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049610-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220304A**	QC Batch: **91697**				PrepDate:	**3/2/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/4/2022 05:07 AM
Barium	100	0.083	1.0		µg/L	1	3/2/2022 08:29 PM
Manganese	120	0.026	0.50		µg/L	1	3/2/2022 08:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91697** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/2/2022** RunNo: **160553**
Client ID: **PBW** Batch ID: **91697** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/2/2022** SeqNo: **4549768**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	1.0									
Manganese	ND	0.50									

Sample ID: **LCS-91697** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/2/2022** RunNo: **160553**
Client ID: **LCSW** Batch ID: **91697** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/2/2022** SeqNo: **4549769**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	10.137	1.0	10.00	0	101	85	115				
Manganese	101.334	0.50	100.0	0	101	85	115				

Sample ID: **N049610-007CMS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/2/2022** RunNo: **160553**
Client ID: **ZZZZZZ** Batch ID: **91697** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/2/2022** SeqNo: **4549775**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	57.101	1.0	10.00	49.00	81.0	75	125				
Manganese	157.893	0.50	100.0	68.04	89.9	75	125				

Sample ID: **N049610-007CMSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/2/2022** RunNo: **160553**
Client ID: **ZZZZZZ** Batch ID: **91697** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/2/2022** SeqNo: **4549779**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	57.664	1.0	10.00	49.00	86.7	75	125	57.10	0.980	20	
Manganese	153.040	0.50	100.0	68.04	85.0	75	125	157.9	3.12	20	

Sample ID: **MB-91697** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/2/2022** RunNo: **160583**
Client ID: **PBW** Batch ID: **91697** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/4/2022** SeqNo: **4551601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049610
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91697**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **PBW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									

Sample ID: **LCS-91697**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **LCSW**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.111	0.10	10.00	0	101	85	115				

Sample ID: **N049610-007CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **ZZZZZZ**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.386	0.10	10.00	0	104	75	125				

Sample ID: **N049610-007CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/2/2022**	RunNo: **160583**
Client ID: **ZZZZZZ**	Batch ID: **91697**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/4/2022**	SeqNo: **4551607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.180	0.10	10.00	0	102	75	125	10.39	2.00	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement		QA/QC		Sample Receipt Condition	Y	N
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD		RTNE		1. Chilled	X	
Address: Roseville, CA 95661	Email: [illegible]@arcadis.com; daniel.moore@arcadis.com	Address:	Geotracker		RWQCB	✓	2. Headspace		
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec		CalTrans		3. Container Intact	X	
Submitted By: Riggie Tep		Phone: 949-727-1400, ext 200 Fax:	Others	✓	LEVEL III		4. Seal Present		
Title: Field Tech	Phone: 916-786-3302 Fax:		Specify: RWQCB		LEVEL IV		5. IR number	3	
Signature: Date: 3/1/22	Sampled By: Riggie Tep		Global ID:		Regulatory		6. Method of Cooling: ICE		
I hereby authorize ASSET Labs to perform the tests indicated below	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for				Specify State:		Sample Temp: 0.1, 2.8 °C		
Project Name: PG&E Topock - PCM	Signature: Date: 3/1/22						Courier:		
Project Number: 30121866.1Q22GW							Tracking No.:		

Matrix: Ground X | Potable | NPDES | Surface; Sediment | Soil | Other Solid

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No Filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049610-01	MW-82-046-Q122	3/1/2021	8:52		X	X	X			X		E	6	P	BNS	
2	-02	MW-82-112-Q122	3/1/2021	9:30		X	X	X			X		E	6	P	BNS	
3	-03	MW-82-168-Q122	3/1/2021	10:10		X	X	X			X		E	6	P	BNS	
4	-04	MW-82-198-Q122	3/1/2021	10:55		X	X	X			X		E	6	P	BNS	
5	-05	MW-77-046-Q122	3/1/2021	9:26		X	X	X			X		E	6	P	BNS	
	-06	MW-77-102-Q122	3/1/2021	10:13		X	X	X			X		E	6	P	BNS	
7	-07	MW-77-158-Q122	3/1/2021	11:22		X	X	X			X		E	6	P	BNS	9 MS/MSD
8	-08	MW-77-187-Q122	3/1/2021	12:27		X	X	X			X		E	6	P	BNS	
9	-09	MW-81-043-Q122	3/1/2021	12:01		X	X	X			X		E	6	P	BNS	
10	-10	MW-81-098-Q122	3/1/2021	12:36		X	X	X			X		E	6	P	BNS	
11																	
12																	
13	-11	EB-709-Q122	3/1/2021	13:20		X							E	1	P	BNS	
14	-12	EB-708-Q122	3/1/2021	12:46		X							E	1	P	BNS	

Reliquished by (Signature and Printed Name): Riggie Tep Date/Time: 3/1/22 1535

Reliquished by (Signature and Printed Name): A. MACARTHUR Date/Time: 3/1/22 @1535

Reliquished by (Signature and Printed Name): REL/REC: MACARTHUR Date/Time: 3/1/22 @1540

Reliquished by (Signature and Printed Name): Date/Time:

Reliquished by (Signature and Printed Name): Date/Time:

Turn Around Time (TAT)

- [X] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/1/2022	Workorder:	N049610
Rep sample Temp (Deg C):	0.1/2.8	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☐	No ☑	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☑	No ☐	NA ☐
Was Client notified?	Yes ☑	No ☐	NA ☐

Comments: See correspondence

For:

Checklist Completed By: MBC YRJ 3/2/2022

Reviewed By: MBC 3/2/2022

Mary Ann Balilu

From: Madsen, Laura <Laura.Madsen@arcadis.com>
Sent: Wednesday, March 2, 2022 7:32 PM
To: Yoandra Rodriguez
Cc: maryann.balilu@assetlaboratoriesph.com; rustico.aquino@assetlaboratoriesph.com; giselle@assetlaboratories.com
Subject: Re: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049610)

Thank you for catching that. The correct date should have been 3/1/2022 on the COC.

Get Outlook for iOS <https://aka.ms/o0ukef> _____

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Wednesday, March 2, 2022 8:36:02 PM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com <maryann.balilu@assetlaboratoriesph.com>; rustico.aquino@assetlaboratoriesph.com <rustico.aquino@assetlaboratoriesph.com>; giselle@assetlaboratories.com <giselle@assetlaboratories.com>
Subject: Re: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049610)

Hi Laura,

I'd also like to inform you that we followed collection date on labels, 3/1/2022.

Thank,

Sent from my iPhone

> On Mar 2, 2022, at 9:58 AM, Yoandra Rodriguez <yoandra@assetlaboratories.com> wrote:
>
> Noted Laura.
>
> Thanks!
>
> On 3/2/2022 9:18 AM, Madsen, Laura wrote:
>
> > Hl Yoandra,
> >
> > It should be a 24 hr TAT for all samples.
> >
> > Thanks,
> >
> > Laura

From: Yoandra Rodriguez <yoandra@assetlaboratories.com> <mailto:yoandra@assetlaboratories.com>
Sent: Wednesday, March 2, 2022 10:50 AM
To: Madsen, Laura <Laura.Madsen@arcadis.com> <mailto:Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com <mailto:maryann.balilu@assetlaboratoriesph.com> ; rustico.aquino@assetlaboratoriesph.com <mailto:rustico.aquino@assetlaboratoriesph.com> ; giselle@assetlaboratories.com <mailto:giselle@assetlaboratories.com>
Subject: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049610)

Hi Laura,

Please kindly confirm ASAP if the TAT for the attached COC should be A or E.

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

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--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

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ASSET Laboratories

WORK ORDER Summary

02-Mar-22

WorkOrder: N049610

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049610-001A	MW-82-046-Q122	3/1/2022 8:52:00 AM	3/2/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-001B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-001C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-001D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-002A	MW-82-112-Q122	3/1/2022 9:30:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-002B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-002C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-002D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-003A	MW-82-168-Q122	3/1/2022 10:10:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-003B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-003C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-003D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-004A	MW-82-198-Q122	3/1/2022 10:55:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

02-Mar-22

WorkOrder: N049610

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049610-004B	MW-82-198-Q122	3/1/2022 10:55:00 AM	3/2/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-004C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-004D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-005A	MW-77-046-Q122	3/1/2022 9:26:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-005B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-005C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-005D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-006A	MW-77-102-Q122	3/1/2022 10:13:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-006B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-006C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-006D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-007A	MW-77-158-Q122	3/1/2022 11:22:00 AM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☑	☐	WW
N049610-007B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☑	☐	WW

ASSET Laboratories

WORK ORDER Summary

02-Mar-22

WorkOrder: N049610

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049610-007C	MW-77-158-Q122	3/1/2022 11:22:00 AM	3/2/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☑	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☑	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☑	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☑	☐	WW
N049610-007D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☑	☐	VW
N049610-008A	MW-77-187-Q122	3/1/2022 12:27:00 PM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-008B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-008C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-008D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-009A	MW-81-043-Q122	3/1/2022 12:01:00 PM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-009B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-009C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-009D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-010A	MW-81-098-Q122	3/1/2022 12:36:00 PM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-010B			3/2/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049610-010C			3/2/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

02-Mar-22

WorkOrder: N049610

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/1/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049610-010C	MW-81-098-Q122	3/1/2022 12:36:00 PM	3/2/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/2/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/2/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049610-010D			3/2/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049610-011A	EB-709-Q122	3/1/2022 1:20:00 PM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-012A	EB-708-Q122	3/1/2022 12:46:00 PM	3/2/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049610-013A	FOLDER	3/2/2022	3/2/2022		Folder	Folder	☐	☐	☐	LAB
			3/2/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/2/2022		Folder	Folder	☐	☐	☐	LAB

March 17, 2022

Brian Prowd
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049628

RE: PG&E Topock - OMM TCS PWTF, 30106892

Attention: Brian Prowd

Enclosed are the results for sample(s) received on March 02, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab Order: N049628

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049628-001C-MS and N049628-001C-MSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab Order: N049628
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049628-001A	Backwash Pre-filter-030122	Water	3/2/2022 7:15:00 AM	3/2/2022	3/17/2022
N049628-001B	Backwash Pre-filter-030122	Water	3/2/2022 7:15:00 AM	3/2/2022	3/17/2022
N049628-001C	Backwash Pre-filter-030122	Water	3/2/2022 7:15:00 AM	3/2/2022	3/17/2022
N049628-002A	Backwash Post-filter-030122	Water	3/2/2022 7:30:00 AM	3/2/2022	3/17/2022
N049628-002B	Backwash Post-filter-030122	Water	3/2/2022 7:30:00 AM	3/2/2022	3/17/2022
N049628-002C	Backwash Post-filter-030122	Water	3/2/2022 7:30:00 AM	3/2/2022	3/17/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-030122
Lab Order:	N049628	**Collection Date:**	3/2/2022 7:15:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049628-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303B**	QC Batch: **R160588**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	440	1.3	10		µg/L	50	3/3/2022 11:20 PM
TOTAL METALS BY ICPMS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220305B**	QC Batch: **91756**			PrepDate:	**3/5/2022**		Analyst: **CEI**
Chromium	510	0.18	5.0		µg/L	5	3/5/2022 07:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-030122
Lab Order:	N049628	**Collection Date:**	3/2/2022 7:30:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049628-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303B**	QC Batch: **R160588**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	430	1.3	10		µg/L	50	3/3/2022 11:49 PM
TOTAL METALS BY ICPMS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220305B**	QC Batch: **91756**			PrepDate:	**3/5/2022**		Analyst: **CEI**
Chromium	490	0.18	5.0		µg/L	5	3/5/2022 07:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049628
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **LCS-R160588**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **LCSW**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4551950**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.118	0.20	5.000	0	102	90	110				

Sample ID: **MB-R160588**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **PBW**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4551951**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **N049628-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **ZZZZZZ**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4551955**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	698.515	10	250.0	435.9	105	90	110				

Sample ID: **N049628-001AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **ZZZZZZ**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4551956**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	689.560	10	250.0	435.9	101	90	110	698.5	1.29	20	

Sample ID: **N049628-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **ZZZZZZ**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4551958**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	688.110	10	250.0	431.7	103	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049628
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049628-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **ZZZZZZ**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4551959**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	427.360	10						431.7	1.01	20	

Sample ID: **N049630-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160588**
Client ID: **ZZZZZZ**	Batch ID: **R160588**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4551961**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.059	0.20	1.000	0	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049628
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **MB-91756**	SampType: **MBLK**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160617**
Client ID: **PBW**	Batch ID: **91756**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553414**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91756**	SampType: **LCS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160617**
Client ID: **LCSW**	Batch ID: **91756**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553415**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.790	1.0	10.00	0	97.9	85	115				

Sample ID: **N049628-001C-MS**	SampType: **MS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160617**
Client ID: **ZZZZZZ**	Batch ID: **91756**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553419**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	509.256	5.0	10.00	512.3	-30.8	75	125				S

Sample ID: **N049628-001C-MSD**	SampType: **MSD**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160617**
Client ID: **ZZZZZZ**	Batch ID: **91756**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553420**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	507.729	5.0	10.00	512.3	-46.1	75	125	509.3	0.300	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049628
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **N049628-001C-PS**	SampType: **PS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date:				RunNo: **160617**			
Client ID: **ZZZZZZ**	Batch ID: **91756**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**				SeqNo: **4553418**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	507.852	5.0	10.00	512.3	-44.9	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-030122
Lab Order:	N049628	**Collection Date:**	3/2/2022 7:15:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049628-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	70	13	20		µg/L	1	3/5/2022 07:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-030122
Lab Order:	N049628	**Collection Date:**	3/2/2022 7:30:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049628-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	74	13	20		µg/L	1	3/5/2022 07:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049628
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **LCS-91755**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **LCSW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	102.163	20	100.0	0	102	85	115				

Sample ID: **N049679-001B-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553062**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.831	20	100.0	46.56	81.3	75	125				

Sample ID: **N049679-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.913	20	100.0	46.56	81.4	75	125	127.8	0.0645	20	

Sample ID: **MB-91755**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **PBW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-030122
Lab Order:	N049628	**Collection Date:**	3/2/2022 7:15:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049628-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:	**3/5/2022**		Analyst: **CEI**
Manganese	290	0.13	2.5		µg/L	5	3/5/2022 05:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-030122
Lab Order:	N049628	**Collection Date:**	3/2/2022 7:30:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049628-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:	**3/5/2022**		Analyst: **CEI**
Manganese	290	0.13	2.5		µg/L	5	3/5/2022 05:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049628
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	99.770	0.50	100.0	0	99.8	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553569**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	154.046	0.50	100.0	68.65	85.4	75	125				

Sample ID: **N049657-002CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	154.239	0.50	100.0	68.65	85.6	75	125	154.0	0.125	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ARCUS02 C: 3/16/2022 12:00 AM
FOLDER R: 3/2/2022
N049628-003A 1 of 1

ASSET LABORATORIES

ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Brian Prowd	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95678	Email: brian.prowd@arcadis.com; daniel.moore@arcadis.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Ste 200 Roseville, CA 95678	Email to: mbloes@pivox.com P.O.# SWA-ASSET-C9817-051	Labspec	CalTrans	2. Headspace
Submitted By: Kevin A.	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Opt Director			Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: Date: 3-2-22	Sampled By: Kevin Ashley		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mistabeling the sample location, date or time of collection is considered fraud and may be grounds for*			Specify State:	6. Method of Cooling: Ice
Project Name: PG&E Topock - OMM TCS PWTF	Signature: Date: 3-2-22				Sample Temp: 1.3°C
Project Number: 30106892					Courier: ASSET Tracking No.:

Matrix: Ground; Potable; NPDES; Surface; Sediment; Soil; Other Solid; Water (X)

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered (250 mL poly)	Dissolved metals: iron, manganese (SW6020) HNO3; Filtered (500 mL poly)	Total chromium (SW6020) HNO3; NOT Filtered (500 mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049628-01	Backwash Pre-filter--030122	3-2-22	7:15A		x	x	x	E	3	PV	BNS	
2	-02	Backwash Post-filter-030122	3-2-22	7:15A		x	x	x	E	3	PV	BNS	
3									E	3	PV	BNS	
4									E	3	PV	BNS	
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Kevin Ashley		Rissie Tap	3/2/22 1454
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Rissie Tap	3/2/22 1533	Jonas Deada	3/2/22 1750
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Jonas Deada	3/2/22 17:50	Jonas Deada	3/2/22 17:50

Turn Around Time (TAT)

- [ ] A = <24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35% 4 Workdays=20%
3. Custom EDD formats will be an additional 2% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/2/2022	Workorder:	N049628
Rep sample Temp (Deg C):	1.3	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☐	No ☑	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☑	No ☐	NA ☐
Was Client notified?	Yes ☑	No ☐	NA ☐

Comments: See Correspondence.

Checklist Completed By: YR YRJ 3/3/2022

Reviewed By: MBC 3/4/2022

Subject: Topock ID Updates
From: Tina Rice <Tina.Rice@locana.co>
Date: 3/4/2022, 8:40 AM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>

Hi Yoandra,

Could you please update this sample ID (remove the extra hyphen):

From:

ClientSampID
Backwash Pre-filter--030122

To:

ClientSampID
Backwash Pre-filter-030122

Thanks,
Tina

Subject: RE: PG&E Topock - OMM TCS PWTF, 30106892 (ASSET Labs No. N049628)
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 3/3/2022, 10:37 AM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>
CC: "maryann.balilu@assetlaboratoriesph.com" <maryann.balilu@assetlaboratoriesph.com>, "giselle@assetlaboratories.com" <giselle@assetlaboratories.com>, "rustico.aquino@assetlaboratoriesph.com" <rustico.aquino@assetlaboratoriesph.com>

Hi,
Please use 7:30 am.

Thanks,
Laura

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Thursday, March 3, 2022 12:27 PM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com; giselle@assetlaboratories.com; rustico.aquino@assetlaboratoriesph.com
Subject: PG&E Topock - OMM TCS PWTF, 30106892 (ASSET Labs No. N049628)

Hi Laura,

Please kindly advise on the following discrepancy for the attached COC:

- Sample 2: Collection time is 7:15 AM on COC and 7:30 AM on labels

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

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ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049628

Client ID: ARCUS02

Project: PG&E Topock - OMM TCS PWTF, 30106892 **QC Level:** Level IV **Date Received:** 3/2/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049628-001A	Backwash Pre-filter-030122	3/2/2022 7:15:00 AM	3/16/2022	Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049628-001B			3/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/16/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/16/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049628-001C			3/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/16/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049628-002A	Backwash Post-filter-030122	3/2/2022 7:30:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049628-002B			3/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/16/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/16/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049628-002C			3/16/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/16/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049628-003A	FOLDER	3/16/2022	3/16/2022		Folder	Folder	☐	☐	☐	LAB
			3/16/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/16/2022		Folder	Folder	☐	☐	☐	LAB

March 17, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049629

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 02, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

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CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049629

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for some samples due to matrix interference. Samples were analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Samples were reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049629
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049629-001A	MW-75-033-Q122	Groundwater	3/2/2022 12:28:00 PM	3/2/2022	3/17/2022
N049629-002A	MW-908-Q122	Groundwater	3/2/2022 12:38:00 PM	3/2/2022	3/17/2022
N049629-003A	MW-75-117-Q122	Groundwater	3/2/2022 12:01:00 PM	3/2/2022	3/17/2022
N049629-004A	MW-75-202-Q122	Groundwater	3/2/2022 11:20:00 AM	3/2/2022	3/17/2022
N049629-005A	MW-75-267-Q122	Groundwater	3/2/2022 10:48:00 AM	3/2/2022	3/17/2022
N049629-006A	MW-75-337-Q122	Groundwater	3/2/2022 2:06:00 PM	3/2/2022	3/17/2022
N049629-007A	MW-96-045-Q122	Groundwater	3/2/2022 8:46:00 AM	3/2/2022	3/17/2022
N049629-008A	MW-96-217-Q122	Groundwater	3/2/2022 9:28:00 AM	3/2/2022	3/17/2022
N049629-009A	MW-35-060-Q122	Groundwater	3/2/2022 9:01:00 AM	3/2/2022	3/17/2022
N049629-010A	MW-35-135-Q122	Groundwater	3/2/2022 12:28:00 PM	3/2/2022	3/17/2022
N049629-011A	MW-97-042-Q122	Groundwater	3/2/2022 10:35:00 AM	3/2/2022	3/17/2022
N049629-012A	MW-97-202-Q122	Groundwater	3/2/2022 11:20:00 AM	3/2/2022	3/17/2022
N049629-013A	EB-710-Q122	Groundwater	3/2/2022 2:16:00 PM	3/2/2022	3/17/2022
N049629-014A	EB-711-Q122	Groundwater	3/2/2022 2:00:00 PM	3/2/2022	3/17/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-75-033-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 12:28:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	39	0.13	1.0		µg/L	5	3/3/2022 10:55 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-908-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 12:38:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	40	0.13	1.0		µg/L	5	3/3/2022 11:52 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-75-117-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 12:01:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
EPA 218.6							
RunID: **NV00922-IC7_220303A** QC Batch: **R160569** PrepDate: Analyst: **RAB**							
Hexavalent Chromium	2.7	0.13	1.0		µg/L	5	3/3/2022 10:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-75-202-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 11:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/3/2022 06:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-75-267-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 10:48:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/3/2022 07:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-75-337-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 2:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/3/2022 08:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-96-045-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 8:46:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/3/2022 04:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-96-217-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 9:28:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/3/2022 08:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-35-060-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 9:01:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	20	0.13	1.0		µg/L	5	3/3/2022 12:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-35-135-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 12:28:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	30	0.13	1.0		µg/L	5	3/3/2022 05:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-97-042-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 10:35:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	6.7	0.025	0.20		µg/L	1	3/3/2022 05:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-97-202-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 11:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/3/2022 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-710-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 2:16:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/3/2022 09:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-711-Q122
Lab Order:	N049629	**Collection Date:**	3/2/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049629-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220303A**	QC Batch: **R160569**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/3/2022 09:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049629
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160569**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **PBW**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550829**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160569**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **LCSW**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550830**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.136	0.20	5.000	0	103	90	110				

Sample ID: **N049629-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	64.664	1.0	25.00	39.29	101	90	110				

Sample ID: **N049629-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550836**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	67.437	1.0	25.00	40.23	109	90	110				

Sample ID: **N049639-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550838**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	43.106	1.0						43.98	2.01	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049629
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049629-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.663	1.0	25.00	20.28	106	90	110				

Sample ID: **N049610-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550844**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.122	1.0	5.000	0	102	90	110				

Sample ID: **N049629-009AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550845**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.340	1.0	25.00	20.28	104	90	110	46.66	0.694	20	

Sample ID: **N049629-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550847**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.111	0.20	1.000	0.05970	105	90	110				

Sample ID: **N049629-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160569**
Client ID: **ZZZZZZ**	Batch ID: **R160569**	TestNo: **EPA 218.6**		Analysis Date: **3/3/2022**	SeqNo: **4550851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	53.733	1.0	25.00	29.53	96.8	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049629
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049629-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551919**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	12.020	0.20	5.000	6.693	107	90	110				

Sample ID: **N049629-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551921**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.080	1.0	5.000	0	102	90	110				

Sample ID: **N049629-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551925**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.250	1.0	5.000	0	105	90	110				

Sample ID: **N049629-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551927**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.260	1.0	5.000	0	105	90	110				

Sample ID: **N049629-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551929**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.165	1.0	5.000	0	103	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049629
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049629-008AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.285	1.0	5.000	0	106	90	110				

Sample ID: **N049629-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551937**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.065	0.20	1.000	0	106	90	110				

Sample ID: **N049629-014AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4551939**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.039	0.20	1.000	0	104	90	110				

Sample ID: **N049629-003AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160569**
Client ID: **ZZZZZZ** Batch ID: **R160569** TestNo: **EPA 218.6** Analysis Date: **3/3/2022** SeqNo: **4566246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	7.944	1.0	5.000	2.705	105	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ARCUS02 C: 3/16/2022 12:00 AM
FOLDER R: 3/2/2022
N049629-015A 1 of 1

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement / QA/QC
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD / RTNE
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com	Address:	Geotracker / RWQCB ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec / CalTrans
Submitted By: Rissie Top			Others ✓ / LEVEL III
Title: Field Tech	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Specify: RWQCB / LEVEL IV
Signature: Date: 3/2/22	Sampled By: Rissie Top	Global ID:	Regulatory / Specify State:
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for		
Project Name: PG&E Topock - PCM	Signature: Date: 3/2/22		
Project Number: 30121866.1Q22GW			

Matrix: Ground X | Sediment; Potable | Soil; NPDES | Other Solid; Surface

Sample Receipt Condition (Y / N)
1. Chilled ✓
2. Headspace
3. Container Intact ✓
4. Seal Present ✓
5. IR number 3
6. Method of Cooling: Ice
Sample Temp: 2.8 °C

Courier: ASSET
Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049629-01	MW-75-033-Q122	3/2/2022	12:28		X							E	1	P	BNS	
2	-02	MW-908-Q122	3/2/2022	12:38		X							E	1	P	BNS	
3	-03	MW-75-117-Q122	3/2/2022	12:01		X							E	1	P	BNS	
4	-04	MW-75-202-Q122	3/2/2022	11:20		X							E	1	P	BNS	
5	-05	MW-75-267-Q122	3/2/2022	10:48		X							E	1	P	BNS	
6	-06	MW-75-337-Q122	3/2/2022	14:06		X							E	1	P	BNS	
7	-07	MW-96-045-Q122	3/2/2022	8:46		X							E	1	P	BNS	
8	-08	MW-96-217-Q122	3/2/2022	9:28		X							E	1	P	BNS	
9	-09	MW-35-060-Q122	3/2/2022	9:01		X							E	1	P	BNS	
10	-10	MW-35-135-Q122	3/2/2022	12:28		X							E	1	P	BNS	MS/MSD
11	-11	MW-97-042-Q122	3/2/2022	10:35		X							E	1	P	BNS	
12	-12	MW-97-202-Q122	3/2/2022	11:20		X							E	1	P	BNS	
13	-13	EB-710-Q122	3/2/2022	14:16		X							E	1	P	BNS	
14	-14	EB-711-Q122	3/2/2022	14:00		X							E	1	P	BNS	

Relinquished by (Signature and Printed Name): Rissie Top	Date/Time: 3/2/22 1533	Relinquished by (Signature and Printed Name): Joyas Deada	Date/Time: 3/2/22 1533
Relinquished by (Signature and Printed Name): Joyas Deada	Date/Time: 3/2/22 17:56	Relinquished by (Signature and Printed Name): Joyas Deada	Date/Time: 3/2/22 17:56
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives: H=HCL; N=HNO_3; S=H_2SO_4; C=4°C; Z=$Zn(AC)_2$; O=NaOH; T=$Na_2S_2O_3$; Others/Specify: B (NH4)2SO4/NH4OH

Container Type: T=Tube; V=VOA; P=Pint; J=Jar; B=Tedlar; G=Glass; M=Metal; M=Metal; C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/2/2022	Workorder:	N049629
Rep sample Temp (Deg C):	2.8	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/3/2022

Reviewed By: MBC 3/4/2022

ASSET Laboratories

WORK ORDER Summary

03-Mar-22

WorkOrder: N049629

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/2/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049629-001A	MW-75-033-Q122	3/2/2022 12:28:00 PM	3/16/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-002A	MW-908-Q122	3/2/2022 12:38:00 PM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-003A	MW-75-117-Q122	3/2/2022 12:01:00 PM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-004A	MW-75-202-Q122	3/2/2022 11:20:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-005A	MW-75-267-Q122	3/2/2022 10:48:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-006A	MW-75-337-Q122	3/2/2022 2:06:00 PM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-007A	MW-96-045-Q122	3/2/2022 8:46:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-008A	MW-96-217-Q122	3/2/2022 9:28:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-009A	MW-35-060-Q122	3/2/2022 9:01:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☑	☐	WW
N049629-010A	MW-35-135-Q122	3/2/2022 12:28:00 PM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-011A	MW-97-042-Q122	3/2/2022 10:35:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-012A	MW-97-202-Q122	3/2/2022 11:20:00 AM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-013A	EB-710-Q122	3/2/2022 2:16:00 PM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-014A	EB-711-Q122	3/2/2022 2:00:00 PM	3/16/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049629-015A	FOLDER	3/16/2022	3/16/2022		Folder	Folder	☐	☐	☐	LAB
			3/16/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/16/2022		Folder	Folder	☐	☐	☐	LAB

March 21, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049656

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 03, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049656

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049679-001E-MS/MSD at 1x and 5x dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049679-001 and MS/MSD were reported at 20x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Barium in QC samples N049657-002CMS and N049657-002CMSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049656
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049656-001A	MW-46-175-Q122	Groundwater	3/3/2022 1:07:00 PM	3/3/2022	3/21/2022
N049656-001B	MW-46-175-Q122	Groundwater	3/3/2022 1:07:00 PM	3/3/2022	3/21/2022
N049656-001C	MW-46-175-Q122	Groundwater	3/3/2022 1:07:00 PM	3/3/2022	3/21/2022
N049656-001D	MW-46-175-Q122	Groundwater	3/3/2022 1:07:00 PM	3/3/2022	3/21/2022
N049656-002A	MW-46-205-Q122	Groundwater	3/3/2022 1:51:00 PM	3/3/2022	3/21/2022
N049656-002B	MW-46-205-Q122	Groundwater	3/3/2022 1:51:00 PM	3/3/2022	3/21/2022
N049656-002C	MW-46-205-Q122	Groundwater	3/3/2022 1:51:00 PM	3/3/2022	3/21/2022
N049656-002D	MW-46-205-Q122	Groundwater	3/3/2022 1:51:00 PM	3/3/2022	3/21/2022
N049656-003A	MW-33-040-Q122	Groundwater	3/3/2022 8:49:00 AM	3/3/2022	3/21/2022
N049656-004A	MW-33-040-EB-Q122	Groundwater	3/3/2022 8:15:00 AM	3/3/2022	3/21/2022
N049656-005A	MW-33-090-Q122	Groundwater	3/3/2022 9:26:00 AM	3/3/2022	3/21/2022
N049656-006A	TW-04-Q122	Groundwater	3/3/2022 11:56:00 AM	3/3/2022	3/21/2022
N049656-007A	MW-33-150-Q122	Groundwater	3/3/2022 10:03:00 AM	3/3/2022	3/21/2022
N049656-008A	MW-33-210-Q122	Groundwater	3/3/2022 11:53:00 AM	3/3/2022	3/21/2022
N049656-009A	MW-47-055-Q122	Groundwater	3/3/2022 12:55:00 PM	3/3/2022	3/21/2022
N049656-010A	MW-47-115-Q122	Groundwater	3/3/2022 1:37:00 PM	3/3/2022	3/21/2022
N049656-011A	EB-712-Q122	Groundwater	3/3/2022 2:00:00 PM	3/3/2022	3/21/2022
N049656-012A	EB-713-Q122	Groundwater	3/3/2022 2:30:00 PM	3/3/2022	3/21/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-175-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:07:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	5.4	0.13	1.0		µg/L	5	3/4/2022 03:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-205-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/4/2022 04:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-33-040-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 8:49:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/4/2022 11:12 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-33-040-EB-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 8:15:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/4/2022 07:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-33-090-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 9:26:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	4.8	0.025	0.20		µg/L	1	3/4/2022 12:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	TW-04-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 11:56:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	12	0.13	1.0		µg/L	5	3/4/2022 04:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-33-150-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 10:03:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	4.3	0.13	1.0		µg/L	5	3/4/2022 02:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-33-210-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 11:53:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	8.6	0.13	1.0		µg/L	5	3/4/2022 01:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-47-055-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 12:55:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	17	0.13	1.0		µg/L	5	3/4/2022 01:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-47-115-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:37:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	20	0.13	1.0		µg/L	5	3/4/2022 02:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-712-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
EPA 218.6							
RunID: **NV00922-IC7_220304A** QC Batch: **R160600** PrepDate: Analyst: **RAB**							
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/4/2022 06:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-713-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 2:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A**	QC Batch: **R160600**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/4/2022 06:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160600**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **PBW**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160600**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **LCSW**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.005	0.20	5.000	0	100	90	110				

Sample ID: **N049656-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.020	0.20	1.000	0	102	90	110				

Sample ID: **N049656-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	41.917	1.0	25.00	16.54	102	90	110				

Sample ID: **N049656-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.171	1.0	25.00	19.75	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049656-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	9.167	1.0	5.000	4.274	97.9	90	110				

Sample ID: **N049656-007AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	9.407	1.0	5.000	4.274	103	90	110	9.167	2.58	20	

Sample ID: **N049657-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552617**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	56.949	1.0	25.00	31.26	103	90	110				

Sample ID: **N049657-002AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552618**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	57.175	1.0	25.00	31.26	104	90	110	56.95	0.395	20	

Sample ID: **N049656-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552620**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.767	1.0	5.000	5.447	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049656-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.226	0.20	5.000	4.814	108	90	110				

Sample ID: **N049657-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552624**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	64.788	1.0	25.00	38.55	105	90	110				

Sample ID: **N049656-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.680	1.0	5.000	0.5420	103	90	110				

Sample ID: **N049656-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	17.637	1.0	5.000	12.27	107	90	110				

Sample ID: **N049663-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	18.682	0.40						19.05	1.93	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049679-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	483.970	10	250.0	228.5	102	90	110				

Sample ID: **N049656-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552636**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID: **N049656-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Sample ID: **N049656-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552641**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.043	0.20	1.000	0	104	90	110				

Sample ID: **N049656-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	13.988	1.0	5.000	8.618	107	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-175-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:07:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.76	0.048	0.25		mg/L	5	3/4/2022 03:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-205-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.57	0.048	0.25		mg/L	5	3/4/2022 03:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160599_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **PBW**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160599_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **LCSW**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.257	0.050	1.250	0	101	90	110				

Sample ID: **N049657-002BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.482	0.50						5.551	1.25	20	

Sample ID: **N049657-002BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.646	0.50	12.50	5.551	96.8	80	120				

Sample ID: **N049657-002BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552659**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.637	0.50	12.50	5.551	96.7	80	120	17.65	0.0510	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049679-001CMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4554385**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	10.406	0.25	6.250	4.394	96.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-175-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:07:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/6/2022 07:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-205-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/6/2022 07:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160625**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **PBW**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160625**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **LCSW**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.742	1.0	5.000	0	94.8	85	115				

Sample ID: **N049679-001E-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **ZZZZZZ**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	90.684	20	100.0	2.080	88.6	75	125				

Sample ID: **N049679-001EMSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **ZZZZZZ**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553889**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	89.830	20	100.0	2.080	87.8	75	125	90.68	0.946	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-175-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:07:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:	**3/5/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/5/2022 09:23 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-205-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:	**3/5/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/5/2022 09:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **LCS-91755**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **LCSW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	102.163	20	100.0	0	102	85	115				

Sample ID: **N049679-001B-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553062**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.831	20	100.0	46.56	81.3	75	125				

Sample ID: **N049679-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.913	20	100.0	46.56	81.4	75	125	127.8	0.0645	20	

Sample ID: **MB-91755**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **PBW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-175-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:07:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:	**3/5/2022**		Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/5/2022 04:09 PM
Barium	29	0.083	1.0		µg/L	1	3/5/2022 04:09 PM
Manganese	13	0.026	0.50		µg/L	1	3/5/2022 04:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-46-205-Q122
Lab Order:	N049656	**Collection Date:**	3/3/2022 1:51:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049656-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/5/2022 04:15 PM
Barium	34	0.083	1.0		µg/L	1	3/5/2022 04:15 PM
Manganese	38	0.026	0.50		µg/L	1	3/5/2022 04:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.255	0.10	10.00	0	103	85	115				
Barium	10.128	1.0	10.00	0	101	85	115				
Manganese	99.770	0.50	100.0	0	99.8	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553569**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.373	0.10	10.00	3.597	97.8	75	125				
Barium	75.029	1.0	10.00	69.98	50.4	75	125				S
Manganese	154.046	0.50	100.0	68.65	85.4	75	125				

Sample ID: **N049657-002CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.268	0.10	10.00	3.597	96.7	75	125	13.37	0.785	20	
Barium	75.770	1.0	10.00	69.98	57.9	75	125	75.03	0.983	20	S
Manganese	154.239	0.50	100.0	68.65	85.6	75	125	154.0	0.125	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049656
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049657-002C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160618**
Client ID: **ZZZZZZ** Batch ID: **91754** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/5/2022** SeqNo: **4553568**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.521	0.10	10.00	3.597	99.2	80	120				
Barium	75.090	1.0	10.00	69.98	51.1	80	120				S
Manganese	157.814	0.50	100.0	68.65	89.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

N049656

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

| | | |

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/3/2022	Workorder:	N049656
Rep sample Temp (Deg C):	3.4	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/4/2022

Reviewed By: MBC 3/8/2022

ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049656

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/3/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049656-001A	MW-46-175-Q122	3/3/2022 1:07:00 PM	3/17/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-001B			3/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049656-001C			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/17/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049656-001D			3/17/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049656-002A	MW-46-205-Q122	3/3/2022 1:51:00 PM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-002B			3/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049656-002C			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/17/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049656-002D			3/17/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049656-003A	MW-33-040-Q122	3/3/2022 8:49:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-004A	MW-33-040-EB-Q122	3/3/2022 8:15:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-005A	MW-33-090-Q122	3/3/2022 9:26:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-006A	TW-04-Q122	3/3/2022 11:56:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-007A	MW-33-150-Q122	3/3/2022 10:03:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☑	☐	WW
N049656-008A	MW-33-210-Q122	3/3/2022 11:53:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-009A	MW-47-055-Q122	3/3/2022 12:55:00 PM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-010A	MW-47-115-Q122	3/3/2022 1:37:00 PM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049656

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/3/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049656-011A	EB-712-Q122	3/3/2022 2:00:00 PM	3/17/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-012A	EB-713-Q122	3/3/2022 2:30:00 PM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049656-013A	FOLDER	3/17/2022	3/17/2022		Folder	Folder	☐	☐	☐	LAB
			3/17/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/17/2022		Folder	Folder	☐	☐	☐	LAB

March 21, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049657

RE: PG&E Topock - RCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 03, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

for

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

ASSET Laboratories

Date: *21-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049657
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049657-001A	MW-38D-Q122	Groundwater	3/3/2022 8:48:00 AM	3/3/2022	3/21/2022
N049657-001B	MW-38D-Q122	Groundwater	3/3/2022 8:48:00 AM	3/3/2022	3/21/2022
N049657-001C	MW-38D-Q122	Groundwater	3/3/2022 8:48:00 AM	3/3/2022	3/21/2022
N049657-002A	MW-38S-Q122	Groundwater	3/3/2022 10:04:00 AM	3/3/2022	3/21/2022
N049657-002B	MW-38S-Q122	Groundwater	3/3/2022 10:04:00 AM	3/3/2022	3/21/2022
N049657-002C	MW-38S-Q122	Groundwater	3/3/2022 10:04:00 AM	3/3/2022	3/21/2022

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab ID: N049657-001

Client Sample ID: MW-38D-Q122
Collection Date: 3/3/2022 8:48:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A** QC Batch: **R160600**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	39	0.13	1.0		µg/L	5	3/4/2022 12:46 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:	**3/5/2022**		Analyst: **CEI**
Chromium	36	0.035	1.0		µg/L	1	3/5/2022 03:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-38S-Q122
Lab Order:	N049657	**Collection Date:**	3/3/2022 10:04:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049657-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A** QC Batch: **R160600**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	31	0.13	1.0		µg/L	5	3/4/2022 12:56 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A			**EPA 6020**		
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Chromium	31	0.035	1.0		µg/L	1	3/5/2022 03:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160600**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **PBW**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160600**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **LCSW**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.005	0.20	5.000	0	100	90	110				

Sample ID: **N049656-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.020	0.20	1.000	0	102	90	110				

Sample ID: **N049656-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	41.917	1.0	25.00	16.54	102	90	110				

Sample ID: **N049656-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.171	1.0	25.00	19.75	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049656-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	9.167	1.0	5.000	4.274	97.9	90	110				

Sample ID: **N049656-007AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	9.407	1.0	5.000	4.274	103	90	110	9.167	2.58	20	

Sample ID: **N049657-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552617**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	56.949	1.0	25.00	31.26	103	90	110				

Sample ID: **N049657-002AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552618**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	57.175	1.0	25.00	31.26	104	90	110	56.95	0.395	20	

Sample ID: **N049656-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552620**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.767	1.0	5.000	5.447	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049656-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.226	0.20	5.000	4.814	108	90	110				

Sample ID: **N049657-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552624**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	64.788	1.0	25.00	38.55	105	90	110				

Sample ID: **N049656-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.680	1.0	5.000	0.5420	103	90	110				

Sample ID: **N049656-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	17.637	1.0	5.000	12.27	107	90	110				

Sample ID: **N049663-001ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	18.682	0.40						19.05	1.93	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049679-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	483.970	10	250.0	228.5	102	90	110				

Sample ID: **N049656-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552636**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID: **N049656-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Sample ID: **N049656-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552641**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.043	0.20	1.000	0	104	90	110				

Sample ID: **N049656-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	13.988	1.0	5.000	8.618	107	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553472**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553473**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.019	1.0	10.00	0	100	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	38.265	1.0	10.00	30.65	76.2	75	125				

Sample ID: **N049657-002CMSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	38.245	1.0	10.00	30.65	76.0	75	125	38.27	0.0513	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-38D-Q122
Lab Order:	N049657	**Collection Date:**	3/3/2022 8:48:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049657-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.75	0.095	0.50		mg/L	10	3/4/2022 12:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-38S-Q122
Lab Order:	N049657	**Collection Date:**	3/3/2022 10:04:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049657-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	5.6	0.095	0.50		mg/L	10	3/4/2022 02:23 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160599_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **PBW**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160599_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **LCSW**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.257	0.050	1.250	0	101	90	110				

Sample ID: **N049657-002BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.482	0.50						5.551	1.25	20	

Sample ID: **N049657-002BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.646	0.50	12.50	5.551	96.8	80	120				

Sample ID: **N049657-002BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552659**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.637	0.50	12.50	5.551	96.7	80	120	17.65	0.0510	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049679-001CMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4554385**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	10.406	0.25	6.250	4.394	96.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab ID: N049657-001

Client Sample ID: MW-38D-Q122
Collection Date: 3/3/2022 8:48:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:		**3/5/2022**	Analyst: **CEI**
Molybdenum	38	0.12	0.50		µg/L	1	3/5/2022 03:03 PM
Selenium	0.75	0.044	0.50		µg/L	1	3/5/2022 03:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-38S-Q122
Lab Order:	N049657	**Collection Date:**	3/3/2022 10:04:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049657-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Molybdenum	7.7	0.12	0.50		µg/L	1	3/5/2022 03:09 PM
Selenium	5.7	0.044	0.50		µg/L	1	3/5/2022 03:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049657
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	ND	0.50									
Selenium	0.078	0.50									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	9.910	0.50	10.00	0	99.1	85	115				
Selenium	9.792	0.50	10.00	0	97.9	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553569**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	18.371	0.50	10.00	7.724	106	75	125				
Selenium	15.320	0.50	10.00	5.696	96.2	75	125				

Sample ID: **N049657-002CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	18.390	0.50	10.00	7.724	107	75	125	18.37	0.103	20	
Selenium	14.899	0.50	10.00	5.696	92.0	75	125	15.32	2.78	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

N049657

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

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www.assetlaboratories.com

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted By: Rissie Tap	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Field Tech			Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: 3/3/22 Date:	Sampled By: Rissie Tap		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for*			Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - RCM	Signature: Date: 3/3/22				Sample Temp: 3.4 °C
Project Number: 30121866.1Q22GW					Courier: ASET Tracking No.:

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH 250 mL poly	Nitrate (EPA 300.0) 1 L poly	Dissolved metals (SW6020) FF; HNO3 Arsenic, Manganese, 500mL poly	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, 500mL poly	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium 500mL poly	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049657-01	MW-38D-Q122	3/3/2022	8:48		X	X		X	X	E	3	P	BNS	
2	-02	MW-38S-Q122	3/3/2022	10:04		X	X		X	X	E	3	P	BNS	MS/MSD
3															
4															
5															
7															
8															
9															
10															
11															
12															
13															
14															

Relinquished by (Signature and Printed Name):	Date/Time	Relinquished by (Signature and Printed Name):	Date/Time
Rissie Tap	3/3/22 1510	Dan Romeo Alcantara	3/3/22 1510
Dan Romeo Alcantara	3/3/22 1820	Dan Romeo Alcantara	3/3/22 1820
Dan Romeo Alcantara	3/3/22 1820	Dan Romeo Alcantara	3/3/22 1820

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B (NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Plnt
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=25%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

MT 3/4/22

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/3/2022	Workorder:	N049657
Rep sample Temp (Deg C):	3.4	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/4/2022

Reviewed By: MBC 3/8/2022

ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049657

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/3/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049657-001A	MW-38D-Q122	3/3/2022 8:48:00 AM	3/17/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049657-001B			3/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049657-001C			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049657-002A	MW-38S-Q122	3/3/2022 10:04:00 AM	3/17/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☑	☐	WW
N049657-002B			3/17/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☑	☐	WW
N049657-002C			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☑	☐	WW
			3/17/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☑	☐	WW
			3/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☑	☐	WW
			3/17/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☑	☐	WW
N049657-003A	FOLDER	3/17/2022	3/17/2022		Folder	Folder	☐	☐	☐	LAB
			3/17/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/17/2022		Folder	Folder	☐	☐	☐	LAB

March 07, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049679

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 04, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049679

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Ammonia was subcontracted to BC Labs- Bakersfield,CA.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Barium in QC samples N049657-002CMS and N049657-002CMSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049679-001E-MS/MSD at 1x and 5x dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049679-001 and MS/MSD were reported at 20x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *07-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049679
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049679-001A	MW-31-060-Q122	Groundwater	3/4/2022 11:50:00 AM	3/4/2022	3/7/2022
N049679-001B	MW-31-060-Q122	Groundwater	3/4/2022 11:50:00 AM	3/4/2022	3/7/2022
N049679-001C	MW-31-060-Q122	Groundwater	3/4/2022 11:50:00 AM	3/4/2022	3/7/2022
N049679-001D	MW-31-060-Q122	Groundwater	3/4/2022 11:50:00 AM	3/4/2022	3/7/2022
N049679-001E	MW-31-060-Q122	Groundwater	3/4/2022 11:50:00 AM	3/4/2022	3/7/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-Q122
Lab Order:	N049679	**Collection Date:**	3/4/2022 11:50:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049679-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220304A** QC Batch: **R160600**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	230	1.3	10		µg/L	50	3/4/2022 05:58 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Chromium	230	0.18	5.0		µg/L	5	3/5/2022 02:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160600**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **PBW**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160600**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **LCSW**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.005	0.20	5.000	0	100	90	110				

Sample ID: **N049656-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552601**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.020	0.20	1.000	0	102	90	110				

Sample ID: **N049656-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	41.917	1.0	25.00	16.54	102	90	110				

Sample ID: **N049656-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160600**
Client ID: **ZZZZZZ**	Batch ID: **R160600**	TestNo: **EPA 218.6**		Analysis Date: **3/4/2022**	SeqNo: **4552613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	46.171	1.0	25.00	19.75	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049656-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	9.167	1.0	5.000	4.274	97.9	90	110				

Sample ID: **N049656-007AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	9.407	1.0	5.000	4.274	103	90	110	9.167	2.58	20	

Sample ID: **N049657-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552617**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	56.949	1.0	25.00	31.26	103	90	110				

Sample ID: **N049657-002AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552618**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	57.175	1.0	25.00	31.26	104	90	110	56.95	0.395	20	

Sample ID: **N049656-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552620**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.767	1.0	5.000	5.447	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049656-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.226	0.20	5.000	4.814	108	90	110				

Sample ID: **N049657-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552624**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	64.788	1.0	25.00	38.55	105	90	110				

Sample ID: **N049656-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.680	1.0	5.000	0.5420	103	90	110				

Sample ID: **N049656-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	17.637	1.0	5.000	12.27	107	90	110				

Sample ID: **N049663-001ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	18.682	0.40						19.05	1.93	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049679-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	483.970	10	250.0	228.5	102	90	110				

Sample ID: **N049656-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552636**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID: **N049656-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Sample ID: **N049656-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552641**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.043	0.20	1.000	0	104	90	110				

Sample ID: **N049656-008AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160600**
Client ID: **ZZZZZZ** Batch ID: **R160600** TestNo: **EPA 218.6** Analysis Date: **3/4/2022** SeqNo: **4552642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	13.988	1.0	5.000	8.618	107	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553472**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553473**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.019	1.0	10.00	0	100	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553484**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	38.265	1.0	10.00	30.65	76.2	75	125				

Sample ID: **N049657-002CMSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	38.245	1.0	10.00	30.65	76.0	75	125	38.27	0.0513	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049679-001

Client Sample ID: MW-31-060-Q122
Collection Date: 3/4/2022 11:50:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A** QC Batch: **R160599**				PrepDate:			Analyst: **RAB**
Sulfate	430	3.0	25		mg/L	50	3/4/2022 08:37 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A** QC Batch: **R160599**				PrepDate:			Analyst: **RAB**
Nitrate as N	4.4	0.048	0.25		mg/L	5	3/4/2022 04:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **MB-R160599_SO4** SampType: **MBLK** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **PBW** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **LCS-R160599_SO4** SampType: **LCS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **LCSW** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.893	0.50	4.000	0	97.3	90	110				

Sample ID: **N049679-001CDUP** SampType: **DUP** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	427.985	25						432.8	1.11	20	

Sample ID: **N049679-001CMS** SampType: **MS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552689**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	623.625	25	200.0	432.8	95.4	80	120				

Sample ID: **N049679-001CMD** SampType: **MSD** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552690**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	626.185	25	200.0	432.8	96.7	80	120	623.6	0.410	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160599_NO3** SampType: **MBLK** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **PBW** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160599_NO3** SampType: **LCS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **LCSW** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.257	0.050	1.250	0	101	90	110				

Sample ID: **N049657-002BDUP** SampType: **DUP** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.482	0.50						5.551	1.25	20	

Sample ID: **N049657-002BMS** SampType: **MS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.646	0.50	12.50	5.551	96.8	80	120				

Sample ID: **N049657-002BMSD** SampType: **MSD** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4552659**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.637	0.50	12.50	5.551	96.7	80	120	17.65	0.0510	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049679-001CMS** SampType: **MS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160599**
Client ID: **ZZZZZZ** Batch ID: **R160599** TestNo: **EPA 300.0** Analysis Date: **3/4/2022** SeqNo: **4554385**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	10.406	0.25	6.250	4.394	96.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-Q122
Lab Order:	N049679	**Collection Date:**	3/4/2022 11:50:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049679-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	1.7	20		mg/L	20	3/6/2022 06:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160625** SampType: **MBLK** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **160625**
Client ID: **PBW** Batch ID: **R160625** TestNo: **SM 5310C** Analysis Date: **3/6/2022** SeqNo: **4553877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160625** SampType: **LCS** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **160625**
Client ID: **LCSW** Batch ID: **R160625** TestNo: **SM 5310C** Analysis Date: **3/6/2022** SeqNo: **4553878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.742	1.0	5.000	0	94.8	85	115				

Sample ID: **N049679-001E-MS** SampType: **MS** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **160625**
Client ID: **ZZZZZZ** Batch ID: **R160625** TestNo: **SM 5310C** Analysis Date: **3/6/2022** SeqNo: **4553886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	90.684	20	100.0	2.080	88.6	75	125				

Sample ID: **N049679-001EMSD** SampType: **MSD** TestCode: **5310C_W_T_** Units: **mg/L** Prep Date: RunNo: **160625**
Client ID: **ZZZZZZ** Batch ID: **R160625** TestNo: **SM 5310C** Analysis Date: **3/6/2022** SeqNo: **4553889**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	89.830	20	100.0	2.080	87.8	75	125	90.68	0.946	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-060-Q122
Lab Order:	N049679	**Collection Date:**	3/4/2022 11:50:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049679-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	47	13	20		µg/L	1	3/5/2022 07:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **LCS-91755**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **LCSW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	102.163	20	100.0	0	102	85	115				

Sample ID: **N049679-001B-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553062**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.831	20	100.0	46.56	81.3	75	125				

Sample ID: **N049679-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.913	20	100.0	46.56	81.4	75	125	127.8	0.0645	20	

Sample ID: **MB-91755**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **PBW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049679-001

Client Sample ID: MW-31-060-Q122
Collection Date: 3/4/2022 11:50:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/5/2022 05:21 PM
Barium	320	0.42	5.0		µg/L	5	3/5/2022 02:46 PM
Manganese	2200	0.66	12		µg/L	25	3/5/2022 02:52 PM
Molybdenum	22	0.12	0.50		µg/L	1	3/5/2022 02:40 PM
Selenium	8.8	0.044	0.50		µg/L	1	3/5/2022 02:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Molybdenum	ND	0.50									
Selenium	0.078	0.50									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.255	0.10	10.00	0	103	85	115				
Barium	10.128	1.0	10.00	0	101	85	115				
Manganese	99.770	0.50	100.0	0	99.8	85	115				
Molybdenum	9.910	0.50	10.00	0	99.1	85	115				
Selenium	9.792	0.50	10.00	0	97.9	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553569**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.373	0.10	10.00	3.597	97.8	75	125				
Barium	75.029	1.0	10.00	69.98	50.4	75	125				S
Manganese	154.046	0.50	100.0	68.65	85.4	75	125				
Molybdenum	18.371	0.50	10.00	7.724	106	75	125				
Selenium	15.320	0.50	10.00	5.696	96.2	75	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049657-002CMSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/5/2022** RunNo: **160618**
Client ID: **ZZZZZZ** Batch ID: **91754** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/5/2022** SeqNo: **4553570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.268	0.10	10.00	3.597	96.7	75	125	13.37	0.785	20	
Barium	75.770	1.0	10.00	69.98	57.9	75	125	75.03	0.983	20	S
Manganese	154.239	0.50	100.0	68.65	85.6	75	125	154.0	0.125	20	
Molybdenum	18.390	0.50	10.00	7.724	107	75	125	18.37	0.103	20	
Selenium	14.899	0.50	10.00	5.696	92.0	75	125	15.32	2.78	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049679
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049657-002C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160618**
Client ID: **ZZZZZZ** Batch ID: **91754** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/5/2022** SeqNo: **4553568**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.521	0.10	10.00	3.597	99.2	80	120				
Barium	75.090	1.0	10.00	69.98	51.1	80	120				S
Manganese	157.814	0.50	100.0	68.65	89.2	80	120				
Molybdenum	17.628	0.50	10.00	7.724	99.0	80	120				
Selenium	14.988	0.50	10.00	5.696	92.9	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition	Y	N
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	1. Chilled	✓	
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com	Address:	Geotracker	RWQCB ✓	2. Headspace		
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	3. Container Intact	✓	
Submitted By: Rissa Top			Others ✓	LEVEL III	4. Seal Present	✓	
Title: Field Tech	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Specify: RWQCB	LEVEL IV	5. IR number 3		
Signature: 3/4/22 Date:	Sampled By: Rissa Top		Global ID:	Regulatory	6. Method of Cooling: Ice		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for	Matrix: Ground X Sediment; Potable Soil; NPDES Other Solid; Surface		Specify State:	Sample Temp: 3.5°C		
Project Name: PG&E Topock - PCM	Signature: Date: 3/4/22				Courier: ASSET		
Project Number: 30121866.1Q22GW					Tracking No.:		

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH 250 mL poly	Nitrate (EPA 300.0) 1 L poly	Dissolved metals (SW6020) FF; HNO3 Arsenic, Manganese, 500mL poly	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, 500mL poly	Dissolved metals (SW6020) FF; HNO3 Barium, Iron, Molybdenum, Selenium 500mL poly	Nitrite, sulfate (EPA 300.0) 1 L poly	Ammonia as Nitrogen (SM4500NH3); H2SO4 1 L poly	Total Organic Carbon (SM5310C); H2SO4 3x40 mL VOA	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049679-01	MW-31-060-Q122	3/4/2022	11:50		X		X	X	X	X	X	X	A	7	P	BNS	
2																		
3																		
4																		
5																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

Relinquished by (Signature and Printed Name): Rissa Top Date/Time: 3/4/22 1250
Received by (Signature and Printed Name): Romeo Mercurio Date/Time: 3/4/22 1250
Relinquished by (Signature and Printed Name): Romeo Mercurio Date/Time: 3/4/22 1538
Received by (Signature and Printed Name): Yoanda Rodriguez Date/Time: 3/4/22 1538

Turn Around Time (TAT)

X	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=60% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Plst
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/4/2022	Workorder:	N049679
Rep sample Temp (Deg C):	3.5	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/7/2022

Reviewed By: MBC 3/7/2022

ASSET Sample Control CA

From: Madsen, Laura <Laura.Madsen@arcadis.com>
Sent: Monday, March 7, 2022 4:36 PM
To: ASSET Sample Control CA; yoandra@assetlaboratories.com
Subject: RE: TOPOCK N049679 and N049680 COC and Work Order Summary for Samples Received 3/4/2022

Importance: High

Hi Yoandra,
There was a typo on the COC and it asked for nitrite, but we really need nitrate. Can you please fix the log in or is it too late? There will be another batch of samples sent to the lab today with the same issue where we need nitrate not nitrite

Thanks,
Laura

From: ASSET Sample Control CA <samplecontrol@assetlaboratories.com>
Sent: Monday, March 7, 2022 5:08 PM
To: Bush, Dan <Dan.Bush@arcadis.com>; Dan Moore <Daniel.Moore@critigen.com>; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: Tina Rice <Tina.Rice@critigen.com>; Harmon, Alison <Ali.Harmon@arcadis.com>; Erica.Serna@arcadis.com; Bloes, Marty <mbloes@pivox.com>; ntep@blainetech.com
Subject: TOPOCK N049679 and N049680 COC and Work Order Summary for Samples Received 3/4/2022

Hi Dan Bush:

Enclosed are COC and WO Summary for samples received 3/4/2022. If you have any questions, please contact your Project Manager listed below.

A new column “Matrix_Spike” has been added in the excel file. If the “MS/MSD” field is ticked when logging in the testcode, the “Matrix_Spike” column will be marked ”YES”.

Marlon Cartin
3151 W. Post Road
Las Vegas, Nevada
89118
Tel. No.: (702)-307-2659 Ext. 410
Cel. No.: (702)-439-0421
Email: marlon@assetlaboratories.com

Thank you for using ASSET Laboratories.

Sincerely,
Mary Ann Balilu
Sample Control Officer

ASSET Laboratories

WORK ORDER Summary

07-Mar-22

WorkOrder: N049679

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/4/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049679-001A	MW-31-060-Q122	3/4/2022 11:50:00 AM	3/7/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049679-001B			3/7/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/7/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/7/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/7/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/7/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049679-001C			3/7/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☑	☐	☐	WW
			3/7/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/7/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049679-001D			3/7/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049679-001E			3/7/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049679-002A	FOLDER	3/7/2022	3/7/2022		Folder	Folder	☐	☐	☐	LAB
			3/7/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/7/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Riggie Tep

07-Mar-22

				Requested Tests		
Sample ID	Matrix	Date Collected	Bottle Type	SM4500-NH3D		
N049679-001D / MW-31-060-Q122	Groundwater	3/4/2022 11:50:00 AM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49679A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 1-day TAT.

Please analyze for Ammonia by SM4500NH3D. EDD requirement Labspec7 edata.

GSO#: 556247135

		Date/Time			Date/Time
Relinquished by:	YRJ	3/7/2022 1630	**Received by:**		
Relinquished by:			**Received by:**		

March 21, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049680

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 04, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

for

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Initial dilution was necessary for sample N049680-005 due to matrix. Sample is colored.

Dilution was necessary for samples N049680-001, -007 and -009 due to matrix interference. Samples were analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Samples were reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049679-001E-MS/MSD at 1x and 5x dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049679-001 and MS/MSD were reported at 20x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Barium in QC samples N049657-002CMS and N049657-002CMSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049680
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049680-001A	MW-22-Q122	Groundwater	3/4/2022 10:21:00 AM	3/4/2022	3/21/2022
N049680-001B	MW-22-Q122	Groundwater	3/4/2022 10:21:00 AM	3/4/2022	3/21/2022
N049680-001C	MW-22-Q122	Groundwater	3/4/2022 10:21:00 AM	3/4/2022	3/21/2022
N049680-001D	MW-22-Q122	Groundwater	3/4/2022 10:21:00 AM	3/4/2022	3/21/2022
N049680-002A	PT5D-Q122	Groundwater	3/4/2022 9:25:00 AM	3/4/2022	3/21/2022
N049680-002B	PT5D-Q122	Groundwater	3/4/2022 9:25:00 AM	3/4/2022	3/21/2022
N049680-002C	PT5D-Q122	Groundwater	3/4/2022 9:25:00 AM	3/4/2022	3/21/2022
N049680-002D	PT5D-Q122	Groundwater	3/4/2022 9:25:00 AM	3/4/2022	3/21/2022
N049680-003A	PT5M-Q122	Groundwater	3/4/2022 8:47:00 AM	3/4/2022	3/21/2022
N049680-003B	PT5M-Q122	Groundwater	3/4/2022 8:47:00 AM	3/4/2022	3/21/2022
N049680-003C	PT5M-Q122	Groundwater	3/4/2022 8:47:00 AM	3/4/2022	3/21/2022
N049680-003D	PT5M-Q122	Groundwater	3/4/2022 8:47:00 AM	3/4/2022	3/21/2022
N049680-004A	PT5S-Q122	Groundwater	3/4/2022 8:13:00 AM	3/4/2022	3/21/2022
N049680-004B	PT5S-Q122	Groundwater	3/4/2022 8:13:00 AM	3/4/2022	3/21/2022
N049680-004C	PT5S-Q122	Groundwater	3/4/2022 8:13:00 AM	3/4/2022	3/21/2022
N049680-004D	PT5S-Q122	Groundwater	3/4/2022 8:13:00 AM	3/4/2022	3/21/2022
N049680-005A	MW-32-020-Q122	Groundwater	3/4/2022 8:14:00 AM	3/4/2022	3/21/2022
N049680-005B	MW-32-020-Q122	Groundwater	3/4/2022 8:14:00 AM	3/4/2022	3/21/2022
N049680-005C	MW-32-020-Q122	Groundwater	3/4/2022 8:14:00 AM	3/4/2022	3/21/2022
N049680-005D	MW-32-020-Q122	Groundwater	3/4/2022 8:14:00 AM	3/4/2022	3/21/2022
N049680-006A	MW-32-020-EB-Q122	Groundwater	3/4/2022 8:19:00 AM	3/4/2022	3/21/2022
N049680-007A	MW-32-035-Q122	Groundwater	3/4/2022 8:57:00 AM	3/4/2022	3/21/2022
N049680-007B	MW-32-035-Q122	Groundwater	3/4/2022 8:57:00 AM	3/4/2022	3/21/2022
N049680-007C	MW-32-035-Q122	Groundwater	3/4/2022 8:57:00 AM	3/4/2022	3/21/2022
N049680-007D	MW-32-035-Q122	Groundwater	3/4/2022 8:57:00 AM	3/4/2022	3/21/2022
N049680-008A	MW-32-035-EB-Q122	Groundwater	3/4/2022 9:02:00 AM	3/4/2022	3/21/2022
N049680-009A	MW-90-031-Q122	Groundwater	3/4/2022 10:34:00 AM	3/4/2022	3/21/2022
N049680-009B	MW-90-031-Q122	Groundwater	3/4/2022 10:34:00 AM	3/4/2022	3/21/2022
N049680-009C	MW-90-031-Q122	Groundwater	3/4/2022 10:34:00 AM	3/4/2022	3/21/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049680
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049680-009D	MW-90-031-Q122	Groundwater	3/4/2022 10:34:00 AM	3/4/2022	3/21/2022
N049680-010A	EB-714-Q122	Groundwater	3/4/2022 12:00:00 PM	3/4/2022	3/21/2022
N049680-011A	EB-715-Q122	Groundwater	3/4/2022 11:30:00 AM	3/4/2022	3/21/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-22-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/7/2022 12:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5D-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 9:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	5.5	0.13	1.0		µg/L	5	3/7/2022 05:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5M-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:47:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/7/2022 11:43 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5S-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/7/2022 12:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-020-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/7/2022 01:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-020-EB-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:19:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/7/2022 01:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-035-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:57:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/7/2022 05:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-035-EB-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 9:02:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/7/2022 03:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-90-031-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:34:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/7/2022 04:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-714-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 12:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/7/2022 03:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-715-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 11:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220307A**	QC Batch: **R160658**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/7/2022 03:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160658**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160658**
Client ID: **PBW**	Batch ID: **R160658**	TestNo: **EPA 218.6**		Analysis Date: **3/7/2022**	SeqNo: **4554852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160658**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160658**
Client ID: **LCSW**	Batch ID: **R160658**	TestNo: **EPA 218.6**		Analysis Date: **3/7/2022**	SeqNo: **4554853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.992	0.20	5.000	0	99.8	90	110				

Sample ID: **N049680-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160658**
Client ID: **ZZZZZZ**	Batch ID: **R160658**	TestNo: **EPA 218.6**		Analysis Date: **3/7/2022**	SeqNo: **4554855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.031	0.20	1.000	0	103	90	110				

Sample ID: **N049680-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160658**
Client ID: **ZZZZZZ**	Batch ID: **R160658**	TestNo: **EPA 218.6**		Analysis Date: **3/7/2022**	SeqNo: **4554857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.043	0.20	1.000	0	104	90	110				

Sample ID: **N049680-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160658**
Client ID: **ZZZZZZ**	Batch ID: **R160658**	TestNo: **EPA 218.6**		Analysis Date: **3/7/2022**	SeqNo: **4554861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.044	1.0	5.000	0	101	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049680-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.014	1.0	5.000	0	100	90	110				

Sample ID: **N049680-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554865**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.001	0.20	1.000	0	100	90	110				

Sample ID: **N049680-008AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.984	0.20	1.000	0	98.4	90	110				

Sample ID: **N049680-010AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.032	0.20	1.000	0	103	90	110				

Sample ID: **N049680-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.004	0.20	1.000	0	100	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049680-009AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554875**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.247	1.0	5.000	0	105	90	110				

Sample ID: **N049680-001AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.656	1.0	5.000	0	93.1	90	110	5.044	8.01	20	

Sample ID: **N049680-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554881**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.196	1.0	5.000	0	104	90	110				

Sample ID: **N049680-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554883**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.596	1.0	5.000	5.530	101	90	110				

Sample ID: **N049685-001ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160658**
Client ID: **ZZZZZZ** Batch ID: **R160658** TestNo: **EPA 218.6** Analysis Date: **3/7/2022** SeqNo: **4554884**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.272	0.20						6.233	0.635	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-22-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/4/2022 05:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5D-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 9:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/4/2022 07:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5M-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:47:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/4/2022 08:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5S-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220305A**	QC Batch: **R160602**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/5/2022 11:36 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-020-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/4/2022 06:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-035-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:57:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/4/2022 06:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-90-031-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:34:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220304A**	QC Batch: **R160599**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.66	0.095	0.50		mg/L	10	3/4/2022 07:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160599_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **PBW**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160599_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **LCSW**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.257	0.050	1.250	0	101	90	110				

Sample ID: **N049657-002BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.482	0.50						5.551	1.25	20	

Sample ID: **N049657-002BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.646	0.50	12.50	5.551	96.8	80	120				

Sample ID: **N049657-002BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4552659**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.637	0.50	12.50	5.551	96.7	80	120	17.65	0.0510	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049679-001CMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160599**
Client ID: **ZZZZZZ**	Batch ID: **R160599**	TestNo: **EPA 300.0**		Analysis Date: **3/4/2022**	SeqNo: **4554385**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	10.406	0.25	6.250	4.394	96.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160602_NO3** SampType: **MBLK** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160602**
Client ID: **PBW** Batch ID: **R160602** TestNo: **EPA 300.0** Analysis Date: **3/5/2022** SeqNo: **4552735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160602_NO3** SampType: **LCS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160602**
Client ID: **LCSW** Batch ID: **R160602** TestNo: **EPA 300.0** Analysis Date: **3/5/2022** SeqNo: **4552736**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.189	0.050	1.250	0	95.1	90	110				

Sample ID: **N049680-004BDUP** SampType: **DUP** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160602**
Client ID: **ZZZZZZ** Batch ID: **R160602** TestNo: **EPA 300.0** Analysis Date: **3/5/2022** SeqNo: **4552738**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.25						0	0	20	

Sample ID: **N049680-004BMS** SampType: **MS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160602**
Client ID: **ZZZZZZ** Batch ID: **R160602** TestNo: **EPA 300.0** Analysis Date: **3/5/2022** SeqNo: **4552739**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.912	0.25	6.250	0	94.6	80	120				

Sample ID: **N049680-004BMSD** SampType: **MSD** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160602**
Client ID: **ZZZZZZ** Batch ID: **R160602** TestNo: **EPA 300.0** Analysis Date: **3/5/2022** SeqNo: **4552740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.930	0.25	6.250	0	94.9	80	120	5.912	0.304	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-22-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:21:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.0	0.084	1.0		mg/L	1	3/6/2022 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5D-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 9:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/6/2022 08:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5M-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:47:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/6/2022 08:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-004

Client Sample ID: PT5S-Q122
Collection Date: 3/4/2022 8:13:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.9	0.084	1.0		mg/L	1	3/6/2022 08:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-020-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	4.4	0.17	2.0		mg/L	2	3/9/2022 05:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-035-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:57:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.9	0.084	1.0		mg/L	1	3/6/2022 09:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-90-031-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:34:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220306A**	QC Batch: **R160625**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.8	0.084	1.0		mg/L	1	3/6/2022 09:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160625**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **PBW**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160625**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **LCSW**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.742	1.0	5.000	0	94.8	85	115				

Sample ID: **N049679-001E-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **ZZZZZZ**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	90.684	20	100.0	2.080	88.6	75	125				

Sample ID: **N049679-001EMSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160625**
Client ID: **ZZZZZZ**	Batch ID: **R160625**	TestNo: **SM 5310C**		Analysis Date: **3/6/2022**	SeqNo: **4553889**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	89.830	20	100.0	2.080	87.8	75	125	90.68	0.946	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160702**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **PBW**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557209**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160702**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **LCSW**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557210**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.669	1.0	5.000	0	93.4	85	115				

Sample ID: **N049724-005E-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **ZZZZZZ**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.775	50	250.0	0	100	75	125				

Sample ID: **N049724-005E-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **ZZZZZZ**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557240**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.185	50	250.0	0	100	75	125	250.8	0.236	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-001

Client Sample ID: MW-22-Q122
Collection Date: 3/4/2022 10:21:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**				PrepDate:	**3/5/2022**	Analyst: **DJ**
Iron	11000	64	100		µg/L	5	3/5/2022 09:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5D-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 9:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:	**3/5/2022**		Analyst: **DJ**
Iron	50	13	20		µg/L	1	3/5/2022 08:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	PT5M-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:47:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:	**3/5/2022**		Analyst: **DJ**
Iron	140	13	20		µg/L	1	3/5/2022 08:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-004

Client Sample ID: PT5S-Q122
Collection Date: 3/4/2022 8:13:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	870	13	20		µg/L	1	3/5/2022 08:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-020-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	3500	64	100		µg/L	5	3/5/2022 09:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-035-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:57:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	10000	13	20		µg/L	1	3/5/2022 09:12 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-90-031-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:34:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220305C**	QC Batch: **91755**			PrepDate:		**3/5/2022**	Analyst: **DJ**
Iron	3600	13	20		µg/L	1	3/5/2022 09:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **LCS-91755**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **LCSW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553058**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	102.163	20	100.0	0	102	85	115				

Sample ID: **N049679-001B-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553062**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.831	20	100.0	46.56	81.3	75	125				

Sample ID: **N049679-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **ZZZZZZ**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	127.913	20	100.0	46.56	81.4	75	125	127.8	0.0645	20	

Sample ID: **MB-91755**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160613**
Client ID: **PBW**	Batch ID: **91755**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553073**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-001

Client Sample ID: MW-22-Q122
Collection Date: 3/4/2022 10:21:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	6.5	0.050	0.10		µg/L	1	3/5/2022 06:14 PM
Barium	110	0.083	1.0		µg/L	1	3/5/2022 04:21 PM
Manganese	4300	0.66	12		µg/L	25	3/5/2022 05:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-002

Client Sample ID: PT5D-Q122
Collection Date: 3/4/2022 9:25:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	1.6	0.050	0.10		µg/L	1	3/5/2022 04:27 PM
Barium	27	0.083	1.0		µg/L	1	3/5/2022 04:27 PM
Manganese	110	0.026	0.50		µg/L	1	3/5/2022 04:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-003

Client Sample ID: PT5M-Q122
Collection Date: 3/4/2022 8:47:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	1.1	0.050	0.10		µg/L	1	3/5/2022 04:51 PM
Barium	32	0.083	1.0		µg/L	1	3/5/2022 04:51 PM
Manganese	1200	0.26	5.0		µg/L	10	3/5/2022 06:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-004

Client Sample ID: PT5S-Q122
Collection Date: 3/4/2022 8:13:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	9.5	0.050	0.10		µg/L	1	3/5/2022 04:57 PM
Barium	90	0.083	1.0		µg/L	1	3/5/2022 04:57 PM
Manganese	240	0.13	2.5		µg/L	5	3/5/2022 06:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049680-005

Client Sample ID: MW-32-020-Q122
Collection Date: 3/4/2022 8:14:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C** QC Batch: **91754**				PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/5/2022 05:03 PM
Barium	170	0.083	1.0		µg/L	1	3/5/2022 05:03 PM
Manganese	130	0.026	0.50		µg/L	1	3/5/2022 05:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-32-035-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 8:57:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:		**3/5/2022**	Analyst: **CEI**
Arsenic	13	0.050	0.10		µg/L	1	3/5/2022 05:09 PM
Barium	200	0.42	5.0		µg/L	5	3/5/2022 06:32 PM
Manganese	580	0.13	2.5		µg/L	5	3/5/2022 06:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-90-031-Q122
Lab Order:	N049680	**Collection Date:**	3/4/2022 10:34:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049680-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220305C**	QC Batch: **91754**			PrepDate:	**3/5/2022**		Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/5/2022 05:15 PM
Barium	97	0.083	1.0		µg/L	1	3/5/2022 05:15 PM
Manganese	240	0.13	2.5		µg/L	5	3/5/2022 06:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91754**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **PBW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									

Sample ID: **LCS-91754**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **LCSW**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.255	0.10	10.00	0	103	85	115				
Barium	10.128	1.0	10.00	0	101	85	115				
Manganese	99.770	0.50	100.0	0	99.8	85	115				

Sample ID: **N049657-002CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553569**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.373	0.10	10.00	3.597	97.8	75	125				
Barium	75.029	1.0	10.00	69.98	50.4	75	125				S
Manganese	154.046	0.50	100.0	68.65	85.4	75	125				

Sample ID: **N049657-002CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/5/2022**	RunNo: **160618**
Client ID: **ZZZZZZ**	Batch ID: **91754**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/5/2022**	SeqNo: **4553570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.268	0.10	10.00	3.597	96.7	75	125	13.37	0.785	20	
Barium	75.770	1.0	10.00	69.98	57.9	75	125	75.03	0.983	20	S
Manganese	154.239	0.50	100.0	68.65	85.6	75	125	154.0	0.125	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049680
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049657-002C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160618**
Client ID: **ZZZZZZ** Batch ID: **91754** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/5/2022** SeqNo: **4553568**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	13.521	0.10	10.00	3.597	99.2	80	120				
Barium	75.090	1.0	10.00	69.98	51.1	80	120				S
Manganese	157.814	0.50	100.0	68.65	89.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

| | | |

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/4/2022	Workorder:	N049680
Rep sample Temp (Deg C):	3.5	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

For:

Checklist Completed By: YR GGarcia 3/7/2022

Reviewed By: MBC 3/11/2022

ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049680

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/4/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049680-001A	MW-22-Q122	3/4/2022 10:21:00 AM	3/18/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-001B			3/18/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-001C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-001D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-002A	PT5D-Q122	3/4/2022 9:25:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-002B			3/18/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-002C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-002D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-003A	PT5M-Q122	3/4/2022 8:47:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-003B			3/18/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-003C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-003D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-004A	PT5S-Q122	3/4/2022 8:13:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049680

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/4/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049680-004B	PT5S-Q122	3/4/2022 8:13:00 AM	3/18/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-004C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-004D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-005A	MW-32-020-Q122	3/4/2022 8:14:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-005B			3/18/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-005C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-005D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-006A	MW-32-020-EB-Q122	3/4/2022 8:19:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-007A	MW-32-035-Q122	3/4/2022 8:57:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-007B			3/18/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-007C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-007D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-008A	MW-32-035-EB-Q122	3/4/2022 9:02:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

04-Mar-22

WorkOrder: N049680

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/4/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049680-009A	MW-90-031-Q122	3/4/2022 10:34:00 AM	3/18/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-009B			3/18/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049680-009C			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/18/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/18/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049680-009D			3/18/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049680-010A	EB-714-Q122	3/4/2022 12:00:00 PM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-011A	EB-715-Q122	3/4/2022 11:30:00 AM	3/18/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049680-012A	FOLDER	3/18/2022	3/18/2022		Folder	Folder	☐	☐	☐	LAB
			3/18/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/18/2022		Folder	Folder	☐	☐	☐	LAB

March 10, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049724

RE: PG&E Topock - PCM, 30121866.1Q22GW

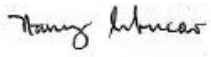
Attention: Dan Bush

Enclosed are the results for sample(s) received on March 07, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Nitrate/Nitrite was subcontracted to BC Labs- Bakersfield,CA.

Analytical Comments for EPA 218.6:

Dilution was necessary for sample N049724-008 due to matrix interference. Sample was analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Sample was reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B_Dissolved:

Dilution was necessary for some samples since plasma was extinguished when samples were analyzed at lower dilution.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Iron in QC samples N049724-001B-MS and N049724-001B-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049724-002B-MS and N049724-002B-MSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049724-005E-MS/MSD at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049724-005 and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *10-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049724
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049724-001A	MW-31-135-Q122	Groundwater	3/7/2022 2:29:00 PM	3/7/2022	3/10/2022
N049724-001B	MW-31-135-Q122	Groundwater	3/7/2022 2:29:00 PM	3/7/2022	3/10/2022
N049724-001C	MW-31-135-Q122	Groundwater	3/7/2022 2:29:00 PM	3/7/2022	3/10/2022
N049724-001D	MW-31-135-Q122	Groundwater	3/7/2022 2:29:00 PM	3/7/2022	3/10/2022
N049724-001E	MW-31-135-Q122	Groundwater	3/7/2022 2:29:00 PM	3/7/2022	3/10/2022
N049724-002A	MW-906-Q122	Groundwater	3/7/2022 2:39:00 PM	3/7/2022	3/10/2022
N049724-002B	MW-906-Q122	Groundwater	3/7/2022 2:39:00 PM	3/7/2022	3/10/2022
N049724-002C	MW-906-Q122	Groundwater	3/7/2022 2:39:00 PM	3/7/2022	3/10/2022
N049724-002D	MW-906-Q122	Groundwater	3/7/2022 2:39:00 PM	3/7/2022	3/10/2022
N049724-002E	MW-906-Q122	Groundwater	3/7/2022 2:39:00 PM	3/7/2022	3/10/2022
N049724-003A	MW-76-181-Q122	Groundwater	3/7/2022 12:27:00 PM	3/7/2022	3/10/2022
N049724-003B	MW-76-181-Q122	Groundwater	3/7/2022 12:27:00 PM	3/7/2022	3/10/2022
N049724-003C	MW-76-181-Q122	Groundwater	3/7/2022 12:27:00 PM	3/7/2022	3/10/2022
N049724-003D	MW-76-181-Q122	Groundwater	3/7/2022 12:27:00 PM	3/7/2022	3/10/2022
N049724-003E	MW-76-181-Q122	Groundwater	3/7/2022 12:27:00 PM	3/7/2022	3/10/2022
N049724-004A	MW-76-218-Q122	Groundwater	3/7/2022 1:13:00 PM	3/7/2022	3/10/2022
N049724-004B	MW-76-218-Q122	Groundwater	3/7/2022 1:13:00 PM	3/7/2022	3/10/2022
N049724-004C	MW-76-218-Q122	Groundwater	3/7/2022 1:13:00 PM	3/7/2022	3/10/2022
N049724-004D	MW-76-218-Q122	Groundwater	3/7/2022 1:13:00 PM	3/7/2022	3/10/2022
N049724-004E	MW-76-218-Q122	Groundwater	3/7/2022 1:13:00 PM	3/7/2022	3/10/2022
N049724-005A	MW-910-Q122	Groundwater	3/7/2022 1:23:00 PM	3/7/2022	3/10/2022
N049724-005B	MW-910-Q122	Groundwater	3/7/2022 1:23:00 PM	3/7/2022	3/10/2022
N049724-005C	MW-910-Q122	Groundwater	3/7/2022 1:23:00 PM	3/7/2022	3/10/2022
N049724-005D	MW-910-Q122	Groundwater	3/7/2022 1:23:00 PM	3/7/2022	3/10/2022
N049724-005E	MW-910-Q122	Groundwater	3/7/2022 1:23:00 PM	3/7/2022	3/10/2022
N049724-006A	MW-76-039-Q122	Groundwater	3/7/2022 11:05:00 AM	3/7/2022	3/10/2022
N049724-006B	MW-76-039-Q122	Groundwater	3/7/2022 11:05:00 AM	3/7/2022	3/10/2022
N049724-006C	MW-76-039-Q122	Groundwater	3/7/2022 11:05:00 AM	3/7/2022	3/10/2022
N049724-006D	MW-76-039-Q122	Groundwater	3/7/2022 11:05:00 AM	3/7/2022	3/10/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049724
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049724-006E	MW-76-039-Q122	Groundwater	3/7/2022 11:05:00 AM	3/7/2022	3/10/2022
N049724-007A	MW-909-Q122	Groundwater	3/7/2022 11:15:00 AM	3/7/2022	3/10/2022
N049724-007B	MW-909-Q122	Groundwater	3/7/2022 11:15:00 AM	3/7/2022	3/10/2022
N049724-007C	MW-909-Q122	Groundwater	3/7/2022 11:15:00 AM	3/7/2022	3/10/2022
N049724-007D	MW-909-Q122	Groundwater	3/7/2022 11:15:00 AM	3/7/2022	3/10/2022
N049724-007E	MW-909-Q122	Groundwater	3/7/2022 11:15:00 AM	3/7/2022	3/10/2022
N049724-008A	MW-76-156-Q122	Groundwater	3/7/2022 11:44:00 AM	3/7/2022	3/10/2022
N049724-008B	MW-76-156-Q122	Groundwater	3/7/2022 11:44:00 AM	3/7/2022	3/10/2022
N049724-008C	MW-76-156-Q122	Groundwater	3/7/2022 11:44:00 AM	3/7/2022	3/10/2022
N049724-008D	MW-76-156-Q122	Groundwater	3/7/2022 11:44:00 AM	3/7/2022	3/10/2022
N049724-008E	MW-76-156-Q122	Groundwater	3/7/2022 11:44:00 AM	3/7/2022	3/10/2022
N049724-009A	EB-717-Q122	Groundwater	3/7/2022 2:45:00 PM	3/7/2022	3/10/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:29:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A** QC Batch: **R160701**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	20	0.13	1.0		µg/L	5	3/8/2022 04:47 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220308B** QC Batch: **91793**				PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	24	0.035	1.0		µg/L	1	3/8/2022 08:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-906-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:39:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A** QC Batch: **R160701**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	19	0.13	1.0		µg/L	5	3/8/2022 04:10 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220308B** QC Batch: **91793**				PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	23	0.035	1.0		µg/L	1	3/8/2022 08:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1600	5.0	40		µg/L	200	3/8/2022 11:12 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220309B**	QC Batch: **91793**			PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	1500	0.35	10		µg/L	10	3/9/2022 12:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049724-004

Client Sample ID: MW-76-218-Q122
Collection Date: 3/7/2022 1:13:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A** QC Batch: **R160701**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	670	2.5	20		µg/L	100	3/8/2022 05:06 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A			**EPA 6020**		
RunID: **NV00922-ICP8_220309B** QC Batch: **91793**				PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	700	0.18	5.0		µg/L	5	3/9/2022 11:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-910-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:23:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	680	2.5	20		µg/L	100	3/8/2022 05:25 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220309B**	QC Batch: **91793**			PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	620	0.18	5.0		µg/L	5	3/9/2022 12:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:05:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A** QC Batch: **R160701**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	41	0.13	1.0		µg/L	5	3/8/2022 12:36 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A			**EPA 6020**		
RunID: **NV00922-ICP8_220308B** QC Batch: **91793**				PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	39	0.035	1.0		µg/L	1	3/8/2022 09:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-909-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:15:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A** QC Batch: **R160701**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	40	0.13	1.0		µg/L	5	3/8/2022 04:29 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220308B** QC Batch: **91793**				PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	41	0.035	1.0		µg/L	1	3/8/2022 09:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A** QC Batch: **R160701**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2.0	0.13	1.0		µg/L	5	3/8/2022 01:33 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A			**EPA 6020**		
RunID: **NV00922-ICP8_220309B** QC Batch: **91793**				PrepDate:	**3/8/2022**		Analyst: **CEI**
Chromium	2.5	0.035	1.0		µg/L	1	3/9/2022 12:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-717-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:45:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/8/2022 01:14 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160701**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **PBW**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557108**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160701**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **LCSW**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557109**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.934	0.20	5.000	0	98.7	90	110				

Sample ID: **N049726-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20						0	0	20	

Sample ID: **N049726-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557112**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.042	0.20	1.000	0	104	90	110				

Sample ID: **N049724-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557114**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2669.660	40	1000	1634	104	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049724-003AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2640.560	40	1000	1634	101	90	110	2670	1.10	20	

Sample ID: **N049724-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557119**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	66.994	1.0	25.00	40.88	104	90	110				

Sample ID: **N049724-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557121**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.048	0.20	1.000	0	105	90	110				

Sample ID: **N049724-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	7.102	1.0	5.000	2.001	102	90	110				

Sample ID: **N049725-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.051	0.20	1.000	0	105	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049725-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557129**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.031	0.20	1.000	0	103	90	110				

Sample ID: **N049725-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.027	0.20	1.000	0	103	90	110				

Sample ID: **N049724-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	44.668	1.0	25.00	19.49	101	90	110				

Sample ID: **N049724-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	65.713	1.0	25.00	40.04	103	90	110				

Sample ID: **N049724-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	44.316	1.0	25.00	19.66	98.6	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049724-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1184.560	20	500.0	669.4	103	90	110				

Sample ID: **N049724-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1183.060	20	500.0	680.3	101	90	110				

Sample ID: **N049725-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.062	1.0	5.000	0	101	90	110				

Sample ID: **N049725-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557149**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.026	1.0	5.000	0	101	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **LCS-91793**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **LCSW**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.195	1.0	10.00	0	102	85	115				

Sample ID: **N049724-002B-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	33.943	1.0	10.00	23.43	105	75	125				

Sample ID: **N049724-002B-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	35.161	1.0	10.00	23.43	117	75	125	33.94	3.52	20	

Sample ID: **MB-91793**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **PBW**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556775**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.107	1.0									

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:29:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Sulfate	720	6.1	50		mg/L	100	3/8/2022 07:56 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.6	0.095	0.50		mg/L	10	3/8/2022 01:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049724-002

Client Sample ID: MW-906-Q122
Collection Date: 3/7/2022 2:39:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Sulfate	720	6.1	50		mg/L	100	3/8/2022 08:11 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.6	0.095	0.50		mg/L	10	3/8/2022 01:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049724-003

Client Sample ID: MW-76-181-Q122
Collection Date: 3/7/2022 12:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Sulfate	880	6.1	50		mg/L	100	3/8/2022 05:53 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Nitrate as N	2.2	0.095	0.50		mg/L	10	3/8/2022 01:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:13:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Sulfate	890	6.1	50		mg/L	100	3/8/2022 08:26 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Nitrate as N	1.6	0.095	0.50		mg/L	10	3/8/2022 01:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049724-005

Client Sample ID: MW-910-Q122
Collection Date: 3/7/2022 1:23:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Sulfate	890	6.1	50		mg/L	100	3/8/2022 08:42 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.6	0.095	0.50		mg/L	10	3/8/2022 02:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049724-006

Client Sample ID: MW-76-039-Q122
Collection Date: 3/7/2022 11:05:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Sulfate	190	1.2	10		mg/L	20	3/8/2022 08:57 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Nitrate as N	2.4	0.048	0.25		mg/L	5	3/8/2022 02:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-909-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:15:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Sulfate	200	1.2	10		mg/L	20	3/8/2022 07:10 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Nitrate as N	2.5	0.048	0.25		mg/L	5	3/8/2022 02:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049724-008

Client Sample ID: MW-76-156-Q122
Collection Date: 3/7/2022 11:44:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Sulfate	870	6.1	50		mg/L	100	3/8/2022 09:43 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A** QC Batch: **R160666**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.5	0.095	0.50		mg/L	10	3/8/2022 03:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **MB-R160666_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **PBW**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **LCS-R160666_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **LCSW**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.922	0.50	4.000	0	98.1	90	110				

Sample ID: **N049724-003CMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1300.820	50	400.0	884.8	104	80	120				

Sample ID: **N049724-003CMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1297.870	50	400.0	884.8	103	80	120	1301	0.227	20	

Sample ID: **N049724-007CDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	197.338	10						197.3	0	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049724-007CMS** SampType: **MS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160666**
Client ID: **ZZZZZZ** Batch ID: **R160666** TestNo: **EPA 300.0** Analysis Date: **3/8/2022** SeqNo: **4556155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	278.970	10	80.00	197.3	102	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160666_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **PBW**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556112**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160666_NO3**	SampType: **LCS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **LCSW**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.330	0.050	1.250	0	106	90	110				

Sample ID: **N049724-001CMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556128**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.379	0.50	12.50	1.631	94.0	80	120				

Sample ID: **N049724-001CMSD**	SampType: **MSD**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556129**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.051	0.50	12.50	1.631	91.4	80	120	13.38	2.48	20	

Sample ID: **N049724-006CDUP**	SampType: **DUP**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556130**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.403	0.25						2.448	1.90	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049724-006CMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160666**
Client ID: **ZZZZZZ**	Batch ID: **R160666**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4556131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	8.664	0.25	6.250	2.448	99.4	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:29:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 01:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-906-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:39:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 12:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 12:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:13:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 12:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-910-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:23:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	4.2	50		mg/L	50	3/9/2022 04:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:05:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 01:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-909-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:15:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 01:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160702**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **PBW**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557209**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160702**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **LCSW**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557210**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.669	1.0	5.000	0	93.4	85	115				

Sample ID: **N049724-005E-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **ZZZZZZ**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557239**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.775	50	250.0	0	100	75	125				

Sample ID: **N049724-005E-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160702**
Client ID: **ZZZZZZ**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**	SeqNo: **4557240**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.185	50	250.0	0	100	75	125	250.8	0.236	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:29:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**				PrepDate:	**3/8/2022**	Analyst: **DJ**
Iron	480	64	100		µg/L	5	3/9/2022 05:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-906-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:39:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	530	64	100		µg/L	5	3/9/2022 05:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:13:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:09 PM

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-910-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:23:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:05:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-909-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:15:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:21 PM

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:32 PM

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91792**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160704**
Client ID: **PBW**	Batch ID: **91792**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4557352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91792**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160704**
Client ID: **LCSW**	Batch ID: **91792**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4557353**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	97.718	20	100.0	0	97.7	85	115				

Sample ID: **N049724-001B-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160704**
Client ID: **ZZZZZZ**	Batch ID: **91792**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4557367**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	471.896	100	100.0	483.5	-11.6	75	125				S

Sample ID: **N049724-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160704**
Client ID: **ZZZZZZ**	Batch ID: **91792**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4557368**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	488.094	100	100.0	483.5	4.63	75	125	471.9	3.37	20	S

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **N049724-001B-PS** SampType: **PS** TestCode: **6010_WDPG** Units: **µg/L** Prep Date: RunNo: **160704**
Client ID: **ZZZZZZ** Batch ID: **91792** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **3/9/2022** SeqNo: **4557366**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	476.470	100	100.0	483.5	-7.00	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-31-135-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:29:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**			PrepDate:		**3/8/2022**	Analyst: **CEI**
Arsenic	3.8	0.050	0.10		µg/L	1	3/8/2022 08:20 PM
Barium	62	0.083	1.0		µg/L	1	3/8/2022 08:20 PM
Manganese	14	0.026	0.50		µg/L	1	3/8/2022 08:20 PM
Molybdenum	28	0.12	0.50		µg/L	1	3/8/2022 08:20 PM
Selenium	1.0	0.044	0.50		µg/L	1	3/9/2022 11:25 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-906-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 2:39:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**			PrepDate:		**3/8/2022**	Analyst: **CEI**
Arsenic	3.5	0.050	0.10		µg/L	1	3/8/2022 08:26 PM
Barium	59	0.083	1.0		µg/L	1	3/8/2022 08:26 PM
Manganese	18	0.026	0.50		µg/L	1	3/8/2022 08:26 PM
Molybdenum	27	0.12	0.50		µg/L	1	3/8/2022 08:26 PM
Selenium	0.90	0.044	0.50		µg/L	1	3/8/2022 08:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-181-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 12:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**			PrepDate:		**3/8/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/8/2022 08:56 PM
Barium	75	0.083	1.0		µg/L	1	3/8/2022 08:56 PM
Manganese	150	0.026	0.50		µg/L	1	3/8/2022 08:56 PM
Molybdenum	27	0.12	0.50		µg/L	1	3/8/2022 08:56 PM
Selenium	1.9	0.044	0.50		µg/L	1	3/8/2022 08:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-218-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:13:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**			PrepDate:		**3/8/2022**	Analyst: **CEI**
Arsenic	3.5	0.050	0.10		µg/L	1	3/8/2022 09:19 PM
Barium	79	0.083	1.0		µg/L	1	3/8/2022 09:19 PM
Manganese	270	0.13	2.5		µg/L	5	3/9/2022 11:51 AM
Molybdenum	54	0.12	0.50		µg/L	1	3/8/2022 09:19 PM
Selenium	1.5	0.044	0.50		µg/L	1	3/8/2022 09:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-910-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 1:23:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**			PrepDate:		**3/8/2022**	Analyst: **CEI**
Arsenic	3.0	0.050	0.10		µg/L	1	3/8/2022 09:25 PM
Barium	73	0.083	1.0		µg/L	1	3/8/2022 09:25 PM
Manganese	250	0.13	2.5		µg/L	5	3/9/2022 12:03 PM
Molybdenum	47	0.12	0.50		µg/L	1	3/8/2022 09:25 PM
Selenium	1.2	0.044	0.50		µg/L	1	3/9/2022 01:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-039-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:05:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**				PrepDate:	**3/8/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/8/2022 09:31 PM
Barium	62	0.083	1.0		µg/L	1	3/8/2022 09:31 PM
Manganese	11	0.026	0.50		µg/L	1	3/8/2022 09:31 PM
Molybdenum	15	0.12	0.50		µg/L	1	3/8/2022 09:31 PM
Selenium	1.8	0.044	0.50		µg/L	1	3/8/2022 09:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-909-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:15:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**				PrepDate:	**3/8/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/8/2022 09:37 PM
Barium	62	0.083	1.0		µg/L	1	3/8/2022 09:37 PM
Manganese	11	0.026	0.50		µg/L	1	3/8/2022 09:37 PM
Molybdenum	16	0.12	0.50		µg/L	1	3/8/2022 09:37 PM
Selenium	1.8	0.044	0.50		µg/L	1	3/8/2022 09:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-76-156-Q122
Lab Order:	N049724	**Collection Date:**	3/7/2022 11:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049724-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220308B**	QC Batch: **91793**				PrepDate:	**3/8/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/8/2022 09:43 PM
Barium	70	0.083	1.0		µg/L	1	3/8/2022 09:43 PM
Manganese	160	0.026	0.50		µg/L	1	3/8/2022 09:43 PM
Molybdenum	25	0.12	0.50		µg/L	1	3/8/2022 09:43 PM
Selenium	0.93	0.044	0.50		µg/L	1	3/8/2022 09:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **LCS-91793**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **LCSW**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556817**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.357	0.10	10.00	0	104	85	115				
Barium	10.963	1.0	10.00	0	110	85	115				
Manganese	102.778	0.50	100.0	0	103	85	115				
Molybdenum	10.447	0.50	10.00	0	104	85	115				
Selenium	9.422	0.50	10.00	0	94.2	85	115				

Sample ID: **N049724-002B-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	76.422	1.0	10.00	58.85	176	75	125				S
Manganese	107.433	0.50	100.0	17.79	89.6	75	125				
Molybdenum	41.058	0.50	10.00	27.22	138	75	125				S
Selenium	11.110	0.50	10.00	0.8975	102	75	125				

Sample ID: **N049724-002B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556823**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	80.691	1.0	10.00	58.85	218	75	125	76.42	5.43	20	S
Manganese	108.304	0.50	100.0	17.79	90.5	75	125	107.4	0.808	20	
Molybdenum	42.562	0.50	10.00	27.22	153	75	125	41.06	3.60	20	S
Selenium	10.137	0.50	10.00	0.8975	92.4	75	125	11.11	9.16	20	

Sample ID: **MB-91793**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **PBW**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91793**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160690**
Client ID: **PBW**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Molybdenum	0.157	0.50									
Selenium	ND	0.50									

Sample ID: **N049724-002B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160695**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4556988**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	6.390	0.10	10.00	3.460	29.3	75	125	6.976	8.77	20	S

Sample ID: **N049724-002B-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/8/2022**	RunNo: **160695**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4556992**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	6.976	0.10	10.00	3.460	35.2	75	125				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049724
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049724-002B-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160690**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/8/2022**	SeqNo: **4556821**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	75.044	1.0	10.00	58.85	162	80	120				S
Manganese	108.993	0.50	100.0	17.79	91.2	80	120				
Molybdenum	40.060	0.50	10.00	27.22	128	80	120				S
Selenium	10.658	0.50	10.00	0.8975	97.6	80	120				

Sample ID: **N049724-002B-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160695**
Client ID: **ZZZZZZ**	Batch ID: **91793**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/9/2022**	SeqNo: **4556987**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	14.343	0.10	10.00	3.460	109	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ü; Specify: RWQCB; Global ID:
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ü; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@crttizen.com	Address:	Sample Receipt Condition: 1. Chilled Y; 2. Headspace; 3. Container Intact N; 4. Seal Present; 5. IR number 3; 6. Method of Cooling: ICE
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Sample Temp: 0.2, 0.4°C
Submitted By: Rissie Teo	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	
Title: Field Tech			
Signature: Date: 3/7/22	Sampled By: Rissie Teo	Matrix: Ground X; Potable; NPDES; Surface; Sediment; Soil; Other Solid	Courier:
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.		Tracking No.:
Project Name: PG&E Topock - PCM	Signature: Date: 3/7/22		
Project Number: 30121866.1Q22GW			

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Manganese, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Barium, Iron, Molybdenum, Selenium (500mL poly)	Nitrite, sulfate (EPA 300.0) (1 L poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049724-01	MW-31-135-Q122	3/7/2022	14:29		X		X	X	X	X	X	X	###	A	7	P	BNS	
2	-02	MW-906-Q122	3/7/2022	14:39		X		X	X	X	X	X	X	###	A	7	P	BNS	
3	-03	MW-76-181-Q122	3/7/2022	12:27		X		X	X	X	X	X	X	###	A	7	P	BNS	
4	-04	MW-76-218-Q122	3/7/2022	13:13		X		X	X	X	X	X	X	###	A	7	P	BNS	
5	-05	MW-910-Q122	3/7/2022	13:23		X		X	X	X	X	X	X	###	A	7	P	BNS	
	-06	MW-76-039-Q122	3/7/2022	11:05		X		X	X	X	X	X	X	###	A	7	P	BNS	
7	-07	MW-909-Q122	3/7/2022	11:15		X		X	X	X	X	X	X	###	A	7	P	BNS	
8	-08	MW-76-156-Q122	3/7/2022	11:44		X		X	X	X	X	X	X	###	A	7	P	BNS	
9														###					
10	-09	EB-717-Q122	3/7/2022	14:45		X								###	A	1	P	BNS	
11														###					
12														###					
13														###					
14														###					

Relinquished by (Signature and Printed Name): Nara Teo	Date/Time: 3/7/22 1622	Received by (Signature and Printed Name):	Date/Time:
Relinquished by (Signature and Printed Name): REL/REC; MCARTIN	Date/Time:	Received by (Signature and Printed Name): MCARTIN	Date/Time: 3/7/22 1630
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- X A = < 24 Hrs or Same Day TAT
- B = Next Workday
- C = 2 Workdays
- D = 3 Workdays
- E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and Records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Other/Specify:	B	(NH4)2SO4/NH4OH		M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/7/2022	Workorder:	N049724
Rep sample Temp (Deg C):	0.2/0.4	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

For:

Checklist Completed By: MBC GGarcia 3/8/2022

Reviewed By: MBC 3/9/2022

Subject: RE: TOPOCK N049679 and N049680 COC and Work Order Summary for Samples Received 3/4/2022
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 3/7/2022, 4:35 PM
To: ASSET Sample Control CA <samplecontrol@assetlaboratories.com>, "yoandra@assetlaboratories.com" <yoandra@assetlaboratories.com>

Hi Yoandra,
There was a typo on the COC and it asked for nitrite, but we really need nitrate. Can you please fix the log in or is it too late? There will be another batch of samples sent to the lab today with the same issue where we need nitrate not nitrite

Thanks,
Laura

From: ASSET Sample Control CA <samplecontrol@assetlaboratories.com>
Sent: Monday, March 7, 2022 5:08 PM
To: Bush, Dan <Dan.Bush@arcadis.com>; Dan Moore <Daniel.Moore@critigen.com>; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: Tina Rice <Tina.Rice@critigen.com>; Harmon, Alison <Ali.Harmon@arcadis.com>; Erica.Serna@arcadis.com; Bloes, Marty <mbloes@pivox.com>; ntep@blainetech.com
Subject: TOPOCK N049679 and N049680 COC and Work Order Summary for Samples Received 3/4/2022

Hi Dan Bush:

Enclosed are COC and WO Summary for samples received 3/4/2022. If you have any questions, please contact your Project Manager listed below.

A new column “Matrix_Spike” has been added in the excel file. If the “MS/MSD” field is ticked when logging in the testcode, the “Matrix_Spike” column will be marked ”YES”.

Marlon Cartin
3151 W. Post Road
Las Vegas, Nevada
89118
Tel. No.: (702)-307-2659 Ext. 410
Cel. No.: (702)-439-0421
Email: marlon@assetlaboratories.com

Thank you for using ASSET Laboratories.

Sincerely,
Mary Ann Balilu
Sample Control Officer

ASSET Laboratories

WORK ORDER Summary

08-Mar-22

WorkOrder: N049724

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049724-001A	MW-31-135-Q122	3/7/2022 2:29:00 PM	3/9/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-001B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-001C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-001D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-001E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-002A	MW-906-Q122	3/7/2022 2:39:00 PM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-002B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-002C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-002D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-002E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-003A	MW-76-181-Q122	3/7/2022 12:27:00 PM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

08-Mar-22

WorkOrder: N049724

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049724-003B	MW-76-181-Q122	3/7/2022 12:27:00 PM	3/9/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-003C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-003D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-003E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-004A	MW-76-218-Q122	3/7/2022 1:13:00 PM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-004B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-004C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-004D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-004E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-005A	MW-910-Q122	3/7/2022 1:23:00 PM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-005B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

08-Mar-22

WorkOrder: N049724

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049724-005B	MW-910-Q122	3/7/2022 1:23:00 PM	3/9/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-005C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-005D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-005E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-006A	MW-76-039-Q122	3/7/2022 11:05:00 AM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-006B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-006C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-006D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-006E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-007A	MW-909-Q122	3/7/2022 11:15:00 AM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-007B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

08-Mar-22

WorkOrder: N049724

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049724-007B	MW-909-Q122	3/7/2022 11:15:00 AM	3/9/2022	Groundwater	EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-007C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-007D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-007E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-008A	MW-76-156-Q122	3/7/2022 11:44:00 AM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-008B			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/9/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/9/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049724-008C			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/9/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049724-008D			3/9/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049724-008E			3/9/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049724-009A	EB-717-Q122	3/7/2022 2:45:00 PM	3/9/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049724-010A	FOLDER	3/9/2022	3/9/2022		Folder	Folder	☐	☐	☐	LAB
			3/9/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/9/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Riggie Tep

08-Mar-22

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**SM4500-NH3D**		
N049724-001D / MW-31-135-Q122	Groundwater	3/7/2022 2:29:00 PM	16OZP	1		
N049724-002D / MW-906-Q122	Groundwater	3/7/2022 2:39:00 PM	16OZP	1		
N049724-003D / MW-76-181-Q122	Groundwater	3/7/2022 12:27:00 PM	16OZP	1		
N049724-004D / MW-76-218-Q122	Groundwater	3/7/2022 1:13:00 PM	16OZP	1		
N049724-005D / MW-910-Q122	Groundwater	3/7/2022 1:23:00 PM	16OZP	1		
N049724-006D / MW-76-039-Q122	Groundwater	3/7/2022 11:05:00 AM	16OZP	1		
N049724-007D / MW-909-Q122	Groundwater	3/7/2022 11:15:00 AM	16OZP	1		
N049724-008D / MW-76-156-Q122	Groundwater	3/7/2022 11:44:00 AM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49724A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 1-Day TAT

Please analyze for Ammonia as Nitrogen by (SM4500NH3). EDD requirement Labspec7 edata.

GSO #: 556268354

		Date/Time			Date/Time
Relinquished by:	GGarcia	3/8/2022 16:30	**Received by:**		
Relinquished by:			**Received by:**		

March 22, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049725

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 07, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for samples N049725-003 and N049725-004 due to matrix interference. Samples were analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Samples were reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B_Dissolved:

Dilution was necessary for samples N049725-003 and -004 since plasma was extinguished when samples were analyzed at lower dilution.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Iron in QC samples N049724-001B-MS and N049724-001B-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049750-019CMS and N049750-019CMSD possibly due to matrix interference. Post

Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049724-005E-MS/MSD at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049724-005 and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049725
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049725-001A	MW-86-030-Q122	Groundwater	3/7/2022 3:20:00 PM	3/7/2022	3/22/2022
N049725-001B	MW-86-030-Q122	Groundwater	3/7/2022 3:20:00 PM	3/7/2022	3/22/2022
N049725-001C	MW-86-030-Q122	Groundwater	3/7/2022 3:20:00 PM	3/7/2022	3/22/2022
N049725-001D	MW-86-030-Q122	Groundwater	3/7/2022 3:20:00 PM	3/7/2022	3/22/2022
N049725-002A	MW-86-066-Q122	Groundwater	3/7/2022 2:44:00 PM	3/7/2022	3/22/2022
N049725-002B	MW-86-066-Q122	Groundwater	3/7/2022 2:44:00 PM	3/7/2022	3/22/2022
N049725-002C	MW-86-066-Q122	Groundwater	3/7/2022 2:44:00 PM	3/7/2022	3/22/2022
N049725-002D	MW-86-066-Q122	Groundwater	3/7/2022 2:44:00 PM	3/7/2022	3/22/2022
N049725-003A	MW-86-120-Q122	Groundwater	3/7/2022 2:05:00 PM	3/7/2022	3/22/2022
N049725-003B	MW-86-120-Q122	Groundwater	3/7/2022 2:05:00 PM	3/7/2022	3/22/2022
N049725-003C	MW-86-120-Q122	Groundwater	3/7/2022 2:05:00 PM	3/7/2022	3/22/2022
N049725-003D	MW-86-120-Q122	Groundwater	3/7/2022 2:05:00 PM	3/7/2022	3/22/2022
N049725-004A	MW-86-140-Q122	Groundwater	3/7/2022 1:26:00 PM	3/7/2022	3/22/2022
N049725-004B	MW-86-140-Q122	Groundwater	3/7/2022 1:26:00 PM	3/7/2022	3/22/2022
N049725-004C	MW-86-140-Q122	Groundwater	3/7/2022 1:26:00 PM	3/7/2022	3/22/2022
N049725-004D	MW-86-140-Q122	Groundwater	3/7/2022 1:26:00 PM	3/7/2022	3/22/2022
N049725-005A	EB-716-Q122	Groundwater	3/7/2022 3:40:00 PM	3/7/2022	3/22/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-030-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 3:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/8/2022 02:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-066-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/8/2022 02:36 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-120-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:05:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/8/2022 06:22 PM

Qualifiers:				
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-140-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 1:26:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/8/2022 06:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-716-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 3:40:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220308A**	QC Batch: **R160701**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/8/2022 03:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	MB-R160701	SampType:	MBLK	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	PBW	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557108

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID	LCS-R160701	SampType:	LCS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	LCSW	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557109

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.934	0.20	5.000	0	98.7	90	110				

Sample ID	N049726-001ADUP	SampType:	DUP	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557111

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20						0	0	20	

Sample ID	N049726-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557112

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.042	0.20	1.000	0	104	90	110				

Sample ID	N049724-003AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557114

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2669.660	40	1000	1634	104	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049724-003AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2640.560	40	1000	1634	101	90	110	2670	1.10	20	

Sample ID **N049724-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557119**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	66.994	1.0	25.00	40.88	104	90	110				

Sample ID **N049724-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557121**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.048	0.20	1.000	0	105	90	110				

Sample ID **N049724-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	7.102	1.0	5.000	2.001	102	90	110				

Sample ID **N049725-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.051	0.20	1.000	0	105	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID	N049725-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557129

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.031	0.20	1.000	0	103	90	110				

Sample ID	N049725-005AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557131

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.027	0.20	1.000	0	103	90	110				

Sample ID	N049724-002AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557135

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	44.668	1.0	25.00	19.49	101	90	110				

Sample ID	N049724-007AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557137

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	65.713	1.0	25.00	40.04	103	90	110				

Sample ID	N049724-001AMS	SampType:	MS	TestCode:	218.6_WPGE	Units:	µg/L	Prep Date:		RunNo:	160701
Client ID:	ZZZZZZ	Batch ID:	R160701	TestNo:	EPA 218.6			Analysis Date:	3/8/2022	SeqNo:	4557139

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	44.316	1.0	25.00	19.66	98.6	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID **N049724-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1184.560	20	500.0	669.4	103	90	110				

Sample ID **N049724-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1183.060	20	500.0	680.3	101	90	110				

Sample ID **N049725-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.062	1.0	5.000	0	101	90	110				

Sample ID **N049725-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160701**
Client ID: **ZZZZZZ**	Batch ID: **R160701**	TestNo: **EPA 218.6**		Analysis Date: **3/8/2022**	SeqNo: **4557149**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.026	1.0	5.000	0	101	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-030-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 3:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/8/2022 03:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-066-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/8/2022 04:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-120-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:05:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/8/2022 04:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-140-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 1:26:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220308A**	QC Batch: **R160666**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/8/2022 04:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID	MB-R160666_NO3	SampType:	MBLK	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	160666
Client ID:	PBW	Batch ID:	R160666	TestNo:	EPA 300.0			Analysis Date:	3/8/2022	SeqNo:	4556112

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID	LCS-R160666_NO3	SampType:	LCS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	160666
Client ID:	LCSW	Batch ID:	R160666	TestNo:	EPA 300.0			Analysis Date:	3/8/2022	SeqNo:	4556113

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.330	0.050	1.250	0	106	90	110				

Sample ID	N049724-001CMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	160666
Client ID:	ZZZZZZ	Batch ID:	R160666	TestNo:	EPA 300.0			Analysis Date:	3/8/2022	SeqNo:	4556128

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.379	0.50	12.50	1.631	94.0	80	120				

Sample ID	N049724-001CMSD	SampType:	MSD	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	160666
Client ID:	ZZZZZZ	Batch ID:	R160666	TestNo:	EPA 300.0			Analysis Date:	3/8/2022	SeqNo:	4556129

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.051	0.50	12.50	1.631	91.4	80	120	13.38	2.48	20	

Sample ID	N049724-006CDUP	SampType:	DUP	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	160666
Client ID:	ZZZZZZ	Batch ID:	R160666	TestNo:	EPA 300.0			Analysis Date:	3/8/2022	SeqNo:	4556130

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.403	0.25						2.448	1.90	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID	N049724-006CMS	SampType:	MS	TestCode:	300WLLNO3	Units:	mg/L	Prep Date:		RunNo:	160666
Client ID:	ZZZZZZ	Batch ID:	R160666	TestNo:	EPA 300.0			Analysis Date:	3/8/2022	SeqNo:	4556131

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	8.664	0.25	6.250	2.448	99.4	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-030-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 3:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.7	0.084	1.0		mg/L	1	3/9/2022 03:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-066-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 03:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-120-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:05:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 03:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-140-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 1:26:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220309A**	QC Batch: **R160702**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/9/2022 04:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **MB-R160702**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:			RunNo: **160702**			
Client ID: **PBW**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**			SeqNo: **4557209**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID **LCS-R160702**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:			RunNo: **160702**			
Client ID: **LCSW**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**			SeqNo: **4557210**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.669	1.0	5.000	0	93.4	85	115				

Sample ID **N049724-005E-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:			RunNo: **160702**			
Client ID: **ZZZZZZ**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**			SeqNo: **4557239**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.775	50	250.0	0	100	75	125				

Sample ID **N049724-005E-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:			RunNo: **160702**			
Client ID: **ZZZZZZ**	Batch ID: **R160702**	TestNo: **SM 5310C**		Analysis Date: **3/9/2022**			SeqNo: **4557240**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.185	50	250.0	0	100	75	125	250.8	0.236	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-030-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 3:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**				PrepDate:	**3/8/2022**	Analyst: **DJ**
Iron	360	13	20		µg/L	1	3/9/2022 05:01 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-066-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**			PrepDate:	**3/8/2022**		Analyst: **DJ**
Iron	23	13	20		µg/L	1	3/9/2022 05:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-120-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:05:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**				PrepDate:	**3/8/2022**	Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-140-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 1:26:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220309A**	QC Batch: **91792**				PrepDate:	**3/8/2022**	Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/9/2022 06:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID	MB-91792	SampType:	MBLK	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	3/8/2022	RunNo:	160704
Client ID:	PBW	Batch ID:	91792	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	3/9/2022	SeqNo:	4557352

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID	LCS-91792	SampType:	LCS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	3/8/2022	RunNo:	160704
Client ID:	LCSW	Batch ID:	91792	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	3/9/2022	SeqNo:	4557353

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	97.718	20	100.0	0	97.7	85	115				

Sample ID	N049724-001B-MS	SampType:	MS	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	3/8/2022	RunNo:	160704
Client ID:	ZZZZZZ	Batch ID:	91792	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	3/9/2022	SeqNo:	4557367

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	471.896	100	100.0	483.5	-11.6	75	125				S

Sample ID	N049724-001B-MSD	SampType:	MSD	TestCode:	6010_WDPG	Units:	µg/L	Prep Date:	3/8/2022	RunNo:	160704
Client ID:	ZZZZZZ	Batch ID:	91792	TestNo:	EPA 6010B	EPA 3010A		Analysis Date:	3/9/2022	SeqNo:	4557368

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	488.094	100	100.0	483.5	4.63	75	125	471.9	3.37	20	S

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID **N049724-001B-PS**	SampType: **PS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date:				RunNo: **160704**	
Client ID: **ZZZZZZ**	Batch ID: **91792**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/9/2022**				SeqNo: **4557366**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	476.470	100	100.0	483.5	-7.00	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-030-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 3:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	5.4	0.050	0.10		µg/L	1	3/14/2022 09:26 PM
Barium	97	0.083	1.0		µg/L	1	3/15/2022 01:51 PM
Manganese	260	0.13	2.5		µg/L	5	3/14/2022 09:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-066-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 09:38 PM
Barium	81	0.083	1.0		µg/L	1	3/15/2022 02:15 PM
Manganese	670	0.13	2.5		µg/L	5	3/14/2022 09:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-120-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 2:05:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 09:50 PM
Barium	42	0.083	1.0		µg/L	1	3/15/2022 02:27 PM
Manganese	370	0.13	2.5		µg/L	5	3/14/2022 09:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-86-140-Q122
Lab Order:	N049725	**Collection Date:**	3/7/2022 1:26:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049725-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 10:02 PM
Barium	50	0.083	1.0		µg/L	1	3/15/2022 02:38 PM
Manganese	820	0.13	2.5		µg/L	5	3/14/2022 10:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	MB-91842	SampType:	MBLK	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160852
Client ID:	PBW	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/14/2022	SeqNo:	4564685

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Manganese	ND	0.50									

Sample ID	LCS-91842	SampType:	LCS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160852
Client ID:	LCSW	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/14/2022	SeqNo:	4564686

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.399	0.10	10.00	0	104	85	115				
Manganese	99.028	0.50	100.0	0	99.0	85	115				

Sample ID	N049750-019CMS	SampType:	MS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160852
Client ID:	ZZZZZZ	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/14/2022	SeqNo:	4564693

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	641.577	2.5	100.0	514.8	127	75	125				S

Sample ID	N049750-019CMSD	SampType:	MSD	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160852
Client ID:	ZZZZZZ	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/14/2022	SeqNo:	4564699

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	625.439	2.5	100.0	514.8	111	75	125	641.6	2.55	20	

Sample ID	MB-91842	SampType:	MBLK	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160864
Client ID:	PBW	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/15/2022	SeqNo:	4565485

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	LCS-91842	SampType:	LCS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160864
Client ID:	LCSW	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/15/2022	SeqNo:	4565486

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	10.072	1.0	10.00	0	101	85	115				

Sample ID	N049750-019CMS	SampType:	MS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160864
Client ID:	ZZZZZZ	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/15/2022	SeqNo:	4565490

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	3.771	0.10	10.00	0	37.7	75	125				S
Barium	84.772	1.0	10.00	70.08	147	75	125				S

Sample ID	N049750-019CMSD	SampType:	MSD	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:	3/10/2022	RunNo:	160864
Client ID:	ZZZZZZ	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/15/2022	SeqNo:	4565491

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.131	0.10	10.00	0	41.3	75	125	3.771	9.11	20	S
Barium	84.604	1.0	10.00	70.08	145	75	125	84.77	0.198	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049725
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	N049750-019C-PS	SampType:	PS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160852
Client ID:	ZZZZZZ	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/14/2022	SeqNo:	4564691

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	633.133	2.5	100.0	514.8	118	80	120				

Sample ID	N049750-019C-PS	SampType:	PS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160864
Client ID:	ZZZZZZ	Batch ID:	91842	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/15/2022	SeqNo:	4565489

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.395	0.10	10.00	0	44.0	80	120				S
Barium	80.950	1.0	10.00	70.08	109	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ü; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ü; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	
Submitted By: Riggie Tap	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Global ID:
Title: Field Tech			

Signature: Date: 3/7/22
I hereby authorize ASSET Labs to perform the tests indicated below.

Sampled By: Riggie Tap
I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Signature: Date: 3/7/22

Project Name: PG&E Topock - PCM

Project Number: 30121866.1Q22GW

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Sample Receipt Condition

	Y	N
1. Chilled	X	
2. Headspace		
3. Container Intact	X	
4. Seal Present		
5. IR number 3		
6. Method of Cooling: ICE		

Sample Temp: 0.2, 0.4°C

Courier:

Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049725-01	MW-86-030-Q122	3/7/2022	15:20		X	X	X			X			E	6	P	BNS	
2	-02	MW-86-066-Q122	3/7/2022	14:44		X	X	X			X			E	6	P	BNS	
3	-03	MW-86-120-Q122	3/7/2022	14:05		X	X	X			X			E	6	P	BNS	
4	-04	MW-86-140-Q122	3/7/2022	13:26		X	X	X			X			E	6	P	BNS	
5	-05	EB-716-Q122	3/7/2022	15:40		X								E	1	P	BNS	
6																		
7												###	###					
8												###	###					
9																		
10																		
11																		
12																		
13																		
14												###	###					

Reliquished by (Signature and Printed Name): Riggie Tap Date/Time: 3/7/22 1622
Received by (Signature and Printed Name): [illegible] Date/Time: 3/7/22 @1622

Reliquished by (Signature and Printed Name): REL/REC: MCCARTIN Date/Time: 3/7/22 @1830
Received by (Signature and Printed Name): [illegible] Date/Time:

Reliquished by (Signature and Printed Name): Date/Time:
Received by (Signature and Printed Name): Date/Time:

Turn Around Time (TAT)

	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
X	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages. 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/7/2022	Workorder:	N049725
Rep sample Temp (Deg C):	0.2/0.4	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

For:

Checklist Completed By: MBC GGarcia 3/8/2022

Reviewed By: MBC 3/9/2022

ASSET Laboratories

WORK ORDER Summary

08-Mar-22

WorkOrder: N049725

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049725-001A	MW-86-030-Q122	3/7/2022 3:20:00 PM	3/21/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049725-001B			3/21/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049725-001C			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/21/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049725-001D			3/21/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049725-002A	MW-86-066-Q122	3/7/2022 2:44:00 PM	3/21/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049725-002B			3/21/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049725-002C			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/21/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049725-002D			3/21/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049725-003A	MW-86-120-Q122	3/7/2022 2:05:00 PM	3/21/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049725-003B			3/21/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049725-003C			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/21/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049725-003D			3/21/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049725-004A	MW-86-140-Q122	3/7/2022 1:26:00 PM	3/21/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

08-Mar-22

WorkOrder: N049725

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/7/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049725-004B	MW-86-140-Q122	3/7/2022 1:26:00 PM	3/21/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049725-004C			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/21/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/21/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049725-004D			3/21/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049725-005A	EB-716-Q122	3/7/2022 3:40:00 PM	3/21/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049725-006A	FOLDER	3/21/2022	3/21/2022		Folder	Folder	☐	☐	☐	LAB
			3/21/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/21/2022		Folder	Folder	☐	☐	☐	LAB

March 23, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049750

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 08, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 218.6:

Dilution was necessary for some samples due to matrix interference. Samples were analyzed at lower dilution however matrix spike recovery and retention time criteria were not met indicating possible matrix interference. Samples were reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Iron in QC samples N049750-019CMS and N049750-019CMSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes in QC samples N049750-019CMS and N049750-019CMSD possibly due to matrix interference. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049750-019D-MS and N049750-019D-MSD at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049750-019D and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

%RSD of sample N049750-017 failed at 1x dilution possibly due to matrix, thus sample was reported at 2x dilution.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049791-001D-MS and N049791-001D-MSD at lower dilution possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049791-001D and MS/MSD were reported at 5x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049750
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049750-001A	MW-49-135-Q122	Groundwater	3/8/2022 10:46:00 AM	3/8/2022	3/23/2022
N049750-002A	MW-49-135-EB-Q122	Groundwater	3/8/2022 10:20:00 AM	3/8/2022	3/23/2022
N049750-003A	MW-49-275-Q122	Groundwater	3/8/2022 10:02:00 AM	3/8/2022	3/23/2022
N049750-004A	MW-49-275-EB-Q122	Groundwater	3/8/2022 9:30:00 AM	3/8/2022	3/23/2022
N049750-005A	MW-49-365-Q122	Groundwater	3/8/2022 9:06:00 AM	3/8/2022	3/23/2022
N049750-006A	MW-49-365-EB-Q122	Groundwater	3/8/2022 8:30:00 AM	3/8/2022	3/23/2022
N049750-007A	MW-29-Q122	Groundwater	3/8/2022 11:20:00 AM	3/8/2022	3/23/2022
N049750-008A	MW-29-EB-Q122	Groundwater	3/8/2022 10:55:00 AM	3/8/2022	3/23/2022
N049750-009A	MW-28-025-Q122	Groundwater	3/8/2022 12:40:00 PM	3/8/2022	3/23/2022
N049750-009B	MW-28-025-Q122	Groundwater	3/8/2022 12:40:00 PM	3/8/2022	3/23/2022
N049750-009C	MW-28-025-Q122	Groundwater	3/8/2022 12:40:00 PM	3/8/2022	3/23/2022
N049750-009D	MW-28-025-Q122	Groundwater	3/8/2022 12:40:00 PM	3/8/2022	3/23/2022
N049750-010A	MW-28-025-EB-Q122	Groundwater	3/8/2022 12:15:00 PM	3/8/2022	3/23/2022
N049750-011A	MW-28-090-Q122	Groundwater	3/8/2022 12:04:00 PM	3/8/2022	3/23/2022
N049750-011B	MW-28-090-Q122	Groundwater	3/8/2022 12:04:00 PM	3/8/2022	3/23/2022
N049750-011C	MW-28-090-Q122	Groundwater	3/8/2022 12:04:00 PM	3/8/2022	3/23/2022
N049750-011D	MW-28-090-Q122	Groundwater	3/8/2022 12:04:00 PM	3/8/2022	3/23/2022
N049750-012A	MW-28-090-EB-Q122	Groundwater	3/8/2022 11:40:00 AM	3/8/2022	3/23/2022
N049750-013A	MW-45-095a-Q122	Groundwater	3/8/2022 1:24:00 PM	3/8/2022	3/23/2022
N049750-013B	MW-45-095a-Q122	Groundwater	3/8/2022 1:24:00 PM	3/8/2022	3/23/2022
N049750-013C	MW-45-095a-Q122	Groundwater	3/8/2022 1:24:00 PM	3/8/2022	3/23/2022
N049750-013D	MW-45-095a-Q122	Groundwater	3/8/2022 1:24:00 PM	3/8/2022	3/23/2022
N049750-014A	EB-718-Q122	Groundwater	3/8/2022 2:00:00 PM	3/8/2022	3/23/2022
N049750-015A	MW-52D-Q122	Groundwater	3/8/2022 1:49:00 PM	3/8/2022	3/23/2022
N049750-015B	MW-52D-Q122	Groundwater	3/8/2022 1:49:00 PM	3/8/2022	3/23/2022
N049750-015C	MW-52D-Q122	Groundwater	3/8/2022 1:49:00 PM	3/8/2022	3/23/2022
N049750-015D	MW-52D-Q122	Groundwater	3/8/2022 1:49:00 PM	3/8/2022	3/23/2022
N049750-016A	MW-52M-Q122	Groundwater	3/8/2022 1:22:00 PM	3/8/2022	3/23/2022
N049750-016B	MW-52M-Q122	Groundwater	3/8/2022 1:22:00 PM	3/8/2022	3/23/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049750
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049750-016C	MW-52M-Q122	Groundwater	3/8/2022 1:22:00 PM	3/8/2022	3/23/2022
N049750-016D	MW-52M-Q122	Groundwater	3/8/2022 1:22:00 PM	3/8/2022	3/23/2022
N049750-017A	MW-52S-Q122	Groundwater	3/8/2022 12:52:00 PM	3/8/2022	3/23/2022
N049750-017B	MW-52S-Q122	Groundwater	3/8/2022 12:52:00 PM	3/8/2022	3/23/2022
N049750-017C	MW-52S-Q122	Groundwater	3/8/2022 12:52:00 PM	3/8/2022	3/23/2022
N049750-017D	MW-52S-Q122	Groundwater	3/8/2022 12:52:00 PM	3/8/2022	3/23/2022
N049750-018A	MW-53D-Q122	Groundwater	3/8/2022 12:11:00 PM	3/8/2022	3/23/2022
N049750-018B	MW-53D-Q122	Groundwater	3/8/2022 12:11:00 PM	3/8/2022	3/23/2022
N049750-018C	MW-53D-Q122	Groundwater	3/8/2022 12:11:00 PM	3/8/2022	3/23/2022
N049750-018D	MW-53D-Q122	Groundwater	3/8/2022 12:11:00 PM	3/8/2022	3/23/2022
N049750-019A	MW-53M-Q122	Groundwater	3/8/2022 11:41:00 AM	3/8/2022	3/23/2022
N049750-019B	MW-53M-Q122	Groundwater	3/8/2022 11:41:00 AM	3/8/2022	3/23/2022
N049750-019C	MW-53M-Q122	Groundwater	3/8/2022 11:41:00 AM	3/8/2022	3/23/2022
N049750-019D	MW-53M-Q122	Groundwater	3/8/2022 11:41:00 AM	3/8/2022	3/23/2022
N049750-020A	MW-53S-Q122	Groundwater	3/8/2022 11:11:00 AM	3/8/2022	3/23/2022
N049750-020B	MW-53S-Q122	Groundwater	3/8/2022 11:11:00 AM	3/8/2022	3/23/2022
N049750-020C	MW-53S-Q122	Groundwater	3/8/2022 11:11:00 AM	3/8/2022	3/23/2022
N049750-020D	MW-53S-Q122	Groundwater	3/8/2022 11:11:00 AM	3/8/2022	3/23/2022
N049750-021A	MW-43-025-Q122	Groundwater	3/8/2022 9:06:00 AM	3/8/2022	3/23/2022
N049750-021B	MW-43-025-Q122	Groundwater	3/8/2022 9:06:00 AM	3/8/2022	3/23/2022
N049750-021C	MW-43-025-Q122	Groundwater	3/8/2022 9:06:00 AM	3/8/2022	3/23/2022
N049750-021D	MW-43-025-Q122	Groundwater	3/8/2022 9:06:00 AM	3/8/2022	3/23/2022
N049750-022A	MW-43-025-EB-Q122	Groundwater	3/8/2022 8:42:00 AM	3/8/2022	3/23/2022
N049750-023A	MW-43-075-Q122	Groundwater	3/8/2022 9:40:00 AM	3/8/2022	3/23/2022
N049750-023B	MW-43-075-Q122	Groundwater	3/8/2022 9:40:00 AM	3/8/2022	3/23/2022
N049750-023C	MW-43-075-Q122	Groundwater	3/8/2022 9:40:00 AM	3/8/2022	3/23/2022
N049750-023D	MW-43-075-Q122	Groundwater	3/8/2022 9:40:00 AM	3/8/2022	3/23/2022
N049750-024A	MW-43-075-EB-Q122	Groundwater	3/8/2022 9:17:00 AM	3/8/2022	3/23/2022
N049750-025A	MW-43-090-Q122	Groundwater	3/8/2022 10:20:00 AM	3/8/2022	3/23/2022
N049750-025B	MW-43-090-Q122	Groundwater	3/8/2022 10:20:00 AM	3/8/2022	3/23/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049750
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049750-025C	MW-43-090-Q122	Groundwater	3/8/2022 10:20:00 AM	3/8/2022	3/23/2022
N049750-025D	MW-43-090-Q122	Groundwater	3/8/2022 10:20:00 AM	3/8/2022	3/23/2022
N049750-026A	MW-43-090-EB-Q122	Groundwater	3/8/2022 9:55:00 AM	3/8/2022	3/23/2022
N049750-027A	EB-719-Q122	Groundwater	3/8/2022 2:00:00 PM	3/8/2022	3/23/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-49-135-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:46:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1.3	0.13	1.0		µg/L	5	3/9/2022 05:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-49-135-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 02:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-49-275-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:02:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1.1	0.13	1.0		µg/L	5	3/9/2022 05:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-49-275-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 03:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-49-365-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:06:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/9/2022 05:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-49-365-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 8:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 03:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-29-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 09:24 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-29-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 03:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:40:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 10:58 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-025-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:15:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 04:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 11:17 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-090-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:40:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 04:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-45-095a-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:24:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 11:36 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-718-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 05:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:49:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/9/2022 06:41 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/10/2022 12:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:52:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/9/2022 07:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:11:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-018		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/9/2022 07:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/9/2022 09:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:11:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-020		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 12:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:06:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309A**	QC Batch: **R160733**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 12:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-025-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 8:42:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-022		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 11:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-075-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:40:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/10/2022 09:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-075-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:17:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-024		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/9/2022 11:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-025		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/9/2022 10:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-090-EB-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:55:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-026		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 12:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-719-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-027		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220309B**	QC Batch: **R160734**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 12:32 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160733**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **PBW**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558308**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160733**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **LCSW**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558309**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.561	0.20	5.000	0	91.2	90	110				

Sample ID: **N049750-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558311**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.065	0.20	1.000	0	107	90	110				

Sample ID: **N049750-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.993	0.20	1.000	0	99.3	90	110				

Sample ID: **N049750-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.069	0.20	1.000	0	107	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049750-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558319**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.182	0.20	1.000	0.1081	107	90	110				

Sample ID: **N049750-020AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558321**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.035	0.20	1.000	0	103	90	110				

Sample ID: **N049750-007AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.023	0.20	1.000	0	102	90	110	1.065	4.07	20	

Sample ID: **N049750-009ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558326**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20						0	0	20	

Sample ID: **N049750-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558330**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.075	0.20	1.000	0	108	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049750-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.034	0.20	1.000	0	103	90	110				

Sample ID: **N049750-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.019	0.20	1.000	0	102	90	110				

Sample ID: **N049750-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558336**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.026	0.20	1.000	0	103	90	110				

Sample ID: **N049750-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.043	0.20	1.000	0	104	90	110				

Sample ID: **N049750-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.057	0.20	1.000	0	106	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049750-014AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558344**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.020	0.20	1.000	0	102	90	110				

Sample ID: **N049750-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558346**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.994	1.0	5.000	1.321	93.5	90	110				

Sample ID: **N049750-003AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558348**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6.198	1.0	5.000	1.129	101	90	110				

Sample ID: **N049750-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558350**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.066	1.0	5.000	0	101	90	110				

Sample ID: **N049750-015AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160733**
Client ID: **ZZZZZZ** Batch ID: **R160733** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558354**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.018	1.0	5.000	0	100	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049750-017AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558356**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.975	1.0	5.000	0	99.5	90	110				

Sample ID: **N049750-018AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558358**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.884	1.0	5.000	0	97.7	90	110				

Sample ID: **N049750-021AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160733**
Client ID: **ZZZZZZ**	Batch ID: **R160733**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558359**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.020	0.20	1.000	0	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **LCS-R160734**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160734**
Client ID: **LCSW**	Batch ID: **R160734**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558368**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.972	0.20	5.000	0	99.4	90	110				

Sample ID: **MB-R160734**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160734**
Client ID: **PBW**	Batch ID: **R160734**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **N049750-019AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160734**
Client ID: **ZZZZZZ**	Batch ID: **R160734**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558373**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.967	1.0	5.000	0	99.3	90	110				

Sample ID: **N049750-019AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160734**
Client ID: **ZZZZZZ**	Batch ID: **R160734**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558374**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.850	1.0	5.000	0	97.0	90	110	4.967	2.38	20	

Sample ID: **N049750-025AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160734**
Client ID: **ZZZZZZ**	Batch ID: **R160734**	TestNo: **EPA 218.6**		Analysis Date: **3/9/2022**	SeqNo: **4558378**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.900	1.0	5.000	0	98.0	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049750-022ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160734**
Client ID: **ZZZZZZ** Batch ID: **R160734** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558380**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20						0	0	20	

Sample ID: **N049750-022AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160734**
Client ID: **ZZZZZZ** Batch ID: **R160734** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558381**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.992	0.20	1.000	0	99.2	90	110				

Sample ID: **N049750-024AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160734**
Client ID: **ZZZZZZ** Batch ID: **R160734** TestNo: **EPA 218.6** Analysis Date: **3/9/2022** SeqNo: **4558383**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.975	0.20	1.000	0	97.5	90	110				

Sample ID: **N049750-026AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160734**
Client ID: **ZZZZZZ** Batch ID: **R160734** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4558387**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.991	0.20	1.000	0	99.1	90	110				

Sample ID: **N049750-027AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160734**
Client ID: **ZZZZZZ** Batch ID: **R160734** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4558389**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.997	0.20	1.000	0	99.7	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049750-016AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160734**
Client ID: **ZZZZZZ** Batch ID: **R160734** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4558391**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.123	1.0	5.000	0	102	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160771** SampType: **MBLK** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **PBW** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160771** SampType: **LCS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **LCSW** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560116**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.077	0.20	5.000	0	102	90	110				

Sample ID: **N049760-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	487.580	10	250.0	250.2	94.9	90	110				

Sample ID: **N049760-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560120**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	58916.500	1000	25000	33590	101	90	110				

Sample ID: **N049760-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560122**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	940.470	20	500.0	428.9	102	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049760-003AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	599.190	10	250.0	342.6	103	90	110				

Sample ID: **N049760-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560128**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	607.630	10	250.0	346.7	104	90	110				

Sample ID: **N049761-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560130**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	207.838	4.0	100.0	107.9	100	90	110				

Sample ID: **N049761-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560134**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.079	0.20	1.000	0	108	90	110				

Sample ID: **N049761-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.112	0.20	1.000	0.05020	106	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049760-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.057	0.20	1.000	0	106	90	110				

Sample ID: **N049760-005AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	953.210	20	500.0	428.9	105	90	110	940.5	1.35	20	

Sample ID: **N049761-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	105.976	4.0						107.9	1.76	20	

Sample ID: **N049761-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.079	0.20	1.000	0	108	90	110				

Sample ID: **N049761-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID: **N049761-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.265	1.0	5.000	0	105	90	110				

Sample ID: **N049761-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.037	0.20	1.000	0	104	90	110				

Sample ID: **N049761-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2.329	0.20	1.000	1.373	95.6	90	110				

Sample ID: **N049761-013AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560159**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.936	0.20	1.000	0	93.6	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560163**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1436.370	20	500.0	921.7	103	90	110				

Sample ID: **N049761-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560166**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.955	0.20	1.000	0	95.5	90	110				

Sample ID: **N049750-023AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.951	1.0	5.000	0	99.0	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:40:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 09:33 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 09:48 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-45-095a-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:24:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 10:04 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:49:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 10:19 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 10:34 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:52:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 10:49 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:11:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-018		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 11:35 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 11:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:11:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-020		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 12:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:06:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 12:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-075-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:40:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 12:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-025		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220309A**	QC Batch: **R160699**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/9/2022 12:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160699_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160699**
Client ID: **PBW**	Batch ID: **R160699**	TestNo: **EPA 300.0**		Analysis Date: **3/9/2022**	SeqNo: **4557812**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160699_NO3**	SampType: **LCS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160699**
Client ID: **LCSW**	Batch ID: **R160699**	TestNo: **EPA 300.0**		Analysis Date: **3/9/2022**	SeqNo: **4557813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.223	0.050	1.250	0	97.9	90	110				

Sample ID: **N049731-001EDUP**	SampType: **DUP**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160699**
Client ID: **ZZZZZZ**	Batch ID: **R160699**	TestNo: **EPA 300.0**		Analysis Date: **3/9/2022**	SeqNo: **4557829**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	3.356	0.25						3.390	1.01	20	

Sample ID: **N049750-019BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160699**
Client ID: **ZZZZZZ**	Batch ID: **R160699**	TestNo: **EPA 300.0**		Analysis Date: **3/9/2022**	SeqNo: **4557830**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.553	0.25	6.250	0	88.8	80	120				

Sample ID: **N049750-019BMSD**	SampType: **MSD**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160699**
Client ID: **ZZZZZZ**	Batch ID: **R160699**	TestNo: **EPA 300.0**		Analysis Date: **3/9/2022**	SeqNo: **4557831**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.630	0.25	6.250	0	90.1	80	120	5.553	1.38	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049750-009BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160699**
Client ID: **ZZZZZZ**	Batch ID: **R160699**	TestNo: **EPA 300.0**		Analysis Date: **3/9/2022**	SeqNo: **4557834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	6.096	0.25	6.250	0	97.5	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:40:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 02:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 03:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-45-095a-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:24:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 03:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:49:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 03:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 04:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:52:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220314B**	QC Batch: **R160834**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	2.7	0.17	2.0		mg/L	2	3/14/2022 11:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:11:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-018		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 04:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	4.2	50		mg/L	50	3/10/2022 07:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:11:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-020		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 04:47 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:06:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.3	0.084	1.0		mg/L	1	3/10/2022 05:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-075-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:40:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 05:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-025		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220310A**	QC Batch: **R160813**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/10/2022 06:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160813**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160813**
Client ID: **PBW**	Batch ID: **R160813**	TestNo: **SM 5310C**		Analysis Date: **3/10/2022**	SeqNo: **4562797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160813**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160813**
Client ID: **LCSW**	Batch ID: **R160813**	TestNo: **SM 5310C**		Analysis Date: **3/10/2022**	SeqNo: **4562798**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.572	1.0	5.000	0	91.4	85	115				

Sample ID: **N049750-019D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160813**
Client ID: **ZZZZZZ**	Batch ID: **R160813**	TestNo: **SM 5310C**		Analysis Date: **3/10/2022**	SeqNo: **4562828**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	251.495	50	250.0	13.50	95.2	75	125				

Sample ID: **N049750-019D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160813**
Client ID: **ZZZZZZ**	Batch ID: **R160813**	TestNo: **SM 5310C**		Analysis Date: **3/10/2022**	SeqNo: **4562829**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	250.290	50	250.0	13.50	94.7	75	125	251.5	0.480	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160834**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **PBW**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160834**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **LCSW**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.868	1.0	5.000	0	97.4	85	115				

Sample ID: **N049791-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **ZZZZZZ**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564153**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	21.601	5.0	25.00	0	86.4	75	125				

Sample ID: **N049791-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **ZZZZZZ**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	21.834	5.0	25.00	0	87.3	75	125	21.60	1.07	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:40:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:	**3/10/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 10:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	870	13	20		µg/L	1	3/19/2022 10:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-45-095a-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:24:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:	**3/10/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 10:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:49:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**				PrepDate:	**3/10/2022**	Analyst: **DJ**
Iron	530	13	20		µg/L	1	3/19/2022 10:32 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	1000	13	20		µg/L	1	3/19/2022 10:37 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:52:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**				PrepDate:	**3/10/2022**	Analyst: **DJ**
Iron	21000	13	20		µg/L	1	3/19/2022 10:43 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53D-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:11:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-018		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**				PrepDate:	**3/10/2022**	Analyst: **DJ**
Iron	250	13	20		µg/L	1	3/19/2022 11:14 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	990	13	20		µg/L	1	3/19/2022 11:20 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53S-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:11:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-020		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	5400	13	20		µg/L	1	3/19/2022 11:46 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:06:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:	**3/10/2022**		Analyst: **DJ**
Iron	4500	13	20		µg/L	1	3/19/2022 11:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-075-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:40:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:	**3/10/2022**		Analyst: **DJ**
Iron	3700	13	20		µg/L	1	3/19/2022 11:56 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-025		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:	**3/10/2022**		Analyst: **DJ**
Iron	1200	13	20		µg/L	1	3/19/2022 12:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91840**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **PBW**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91840**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **LCSW**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	104.027	20	100.0	0	104	85	115				

Sample ID: **N049750-019CMS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569663**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1020.798	20	100.0	990.3	30.5	75	125				S

Sample ID: **N049750-019CMSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569664**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1030.678	20	100.0	990.3	40.4	75	125	1021	0.963	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **N049750-019C-PS** SampType: **PS** TestCode: **6010_WDPG** Units: **µg/L** Prep Date: RunNo: **160957**
Client ID: **ZZZZZZ** Batch ID: **91840** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **3/19/2022** SeqNo: **4569662**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1032.641	20	100.0	990.3	42.4	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-28-025-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 12:40:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220315B**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	0.48	0.050	0.10		µg/L	1	3/15/2022 03:14 PM
Barium	61	0.083	1.0		µg/L	1	3/15/2022 03:14 PM
Manganese	6.7	0.026	0.50		µg/L	1	3/14/2022 10:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049750-011

Client Sample ID: MW-28-090-Q122
Collection Date: 3/8/2022 12:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 10:43 PM
Barium	27	0.083	1.0		µg/L	1	3/15/2022 03:26 PM
Manganese	270	0.13	2.5		µg/L	5	3/14/2022 10:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-45-095a-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:24:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**				PrepDate:	**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 10:55 PM
Barium	31	0.083	1.0		µg/L	1	3/15/2022 03:38 PM
Manganese	180	0.026	0.50		µg/L	1	3/14/2022 10:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049750-015

Client Sample ID: MW-52D-Q122
Collection Date: 3/8/2022 1:49:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	2.1	0.050	0.10		µg/L	1	3/14/2022 11:07 PM
Barium	39	0.083	1.0		µg/L	1	3/15/2022 03:50 PM
Manganese	210	0.13	2.5		µg/L	5	3/14/2022 11:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-52M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 1:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 11:19 PM
Barium	56	0.083	1.0		µg/L	1	3/15/2022 04:02 PM
Manganese	180	0.026	0.50		µg/L	1	3/14/2022 11:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049750-017

Client Sample ID: MW-52S-Q122
Collection Date: 3/8/2022 12:52:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 11:55 PM
Barium	1000	2.1	25		µg/L	25	3/15/2022 05:08 PM
Manganese	1200	0.66	12		µg/L	25	3/15/2022 05:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049750-018

Client Sample ID: MW-53D-Q122
Collection Date: 3/8/2022 12:11:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	2.3	0.050	0.10		µg/L	1	3/15/2022 12:07 AM
Barium	44	2.1	25		µg/L	25	3/15/2022 05:14 PM
Manganese	1000	0.66	12		µg/L	25	3/15/2022 05:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-53M-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 11:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220315B**	QC Batch: **91842**			PrepDate:	**3/10/2022**		Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/15/2022 12:33 PM
Barium	70	0.083	1.0		µg/L	1	3/15/2022 12:33 PM
Manganese	510	0.13	2.5		µg/L	5	3/14/2022 08:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049750-020

Client Sample ID: MW-53S-Q122
Collection Date: 3/8/2022 11:11:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/15/2022 12:19 AM
Barium	200	0.42	5.0		µg/L	5	3/15/2022 04:37 PM
Manganese	1200	0.66	12		µg/L	25	3/15/2022 04:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049750-021

Client Sample ID: MW-43-025-Q122
Collection Date: 3/8/2022 9:06:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	21	0.050	0.10		µg/L	1	3/15/2022 12:31 AM
Barium	100	0.083	1.0		µg/L	1	3/15/2022 04:50 PM
Manganese	440	0.13	2.5		µg/L	5	3/15/2022 12:37 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-075-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 9:40:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	8.5	0.050	0.10		µg/L	1	3/15/2022 12:43 AM
Barium	45	0.083	1.0		µg/L	1	3/15/2022 04:56 PM
Manganese	570	0.13	2.5		µg/L	5	3/15/2022 12:49 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-43-090-Q122
Lab Order:	N049750	**Collection Date:**	3/8/2022 10:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049750-025		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A				**EPA 6020**		
RunID: **NV00922-ICP8_220314E**	QC Batch: **91842**				PrepDate:	**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/15/2022 01:07 AM
Barium	55	0.083	1.0		µg/L	1	3/15/2022 05:02 PM
Manganese	630	0.13	2.5		µg/L	5	3/15/2022 01:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91842**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160852**
Client ID: **PBW**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4564685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Manganese	ND	0.50									

Sample ID: **LCS-91842**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160852**
Client ID: **LCSW**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4564686**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.399	0.10	10.00	0	104	85	115				
Manganese	99.028	0.50	100.0	0	99.0	85	115				

Sample ID: **N049750-019CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160852**
Client ID: **ZZZZZZ**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4564693**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	641.577	2.5	100.0	514.8	127	75	125				S

Sample ID: **N049750-019CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160852**
Client ID: **ZZZZZZ**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4564699**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	625.439	2.5	100.0	514.8	111	75	125	641.6	2.55	20	

Sample ID: **MB-91842**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160864**
Client ID: **PBW**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4565485**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	1.0									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **LCS-91842**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160864**
Client ID: **LCSW**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4565486**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	10.072	1.0	10.00	0	101	85	115				

Sample ID: **N049750-019CMS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160864**
Client ID: **ZZZZZZ**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4565490**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	3.771	0.10	10.00	0	37.7	75	125				S
Barium	84.772	1.0	10.00	70.08	147	75	125				S

Sample ID: **N049750-019CMSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160864**
Client ID: **ZZZZZZ**	Batch ID: **91842**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4565491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.131	0.10	10.00	0	41.3	75	125	3.771	9.11	20	S
Barium	84.604	1.0	10.00	70.08	145	75	125	84.77	0.198	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049750
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049750-019C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160852**
Client ID: **ZZZZZZ** Batch ID: **91842** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4564691**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	633.133	2.5	100.0	514.8	118	80	120				

Sample ID: **N049750-019C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160864**
Client ID: **ZZZZZZ** Batch ID: **91842** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/15/2022** SeqNo: **4565489**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	4.395	0.10	10.00	0	44.0	80	120				S
Barium	80.950	1.0	10.00	70.08	109	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Sample Receipt Condition: 1. Chilled ✓; 2. Headspace; 3. Container Intact ✓; 4. Seal Present ✓; 5. IR number 3; 6. Method of Cooling: ICE
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Sample Temp: 4.5°C / 4.8°C
Submitted By: Nara Tep	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Courier: ASSET
Title: Field Tech		Global ID:	Tracking No.:
Signature: Date: 3/8/22	Sampled By: Nara Tep		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.		
Project Name: PG&E Topock - PCM	Signature: Date: 3/8/22		
Project Number: 30121866.1Q22GW			

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)								TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049750-01	MW-49-135-Q122	3/8/2022	10:46		X															E	1	P	BNS	
2	-02	MW-49-135-EB-Q122	3/8/2022	10:20		X															E	1	P	BNS	
3	-03	MW-49-275-Q122	3/8/2022	10:02		X															E	1	P	BNS	
4	-04	MW-49-275-EB-Q122	3/8/2022	9:30		X															E	1	P	BNS	
5	-05	MW-49-365-Q122	3/8/2022	9:06		X															E	1	P	BNS	
6	-06	MW-49-365-EB-Q122	3/8/2022	8:30		X															E	1	P	BNS	
7	-07	MW-29-Q122	3/8/2022	11:20		X							###	###	###	###	###	###	###	###	E	1	P	BNS	MS/MSD
8	-08	MW-29-EB-Q122	3/8/2022	10:55		X							###	###	###	###	###	###	###	###	E	1	P	BNS	
9	-09	MW-28-025-Q122	3/8/2022	12:40		X	X	X				X									E	6	P	BNS	
10	-10	MW-28-025-EB-Q122	3/8/2022	12:15		X															E	1	P	BNS	
11	-11	MW-28-090-Q122	3/8/2022	12:04		X	X	X				X									E	6	P	BNS	
12	-12	MW-28-090-EB-Q122	3/8/2022	11:40		X															E	1	P	BNS	
13	-13	MW-45-095a-Q122	3/8/2022	13:24		X	X	X				X									E	6	P	BNS	
14	-14	EB-718-Q122	3/8/2022	14:00		X							###	###	###	###	###	###	###	###	E	1	P	BNS	

Relinquished by (Signature and Printed Name)	Date/Time	Relinquished by (Signature and Printed Name)	Date/Time
Nara Tep	3/8/22 1526	Pat Romeo Ancamara	3/8/22 1526
Pat Romeo Ancamara	3/8/22 1821	Pat Romeo Ancamara	3/8/22 1821

Turn Around Time (TAT)

	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
x	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 6 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Plnt
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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Nevada: 3151 W. Post Road, Las Vegas, NV 89118
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California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Others ✓; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RWQCB ✓
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Sample Receipt Condition: 1. Chilled ✓; 2. Headspace; 3. Container Intact ✓; 4. Seal Present ✓; 5. IR number 3
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	
Submitted By: Rissie Tap	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	
Title: Field Tech		Global ID:	Specify State:
Signature: Date: 3/8/22	Sampled By: Nam Tay		6. Method of Cooling: ICE
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.		Sample Temp: 4.5°C / 4.8°C
Project Name: PG&E Topock - PCM	Signature: Date: 3/8/22		Courier: ASSET
Project Number: 30121866.1Q22GW			Tracking No.:

Matrix: Ground | X | Sediment; Potable | | Soil; NPDES | | Other Solid; Surface | |

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049750-15	MW-52D-Q122	3/8/2022	13:49		X	X	X			X			E	6	P	BNS	
2	-16	MW-52M-Q122	3/8/2022	13:22		X	X	X			X			E	6	P	BNS	
3	-17	MW-52S-Q122	3/8/2022	12:52		X	X	X			X			E	6	P	BNS	
4	-18	MW-53D-Q122	3/8/2022	12:11		X	X	X			X			E	6	P	BNS	
5	-19	MW-53M-Q122	3/8/2022	11:41		X	X	X			X			E	9	P	BNS	MS/MSD
6	-20	MW-53S-Q122	3/8/2022	11:11		X	X	X			X			E	6	P	BNS	
7	-21	MW-43-025-Q122	3/8/2022	9:06		X	X	X			X	### ### ### ### ### ### ### ###		E	6	P	BNS	
8	-22	MW-43-025-EB-Q122	3/8/2022	8:42		X						### ### ### ### ### ### ### ###		E	1	P	BNS	
9	-23	MW-43-075-Q122	3/8/2022	9:40		X	X	X			X			E	6	P	BNS	
10	-24	MW-43-075-EB-Q122	3/8/2022	9:17		X								E	1	P	BNS	
11	-25	MW-43-090-Q122	3/8/2022	10:20		X	X	X			X			E	6	P	BNS	
12	-26	MW-43-090-EB-Q122	3/8/2022	9:55		X								E	1	P	BNS	
13																		
14	-27	EB-719-Q122	3/8/2022	14:00		X						### ### ### ### ### ### ### ###		E	1	P	BNS	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Nam Tay	3/8/22 1526	Ramon Ducantara	3/8/22 1526
Ramon Ducantara	3/8/22 1821	Ramon Ducantara	3/8/22 1822

Turn Around Time (TAT)

	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
X	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 5% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives: H=HCl; N=HNO_3; S=H_2SO_4; C=4°C; Z=Zn(AC)$_2$; O=NaOH; T=$Na_2S_2O_3$; Others/Specify: B (NH4)2SO4/NH4OH

Container Type: T=Tube; V=VOA; P=Pint; J=Jar; B=Tedlar; G=Glass; M=Metal; M=Metal; C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/8/2022	Workorder:	N049750
Rep sample Temp (Deg C):	4.5/4.8	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/9/2022

Reviewed By: MBC 3/14/22

ASSET Laboratories

WORK ORDER Summary

09-Mar-22

WorkOrder: N049750

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049750-001A	MW-49-135-Q122	3/8/2022 10:46:00 AM	3/22/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-002A	MW-49-135-EB-Q122	3/8/2022 10:20:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-003A	MW-49-275-Q122	3/8/2022 10:02:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-004A	MW-49-275-EB-Q122	3/8/2022 9:30:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-005A	MW-49-365-Q122	3/8/2022 9:06:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-006A	MW-49-365-EB-Q122	3/8/2022 8:30:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-007A	MW-29-Q122	3/8/2022 11:20:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☑	☐	WW
N049750-008A	MW-29-EB-Q122	3/8/2022 10:55:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-009A	MW-28-025-Q122	3/8/2022 12:40:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-009B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-009C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-009D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-010A	MW-28-025-EB-Q122	3/8/2022 12:15:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-011A	MW-28-090-Q122	3/8/2022 12:04:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-011B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-011C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

09-Mar-22

WorkOrder: N049750

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049750-011D	MW-28-090-Q122	3/8/2022 12:04:00 PM	3/22/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-012A	MW-28-090-EB-Q122	3/8/2022 11:40:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-013A	MW-45-095a-Q122	3/8/2022 1:24:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-013B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-013C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-013D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-014A	EB-718-Q122	3/8/2022 2:00:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-015A	MW-52D-Q122	3/8/2022 1:49:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-015B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-015C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-015D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-016A	MW-52M-Q122	3/8/2022 1:22:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-016B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-016C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

09-Mar-22

WorkOrder: N049750

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049750-016C	MW-52M-Q122	3/8/2022 1:22:00 PM	3/22/2022	Groundwater	EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-016D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-017A	MW-52S-Q122	3/8/2022 12:52:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-017B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-017C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-017D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-018A	MW-53D-Q122	3/8/2022 12:11:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-018B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-018C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-018D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-019A	MW-53M-Q122	3/8/2022 11:41:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☑	☐	WW
N049750-019B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☑	☐	WW
N049750-019C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☑	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☑	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☑	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☑	☐	WW

ASSET Laboratories

WORK ORDER Summary

09-Mar-22

WorkOrder: N049750

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049750-019D	MW-53M-Q122	3/8/2022 11:41:00 AM	3/22/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☑	☐	VW
N049750-020A	MW-53S-Q122	3/8/2022 11:11:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-020B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-020C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-020D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-021A	MW-43-025-Q122	3/8/2022 9:06:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-021B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-021C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-021D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-022A	MW-43-025-EB-Q122	3/8/2022 8:42:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-023A	MW-43-075-Q122	3/8/2022 9:40:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-023B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-023C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

09-Mar-22

WorkOrder: N049750

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/8/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049750-023D	MW-43-075-Q122	3/8/2022 9:40:00 AM	3/22/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-024A	MW-43-075-EB-Q122	3/8/2022 9:17:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-025A	MW-43-090-Q122	3/8/2022 10:20:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-025B			3/22/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049750-025C			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/22/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/22/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049750-025D			3/22/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049750-026A	MW-43-090-EB-Q122	3/8/2022 9:55:00 AM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-027A	EB-719-Q122	3/8/2022 2:00:00 PM	3/22/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049750-028A	FOLdER	3/22/2022	3/22/2022		Folder	Folder	☐	☐	☐	LAB
			3/22/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/22/2022		Folder	Folder	☐	☐	☐	LAB

March 23, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049760

RE: PG&E Topock - RCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 09, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049760-001C-MS and N049760-001C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab Order: N049760
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049760-001A	MW-65-160-Q122	Groundwater	3/9/2022 11:02:00 AM	3/9/2022	3/23/2022
N049760-001B	MW-65-160-Q122	Groundwater	3/9/2022 11:02:00 AM	3/9/2022	3/23/2022
N049760-001C	MW-65-160-Q122	Groundwater	3/9/2022 11:02:00 AM	3/9/2022	3/23/2022
N049760-002A	MW-65-225-Q122	Groundwater	3/9/2022 10:16:00 AM	3/9/2022	3/23/2022
N049760-002B	MW-65-225-Q122	Groundwater	3/9/2022 10:16:00 AM	3/9/2022	3/23/2022
N049760-002C	MW-65-225-Q122	Groundwater	3/9/2022 10:16:00 AM	3/9/2022	3/23/2022
N049760-003A	MW-918-Q122	Groundwater	3/9/2022 10:26:00 AM	3/9/2022	3/23/2022
N049760-003B	MW-918-Q122	Groundwater	3/9/2022 10:26:00 AM	3/9/2022	3/23/2022
N049760-003C	MW-918-Q122	Groundwater	3/9/2022 10:26:00 AM	3/9/2022	3/23/2022
N049760-004A	MW-68-180-Q122	Groundwater	3/9/2022 11:58:00 AM	3/9/2022	3/23/2022
N049760-004B	MW-68-180-Q122	Groundwater	3/9/2022 11:58:00 AM	3/9/2022	3/23/2022
N049760-004C	MW-68-180-Q122	Groundwater	3/9/2022 11:58:00 AM	3/9/2022	3/23/2022
N049760-005A	MW-69-195-Q122	Groundwater	3/9/2022 8:58:00 AM	3/9/2022	3/23/2022
N049760-005B	MW-69-195-Q122	Groundwater	3/9/2022 8:58:00 AM	3/9/2022	3/23/2022
N049760-005C	MW-69-195-Q122	Groundwater	3/9/2022 8:58:00 AM	3/9/2022	3/23/2022
N049760-006A	EB-720-Q122	Groundwater	3/9/2022 3:30:00 PM	3/9/2022	3/23/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-65-160-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 11:02:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	250	1.3	10		µg/L	50	3/10/2022 10:08 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	240	0.18	5.0		µg/L	5	3/17/2022 01:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-65-225-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 10:16:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A** QC Batch: **R160771**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	350	1.3	10		µg/L	50	3/10/2022 12:03 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B** QC Batch: **91843**				PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	340	0.18	5.0		µg/L	5	3/17/2022 02:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-918-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 10:26:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	340	1.3	10		µg/L	50	3/10/2022 11:44 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	330	0.18	5.0		µg/L	5	3/17/2022 03:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-68-180-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 11:58:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	34000	130	1000		µg/L	5000	3/10/2022 10:48 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	37000	8.8	250		µg/L	250	3/17/2022 09:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-69-195-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 8:58:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	430	2.5	20		µg/L	100	3/10/2022 11:07 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	450	0.18	5.0		µg/L	5	3/17/2022 04:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-720-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 3:30:00 PM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 04:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160771**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **PBW**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160771**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **LCSW**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560116**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.077	0.20	5.000	0	102	90	110				

Sample ID: **N049760-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	487.580	10	250.0	250.2	94.9	90	110				

Sample ID: **N049760-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560120**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	58916.500	1000	25000	33590	101	90	110				

Sample ID: **N049760-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560122**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	940.470	20	500.0	428.9	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049760-003AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	599.190	10	250.0	342.6	103	90	110				

Sample ID: **N049760-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560128**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	607.630	10	250.0	346.7	104	90	110				

Sample ID: **N049761-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560130**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	207.838	4.0	100.0	107.9	100	90	110				

Sample ID: **N049761-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560134**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.079	0.20	1.000	0	108	90	110				

Sample ID: **N049761-005AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.112	0.20	1.000	0.05020	106	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049760-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.057	0.20	1.000	0	106	90	110				

Sample ID: **N049760-005AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	953.210	20	500.0	428.9	105	90	110	940.5	1.35	20	

Sample ID: **N049761-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	105.976	4.0						107.9	1.76	20	

Sample ID: **N049761-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.079	0.20	1.000	0	108	90	110				

Sample ID: **N049761-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-008AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID: **N049761-010AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.265	1.0	5.000	0	105	90	110				

Sample ID: **N049761-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.037	0.20	1.000	0	104	90	110				

Sample ID: **N049761-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2.329	0.20	1.000	1.373	95.6	90	110				

Sample ID: **N049761-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160771**
Client ID: **ZZZZZZ** Batch ID: **R160771** TestNo: **EPA 218.6** Analysis Date: **3/10/2022** SeqNo: **4560159**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.936	0.20	1.000	0	93.6	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560163**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1436.370	20	500.0	921.7	103	90	110				

Sample ID: **N049761-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560166**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.955	0.20	1.000	0	95.5	90	110				

Sample ID: **N049750-023AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.951	1.0	5.000	0	99.0	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91843**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **PBW**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570022**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91843**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **LCSW**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.175	1.0	10.00	0	102	85	115				

Sample ID: **N049760-001C-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	258.759	5.0	10.00	241.1	177	75	125				S

Sample ID: **N049760-001C-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	259.621	5.0	10.00	241.1	186	75	125	258.8	0.332	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **N049760-001C-PS**	SampType: **PS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:					RunNo: **160967**		
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**					SeqNo: **4570029**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	255.403	5.0	10.00	241.1	143	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-65-160-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 11:02:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	14	0.095	0.50		mg/L	10	3/10/2022 04:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-65-225-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 10:16:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	5.9	0.048	0.25		mg/L	5	3/10/2022 10:09 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-918-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 10:26:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	6.0	0.048	0.25		mg/L	5	3/10/2022 10:25 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-68-180-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 11:58:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	25	0.19	1.0		mg/L	20	3/10/2022 10:40 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-69-195-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 8:58:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	18	0.19	1.0		mg/L	20	3/10/2022 04:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160729_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **PBW**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160729_NO3**	SampType: **LCS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **LCSW**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560741**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.269	0.050	1.250	0	102	90	110				

Sample ID: **N049761-008BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **ZZZZZZ**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560758**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.931	0.25	6.250	0	94.9	80	120				

Sample ID: **N049761-008BMSD**	SampType: **MSD**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **ZZZZZZ**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560759**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.891	0.25	6.250	0	94.3	80	120	0	0	20	

Sample ID: **N049761-003BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **ZZZZZZ**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	12.972	0.50	12.50	1.478	92.0	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049759-002EDUP** SampType: **DUP** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **160729**
Client ID: **ZZZZZZ** Batch ID: **R160729** TestNo: **EPA 300.0** Analysis Date: **3/10/2022** SeqNo: **4560766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	3.419	0.25						0	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-65-160-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 11:02:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Molybdenum	26	0.12	0.50		µg/L	1	3/17/2022 01:11 PM
Selenium	9.3	0.044	0.50		µg/L	1	3/17/2022 01:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-65-225-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 10:16:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Molybdenum	32	0.12	0.50		µg/L	1	3/17/2022 02:46 PM
Selenium	4.6	0.044	0.50		µg/L	1	3/17/2022 02:46 PM

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab ID: N049760-003

Client Sample ID: MW-918-Q122
Collection Date: 3/9/2022 10:26:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Molybdenum	33	0.12	0.50		µg/L	1	3/17/2022 03:22 PM
Selenium	4.8	0.044	0.50		µg/L	1	3/17/2022 03:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-68-180-Q122
Lab Order:	N049760	**Collection Date:**	3/9/2022 11:58:00 AM
Project:	PG&E Topock - RCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049760-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220317B** QC Batch: **91843**				PrepDate:		**3/10/2022**	Analyst: **CEI**
Molybdenum	53	0.12	0.50		µg/L	1	3/17/2022 03:40 PM
Selenium	17	0.044	0.50		µg/L	1	3/17/2022 03:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW
Lab ID: N049760-005

Client Sample ID: MW-69-195-Q122
Collection Date: 3/9/2022 8:58:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220317B** QC Batch: **91843**				PrepDate:		**3/10/2022**	Analyst: **CEI**
Molybdenum	59	0.12	0.50		µg/L	1	3/17/2022 03:57 PM
Selenium	12	0.044	0.50		µg/L	1	3/17/2022 03:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049760
Project: PG&E Topock - RCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91843**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **PBW**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	ND	0.50									
Selenium	ND	0.50									

Sample ID: **LCS-91843**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **LCSW**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	10.164	0.50	10.00	0	102	85	115				
Selenium	9.828	0.50	10.00	0	98.3	85	115				

Sample ID: **N049760-001C-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	36.394	0.50	10.00	25.53	109	75	125				
Selenium	18.216	0.50	10.00	9.305	89.1	75	125				

Sample ID: **N049760-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570149**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	37.106	0.50	10.00	25.53	116	75	125	36.39	1.94	20	
Selenium	18.444	0.50	10.00	9.305	91.4	75	125	18.22	1.24	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

ARCUS02 C: 3/23/2022 12:00 AM
FOLDER R: 3/9/2022
N049760-007A 1 of 1

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	
Submitted By: Reggie Tap	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Global ID:
Title: Field Tech			
Signature: Date: 3/9/22	Sampled By: Reggie Tap		
I hereby authorize ASSET Labs to perform the tests indicated below.	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.*		
Project Name: PG&E Topock - RCM	Signature: Date: 3/9/22		
Project Number: 30121866.1Q22GW			

Sample Receipt Condition

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present		✓
5. IR number	3	
6. Method of Cooling:	Ice	

Sample Temp: 3.1°C / 2.5°C IR#3

Courier: ASSET

Tracking No.:

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	250 mL poly: Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH	1 L poly: Nitrate (EPA 300.0)	500mL poly: Dissolved metals (SW6020) FF; HNO3 Arsenic, Manganese,	500mL poly: Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium,	500mL poly: Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium	TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049760-01	MW-65-160-Q122	3/9/2022	11:02		X	X		X	X		E	3	P	BNS	
2	-02	MW-65-225-Q122	3/9/2022	10:16		X	X		X	X		E	3	P	BNS	
3	-03	MW-918-Q122	3/9/2022	10:26		X	X		X	X		E	3	P	BNS	
4	-04	MW-68-180-Q122	3/9/2022	11:58		X	X		X	X		E	3	P	BNS	
5	-05	MW-69-195-Q122	3/9/2022	8:58		X	X		X	X		E	3	P	BNS	
	-06	EB-720-Q122	3/9/2022	15:30		X						E	1	P	BNS	
7																
8																
9											###					
10																
11											###					
12																
13											###					
14											###					

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Reggie Tap	3/9/22 1600	ROMEO ARCAMARA	3/9/22 1600
ROMEO ARCAMARA	3/9/22 1845	ROMEO ARCAMARA	3/9/22 1845
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Other/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/9/2022	Workorder:	N049760
Rep sample Temp (Deg C):	3.1/2.5	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/10/2022

Reviewed By: MBC 3/12/2022

ASSET Laboratories

WORK ORDER Summary

12-Mar-22

WorkOrder: N049760

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049760-001A	MW-65-160-Q122	3/9/2022 11:02:00 AM	3/23/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049760-001B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049760-001C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049760-002A	MW-65-225-Q122	3/9/2022 10:16:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049760-002B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049760-002C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049760-003A	MW-918-Q122	3/9/2022 10:26:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049760-003B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049760-003C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049760-004A	MW-68-180-Q122	3/9/2022 11:58:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049760-004B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049760-004C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049760-005A	MW-69-195-Q122	3/9/2022 8:58:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049760-005B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

12-Mar-22

WorkOrder: N049760

Client ID: ARCUS02

Project: PG&E Topock - RCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049760-005C	MW-69-195-Q122	3/9/2022 8:58:00 AM	3/23/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049760-006A	EB-720-Q122	3/9/2022 3:30:00 PM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049760-007A	FOLDER	3/23/2022	3/23/2022		Folder	Folder	☐	☐	☐	LAB
			3/23/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/23/2022		Folder	Folder	☐	☐	☐	LAB

March 23, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049761

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 09, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

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CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049761

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Ammonia was subcontracted to BC Labs- Bakersfield,CA.

Analytical Comments for EPA 218.6:

Initial dilution was necessary for sample N049761-010 due to matrix. Sample is colored.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6010B_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Iron in QC samples N049750-019CMS and N049750-019CMSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049760-001C-MS and N049760-001C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed

however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049761-001D-MS and N049761-001D-MSD at lower dilutions possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049761-001D and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *23-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049761
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049761-001A	TW-02D-Q122	Groundwater	3/9/2022 1:36:00 PM	3/9/2022	3/23/2022
N049761-001B	TW-02D-Q122	Groundwater	3/9/2022 1:36:00 PM	3/9/2022	3/23/2022
N049761-001C	TW-02D-Q122	Groundwater	3/9/2022 1:36:00 PM	3/9/2022	3/23/2022
N049761-001D	TW-02D-Q122	Groundwater	3/9/2022 1:36:00 PM	3/9/2022	3/23/2022
N049761-001E	TW-02D-Q122	Groundwater	3/9/2022 1:36:00 PM	3/9/2022	3/23/2022
N049761-002A	TW-02S-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-002B	TW-02S-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-002C	TW-02S-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-002D	TW-02S-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-002E	TW-02S-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-003A	TW-03D-Q122	Groundwater	3/9/2022 3:08:00 PM	3/9/2022	3/23/2022
N049761-003B	TW-03D-Q122	Groundwater	3/9/2022 3:08:00 PM	3/9/2022	3/23/2022
N049761-003C	TW-03D-Q122	Groundwater	3/9/2022 3:08:00 PM	3/9/2022	3/23/2022
N049761-003D	TW-03D-Q122	Groundwater	3/9/2022 3:08:00 PM	3/9/2022	3/23/2022
N049761-003E	TW-03D-Q122	Groundwater	3/9/2022 3:08:00 PM	3/9/2022	3/23/2022
N049761-004A	MW-36-020-Q122	Groundwater	3/9/2022 8:25:00 AM	3/9/2022	3/23/2022
N049761-004B	MW-36-020-Q122	Groundwater	3/9/2022 8:25:00 AM	3/9/2022	3/23/2022
N049761-004C	MW-36-020-Q122	Groundwater	3/9/2022 8:25:00 AM	3/9/2022	3/23/2022
N049761-004D	MW-36-020-Q122	Groundwater	3/9/2022 8:25:00 AM	3/9/2022	3/23/2022
N049761-005A	MW-36-040-Q122	Groundwater	3/9/2022 10:09:00 AM	3/9/2022	3/23/2022
N049761-005B	MW-36-040-Q122	Groundwater	3/9/2022 10:09:00 AM	3/9/2022	3/23/2022
N049761-005C	MW-36-040-Q122	Groundwater	3/9/2022 10:09:00 AM	3/9/2022	3/23/2022
N049761-005D	MW-36-040-Q122	Groundwater	3/9/2022 10:09:00 AM	3/9/2022	3/23/2022
N049761-006A	MW-36-050-Q122	Groundwater	3/9/2022 10:41:00 AM	3/9/2022	3/23/2022
N049761-006B	MW-36-050-Q122	Groundwater	3/9/2022 10:41:00 AM	3/9/2022	3/23/2022
N049761-006C	MW-36-050-Q122	Groundwater	3/9/2022 10:41:00 AM	3/9/2022	3/23/2022
N049761-006D	MW-36-050-Q122	Groundwater	3/9/2022 10:41:00 AM	3/9/2022	3/23/2022
N049761-007A	MW-36-070-Q122	Groundwater	3/9/2022 9:02:00 AM	3/9/2022	3/23/2022
N049761-007B	MW-36-070-Q122	Groundwater	3/9/2022 9:02:00 AM	3/9/2022	3/23/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049761
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049761-007C	MW-36-070-Q122	Groundwater	3/9/2022 9:02:00 AM	3/9/2022	3/23/2022
N049761-007D	MW-36-070-Q122	Groundwater	3/9/2022 9:02:00 AM	3/9/2022	3/23/2022
N049761-008A	MW-36-090-Q122	Groundwater	3/9/2022 9:36:00 AM	3/9/2022	3/23/2022
N049761-008B	MW-36-090-Q122	Groundwater	3/9/2022 9:36:00 AM	3/9/2022	3/23/2022
N049761-008C	MW-36-090-Q122	Groundwater	3/9/2022 9:36:00 AM	3/9/2022	3/23/2022
N049761-008D	MW-36-090-Q122	Groundwater	3/9/2022 9:36:00 AM	3/9/2022	3/23/2022
N049761-009A	MW-36-100-Q122	Groundwater	3/9/2022 11:13:00 AM	3/9/2022	3/23/2022
N049761-009B	MW-36-100-Q122	Groundwater	3/9/2022 11:13:00 AM	3/9/2022	3/23/2022
N049761-009C	MW-36-100-Q122	Groundwater	3/9/2022 11:13:00 AM	3/9/2022	3/23/2022
N049761-009D	MW-36-100-Q122	Groundwater	3/9/2022 11:13:00 AM	3/9/2022	3/23/2022
N049761-010A	MW-30-030-Q122	Groundwater	3/9/2022 1:48:00 PM	3/9/2022	3/23/2022
N049761-010B	MW-30-030-Q122	Groundwater	3/9/2022 1:48:00 PM	3/9/2022	3/23/2022
N049761-010C	MW-30-030-Q122	Groundwater	3/9/2022 1:48:00 PM	3/9/2022	3/23/2022
N049761-010D	MW-30-030-Q122	Groundwater	3/9/2022 1:48:00 PM	3/9/2022	3/23/2022
N049761-011A	MW-30-030-EB-Q122	Groundwater	3/9/2022 1:25:00 PM	3/9/2022	3/23/2022
N049761-012A	MW-30-050-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-012B	MW-30-050-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-012C	MW-30-050-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-012D	MW-30-050-Q122	Groundwater	3/9/2022 2:22:00 PM	3/9/2022	3/23/2022
N049761-013A	EB-721-Q122	Groundwater	3/9/2022 2:30:00 PM	3/9/2022	3/23/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	TW-02D-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B** QC Batch: **R160785**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	64	0.25	2.0		µg/L	10	3/12/2022 02:51 AM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A			**EPA 6020**		
RunID: **NV00922-ICP8_220317B** QC Batch: **91843**				PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	62	0.035	1.0		µg/L	1	3/17/2022 04:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-002

Client Sample ID: TW-02S-Q122
Collection Date: 3/9/2022 2:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A** QC Batch: **R160771**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	110	0.50	4.0		µg/L	20	3/10/2022 12:41 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B** QC Batch: **91843**				PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	99	0.035	1.0		µg/L	1	3/17/2022 05:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-003

Client Sample ID: TW-03D-Q122
Collection Date: 3/9/2022 3:08:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A** QC Batch: **R160771**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	920	2.5	20		µg/L	100	3/10/2022 08:18 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220317B** QC Batch: **91843**				PrepDate:	**3/10/2022**		Analyst: **CEI**
Chromium	840	0.18	5.0		µg/L	5	3/17/2022 05:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-020-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 8:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-040-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 04:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 05:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-070-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:02:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 05:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-090-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:36:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 05:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-100-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 11:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 06:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-030-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/10/2022 06:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-030-EB-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:25:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 07:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
EPA 218.6							
RunID: **NV00922-IC7_220310A** QC Batch: **R160771** PrepDate: Analyst: **RAB**							
Hexavalent Chromium	1.4	0.025	0.20		µg/L	1	3/10/2022 07:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-721-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220310A**	QC Batch: **R160771**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/10/2022 07:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160771**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **PBW**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160771**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **LCSW**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560116**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.077	0.20	5.000	0	102	90	110				

Sample ID: **N049760-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	487.580	10	250.0	250.2	94.9	90	110				

Sample ID: **N049760-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560120**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	58916.500	1000	25000	33590	101	90	110				

Sample ID: **N049760-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560122**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	940.470	20	500.0	428.9	102	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049760-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	599.190	10	250.0	342.6	103	90	110				

Sample ID: **N049760-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560128**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	607.630	10	250.0	346.7	104	90	110				

Sample ID: **N049761-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560130**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	207.838	4.0	100.0	107.9	100	90	110				

Sample ID: **N049761-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560134**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.079	0.20	1.000	0	108	90	110				

Sample ID: **N049761-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.112	0.20	1.000	0.05020	106	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049760-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.057	0.20	1.000	0	106	90	110				

Sample ID: **N049760-005AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	953.210	20	500.0	428.9	105	90	110	940.5	1.35	20	

Sample ID: **N049761-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	105.976	4.0						107.9	1.76	20	

Sample ID: **N049761-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560144**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.079	0.20	1.000	0	108	90	110				

Sample ID: **N049761-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.045	0.20	1.000	0	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.049	0.20	1.000	0	105	90	110				

Sample ID: **N049761-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.265	1.0	5.000	0	105	90	110				

Sample ID: **N049761-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.037	0.20	1.000	0	104	90	110				

Sample ID: **N049761-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2.329	0.20	1.000	1.373	95.6	90	110				

Sample ID: **N049761-013AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560159**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.936	0.20	1.000	0	93.6	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560163**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1436.370	20	500.0	921.7	103	90	110				

Sample ID: **N049761-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560166**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.955	0.20	1.000	0	95.5	90	110				

Sample ID: **N049750-023AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160771**
Client ID: **ZZZZZZ**	Batch ID: **R160771**	TestNo: **EPA 218.6**		Analysis Date: **3/10/2022**	SeqNo: **4560168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.951	1.0	5.000	0	99.0	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **LCS-R160785**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **LCSW**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.214	0.20	5.000	0	104	90	110				

Sample ID: **MB-R160785**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **PBW**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561635**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **N049789-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561637**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3113.800	40	1000	2092	102	90	110				

Sample ID: **N049789-003AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3111.280	40	1000	2092	102	90	110	3114	0.0810	20	

Sample ID: **N049789-004ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4818.300	200						4846	0.581	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10016.200	200	5000	4846	103	90	110				

Sample ID: **N049789-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	965.650	20	500.0	448.7	103	90	110				

Sample ID: **N049789-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561647**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	963.330	20	500.0	451.5	102	90	110				

Sample ID: **N049789-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Sample ID: **N049789-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.071	0.20	1.000	0	107	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-010AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561655**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.024	0.20	1.000	0	102	90	110				

Sample ID: **N049789-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.081	0.20	1.000	0	108	90	110				

Sample ID: **N049789-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561661**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.094	0.20	1.000	0	109	90	110				

Sample ID: **N049789-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561663**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.027	0.20	1.000	0	103	90	110				

Sample ID: **N049789-016AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561665**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.087	0.20	1.000	0	109	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-017AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.087	0.20	1.000	0	109	90	110				

Sample ID: **N049789-018AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561671**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.032	0.20	1.000	0	103	90	110				

Sample ID: **N049789-019AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561673**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Sample ID: **N049789-020AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561675**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.075	0.20	1.000	0	107	90	110				

Sample ID: **N049789-009AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.065	1.0	5.000	0	101	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	113.556	2.0	50.00	63.52	100	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91843**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **PBW**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570022**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91843**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **LCSW**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570023**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.175	1.0	10.00	0	102	85	115				

Sample ID: **N049760-001C-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570034**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	258.759	5.0	10.00	241.1	177	75	125				S

Sample ID: **N049760-001C-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160967**
Client ID: **ZZZZZZ**	Batch ID: **91843**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/17/2022**	SeqNo: **4570037**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	259.621	5.0	10.00	241.1	186	75	125	258.8	0.332	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **N049760-001C-PS** SampType: **PS** TestCode: **6020DIS_CrP** Units: **µg/L** Prep Date: RunNo: **160967**
Client ID: **ZZZZZZ** Batch ID: **91843** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/17/2022** SeqNo: **4570029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	255.403	5.0	10.00	241.1	143	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-001

Client Sample ID: TW-02D-Q122
Collection Date: 3/9/2022 1:36:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	940	6.1	50		mg/L	100	3/11/2022 10:33 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A** QC Batch: **R160729**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.1	0.048	0.25		mg/L	5	3/10/2022 11:14 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-002

Client Sample ID: TW-02S-Q122
Collection Date: 3/9/2022 2:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	180	1.2	10		mg/L	20	3/11/2022 10:18 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A** QC Batch: **R160729**				PrepDate:			Analyst: **RAB**
Nitrate as N	4.0	0.019	0.10		mg/L	2	3/10/2022 11:29 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-003

Client Sample ID: TW-03D-Q122
Collection Date: 3/9/2022 3:08:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	920	6.1	50		mg/L	100	3/11/2022 08:31 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A** QC Batch: **R160729**				PrepDate:			Analyst: **RAB**
Nitrate as N	1.5	0.095	0.50		mg/L	10	3/10/2022 12:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-020-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 8:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/10/2022 12:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-040-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/10/2022 05:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/10/2022 05:17 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-070-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:02:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/10/2022 05:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-090-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:36:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/10/2022 01:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-100-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 11:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/10/2022 01:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-030-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/10/2022 02:12 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220310A**	QC Batch: **R160729**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.14	0.019	0.10		mg/L	2	3/10/2022 02:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **LCS-R160763_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **LCSW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561327**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.975	0.50	4.000	0	99.4	90	110				

Sample ID: **MB-R160763_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **PBW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **N049791-002BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1293.070	50	400.0	857.4	109	80	120				

Sample ID: **N049791-002BMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1297.730	50	400.0	857.4	110	80	120	1293	0.360	20	

Sample ID: **N049761-003BDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561337**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	915.887	50						922.4	0.713	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049761-003BMS** SampType: **MS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160763**
Client ID: **ZZZZZZ** Batch ID: **R160763** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4561338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1313.110	50	400.0	922.4	97.7	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160729_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **PBW**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160729_NO3**	SampType: **LCS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **LCSW**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560741**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.269	0.050	1.250	0	102	90	110				

Sample ID: **N049761-008BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **ZZZZZZ**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560758**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.931	0.25	6.250	0	94.9	80	120				

Sample ID: **N049761-008BMSD**	SampType: **MSD**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **ZZZZZZ**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560759**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.891	0.25	6.250	0	94.3	80	120	0	0	20	

Sample ID: **N049761-003BMS**	SampType: **MS**	TestCode: **300WLLNO3**	Units: **mg/L**	Prep Date:	RunNo: **160729**
Client ID: **ZZZZZZ**	Batch ID: **R160729**	TestNo: **EPA 300.0**		Analysis Date: **3/10/2022**	SeqNo: **4560760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	12.972	0.50	12.50	1.478	92.0	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049759-002EDUP** SampType: **DUP** TestCode: **300WLLNO3** Units: **mg/L** Prep Date: RunNo: **160729**
Client ID: **ZZZZZZ** Batch ID: **R160729** TestNo: **EPA 300.0** Analysis Date: **3/10/2022** SeqNo: **4560766**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	3.419	0.25						0	0	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	TW-02D-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:36:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	4.2	50		mg/L	50	3/15/2022 06:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	TW-02S-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 12:59 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	TW-03D-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 3:08:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 01:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-020-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 8:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 01:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-040-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.5	0.084	1.0		mg/L	1	3/15/2022 01:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 02:01 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-070-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:02:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 02:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-090-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:36:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 02:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-100-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 11:13:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 02:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-030-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	2.9	0.084	1.0		mg/L	1	3/15/2022 03:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220315A**	QC Batch: **R160869**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/15/2022 03:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160869**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160869**
Client ID: **PBW**	Batch ID: **R160869**	TestNo: **SM 5310C**		Analysis Date: **3/15/2022**	SeqNo: **4565621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160869**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160869**
Client ID: **LCSW**	Batch ID: **R160869**	TestNo: **SM 5310C**		Analysis Date: **3/15/2022**	SeqNo: **4565622**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.716	1.0	5.000	0	94.3	85	115				

Sample ID: **N049761-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160869**
Client ID: **ZZZZZZ**	Batch ID: **R160869**	TestNo: **SM 5310C**		Analysis Date: **3/15/2022**	SeqNo: **4565658**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	238.560	50	250.0	0	95.4	75	125				

Sample ID: **N049761-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160869**
Client ID: **ZZZZZZ**	Batch ID: **R160869**	TestNo: **SM 5310C**		Analysis Date: **3/15/2022**	SeqNo: **4565659**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	238.960	50	250.0	0	95.6	75	125	238.6	0.168	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-001

Client Sample ID: TW-02D-Q122
Collection Date: 3/9/2022 1:36:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A** QC Batch: **91840**				PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	39	13	20		µg/L	1	3/19/2022 12:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	TW-02S-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	31	13	20		µg/L	1	3/19/2022 12:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-003

Client Sample ID: TW-03D-Q122
Collection Date: 3/9/2022 3:08:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**				PrepDate:	**3/10/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 12:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-020-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 8:25:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	1300	13	20		µg/L	1	3/19/2022 12:30 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-040-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**				PrepDate:	**3/10/2022**	Analyst: **DJ**
Iron	410	13	20		µg/L	1	3/19/2022 12:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 10:41:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	130	13	20		µg/L	1	3/19/2022 12:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-070-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:02:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:		**3/10/2022**	Analyst: **DJ**
Iron	29	13	20		µg/L	1	3/19/2022 12:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-36-090-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 9:36:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91840**			PrepDate:	**3/10/2022**		Analyst: **DJ**
Iron	35	13	20		µg/L	1	3/19/2022 12:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-009

Client Sample ID: MW-36-100-Q122
Collection Date: 3/9/2022 11:13:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220321A**	QC Batch: **91918**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	490	13	20		µg/L	1	3/21/2022 04:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-030-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 1:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	260	13	20		µg/L	1	3/19/2022 01:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-30-050-Q122
Lab Order:	N049761	**Collection Date:**	3/9/2022 2:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049761-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 01:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91840**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **PBW**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91840**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **LCSW**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	104.027	20	100.0	0	104	85	115				

Sample ID: **N049750-019CMS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569663**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1020.798	20	100.0	990.3	30.5	75	125				S

Sample ID: **N049750-019CMSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/10/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569664**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1030.678	20	100.0	990.3	40.4	75	125	1021	0.963	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91918**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **PBW**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91918**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **LCSW**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.061	20	100.0	0	99.1	85	115				

Sample ID: **N049761-009C-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	571.442	20	100.0	491.7	79.8	75	125				

Sample ID: **N049761-009C-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569689**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	571.971	20	100.0	491.7	80.3	75	125	571.4	0.0926	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **N049750-019C-PS**	SampType: **PS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date:	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91840**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569662**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	1032.641	20	100.0	990.3	42.4	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **N049761-009C-PS**	SampType: **PS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date:	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	567.296	20	100.0	491.7	75.6	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-001

Client Sample ID: TW-02D-Q122
Collection Date: 3/9/2022 1:36:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	5.8	0.050	0.10		µg/L	1	3/17/2022 04:45 PM
Barium	52	0.083	1.0		µg/L	1	3/17/2022 04:45 PM
Manganese	140	0.026	0.50		µg/L	1	3/17/2022 04:45 PM
Molybdenum	92	0.12	0.50		µg/L	1	3/17/2022 04:45 PM
Selenium	0.63	0.044	0.50		µg/L	1	3/17/2022 04:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-002

Client Sample ID: TW-02S-Q122
Collection Date: 3/9/2022 2:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	1.4	0.050	0.10		µg/L	1	3/17/2022 05:03 PM
Barium	42	0.083	1.0		µg/L	1	3/17/2022 05:03 PM
Manganese	ND	0.026	0.50		µg/L	1	3/17/2022 05:03 PM
Molybdenum	9.7	0.12	0.50		µg/L	1	3/17/2022 05:03 PM
Selenium	2.5	0.044	0.50		µg/L	1	3/17/2022 05:03 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-003

Client Sample ID: TW-03D-Q122
Collection Date: 3/9/2022 3:08:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A				**EPA 6020**		
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**				PrepDate:	**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/17/2022 05:21 PM
Barium	42	0.083	1.0		µg/L	1	3/17/2022 05:21 PM
Manganese	30	0.026	0.50		µg/L	1	3/17/2022 05:21 PM
Molybdenum	65	0.12	0.50		µg/L	1	3/17/2022 05:21 PM
Selenium	1.1	0.044	0.50		µg/L	1	3/17/2022 05:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-004

Client Sample ID: MW-36-020-Q122
Collection Date: 3/9/2022 8:25:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	0.52	0.050	0.10		µg/L	1	3/17/2022 06:21 PM
Barium	88	0.083	1.0		µg/L	1	3/17/2022 06:21 PM
Manganese	270	0.13	2.5		µg/L	5	3/17/2022 06:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-005

Client Sample ID: MW-36-040-Q122
Collection Date: 3/9/2022 10:09:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	7.7	0.050	0.10		µg/L	1	3/17/2022 06:39 PM
Barium	49	0.083	1.0		µg/L	1	3/17/2022 06:39 PM
Manganese	150	0.026	0.50		µg/L	1	3/17/2022 06:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-006

Client Sample ID: MW-36-050-Q122
Collection Date: 3/9/2022 10:41:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	5.2	0.050	0.10		µg/L	1	3/17/2022 06:56 PM
Barium	27	0.083	1.0		µg/L	1	3/17/2022 06:56 PM
Manganese	220	0.13	2.5		µg/L	5	3/17/2022 07:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-007

Client Sample ID: MW-36-070-Q122
Collection Date: 3/9/2022 9:02:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	2.4	0.050	0.10		µg/L	1	3/17/2022 07:32 PM
Barium	32	0.083	1.0		µg/L	1	3/17/2022 07:32 PM
Manganese	220	0.13	2.5		µg/L	5	3/17/2022 07:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-008

Client Sample ID: MW-36-090-Q122
Collection Date: 3/9/2022 9:36:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	0.78	0.050	0.10		µg/L	1	3/17/2022 07:49 PM
Barium	46	0.083	1.0		µg/L	1	3/17/2022 07:49 PM
Manganese	110	0.026	0.50		µg/L	1	3/17/2022 07:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-009

Client Sample ID: MW-36-100-Q122
Collection Date: 3/9/2022 11:13:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	2.8	0.050	0.10		µg/L	1	3/17/2022 08:07 PM
Barium	56	0.083	1.0		µg/L	1	3/17/2022 08:07 PM
Manganese	480	0.13	2.5		µg/L	5	3/17/2022 08:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-010

Client Sample ID: MW-30-030-Q122
Collection Date: 3/9/2022 1:48:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/17/2022 08:55 PM
Barium	120	0.083	1.0		µg/L	1	3/17/2022 08:55 PM
Manganese	79	0.026	0.50		µg/L	1	3/17/2022 08:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049761-012

Client Sample ID: MW-30-050-Q122
Collection Date: 3/9/2022 2:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220317B**	QC Batch: **91843**			PrepDate:		**3/10/2022**	Analyst: **CEI**
Arsenic	2.4	0.050	0.10		µg/L	1	3/17/2022 09:12 PM
Barium	18	0.083	1.0		µg/L	1	3/17/2022 09:12 PM
Manganese	2.1	0.026	0.50		µg/L	1	3/17/2022 09:12 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91843** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/10/2022** RunNo: **160967**
Client ID: **PBW** Batch ID: **91843** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/17/2022** SeqNo: **4570135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Molybdenum	ND	0.50									
Selenium	ND	0.50									

Sample ID: **LCS-91843** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/10/2022** RunNo: **160967**
Client ID: **LCSW** Batch ID: **91843** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/17/2022** SeqNo: **4570136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.425	0.10	10.00	0	104	85	115				
Barium	10.011	1.0	10.00	0	100	85	115				
Manganese	100.536	0.50	100.0	0	101	85	115				
Molybdenum	10.164	0.50	10.00	0	102	85	115				
Selenium	9.828	0.50	10.00	0	98.3	85	115				

Sample ID: **N049760-001C-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/10/2022** RunNo: **160967**
Client ID: **ZZZZZZ** Batch ID: **91843** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/17/2022** SeqNo: **4570146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.382	0.10	10.00	0	104	75	125				
Barium	60.948	1.0	10.00	52.57	83.8	75	125				
Manganese	98.403	0.50	100.0	6.748	91.7	75	125				
Molybdenum	36.394	0.50	10.00	25.53	109	75	125				
Selenium	18.216	0.50	10.00	9.305	89.1	75	125				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049761
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049760-001C-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/10/2022** RunNo: **160967**
Client ID: **ZZZZZZ** Batch ID: **91843** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/17/2022** SeqNo: **4570149**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.638	0.10	10.00	0	106	75	125	10.38	2.44	20	
Barium	61.752	1.0	10.00	52.57	91.8	75	125	60.95	1.31	20	
Manganese	98.386	0.50	100.0	6.748	91.6	75	125	98.40	0.0171	20	
Molybdenum	37.106	0.50	10.00	25.53	116	75	125	36.39	1.94	20	
Selenium	18.444	0.50	10.00	9.305	91.4	75	125	18.22	1.24	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ARCUS02 C: 3/23/2022 12:00 AM
FOLDER R: 3/9/2022
N049761-014A 1 of 1

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted By: Riggie Top	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Field Tech			Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: Date: 7/9/22	Sampled By: Riggie Top		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.			Specify State:	6. Method of Cooling: ICE
Project Name: PG&E Topock - PCM	Signature: Date: 3/9/22				Sample Temp: 3.1°C / 2.5°C IR#3
Project Number: 30121866.1Q22GW					Courier: ASSET
					Tracking No.:

Matrix: Ground X | Sediment; Potable | Soil; NPDES | Other Solid; Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4; (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Nitrate (EPA 300.0) (1 L poly)				TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049761-01	TW-02D-Q122	3/9/2022	13:36		X	X	X	X	X	X		X						E	7	P	BNS	
2	-02	TW-02S-Q122	3/9/2022	14:22		X	X	X	X	X	X		X						E	7	P	BNS	
3	-03	TW-03D-Q122	3/9/2022	15:08		X	X	X	X	X	X		X						E	7	P	BNS	
4	-04	MW-36-020-Q122	3/9/2022	8:25		X		X			X			X					E	6	P	BNS	
5	-05	MW-36-040-Q122	3/9/2022	10:09		X		X			X			X					E	6	P	BNS	
6	-06	MW-36-050-Q122	3/9/2022	10:41		X		X			X			X					E	6	P	BNS	
7	-07	MW-36-070-Q122	3/9/2022	9:02		X		X			X			X	###	###	###	###	E	6	P	BNS	
8	-08	MW-36-090-Q122	3/9/2022	9:36		X		X			X			X	###	###	###	###	E	6	P	BNS	
9	-09	MW-36-100-Q122	3/9/2022	11:13		X		X			X			X					E	6	P	BNS	
10	-10	MW-30-030-Q122	3/9/2022	13:48		X		X			X			X					E	6	P	BNS	
11	-11	MW-30-030-EB-Q122	3/9/2022	13:25		X													E	1	P	BNS	
12	-12	MW-30-050-Q122	3/9/2022	14:22		X		X			X			X					E	6	P	BNS	
13	-13	EB-721-Q122	3/9/2022	14:30		X													E	1	P	BNS	
14															###	###	###	###					

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Riggie Top	3/9/22 1600	Ron Romo Arcadis	3/9/22 1600
Ron Romo Arcadis	3/9/22 1845	Ron Romo Arcadis	3/9/22 1845
Reliquished by (Signature and Printed Name):	Date/Time:	Reliquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
X	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B	(NH4)2SO4/NH4OH	

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/9/2022	Workorder:	N049761
Rep sample Temp (Deg C):	3.1/2.5	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/10/2022

Reviewed By: MBC 3/15/22

ASSET Laboratories

WORK ORDER Summary

10-Mar-22

WorkOrder: N049761

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049761-001A	TW-02D-Q122	3/9/2022 1:36:00 PM	3/23/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-001B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-001C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-001D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-001E			3/23/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049761-002A	TW-02S-Q122	3/9/2022 2:22:00 PM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-002B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-002C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-002D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-002E			3/23/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049761-003A	TW-03D-Q122	3/9/2022 3:08:00 PM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

10-Mar-22

WorkOrder: N049761

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049761-003B	TW-03D-Q122	3/9/2022 3:08:00 PM	3/23/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-003C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-003D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-003E			3/23/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049761-004A	MW-36-020-Q122	3/9/2022 8:25:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-004B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-004C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-004D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-005A	MW-36-040-Q122	3/9/2022 10:09:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-005B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-005C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

10-Mar-22

WorkOrder: N049761

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049761-005D	MW-36-040-Q122	3/9/2022 10:09:00 AM	3/23/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-006A	MW-36-050-Q122	3/9/2022 10:41:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-006B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-006C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-006D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-007A	MW-36-070-Q122	3/9/2022 9:02:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-007B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-007C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-007D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-008A	MW-36-090-Q122	3/9/2022 9:36:00 AM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-008B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-008C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-008D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW

ASSET Laboratories

WORK ORDER Summary

10-Mar-22

WorkOrder: N049761

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049761-009A	MW-36-100-Q122	3/9/2022 11:13:00 AM	3/23/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-009B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-009C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-009D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-010A	MW-30-030-Q122	3/9/2022 1:48:00 PM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-010B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-010C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-010D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049761-011A	MW-30-030-EB-Q122	3/9/2022 1:25:00 PM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-012A	MW-30-050-Q122	3/9/2022 2:22:00 PM	3/23/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-012B			3/23/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049761-012C			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/23/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/23/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049761-012D			3/23/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW

ASSET Laboratories

WORK ORDER Summary

10-Mar-22

WorkOrder: N049761

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/9/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049761-013A	EB-721-Q122	3/9/2022 2:30:00 PM	3/23/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049761-014A	FOLDER	3/23/2022	3/23/2022		Folder	Folder	☐	☐	☐	LAB
			3/23/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/23/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Riggie Tep

10-Mar-22

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**SM4500-NH3D**		
N049761-001E / TW-02D-Q122	Groundwater	3/9/2022 1:36:00 PM	16OZP	1		
N049761-002E / TW-02S-Q122	Groundwater	3/9/2022 2:22:00 PM	16OZP	1		
N049761-003E / TW-03D-Q122	Groundwater	3/9/2022 3:08:00 PM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49761A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Standard TAT

Please analyze for Ammonia by (SM4500NH3D). EDD requirement Labspec7 edata.

GSO #:556287831

		Date/Time			Date/Time
Relinquished by:	GGarcia	3/10/2022 16:30	**Received by:**		
Relinquished by:			**Received by:**		

March 24, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049787

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 10, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

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CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049774-001H-MS and N049774-001H-MSD at lower dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049774-001H and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *24-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049787
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049787-001A	IRZ-23-0322	Groundwater	3/10/2022 3:15:00 PM	3/10/2022	3/24/2022
N049787-001B	IRZ-23-0322	Groundwater	3/10/2022 3:15:00 PM	3/10/2022	3/24/2022
N049787-001C	IRZ-23-0322	Groundwater	3/10/2022 3:15:00 PM	3/10/2022	3/24/2022
N049787-001D	IRZ-23-0322	Groundwater	3/10/2022 3:15:00 PM	3/10/2022	3/24/2022
N049787-002A	IRZ-09-0322	Groundwater	3/10/2022 3:30:00 PM	3/10/2022	3/24/2022
N049787-002B	IRZ-09-0322	Groundwater	3/10/2022 3:30:00 PM	3/10/2022	3/24/2022
N049787-002C	IRZ-09-0322	Groundwater	3/10/2022 3:30:00 PM	3/10/2022	3/24/2022
N049787-002D	IRZ-09-0322	Groundwater	3/10/2022 3:30:00 PM	3/10/2022	3/24/2022

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-001

Client Sample ID: IRZ-23-0322
Collection Date: 3/10/2022 3:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	900	2.5	20		µg/L	100	3/11/2022 01:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-002

Client Sample ID: IRZ-09-0322
Collection Date: 3/10/2022 3:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	6.7	0.025	0.20		µg/L	1	3/11/2022 12:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160784** SampType: **MBLK** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **PBW** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160784** SampType: **LCS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **LCSW** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.059	0.20	5.000	0	101	90	110				

Sample ID: **N049791-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561589**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2825.060	40	1000	1807	102	90	110				

Sample ID: **N049791-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561591**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10652.200	200	5000	5693	99.2	90	110				

Sample ID: **N049791-002AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10797.500	200	5000	5693	102	90	110	10650	1.35	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049791-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10945.600	200	5000	5711	105	90	110				

Sample ID: **N049774-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	17.151	1.0						17.34	1.08	20	

Sample ID: **N049774-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	42.987	1.0	25.00	17.34	103	90	110				

Sample ID: **N049774-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	619.095	10	250.0	354.5	106	90	110				

Sample ID: **N049787-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561603**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	12.083	0.20	5.000	6.707	108	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049787-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1355.320	20	500.0	903.4	90.4	90	110				

Sample ID: **N049789-021AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.033	0.20	1.000	0	103	90	110				

Sample ID: **N049789-022AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.044	0.20	1.000	0	104	90	110				

Sample ID: **N049789-025AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.003	0.20	1.000	0	100	90	110				

Sample ID: **N049789-026AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561617**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.037	0.20	1.000	0	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-027AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561619**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.996	0.20	1.000	0	99.6	90	110				

Sample ID: **N049789-014AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.152	1.0	5.000	0	103	90	110				

Sample ID: **N049789-024AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561625**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.109	1.0	5.000	0	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-001

Client Sample ID: IRZ-23-0322
Collection Date: 3/10/2022 3:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316B**	QC Batch: **R160926**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 01:59 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-002

Client Sample ID: IRZ-09-0322
Collection Date: 3/10/2022 3:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316B**	QC Batch: **R160926**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 02:14 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160926**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160926**
Client ID: **PBW**	Batch ID: **R160926**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4568395**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160926**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160926**
Client ID: **LCSW**	Batch ID: **R160926**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4568396**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.158	1.0	5.000	0	103	85	115				

Sample ID: **N049774-001H-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160926**
Client ID: **ZZZZZZ**	Batch ID: **R160926**	TestNo: **SM 5310C**		Analysis Date: **3/17/2022**	SeqNo: **4568432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	258.915	50	250.0	8.930	100	75	125				

Sample ID: **N049774-001H-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160926**
Client ID: **ZZZZZZ**	Batch ID: **R160926**	TestNo: **SM 5310C**		Analysis Date: **3/17/2022**	SeqNo: **4568434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	262.980	50	250.0	8.930	102	75	125	258.9	1.56	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-001

Client Sample ID: IRZ-23-0322
Collection Date: 3/10/2022 3:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220321A**	QC Batch: **91967**			PrepDate:		**3/18/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/21/2022 11:29 AM
TOTAL METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220322C**	QC Batch: **91920**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	110	13	20		µg/L	1	3/22/2022 04:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-002

Client Sample ID: IRZ-09-0322
Collection Date: 3/10/2022 3:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220321A**	QC Batch: **91967**			PrepDate:		**3/18/2022**	Analyst: **DJ**
Iron	22	13	20		µg/L	1	3/21/2022 11:50 AM
TOTAL METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220322C**	QC Batch: **91920**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	81	13	20		µg/L	1	3/22/2022 04:05 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91967**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **PBW**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91967**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **LCSW**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570576**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	92.250	20	100.0	0	92.2	85	115				

Sample ID: **N049787-001B-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **ZZZZZZ**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570580**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	88.620	20	100.0	0	88.6	75	125				

Sample ID: **N049787-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **ZZZZZZ**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570581**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	95.853	20	100.0	0	95.9	75	125	88.62	7.84	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WPGEPPB

Sample ID: **MB-91920**	SampType: **MBLK**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161016**
Client ID: **PBW**	Batch ID: **91920**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/22/2022**	SeqNo: **4572450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS1-91920**	SampType: **LCS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161016**
Client ID: **LCSW**	Batch ID: **91920**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/22/2022**	SeqNo: **4572451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	105.218	20	100.0	0	105	85	115				

Sample ID: **N049774-001J-MS1**	SampType: **MS**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161016**
Client ID: **ZZZZZZ**	Batch ID: **91920**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/22/2022**	SeqNo: **4572455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	122.522	20	100.0	23.97	98.6	75	125				

Sample ID: **N049774-001J-MSD1**	SampType: **MSD**	TestCode: **6010_WPGEP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161016**
Client ID: **ZZZZZZ**	Batch ID: **91920**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/22/2022**	SeqNo: **4572456**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	106.200	20	100.0	23.97	82.2	75	125	122.5	14.3	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049787-001

Client Sample ID: IRZ-23-0322
Collection Date: 3/10/2022 3:15:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Manganese	ND	0.026	0.50		µg/L	1	3/21/2022 12:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	IRZ-09-0322
Lab Order:	N049787	**Collection Date:**	3/10/2022 3:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049787-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Manganese	1.6	0.026	0.50		µg/L	1	3/21/2022 01:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049787
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91916**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **PBW**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571261**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Sample ID: **LCS-91916**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **LCSW**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571262**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	101.412	0.50	100.0	0	101	85	115				

Sample ID: **N049787-001B-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **ZZZZZZ**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571268**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	88.421	0.50	100.0	0	88.4	75	125				

Sample ID: **N049787-001B-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **ZZZZZZ**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571272**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	88.916	0.50	100.0	0	88.9	75	125	88.42	0.559	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	1. Chilled ✓
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Geotracker	RWQCB ✓	2. Headspace
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	3. Container Intact ✓
Submitted By: Kevin/GARY		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	4. Seal Present ✓
Title: O+M Operator	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	5. IR number 3
Signature: Date: 3/10/22	Sampled By: Kevin/GARY		Global ID:	Regulatory	6. Method of Cooling: ICE
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.			Specify State:	Sample Temp: 2.8°C
Project Name: PG&E Topock - PCM	Signature: Date: 3/10/22				Courier: ASSET
Project Number: 30121866.1Q22GW					Tracking No.:

Matrix: Ground X | Potable | NPDES | Surface; Sediment X | Soil | Other Solid

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate/Nitrite (SM4500N03) Nitrogen; H2SO4 (125 mL poly)	Dissolved metals (SW6020) FF; HNO3 Iron, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049787-01	IRZ-23-0322	3/10/22	3:15P		X		X			X	X	E	2	P	BNS	
2	-02	IRZ-09-0322	3/10/22	3:30P		X		X			X	X	E	2	P	BNS	
3													E	6	P	BNS	
4													E	6	P	BNS	
5													E	1	P	BNS	
													E	1	P	BNS	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Kevin Ashley	3/10/22 3:57PM	Dan ROMEO ARCAMBAR	3/10/22 3:57
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Dan ROMEO ARCAMBAR	3/10/22 1846	Dan ROMEO ARCAMBAR	3/10/22 1846
Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [x] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/10/2022	Workorder:	N049787
Rep sample Temp (Deg C):	2.8	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 3/14/2022

Reviewed By: MBC 3/17/2022

ASSET Laboratories

WORK ORDER Summary

11-Mar-22

WorkOrder: N049787

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049787-001A	IRZ-23-0322	3/10/2022 3:15:00 PM	3/24/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049787-001B			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049787-001C			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049787-001D			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	TOTAL METALS BY ICP	☐	☐	☐	WW
N049787-002A	IRZ-09-0322	3/10/2022 3:30:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049787-002B			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049787-002C			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049787-002D			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	TOTAL METALS BY ICP	☐	☐	☐	WW
N049787-003A	FOLDER	3/24/2022	3/24/2022		Folder	Folder	☐	☐	☐	LAB
			3/24/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/24/2022		Folder	Folder	☐	☐	☐	LAB

March 24, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049789

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 10, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Ammonia was subcontracted to BC Labs- Bakersfield,CA.

Analytical Comments for EPA 218.6:

Dilution was necessary for some samples due to matrix interference. Samples were analyzed at lower dilution however matrix spike recovery and/or retention time criteria were not met indicating possible matrix interference. Samples were reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Analytical Comments for EPA 300.0:

Dilution was necessary due to precipitation of samples upon the addition of eluent.

Analytical Comments for EPA 6020_Dissolved:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049787-001B-MS and N049787-001B-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049789-001D-MS/MSD at 1x dilution possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049789-001D and MS/MSD were reported at 5x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049789
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049789-001A	MW-20-070-Q122	Groundwater	3/10/2022 10:50:00 AM	3/10/2022	3/24/2022
N049789-001B	MW-20-070-Q122	Groundwater	3/10/2022 10:50:00 AM	3/10/2022	3/24/2022
N049789-001C	MW-20-070-Q122	Groundwater	3/10/2022 10:50:00 AM	3/10/2022	3/24/2022
N049789-001D	MW-20-070-Q122	Groundwater	3/10/2022 10:50:00 AM	3/10/2022	3/24/2022
N049789-001E	MW-20-070-Q122	Groundwater	3/10/2022 10:50:00 AM	3/10/2022	3/24/2022
N049789-002A	MW-903-Q122	Groundwater	3/10/2022 11:00:00 AM	3/10/2022	3/24/2022
N049789-002B	MW-903-Q122	Groundwater	3/10/2022 11:00:00 AM	3/10/2022	3/24/2022
N049789-002C	MW-903-Q122	Groundwater	3/10/2022 11:00:00 AM	3/10/2022	3/24/2022
N049789-002D	MW-903-Q122	Groundwater	3/10/2022 11:00:00 AM	3/10/2022	3/24/2022
N049789-002E	MW-903-Q122	Groundwater	3/10/2022 11:00:00 AM	3/10/2022	3/24/2022
N049789-003A	MW-20-100-Q122	Groundwater	3/10/2022 3:00:00 PM	3/10/2022	3/24/2022
N049789-003B	MW-20-100-Q122	Groundwater	3/10/2022 3:00:00 PM	3/10/2022	3/24/2022
N049789-003C	MW-20-100-Q122	Groundwater	3/10/2022 3:00:00 PM	3/10/2022	3/24/2022
N049789-003D	MW-20-100-Q122	Groundwater	3/10/2022 3:00:00 PM	3/10/2022	3/24/2022
N049789-003E	MW-20-100-Q122	Groundwater	3/10/2022 3:00:00 PM	3/10/2022	3/24/2022
N049789-004A	MW-20-130-Q122	Groundwater	3/10/2022 11:29:00 AM	3/10/2022	3/24/2022
N049789-004B	MW-20-130-Q122	Groundwater	3/10/2022 11:29:00 AM	3/10/2022	3/24/2022
N049789-004C	MW-20-130-Q122	Groundwater	3/10/2022 11:29:00 AM	3/10/2022	3/24/2022
N049789-004D	MW-20-130-Q122	Groundwater	3/10/2022 11:29:00 AM	3/10/2022	3/24/2022
N049789-004E	MW-20-130-Q122	Groundwater	3/10/2022 11:29:00 AM	3/10/2022	3/24/2022
N049789-005A	MW-34-055-Q122	Groundwater	3/10/2022 11:30:00 AM	3/10/2022	3/24/2022
N049789-005B	MW-34-055-Q122	Groundwater	3/10/2022 11:30:00 AM	3/10/2022	3/24/2022
N049789-005C	MW-34-055-Q122	Groundwater	3/10/2022 11:30:00 AM	3/10/2022	3/24/2022
N049789-005D	MW-34-055-Q122	Groundwater	3/10/2022 11:30:00 AM	3/10/2022	3/24/2022
N049789-006A	MW-34-055-EB-Q122	Groundwater	3/10/2022 11:05:00 AM	3/10/2022	3/24/2022
N049789-007A	MW-34-080-Q122	Groundwater	3/10/2022 10:54:00 AM	3/10/2022	3/24/2022
N049789-007B	MW-34-080-Q122	Groundwater	3/10/2022 10:54:00 AM	3/10/2022	3/24/2022
N049789-007C	MW-34-080-Q122	Groundwater	3/10/2022 10:54:00 AM	3/10/2022	3/24/2022
N049789-007D	MW-34-080-Q122	Groundwater	3/10/2022 10:54:00 AM	3/10/2022	3/24/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049789
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049789-008A	MW-34-080-EB-Q122	Groundwater	3/10/2022 10:30:00 AM	3/10/2022	3/24/2022
N049789-009A	MW-34-100-Q122	Groundwater	3/10/2022 10:18:00 AM	3/10/2022	3/24/2022
N049789-009B	MW-34-100-Q122	Groundwater	3/10/2022 10:18:00 AM	3/10/2022	3/24/2022
N049789-009C	MW-34-100-Q122	Groundwater	3/10/2022 10:18:00 AM	3/10/2022	3/24/2022
N049789-009D	MW-34-100-Q122	Groundwater	3/10/2022 10:18:00 AM	3/10/2022	3/24/2022
N049789-010A	MW-27-020-Q122	Groundwater	3/10/2022 8:38:00 AM	3/10/2022	3/24/2022
N049789-010B	MW-27-020-Q122	Groundwater	3/10/2022 8:38:00 AM	3/10/2022	3/24/2022
N049789-010C	MW-27-020-Q122	Groundwater	3/10/2022 8:38:00 AM	3/10/2022	3/24/2022
N049789-010D	MW-27-020-Q122	Groundwater	3/10/2022 8:38:00 AM	3/10/2022	3/24/2022
N049789-011A	MW-27-020-EB-Q122	Groundwater	3/10/2022 8:10:00 AM	3/10/2022	3/24/2022
N049789-012A	MW-27-060-Q122	Groundwater	3/10/2022 9:14:00 AM	3/10/2022	3/24/2022
N049789-012B	MW-27-060-Q122	Groundwater	3/10/2022 9:14:00 AM	3/10/2022	3/24/2022
N049789-012C	MW-27-060-Q122	Groundwater	3/10/2022 9:14:00 AM	3/10/2022	3/24/2022
N049789-012D	MW-27-060-Q122	Groundwater	3/10/2022 9:14:00 AM	3/10/2022	3/24/2022
N049789-013A	MW-27-060-EB-Q122	Groundwater	3/10/2022 8:50:00 AM	3/10/2022	3/24/2022
N049789-014A	MW-27-085-Q122	Groundwater	3/10/2022 9:44:00 AM	3/10/2022	3/24/2022
N049789-014B	MW-27-085-Q122	Groundwater	3/10/2022 9:44:00 AM	3/10/2022	3/24/2022
N049789-014C	MW-27-085-Q122	Groundwater	3/10/2022 9:44:00 AM	3/10/2022	3/24/2022
N049789-014D	MW-27-085-Q122	Groundwater	3/10/2022 9:44:00 AM	3/10/2022	3/24/2022
N049789-015A	MW-27-085-EB-Q122	Groundwater	3/10/2022 9:20:00 AM	3/10/2022	3/24/2022
N049789-016A	MW-42-030-Q122	Groundwater	3/10/2022 3:20:00 PM	3/10/2022	3/24/2022
N049789-016B	MW-42-030-Q122	Groundwater	3/10/2022 3:20:00 PM	3/10/2022	3/24/2022
N049789-016C	MW-42-030-Q122	Groundwater	3/10/2022 3:20:00 PM	3/10/2022	3/24/2022
N049789-016D	MW-42-030-Q122	Groundwater	3/10/2022 3:20:00 PM	3/10/2022	3/24/2022
N049789-017A	MW-42-055-Q122	Groundwater	3/10/2022 2:44:00 PM	3/10/2022	3/24/2022
N049789-017B	MW-42-055-Q122	Groundwater	3/10/2022 2:44:00 PM	3/10/2022	3/24/2022
N049789-017C	MW-42-055-Q122	Groundwater	3/10/2022 2:44:00 PM	3/10/2022	3/24/2022
N049789-017D	MW-42-055-Q122	Groundwater	3/10/2022 2:44:00 PM	3/10/2022	3/24/2022
N049789-018A	MW-42-055-EB-Q122	Groundwater	3/10/2022 2:20:00 PM	3/10/2022	3/24/2022
N049789-019A	MW-42-065-Q122	Groundwater	3/10/2022 2:10:00 PM	3/10/2022	3/24/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049789
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049789-019B	MW-42-065-Q122	Groundwater	3/10/2022 2:10:00 PM	3/10/2022	3/24/2022
N049789-019C	MW-42-065-Q122	Groundwater	3/10/2022 2:10:00 PM	3/10/2022	3/24/2022
N049789-019D	MW-42-065-Q122	Groundwater	3/10/2022 2:10:00 PM	3/10/2022	3/24/2022
N049789-020A	MW-42-065-EB-Q122	Groundwater	3/10/2022 1:45:00 PM	3/10/2022	3/24/2022
N049789-021A	MW-44-070-Q122	Groundwater	3/10/2022 1:30:00 PM	3/10/2022	3/24/2022
N049789-021B	MW-44-070-Q122	Groundwater	3/10/2022 1:30:00 PM	3/10/2022	3/24/2022
N049789-021C	MW-44-070-Q122	Groundwater	3/10/2022 1:30:00 PM	3/10/2022	3/24/2022
N049789-021D	MW-44-070-Q122	Groundwater	3/10/2022 1:30:00 PM	3/10/2022	3/24/2022
N049789-022A	MW-44-070-EB-Q122	Groundwater	3/10/2022 1:05:00 PM	3/10/2022	3/24/2022
N049789-023A	MW-44-115-Q122	Groundwater	3/10/2022 12:08:00 PM	3/10/2022	3/24/2022
N049789-023B	MW-44-115-Q122	Groundwater	3/10/2022 12:08:00 PM	3/10/2022	3/24/2022
N049789-023C	MW-44-115-Q122	Groundwater	3/10/2022 12:08:00 PM	3/10/2022	3/24/2022
N049789-023D	MW-44-115-Q122	Groundwater	3/10/2022 12:08:00 PM	3/10/2022	3/24/2022
N049789-024A	MW-44-125-Q122	Groundwater	3/10/2022 12:48:00 PM	3/10/2022	3/24/2022
N049789-024B	MW-44-125-Q122	Groundwater	3/10/2022 12:48:00 PM	3/10/2022	3/24/2022
N049789-024C	MW-44-125-Q122	Groundwater	3/10/2022 12:48:00 PM	3/10/2022	3/24/2022
N049789-024D	MW-44-125-Q122	Groundwater	3/10/2022 12:48:00 PM	3/10/2022	3/24/2022
N049789-025A	MW-44-125-EB-Q122	Groundwater	3/10/2022 12:20:00 PM	3/10/2022	3/24/2022
N049789-026A	EB-722-Q122	Groundwater	3/10/2022 3:30:00 PM	3/10/2022	3/24/2022
N049789-027A	EB-723-Q122	Groundwater	3/10/2022 3:10:00 PM	3/10/2022	3/24/2022

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-001

Client Sample ID: MW-20-070-Q122
Collection Date: 3/10/2022 10:50:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B** QC Batch: **R160785**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	450	2.5	20		µg/L	100	3/11/2022 07:33 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220321A** QC Batch: **91916**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	420	0.18	5.0		µg/L	5	3/21/2022 02:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-002

Client Sample ID: MW-903-Q122
Collection Date: 3/10/2022 11:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B** QC Batch: **R160785**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	450	2.5	20		µg/L	100	3/11/2022 07:52 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220321A** QC Batch: **91916**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	450	0.18	5.0		µg/L	5	3/21/2022 02:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-003

Client Sample ID: MW-20-100-Q122
Collection Date: 3/10/2022 3:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B** QC Batch: **R160785**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2100	5.0	40		µg/L	200	3/11/2022 06:18 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220321A** QC Batch: **91916**				PrepDate: **3/15/2022**			Analyst: **CEI**
Chromium	2000	0.88	25		µg/L	25	3/21/2022 02:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-004

Client Sample ID: MW-20-130-Q122
Collection Date: 3/10/2022 11:29:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	4800	25	200		µg/L	1000	3/11/2022 06:46 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	4500	0.88	25		µg/L	25	3/21/2022 02:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-005

Client Sample ID: MW-34-055-Q122
Collection Date: 3/10/2022 11:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220314A**	QC Batch: **R160808**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	0.27	0.025	0.20		µg/L	1	3/14/2022 02:47 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-055-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:05:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 08:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-080-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:54:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 09:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-080-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220314A**	QC Batch: **R160808**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/14/2022 01:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-009

Client Sample ID: MW-34-100-Q122
Collection Date: 3/10/2022 10:18:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/12/2022 02:32 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-020-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 8:38:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 10:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-020-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 8:10:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 11:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-060-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 11:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-060-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 8:50:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/12/2022 12:01 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-085-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/11/2022 04:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-085-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:20:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220314A**	QC Batch: **R160808**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/14/2022 02:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-016

Client Sample ID: MW-42-030-Q122
Collection Date: 3/10/2022 3:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/12/2022 12:39 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-055-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/12/2022 12:58 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-055-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-018		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/12/2022 01:36 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-065-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:10:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/12/2022 01:54 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-065-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 1:45:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-020		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311B**	QC Batch: **R160785**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/12/2022 02:13 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-070-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 1:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 02:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-022

Client Sample ID: MW-44-070-EB-Q122
Collection Date: 3/10/2022 1:05:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 03:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-115-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:08:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220314A**	QC Batch: **R160808**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/14/2022 12:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-125-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-024		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/11/2022 05:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-125-EB-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-025		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 03:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-026

Client Sample ID: EB-722-Q122
Collection Date: 3/10/2022 3:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 03:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-723-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 3:10:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-027		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/11/2022 04:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160784** SampType: **MBLK** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **PBW** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160784** SampType: **LCS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **LCSW** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.059	0.20	5.000	0	101	90	110				

Sample ID: **N049791-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561589**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2825.060	40	1000	1807	102	90	110				

Sample ID: **N049791-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561591**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10652.200	200	5000	5693	99.2	90	110				

Sample ID: **N049791-002AMSD** SampType: **MSD** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10797.500	200	5000	5693	102	90	110	10650	1.35	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049791-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10945.600	200	5000	5711	105	90	110				

Sample ID: **N049774-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	17.151	1.0						17.34	1.08	20	

Sample ID: **N049774-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	42.987	1.0	25.00	17.34	103	90	110				

Sample ID: **N049774-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	619.095	10	250.0	354.5	106	90	110				

Sample ID: **N049787-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561603**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	12.083	0.20	5.000	6.707	108	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049787-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1355.320	20	500.0	903.4	90.4	90	110				

Sample ID: **N049789-021AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.033	0.20	1.000	0	103	90	110				

Sample ID: **N049789-022AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.044	0.20	1.000	0	104	90	110				

Sample ID: **N049789-025AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.003	0.20	1.000	0	100	90	110				

Sample ID: **N049789-026AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561617**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.037	0.20	1.000	0	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-027AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561619**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.996	0.20	1.000	0	99.6	90	110				

Sample ID: **N049789-014AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.152	1.0	5.000	0	103	90	110				

Sample ID: **N049789-024AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561625**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.109	1.0	5.000	0	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **LCS-R160785**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **LCSW**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.214	0.20	5.000	0	104	90	110				

Sample ID: **MB-R160785**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **PBW**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561635**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **N049789-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561637**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3113.800	40	1000	2092	102	90	110				

Sample ID: **N049789-003AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3111.280	40	1000	2092	102	90	110	3114	0.0810	20	

Sample ID: **N049789-004ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4818.300	200						4846	0.581	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10016.200	200	5000	4846	103	90	110				

Sample ID: **N049789-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	965.650	20	500.0	448.7	103	90	110				

Sample ID: **N049789-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561647**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	963.330	20	500.0	451.5	102	90	110				

Sample ID: **N049789-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Sample ID: **N049789-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.071	0.20	1.000	0	107	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-010AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561655**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.024	0.20	1.000	0	102	90	110				

Sample ID: **N049789-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.081	0.20	1.000	0	108	90	110				

Sample ID: **N049789-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561661**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.094	0.20	1.000	0	109	90	110				

Sample ID: **N049789-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561663**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.027	0.20	1.000	0	103	90	110				

Sample ID: **N049789-016AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561665**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.087	0.20	1.000	0	109	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-017AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.087	0.20	1.000	0	109	90	110				

Sample ID: **N049789-018AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561671**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.032	0.20	1.000	0	103	90	110				

Sample ID: **N049789-019AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561673**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.058	0.20	1.000	0	106	90	110				

Sample ID: **N049789-020AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561675**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.075	0.20	1.000	0	107	90	110				

Sample ID: **N049789-009AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160785**
Client ID: **ZZZZZZ** Batch ID: **R160785** TestNo: **EPA 218.6** Analysis Date: **3/12/2022** SeqNo: **4561677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.065	1.0	5.000	0	101	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049761-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160785**
Client ID: **ZZZZZZ**	Batch ID: **R160785**	TestNo: **EPA 218.6**		Analysis Date: **3/12/2022**	SeqNo: **4561679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	113.556	2.0	50.00	63.52	100	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160808**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **PBW**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562723**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160808**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **LCSW**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562724**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.047	0.20	5.000	0	101	90	110				

Sample ID: **N049789-023AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **ZZZZZZ**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562726**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.162	1.0	5.000	0	103	90	110				

Sample ID: **N049789-005ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **ZZZZZZ**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.265	0.20						0.2728	2.83	20	

Sample ID: **N049789-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **ZZZZZZ**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562728**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.348	0.20	1.000	0.2728	108	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-005AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **ZZZZZZ**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562729**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.331	0.20	1.000	0.2728	106	90	110	1.348	1.28	20	

Sample ID: **N049789-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **ZZZZZZ**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.041	0.20	1.000	0	104	90	110				

Sample ID: **N049789-015AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160808**
Client ID: **ZZZZZZ**	Batch ID: **R160808**	TestNo: **EPA 218.6**		Analysis Date: **3/14/2022**	SeqNo: **4562735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.092	0.20	1.000	0	109	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91916**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **PBW**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571197**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.269	1.0									

Sample ID: **LCS-91916**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **LCSW**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571198**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.305	1.0	10.00	0	103	85	115				

Sample ID: **N049787-001B-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **ZZZZZZ**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571205**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	822.796	5.0	10.00	795.4	274	75	125				S

Sample ID: **N049787-001B-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **161000**
Client ID: **ZZZZZZ**	Batch ID: **91916**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4571209**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	838.798	5.0	10.00	795.4	434	75	125	822.8	1.93	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out
- Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **N049787-001B-PS** SampType: **PS** TestCode: **6020DIS_CrP** Units: **µg/L** Prep Date: RunNo: **161000**
Client ID: **ZZZZZZ** Batch ID: **91916** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/21/2022** SeqNo: **4571203**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	824.914	5.0	10.00	795.4	295	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-001

Client Sample ID: MW-20-070-Q122
Collection Date: 3/10/2022 10:50:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	300	3.0	25		mg/L	50	3/11/2022 10:49 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Nitrate as N	17	0.19	1.0		mg/L	20	3/11/2022 06:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-002

Client Sample ID: MW-903-Q122
Collection Date: 3/10/2022 11:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	300	3.0	25		mg/L	50	3/11/2022 11:04 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Nitrate as N	17	0.19	1.0		mg/L	20	3/11/2022 06:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-003

Client Sample ID: MW-20-100-Q122
Collection Date: 3/10/2022 3:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	400	3.0	25		mg/L	50	3/11/2022 11:19 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.3	0.095	0.50		mg/L	10	3/11/2022 05:27 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-004

Client Sample ID: MW-20-130-Q122
Collection Date: 3/10/2022 11:29:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	950	6.1	50		mg/L	100	3/11/2022 11:35 PM
ANIONS BY ION CHROMATOGRAPHY				**EPA 300.0**			
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.0	0.095	0.50		mg/L	10	3/11/2022 06:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-055-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 12:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-080-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:54:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/11/2022 12:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-100-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:18:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 01:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-020-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 8:38:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 01:23 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-060-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-085-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.048	0.25		mg/L	5	3/11/2022 01:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-030-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 3:20:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-016		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 04:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-055-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 02:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-065-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:10:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 03:10 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-070-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 1:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 03:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-115-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:08:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.019	0.10		mg/L	2	3/11/2022 03:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-125-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-024		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A**	QC Batch: **R160762**			PrepDate:			Analyst: **RAB**
Nitrate as N	0.10	0.019	0.10		mg/L	2	3/11/2022 03:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **LCS-R160763_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **LCSW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561327**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.975	0.50	4.000	0	99.4	90	110				

Sample ID: **MB-R160763_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **PBW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **N049791-002BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1293.070	50	400.0	857.4	109	80	120				

Sample ID: **N049791-002BMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1297.730	50	400.0	857.4	110	80	120	1293	0.360	20	

Sample ID: **N049761-003BDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561337**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	915.887	50						922.4	0.713	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049761-003BMS** SampType: **MS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160763**
Client ID: **ZZZZZZ** Batch ID: **R160763** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4561338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1313.110	50	400.0	922.4	97.7	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160762_NO3** SampType: **MBLK** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160762**
Client ID: **PBW** Batch ID: **R160762** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4560536**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160762_NO3** SampType: **LCS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160762**
Client ID: **LCSW** Batch ID: **R160762** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4560537**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.255	0.050	1.250	0	100	90	110				

Sample ID: **N049774-002EMS** SampType: **MS** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160762**
Client ID: **ZZZZZZ** Batch ID: **R160762** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4560540**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.436	0.50	12.50	1.625	94.5	80	120				

Sample ID: **N049774-002EMSD** SampType: **MSD** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160762**
Client ID: **ZZZZZZ** Batch ID: **R160762** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4560541**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.571	0.50	12.50	1.625	95.6	80	120	13.44	1.00	20	

Sample ID: **N049774-002EDUP** SampType: **DUP** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160762**
Client ID: **ZZZZZZ** Batch ID: **R160762** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4560542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.726	0.50						1.625	6.03	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049782-001DMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560562**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.263	0.050	1.250	0.02170	99.3	80	120				

Sample ID: **N049782-001DMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.209	0.050	1.250	0.02170	95.0	80	120	1.263	4.33	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **LCS-R160763_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **LCSW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.205	0.050	1.250	0	96.4	90	110				

Sample ID: **MB-R160763_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **PBW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561307**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **N049789-003BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	21.328	0.50	12.50	9.348	95.8	80	120				

Sample ID: **N049789-003BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	21.541	0.50	12.50	9.348	97.5	80	120	21.33	0.994	20	

Sample ID: **N049789-004BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561316**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	9.171	0.50						9.042	1.42	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:50:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.42	5.0		mg/L	5	3/17/2022 04:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-903-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:00:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 06:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 3:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 06:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:29:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 06:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-055-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 07:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-080-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:54:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 07:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-100-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:18:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 07:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-010

Client Sample ID: MW-27-020-Q122
Collection Date: 3/10/2022 8:38:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.0	0.084	1.0		mg/L	1	3/17/2022 07:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-060-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.3	0.084	1.0		mg/L	1	3/17/2022 08:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-085-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 08:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-016

Client Sample ID: MW-42-030-Q122
Collection Date: 3/10/2022 3:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	1.8	0.084	1.0		mg/L	1	3/17/2022 09:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-055-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-017		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 09:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-019

Client Sample ID: MW-42-065-Q122
Collection Date: 3/10/2022 2:10:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 09:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-070-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 1:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 09:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-115-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:08:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 10:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-125-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-024		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220317A**	QC Batch: **R160936**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/17/2022 10:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160936**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160936**
Client ID: **PBW**	Batch ID: **R160936**	TestNo: **SM 5310C**		Analysis Date: **3/17/2022**	SeqNo: **4568888**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160936**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160936**
Client ID: **LCSW**	Batch ID: **R160936**	TestNo: **SM 5310C**		Analysis Date: **3/17/2022**	SeqNo: **4568889**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.176	1.0	5.000	0	104	85	115				

Sample ID: **N049789-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160936**
Client ID: **ZZZZZZ**	Batch ID: **R160936**	TestNo: **SM 5310C**		Analysis Date: **3/17/2022**	SeqNo: **4568894**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	23.759	5.0	25.00	0.5175	93.0	75	125				

Sample ID: **N049789-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160936**
Client ID: **ZZZZZZ**	Batch ID: **R160936**	TestNo: **SM 5310C**		Analysis Date: **3/17/2022**	SeqNo: **4568895**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	23.970	5.0	25.00	0.5175	93.8	75	125	23.76	0.884	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-070-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:50:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 01:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-903-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:00:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 01:53 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-100-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 3:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	100	13	20		µg/L	1	3/19/2022 01:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-20-130-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:29:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	41	13	20		µg/L	1	3/19/2022 02:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-055-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 11:30:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	43	13	20		µg/L	1	3/19/2022 02:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-34-080-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 10:54:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	320	13	20		µg/L	1	3/19/2022 02:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-009

Client Sample ID: MW-34-100-Q122
Collection Date: 3/10/2022 10:18:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	77	13	20		µg/L	1	3/19/2022 02:23 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-010

Client Sample ID: MW-27-020-Q122
Collection Date: 3/10/2022 8:38:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	34	13	20		µg/L	1	3/19/2022 02:28 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-060-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:14:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	340	13	20		µg/L	1	3/19/2022 02:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-27-085-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 9:44:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	140	13	20		µg/L	1	3/19/2022 02:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-016

Client Sample ID: MW-42-030-Q122
Collection Date: 3/10/2022 3:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	570	13	20		µg/L	1	3/19/2022 02:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-017

Client Sample ID: MW-42-055-Q122
Collection Date: 3/10/2022 2:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	200	13	20		µg/L	1	3/19/2022 02:46 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-42-065-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 2:10:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-019		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	92	13	20		µg/L	1	3/19/2022 02:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-070-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 1:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-021		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	450	13	20		µg/L	1	3/19/2022 03:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-115-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:08:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-023		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/19/2022 03:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-024

Client Sample ID: MW-44-125-Q122
Collection Date: 3/10/2022 12:48:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220319A**	QC Batch: **91918**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	270	13	20		µg/L	1	3/19/2022 03:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91918**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **PBW**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91918**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **LCSW**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.061	20	100.0	0	99.1	85	115				

Sample ID: **N049761-009C-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569688**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	571.442	20	100.0	491.7	79.8	75	125				

Sample ID: **N049761-009C-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160957**
Client ID: **ZZZZZZ**	Batch ID: **91918**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/19/2022**	SeqNo: **4569689**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	571.971	20	100.0	491.7	80.3	75	125	571.4	0.0926	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-001

Client Sample ID: MW-20-070-Q122
Collection Date: 3/10/2022 10:50:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	1.5	0.050	0.10		µg/L	1	3/21/2022 01:56 PM
Barium	26	0.083	1.0		µg/L	1	3/21/2022 01:56 PM
Manganese	ND	0.026	0.50		µg/L	1	3/21/2022 01:56 PM
Molybdenum	20	0.12	0.50		µg/L	1	3/21/2022 01:56 PM
Selenium	15	0.044	0.50		µg/L	1	3/21/2022 01:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-002

Client Sample ID: MW-903-Q122
Collection Date: 3/10/2022 11:00:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	1.6	0.050	0.10		µg/L	1	3/21/2022 02:08 PM
Barium	26	0.083	1.0		µg/L	1	3/21/2022 02:08 PM
Manganese	ND	0.026	0.50		µg/L	1	3/21/2022 02:08 PM
Molybdenum	21	0.12	0.50		µg/L	1	3/21/2022 02:08 PM
Selenium	16	0.044	0.50		µg/L	1	3/21/2022 02:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-003

Client Sample ID: MW-20-100-Q122
Collection Date: 3/10/2022 3:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.65	0.050	0.10		µg/L	1	3/21/2022 02:20 PM
Barium	44	0.083	1.0		µg/L	1	3/21/2022 02:20 PM
Manganese	ND	0.026	0.50		µg/L	1	3/21/2022 02:20 PM
Molybdenum	3.1	0.12	0.50		µg/L	1	3/21/2022 02:20 PM
Selenium	14	0.044	0.50		µg/L	1	3/21/2022 02:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-004

Client Sample ID: MW-20-130-Q122
Collection Date: 3/10/2022 11:29:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/21/2022 02:50 PM
Barium	26	0.083	1.0		µg/L	1	3/21/2022 02:50 PM
Manganese	2.1	0.026	0.50		µg/L	1	3/21/2022 02:50 PM
Molybdenum	32	0.12	0.50		µg/L	1	3/21/2022 02:50 PM
Selenium	21	0.044	0.50		µg/L	1	3/21/2022 02:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-005

Client Sample ID: MW-34-055-Q122
Collection Date: 3/10/2022 11:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	2.2	0.050	0.10		µg/L	1	3/21/2022 03:02 PM
Barium	30	0.083	1.0		µg/L	1	3/21/2022 03:02 PM
Manganese	79	0.026	0.50		µg/L	1	3/21/2022 03:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-007

Client Sample ID: MW-34-080-Q122
Collection Date: 3/10/2022 10:54:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A				**EPA 6020**		
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**				PrepDate:	**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/21/2022 03:11 PM
Barium	34	0.083	1.0		µg/L	1	3/21/2022 03:11 PM
Manganese	92	0.026	0.50		µg/L	1	3/21/2022 03:11 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-009

Client Sample ID: MW-34-100-Q122
Collection Date: 3/10/2022 10:18:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/21/2022 03:18 PM
Barium	19	0.083	1.0		µg/L	1	3/21/2022 03:18 PM
Manganese	80	0.026	0.50		µg/L	1	3/21/2022 03:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-010

Client Sample ID: MW-27-020-Q122
Collection Date: 3/10/2022 8:38:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.89	0.050	0.10		µg/L	1	3/21/2022 03:24 PM
Barium	53	0.083	1.0		µg/L	1	3/21/2022 03:24 PM
Manganese	56	0.026	0.50		µg/L	1	3/21/2022 03:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-012

Client Sample ID: MW-27-060-Q122
Collection Date: 3/10/2022 9:14:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	8.5	0.050	0.10		µg/L	1	3/21/2022 03:30 PM
Barium	73	0.083	1.0		µg/L	1	3/21/2022 03:30 PM
Manganese	240	0.13	2.5		µg/L	5	3/21/2022 03:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-014

Client Sample ID: MW-27-085-Q122
Collection Date: 3/10/2022 9:44:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/21/2022 04:12 PM
Barium	40	0.083	1.0		µg/L	1	3/21/2022 04:12 PM
Manganese	140	0.026	0.50		µg/L	1	3/21/2022 04:12 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-016

Client Sample ID: MW-42-030-Q122
Collection Date: 3/10/2022 3:20:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	2.0	0.050	0.10		µg/L	1	3/21/2022 04:18 PM
Barium	110	0.083	1.0		µg/L	1	3/21/2022 04:18 PM
Manganese	130	0.026	0.50		µg/L	1	3/21/2022 04:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-017

Client Sample ID: MW-42-055-Q122
Collection Date: 3/10/2022 2:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	8.8	0.050	0.10		µg/L	1	3/21/2022 04:24 PM
Barium	140	0.083	1.0		µg/L	1	3/21/2022 04:24 PM
Manganese	170	0.026	0.50		µg/L	1	3/21/2022 04:24 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-019

Client Sample ID: MW-42-065-Q122
Collection Date: 3/10/2022 2:10:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Arsenic	3.1	0.050	0.10		µg/L	1	3/21/2022 04:30 PM
Barium	83	0.083	1.0		µg/L	1	3/21/2022 04:30 PM
Manganese	1600	0.66	12		µg/L	25	3/21/2022 04:36 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-021

Client Sample ID: MW-44-070-Q122
Collection Date: 3/10/2022 1:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	1.7	0.050	0.10		µg/L	1	3/21/2022 04:42 PM
Barium	43	0.083	1.0		µg/L	1	3/21/2022 04:42 PM
Manganese	280	0.13	2.5		µg/L	5	3/21/2022 04:48 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049789-023

Client Sample ID: MW-44-115-Q122
Collection Date: 3/10/2022 12:08:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.64	0.050	0.10		µg/L	1	3/21/2022 05:54 PM
Barium	22	0.083	1.0		µg/L	1	3/21/2022 05:54 PM
Manganese	14	0.026	0.50		µg/L	1	3/21/2022 05:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-44-125-Q122
Lab Order:	N049789	**Collection Date:**	3/10/2022 12:48:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049789-024		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220321A**	QC Batch: **91916**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	1.1	0.050	0.10		µg/L	1	3/21/2022 05:39 PM
Barium	52	0.083	1.0		µg/L	1	3/21/2022 05:39 PM
Manganese	410	0.13	2.5		µg/L	5	3/21/2022 05:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91916** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **161000**
Client ID: **PBW** Batch ID: **91916** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/21/2022** SeqNo: **4571261**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Molybdenum	ND	0.50									
Selenium	ND	0.50									

Sample ID: **LCS-91916** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **161000**
Client ID: **LCSW** Batch ID: **91916** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/21/2022** SeqNo: **4571262**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.041	0.10	10.00	0	100	85	115				
Barium	9.929	1.0	10.00	0	99.3	85	115				
Manganese	101.412	0.50	100.0	0	101	85	115				
Molybdenum	10.078	0.50	10.00	0	101	85	115				
Selenium	9.752	0.50	10.00	0	97.5	85	115				

Sample ID: **N049787-001B-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **161000**
Client ID: **ZZZZZZ** Batch ID: **91916** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/21/2022** SeqNo: **4571268**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.054	0.10	10.00	0	101	75	125				
Barium	57.599	1.0	10.00	47.67	99.3	75	125				
Manganese	88.421	0.50	100.0	0	88.4	75	125				
Molybdenum	21.511	0.50	10.00	10.38	111	75	125				
Selenium	16.205	0.50	10.00	7.704	85.0	75	125				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049789
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049787-001B-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **161000**
Client ID: **ZZZZZZ** Batch ID: **91916** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/21/2022** SeqNo: **4571272**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.528	0.10	10.00	0	105	75	125	10.05	4.61	20	
Barium	56.871	1.0	10.00	47.67	92.0	75	125	57.60	1.27	20	
Manganese	88.916	0.50	100.0	0	88.9	75	125	88.42	0.559	20	
Molybdenum	21.167	0.50	10.00	10.38	108	75	125	21.51	1.62	20	
Selenium	16.423	0.50	10.00	7.704	87.2	75	125	16.21	1.34	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ARCUS02 FOLDER
C: 3/24/2022 12:00 AM
R: 3/10/2022
N049789-028A
1 of 1

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 2

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others Ü; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB Ü; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Sample Receipt Condition: Y N; 1. Chilled ✓; 2. Headspace; 3. Container Intact ✓; 4. Seal Present ✓; 5. IR number 3; 6. Method of Cooling: ICE
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Sample Temp: 2.1°C/3.8°C/ 2.4°C/3.9°C
Submitted By: Ringgie Tep	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	Courier: ASSET
Title: Field Tech		Global ID:	Tracking No.:
Signature: Date: 3/10/22	Sampled By: Ringgie Tep		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, data or time of collection is considered fraud and may be grounds for legal action.		
Project Name: PG&E Topock - PCM	Signature: Date: 3/10/22		
Project Number: 30121866.1Q22GW			

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter, HNO3 Total Iron (500mL poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Nitrate (EPA 300.0) (1 L poly)				TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049789-01	MW-20-070-Q122	3/10/2022	10:50		X	X	X	X	X	X		X						E	7	P	BNS	
2	-02	MW-903-Q122	3/10/2022	11:00		X	X	X	X	X	X		X						E	7	P	BNS	
3	-03	MW-20-100-Q122	3/10/2022	15:00		X	X	X	X	X	X		X						E	7	P	BNS	
4	-04	MW-20-130-Q122	3/10/2022	11:29		X	X	X	X	X	X		X						E	7	P	BNS	
5	-05	MW-34-055-Q122	3/10/2022	11:30		X		X			X			X					E	6	P	BNS	
6	-06	MW-34-055-EB-Q122	3/10/2022	11:05		X													E	1	P	BNS	
7	-07	MW-34-080-Q122	3/10/2022	10:54		X		X			X			X	###	###	###	###	E	6	P	BNS	
8	-08	MW-34-080-EB-Q122	3/10/2022	10:30		X									###	###	###	###	E	1	P	BNS	
9	-09	MW-34-100-Q122	3/10/2022	10:18		X		X			X			X					E	6	P	BNS	
10	-10	MW-27-020-Q122	3/10/2022	8:38		X		X			X			X					E	6	P	BNS	
11	-11	MW-27-020-EB-Q122	3/10/2022	8:10		X													E	1	P	BNS	
12	-12	MW-27-060-Q122	3/10/2022	9:14		X		X			X			X					E	6	P	BNS	
13	-13	MW-27-060-EB-Q122	3/10/2022	8:50		X													E	1	P	BNS	
14	-14	MW-27-085-Q122	3/10/2022	9:44		X		X			X			X	###	###	###	###	E	6	P	BNS	

Relinquished by (Signature and Printed Name)	Date/Time	Received by (Signature and Printed Name)	Date/Time
Ringgie Tep	3/10/22 1616	ROMEO KUCAMAKA	3/10/22 1616
ROMEO KUCAMAKA	3/10/22 1846	ROMEO KUCAMAKA	3/10/22 1846

Turn Around Time (TAT)

- A = < 24 Hrs or Same Day TAT
- B = Next Workday
- C = 2 Workdays
- D = 3 Workdays
- x E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives: H=HCL; N=HNO_3; S=H_2SO_4; C=4°C; Z=Zn(AC)$_2$; O=NaOH; T=$Na_2S_2O_3$; Others/Specify: B (NH4)2SO4/NH4OH

Container Type: T=Tube; V=VOA; P=Pint; J=Jar; B=Tedlar; G=Glass; M=Metal; M=Metal; C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others Ü; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB Ü; CalTrans; LEVEL III; LEVEL IV; Regulatory
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	Specify State:
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Global ID:
Submitted By: Ryssia Tap	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	
Title: Field Tech			
Signature: Date: 3/10/22	Sampled By: Ryssia Tap		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.		
Project Name: PG&E Topock - PCM	Signature: Date: 3/10/22		
Project Number: 30121866.1Q22GW			

Matrix: Ground X; Potable; NPDES; Surface; Sediment; Soil; Other Solid

Sample Receipt Condition

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present	✓	
5. IR number	3	
6. Method of Cooling: ICE		
Sample Temp:		

Courier: ASSET
Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049789-15	MW-27-085-EB-Q122	3/10/2022	9:20		X								E	1	P	BNS	
2	-16	MW-42-030-Q122	3/10/2022	15:20		X	X	X			X			E	6	P	BNS	
3	-17	MW-42-055-Q122	3/10/2022	14:44		X	X	X			X			E	6	P	BNS	
4	-18	MW-42-055-EB-Q122	3/10/2022	14:20		X								E	1	P	BNS	
5	-19	MW-42-065-Q122	3/10/2022	14:10		X	X	X			X			E	6	P	BNS	
6	-20	MW-42-065-EB-Q122	3/10/2022	13:45		X								E	1	P	BNS	
7	-21	MW-44-070-Q122	3/10/2022	13:30		X	X	X			X		###	E	6	P	BNS	
8	-22	MW-44-070-EB-Q122	3/10/2022	13:05		X							###	E	1	P	BNS	
9	-23	MW-44-115-Q122	3/10/2022	12:08		X	X	X			X			E	6	P	BNS	
10	-24	MW-44-125-Q122	3/10/2022	12:48		X	X	X			X			E	6	P	BNS	
11	-25	MW-44-125-EB-Q122	3/10/2022	12:20		X								E	1	P	BNS	
12	-26	EB-722-Q122	3/10/2022	15:30		X								E	1	P	BNS	
13	-27	EB-723-Q122	3/10/2022	15:10		X								E	1	P	BNS	
14													###					

Relinquished by (Signature and Printed Name)	Date/Time	Relinquished by (Signature and Printed Name)	Date/Time
Ryssia Tap	3/10/22 1616	Romeo Lacamera	3/10/22 1616
Romeo Lacamera	3/10/22 1846	Romeo Lacamera	3/10/22 1846

Turn Around Time (TAT)

	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
X	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

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2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 5% of the total project price.
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Container Type: T=Tube; V=VOA; P=Plst; J=Jar; B=Tedlar; G=Glass; M=Metal; M=Metal; C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/10/2022	Workorder:	N049789
Rep sample Temp (Deg C):	2.1/2.8/2.4/3.9	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 3/14/2022

Reviewed By: MBC 3/22/2022

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-001A	MW-20-070-Q122	3/10/2022 10:50:00 AM	3/24/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-001B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-001C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-001D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-001E			3/24/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049789-002A	MW-903-Q122	3/10/2022 11:00:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-002B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-002C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-002D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-002E			3/24/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049789-003A	MW-20-100-Q122	3/10/2022 3:00:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-003B	MW-20-100-Q122	3/10/2022 3:00:00 PM	3/24/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-003C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-003D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-003E			3/24/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049789-004A	MW-20-130-Q122	3/10/2022 11:29:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-004B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-004C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-004D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-004E			3/24/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049789-005A	MW-34-055-Q122	3/10/2022 11:30:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-005B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-005C	MW-34-055-Q122	3/10/2022 11:30:00 AM	3/24/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-005D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-006A	MW-34-055-EB-Q122	3/10/2022 11:05:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-007A	MW-34-080-Q122	3/10/2022 10:54:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-007B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-007C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-007D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-008A	MW-34-080-EB-Q122	3/10/2022 10:30:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-009A	MW-34-100-Q122	3/10/2022 10:18:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-009B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-009C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-009D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-010A	MW-27-020-Q122	3/10/2022 8:38:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-010B	MW-27-020-Q122	3/10/2022 8:38:00 AM	3/24/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-010C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-010D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-011A	MW-27-020-EB-Q122	3/10/2022 8:10:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-012A	MW-27-060-Q122	3/10/2022 9:14:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-012B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-012C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-012D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-013A	MW-27-060-EB-Q122	3/10/2022 8:50:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-014A	MW-27-085-Q122	3/10/2022 9:44:00 AM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-014B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-014C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-014D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-015A	MW-27-085-EB-Q122	3/10/2022 9:20:00 AM	3/24/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-016A	MW-42-030-Q122	3/10/2022 3:20:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-016B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-016C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-016D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-017A	MW-42-055-Q122	3/10/2022 2:44:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-017B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-017C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-017D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-018A	MW-42-055-EB-Q122	3/10/2022 2:20:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-019A	MW-42-065-Q122	3/10/2022 2:10:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-019B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-019C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-019D	MW-42-065-Q122	3/10/2022 2:10:00 PM	3/24/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-020A	MW-42-065-EB-Q122	3/10/2022 1:45:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-021A	MW-44-070-Q122	3/10/2022 1:30:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-021B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-021C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-021D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-022A	MW-44-070-EB-Q122	3/10/2022 1:05:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-023A	MW-44-115-Q122	3/10/2022 12:08:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-023B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-023C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/24/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-023D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-024A	MW-44-125-Q122	3/10/2022 12:48:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-024B			3/24/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049789-024C			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/24/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

22-Mar-22

WorkOrder: N049789

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049789-024C	MW-44-125-Q122	3/10/2022 12:48:00 PM	3/24/2022	Groundwater	EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049789-024D			3/24/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049789-025A	MW-44-125-EB-Q122	3/10/2022 12:20:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-026A	EB-722-Q122	3/10/2022 3:30:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-027A	EB-723-Q122	3/10/2022 3:10:00 PM	3/24/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049789-028A	FOLDER	3/24/2022	3/24/2022		Folder	Folder	☐	☐	☐	LAB
			3/24/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/24/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Riggie Tep

14-Mar-22

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**SM4500-NH3D**		
N049789-001E / MW-20-070-Q122	Groundwater	3/10/2022 10:50:00 AM	16OZP	1		
N049789-002E / MW-903-Q122	Groundwater	3/10/2022 11:00:00 AM	16OZP	1		
N049789-003E / MW-20-100-Q122	Groundwater	3/10/2022 3:00:00 PM	16OZP	1		
N049789-004E / MW-20-130-Q122	Groundwater	3/10/2022 11:29:00 AM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49789A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: Standard TAT.

Please analyze for Ammonia. EDD requirement Labspec7 edata.

GSO #: 556307492

		Date/Time		Date/Time
Relinquished by:	YRJ	3/14/2022 1630	**Received by:**	
Relinquished by:			**Received by:**	

March 16, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049791

RE: PG&E Topock - PCM, 30121866.1Q22GW

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 10, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

for

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049791

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Ammonia was subcontracted to BC Laboratories/Pace, Bakersfield CA

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049791-001D-MS and N049791-001D-MSD at lower dilution possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049791-001D and MS/MSD were reported at 5x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical comments for EPA 6020:

Matrix Spike (MS) N049791-001C-MS and Matrix Spike Duplicate (MSD) N049791-001C-MSD are outside recovery criteria on analyte Chromium possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049791
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049791-001A	MW-78-070-Q122	Groundwater	3/10/2022 8:09:00 AM	3/10/2022	3/16/2022
N049791-001B	MW-78-070-Q122	Groundwater	3/10/2022 8:09:00 AM	3/10/2022	3/16/2022
N049791-001C	MW-78-070-Q122	Groundwater	3/10/2022 8:09:00 AM	3/10/2022	3/16/2022
N049791-001D	MW-78-070-Q122	Groundwater	3/10/2022 8:09:00 AM	3/10/2022	3/16/2022
N049791-001E	MW-78-070-Q122	Groundwater	3/10/2022 8:09:00 AM	3/10/2022	3/16/2022
N049791-002A	MW-78-142-Q122	Groundwater	3/10/2022 8:48:00 AM	3/10/2022	3/16/2022
N049791-002B	MW-78-142-Q122	Groundwater	3/10/2022 8:48:00 AM	3/10/2022	3/16/2022
N049791-002C	MW-78-142-Q122	Groundwater	3/10/2022 8:48:00 AM	3/10/2022	3/16/2022
N049791-002D	MW-78-142-Q122	Groundwater	3/10/2022 8:48:00 AM	3/10/2022	3/16/2022
N049791-002E	MW-78-142-Q122	Groundwater	3/10/2022 8:48:00 AM	3/10/2022	3/16/2022
N049791-003A	MW-911-Q122	Groundwater	3/10/2022 8:58:00 AM	3/10/2022	3/16/2022
N049791-003B	MW-911-Q122	Groundwater	3/10/2022 8:58:00 AM	3/10/2022	3/16/2022
N049791-003C	MW-911-Q122	Groundwater	3/10/2022 8:58:00 AM	3/10/2022	3/16/2022
N049791-003D	MW-911-Q122	Groundwater	3/10/2022 8:58:00 AM	3/10/2022	3/16/2022
N049791-003E	MW-911-Q122	Groundwater	3/10/2022 8:58:00 AM	3/10/2022	3/16/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1800	5.0	40		µg/L	200	3/11/2022 10:06 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220314A**	QC Batch: **91875**			PrepDate:	**3/14/2022**		Analyst: **CEI**
Chromium	1800	0.88	25		µg/L	25	3/14/2022 12:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:48:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	5700	25	200		µg/L	1000	3/11/2022 10:25 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220314A**	QC Batch: **91875**			PrepDate:	**3/14/2022**		Analyst: **CEI**
Chromium	5600	1.8	50		µg/L	50	3/14/2022 01:23 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-911-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:58:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220311A**	QC Batch: **R160784**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	5700	25	200		µg/L	1000	3/11/2022 10:54 AM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220314A**	QC Batch: **91875**			PrepDate:	**3/14/2022**		Analyst: **CEI**
Chromium	5500	1.8	50		µg/L	50	3/14/2022 01:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160784**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **PBW**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160784**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **LCSW**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.059	0.20	5.000	0	101	90	110				

Sample ID: **N049791-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561589**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2825.060	40	1000	1807	102	90	110				

Sample ID: **N049791-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561591**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10652.200	200	5000	5693	99.2	90	110				

Sample ID: **N049791-002AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10797.500	200	5000	5693	102	90	110	10650	1.35	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049791-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10945.600	200	5000	5711	105	90	110				

Sample ID: **N049774-002ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	17.151	1.0						17.34	1.08	20	

Sample ID: **N049774-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561599**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	42.987	1.0	25.00	17.34	103	90	110				

Sample ID: **N049774-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	619.095	10	250.0	354.5	106	90	110				

Sample ID: **N049787-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160784**
Client ID: **ZZZZZZ**	Batch ID: **R160784**	TestNo: **EPA 218.6**		Analysis Date: **3/11/2022**	SeqNo: **4561603**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	12.083	0.20	5.000	6.707	108	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049787-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1355.320	20	500.0	903.4	90.4	90	110				

Sample ID: **N049789-021AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.033	0.20	1.000	0	103	90	110				

Sample ID: **N049789-022AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.044	0.20	1.000	0	104	90	110				

Sample ID: **N049789-025AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.003	0.20	1.000	0	100	90	110				

Sample ID: **N049789-026AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561617**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.037	0.20	1.000	0	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049789-027AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561619**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.996	0.20	1.000	0	99.6	90	110				

Sample ID: **N049789-014AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.152	1.0	5.000	0	103	90	110				

Sample ID: **N049789-024AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160784**
Client ID: **ZZZZZZ** Batch ID: **R160784** TestNo: **EPA 218.6** Analysis Date: **3/11/2022** SeqNo: **4561625**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.109	1.0	5.000	0	102	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91875**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160812**
Client ID: **PBW**	Batch ID: **91875**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562613**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91875**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160812**
Client ID: **LCSW**	Batch ID: **91875**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562614**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.060	1.0	10.00	0	101	85	115				

Sample ID: **N049791-001C-PS**	SampType: **PS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160812**
Client ID: **ZZZZZZ**	Batch ID: **91875**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	1806.674	25	10.00	1783	240	80	120				S

Sample ID: **N049791-001C-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160812**
Client ID: **ZZZZZZ**	Batch ID: **91875**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	1754.161	25	10.00	1783	-285	75	125				S

Sample ID: **N049791-001C-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160812**
Client ID: **ZZZZZZ**	Batch ID: **91875**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562629**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	1735.418	25	10.00	1783	-473	75	125	1754	1.07	20	S

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	270	3.0	25		mg/L	50	3/11/2022 09:48 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A** QC Batch: **R160762**				PrepDate:			Analyst: **RAB**
Nitrate as N	4.8	0.048	0.25		mg/L	5	3/11/2022 10:48 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:48:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	860	6.1	50		mg/L	100	3/11/2022 07:45 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A** QC Batch: **R160762**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.1	0.095	0.50		mg/L	10	3/11/2022 11:03 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-911-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:58:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311B** QC Batch: **R160763**				PrepDate:			Analyst: **RAB**
Sulfate	880	6.1	50		mg/L	100	3/11/2022 10:03 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220311A** QC Batch: **R160762**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.1	0.095	0.50		mg/L	10	3/11/2022 11:18 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **LCS-R160763_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **LCSW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561327**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.975	0.50	4.000	0	99.4	90	110				

Sample ID: **MB-R160763_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **PBW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **N049791-002BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1293.070	50	400.0	857.4	109	80	120				

Sample ID: **N049791-002BMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1297.730	50	400.0	857.4	110	80	120	1293	0.360	20	

Sample ID: **N049761-003BDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561337**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	915.887	50						922.4	0.713	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049761-003BMS** SampType: **MS** TestCode: **300_W_SO4P** Units: **mg/L** Prep Date: RunNo: **160763**
Client ID: **ZZZZZZ** Batch ID: **R160763** TestNo: **EPA 300.0** Analysis Date: **3/11/2022** SeqNo: **4561338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1313.110	50	400.0	922.4	97.7	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160762_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **PBW**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560536**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160762_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **LCSW**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560537**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.255	0.050	1.250	0	100	90	110				

Sample ID: **N049774-002EMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560540**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.436	0.50	12.50	1.625	94.5	80	120				

Sample ID: **N049774-002EMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560541**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	13.571	0.50	12.50	1.625	95.6	80	120	13.44	1.00	20	

Sample ID: **N049774-002EDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.726	0.50						1.625	6.03	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049782-001DMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560562**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.263	0.050	1.250	0.02170	99.3	80	120				

Sample ID: **N049782-001DMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160762**
Client ID: **ZZZZZZ**	Batch ID: **R160762**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4560563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.209	0.050	1.250	0.02170	95.0	80	120	1.263	4.33	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **LCS-R160763_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **LCSW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.205	0.050	1.250	0	96.4	90	110				

Sample ID: **MB-R160763_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **PBW**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561307**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **N049789-003BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	21.328	0.50	12.50	9.348	95.8	80	120				

Sample ID: **N049789-003BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	21.541	0.50	12.50	9.348	97.5	80	120	21.33	0.994	20	

Sample ID: **N049789-004BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160763**
Client ID: **ZZZZZZ**	Batch ID: **R160763**	TestNo: **EPA 300.0**		Analysis Date: **3/11/2022**	SeqNo: **4561316**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	9.171	0.50						9.042	1.42	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220314B**	QC Batch: **R160834**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.42	5.0		mg/L	5	3/14/2022 08:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:48:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220314B**	QC Batch: **R160834**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/14/2022 10:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-911-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:58:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220314B**	QC Batch: **R160834**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/14/2022 10:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160834**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **PBW**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160834**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **LCSW**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564151**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.868	1.0	5.000	0	97.4	85	115				

Sample ID: **N049791-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **ZZZZZZ**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564153**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	21.601	5.0	25.00	0	86.4	75	125				

Sample ID: **N049791-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160834**
Client ID: **ZZZZZZ**	Batch ID: **R160834**	TestNo: **SM 5310C**		Analysis Date: **3/14/2022**	SeqNo: **4564154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	21.834	5.0	25.00	0	87.3	75	125	21.60	1.07	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220314A**	QC Batch: **91876**			PrepDate:	**3/14/2022**		Analyst: **DJ**
Iron	49	13	20		µg/L	1	3/14/2022 11:16 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:48:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220314A**	QC Batch: **91876**			PrepDate:		**3/14/2022**	Analyst: **DJ**
Iron	52	13	20		µg/L	1	3/14/2022 11:22 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-911-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:58:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220314A**	QC Batch: **91876**			PrepDate:	**3/14/2022**		Analyst: **DJ**
Iron	45	13	20		µg/L	1	3/14/2022 11:28 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91876**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160799**
Client ID: **PBW**	Batch ID: **91876**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562236**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91876**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160799**
Client ID: **LCSW**	Batch ID: **91876**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562237**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	96.169	20	100.0	0	96.2	85	115				

Sample ID: **N049791-002C-PS**	SampType: **PS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date:	RunNo: **160799**
Client ID: **ZZZZZZ**	Batch ID: **91876**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562242**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	135.066	20	100.0	52.50	82.6	80	120				

Sample ID: **N049791-002C-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160799**
Client ID: **ZZZZZZ**	Batch ID: **91876**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	133.191	20	100.0	52.50	80.7	75	125				

Sample ID: **N049791-002C-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160799**
Client ID: **ZZZZZZ**	Batch ID: **91876**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	131.396	20	100.0	52.50	78.9	75	125	133.2	1.36	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-070-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:09:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314A**	QC Batch: **91875**			PrepDate:	**3/14/2022**		Analyst: **CEI**
Arsenic	0.70	0.050	0.10		µg/L	1	3/14/2022 11:46 AM
Barium	57	0.083	1.0		µg/L	1	3/14/2022 11:46 AM
Manganese	290	0.13	2.5		µg/L	5	3/14/2022 11:52 AM
Molybdenum	13	0.12	0.50		µg/L	1	3/14/2022 11:46 AM
Selenium	4.4	0.044	0.50		µg/L	1	3/14/2022 11:46 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-78-142-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:48:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314A**	QC Batch: **91875**				PrepDate:	**3/14/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 01:17 PM
Barium	29	0.083	1.0		µg/L	1	3/14/2022 01:17 PM
Manganese	4.5	0.026	0.50		µg/L	1	3/14/2022 01:17 PM
Molybdenum	22	0.12	0.50		µg/L	1	3/14/2022 01:17 PM
Selenium	36	0.044	0.50		µg/L	1	3/14/2022 01:17 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-911-Q122
Lab Order:	N049791	**Collection Date:**	3/10/2022 8:58:00 AM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049791-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220314A**	QC Batch: **91875**				PrepDate:	**3/14/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/14/2022 01:29 PM
Barium	29	0.083	1.0		µg/L	1	3/14/2022 01:29 PM
Manganese	4.1	0.026	0.50		µg/L	1	3/14/2022 01:29 PM
Molybdenum	22	0.12	0.50		µg/L	1	3/14/2022 01:29 PM
Selenium	37	0.044	0.50		µg/L	1	3/14/2022 01:29 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91875** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/14/2022** RunNo: **160812**
Client ID: **PBW** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562668**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Molybdenum	ND	0.50									
Selenium	ND	0.50									

Sample ID: **LCS-91875** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/14/2022** RunNo: **160812**
Client ID: **LCSW** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.036	0.10	10.00	0	100	85	115				
Barium	9.663	1.0	10.00	0	96.6	85	115				
Manganese	97.953	0.50	100.0	0	98.0	85	115				
Molybdenum	9.787	0.50	10.00	0	97.9	85	115				
Selenium	10.005	0.50	10.00	0	100	85	115				

Sample ID: **N049791-001C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160812**
Client ID: **ZZZZZZ** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562674**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.733	0.10	10.00	0.6987	100	80	120				
Barium	66.680	1.0	10.00	56.67	100	80	120				
Molybdenum	23.822	0.50	10.00	12.65	112	80	120				
Selenium	13.609	0.50	10.00	4.362	92.5	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049791-001C-PS** SampType: **PS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: RunNo: **160812**
Client ID: **ZZZZZZ** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562675**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	384.684	2.5	100.0	291.7	93.0	80	120				

Sample ID: **N049791-001C-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/14/2022** RunNo: **160812**
Client ID: **ZZZZZZ** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	374.072	2.5	100.0	291.7	82.4	75	125				

Sample ID: **N049791-001C-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/14/2022** RunNo: **160812**
Client ID: **ZZZZZZ** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.762	0.10	10.00	0.6987	101	75	125				
Barium	64.596	1.0	10.00	56.67	79.3	75	125				
Molybdenum	23.222	0.50	10.00	12.65	106	75	125				
Selenium	14.246	0.50	10.00	4.362	98.8	75	125				

Sample ID: **N049791-001C-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/14/2022** RunNo: **160812**
Client ID: **ZZZZZZ** Batch ID: **91875** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/14/2022** SeqNo: **4562682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	11.024	0.10	10.00	0.6987	103	75	125	10.76	2.41	20	
Barium	65.387	1.0	10.00	56.67	87.2	75	125	64.60	1.22	20	
Molybdenum	23.168	0.50	10.00	12.65	105	75	125	23.22	0.229	20	
Selenium	13.524	0.50	10.00	4.362	91.6	75	125	14.25	5.20	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049791
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049791-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/14/2022**	RunNo: **160812**
Client ID: **ZZZZZZ**	Batch ID: **91875**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/14/2022**	SeqNo: **4562683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	374.911	2.5	100.0	291.7	83.2	75	125	374.1	0.224	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

ARCUS02 C: 3/14/2022 12:00 AM
FOLDER R: 3/10/2022
N049791-004A 1 of 1

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 3 of 3

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ü; Specify: RWQCB; Global ID:
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ü; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@critigen.com	Address:	
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	
Submitted By: Ryan Tap		Phone: 949-727-1400, ext 200 Fax:	
Title: Field Tech	Phone: 916-786-3302 Fax:		

Sample Receipt Condition

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present	✓	
5. IR number	3	
6. Method of Cooling: Ice		

Sample Temp: 2.10c / 2.8°C / 2.4°C / 3.9°C

Courier: ASSET

Tracking No.:

Signature: RT Date: 3/10/22

I hereby authorize ASSET Labs to perform the tests indicated below.

Sampled By: Ryan Tap

I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Signature: RT Date: 3/10/22

Project Name: PG&E Topock - PCM

Project Number: 30121866.1Q22GW

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH 250 mL poly	Nitrate, sulfate (EPA 300.0) 1 L poly	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese 500mL poly	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, 500mL poly	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium 500mL poly	Total Organic Carbon (SM5310C); H2SO4 3x40 mL VOA	Total metals (SW6010) No filter; HNO3 Total Iron 500mL poly	Ammonia as Nitrogen (SM4500NH3); H2SO4 1 L poly						TRUE	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049791-01	MW-78-070-Q122	3/10/2022	8:09		X	X	X	X	X	X		X							A	6	P	BNS	7
2	-02	MW-78-142-Q122	3/10/2022	8:48		X	X	X	X	X	X		X							A	6	P	BNS	7
3	-03	MW-911-Q122	3/10/2022	8:58		X	X	X	X	X	X		X							A	6	P	BNS	7
4																								
5																								
6																								
7														###	###	###	###	###	###					
8														###	###	###	###	###	###					
9																								
10																								
11																								
12																								
13																								
14														###	###	###	###	###	###					

Relinquished by (Signature and Printed Name): RT Ryan Tap 3/10/22 Date/Time: 1616	Relinquished by (Signature and Printed Name): POMCO MCCAMBRA 3/10/22 Date/Time: 1616
Relinquished by (Signature and Printed Name): POMCO MCCAMBRA 3/10/22 1846	Relinquished by (Signature and Printed Name): POMCO MCCAMBRA 3/10/22 Date/Time: 1846
Relinquished by (Signature and Printed Name): Date/Time:	Relinquished by (Signature and Printed Name): Date/Time:

Turn Around Time (TAT)

X	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Preservatives: H=HCL; N=HNO_3; S=H_2SO_4; C=4°C; Z=Zn(AC)$_2$; O=NaOH; T=$Na_2S_2O_3$; Other/Specify: B (NH4)2SO4/NH4OH

Container Type: T=Tube; V=VOA; P=Pint; J=Jar; B=Tedlar; G=Glass; M=Metal; M=Metal; C=Can

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 5% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/10/2022	Workorder:	N049791
Rep sample Temp (Deg C):	2.1/2.8/2.4/3.9	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/11/2022

Reviewed By: MBC 3/12/2022

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Riggie Tep

14-Mar-22

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				SM4500-NH3D		
N049791-001E / MW-78-070-Q122	Groundwater	3/10/2022 8:09:00 AM	16OZP	1		
N049791-002E / MW-78-142-Q122	Groundwater	3/10/2022 8:48:00 AM	16OZP	1		
N049791-003E / MW-911-Q122	Groundwater	3/10/2022 8:58:00 AM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49791A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 1-dayTAT.

Please analyze for Ammonia. EDD requirement Labspec7 edata.

GSO #: 556307492

		Date/Time			Date/Time
Relinquished by:	YRJ	3/14/2022 1630	**Received by:**		
Relinquished by:			**Received by:**		

ASSET Laboratories

WORK ORDER Summary

11-Mar-22

WorkOrder: N049791

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049791-001A	MW-78-070-Q122	3/10/2022 8:09:00 AM	3/14/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049791-001B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049791-001C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049791-001D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049791-001E			3/14/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049791-002A	MW-78-142-Q122	3/10/2022 8:48:00 AM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049791-002B			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049791-002C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049791-002D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049791-002E			3/14/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049791-003A	MW-911-Q122	3/10/2022 8:58:00 AM	3/14/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

11-Mar-22

WorkOrder: N049791

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/10/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049791-003B	MW-911-Q122	3/10/2022 8:58:00 AM	3/14/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/14/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049791-003C			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/14/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/14/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049791-003D			3/14/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049791-003E			3/14/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049791-004A	FOLDER	3/14/2022	3/14/2022		Folder	Folder	☐	☐	☐	LAB
			3/14/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/14/2022		Folder	Folder	☐	☐	☐	LAB

March 30, 2022

Brian Prowd
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049835

RE: PG&E Topock - OMM TCS PWTF, 30106892

Attention: Brian Prowd

Enclosed are the results for sample(s) received on March 14, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for EPA 6020_Total:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Chromium in QC samples N049835-002C-MS and N049835-002C-MSD since the analyte concentration in the sample is disproportionate to the spike level. Post Spike (PS) and Dilution Test (DT) were performed however, PS failed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM TCS PWTF, 30106892
Lab Order: N049835
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049835-001A	Backwash Pre-filter-031422	Water	3/14/2022 11:45:00 AM	3/14/2022	3/30/2022
N049835-001B	Backwash Pre-filter-031422	Water	3/14/2022 11:45:00 AM	3/14/2022	3/30/2022
N049835-001C	Backwash Pre-filter-031422	Water	3/14/2022 11:45:00 AM	3/14/2022	3/30/2022
N049835-002A	Backwash Post-filter-031422	Water	3/14/2022 12:00:00 PM	3/14/2022	3/30/2022
N049835-002B	Backwash Post-filter-031422	Water	3/14/2022 12:00:00 PM	3/14/2022	3/30/2022
N049835-002C	Backwash Post-filter-031422	Water	3/14/2022 12:00:00 PM	3/14/2022	3/30/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-031422
Lab Order:	N049835	**Collection Date:**	3/14/2022 11:45:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049835-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	480	1.3	10		µg/L	50	3/15/2022 12:26 PM
TOTAL METALS BY ICPMS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220329B**	QC Batch: **92121**			PrepDate:	**3/29/2022**		Analyst: **CEI**
Chromium	470	0.18	5.0		µg/L	5	3/29/2022 04:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-031422
Lab Order:	N049835	**Collection Date:**	3/14/2022 12:00:00 PM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049835-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	480	1.3	10		µg/L	50	3/15/2022 12:54 PM
TOTAL METALS BY ICPMS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220329B**	QC Batch: **92121**			PrepDate:	**3/29/2022**		Analyst: **CEI**
Chromium	460	0.18	5.0		µg/L	5	3/29/2022 04:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160857**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **PBW**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160857**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **LCSW**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.178	0.20	5.000	0	104	90	110				

Sample ID: **N049836-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1200.150	20	500.0	694.6	101	90	110				

Sample ID: **N049836-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5577.700	100	2500	2926	106	90	110				

Sample ID: **N049836-008AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5496.150	100	2500	2926	103	90	110	5578	1.47	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049835-001ADUP** SampType: **DUP** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	476.970	10						482.8	1.21	20	

Sample ID: **N049835-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	738.610	10	250.0	482.8	102	90	110				

Sample ID: **N049835-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	737.790	10	250.0	483.1	102	90	110				

Sample ID: **N049836-006AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4905.450	100	2500	2234	107	90	110				

Sample ID: **N049836-007AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4862.150	100	2500	2260	104	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-009AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6140.950	100	2500	3574	103	90	110				

Sample ID: **N049836-010AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6162.850	100	2500	3612	102	90	110				

Sample ID: **N049836-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.355	0.20	1.000	2.346	101	90	110				

Sample ID: **N049836-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565119**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.481	0.20	1.000	2.406	107	90	110				

Sample ID: **N049836-015AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.051	0.20	1.000	0	105	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-004AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.475	1.0	5.000	0	109	90	110				

Sample ID: **N049836-013AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4869.500	100	2500	2281	104	90	110				

Sample ID: **N049836-014AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565129**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4806.350	100	2500	2283	101	90	110				

Sample ID: **N049836-011AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2627.420	40	1000	1572	106	90	110				

Sample ID: **N049836-012AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2572.240	40	1000	1550	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.059	0.20	1.000	0	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **MB-92121**	SampType: **MBLK**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/29/2022**	RunNo: **161171**
Client ID: **PBW**	Batch ID: **92121**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/29/2022**	SeqNo: **4580309**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-92121**	SampType: **LCS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/29/2022**	RunNo: **161171**
Client ID: **LCSW**	Batch ID: **92121**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/29/2022**	SeqNo: **4580310**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.751	1.0	10.00	0	97.5	85	115				

Sample ID: **N049835-002C-MS**	SampType: **MS**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/29/2022**	RunNo: **161171**
Client ID: **ZZZZZZ**	Batch ID: **92121**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/29/2022**	SeqNo: **4580315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	481.215	5.0	10.00	459.1	222	75	125				S

Sample ID: **N049835-002C-MSD**	SampType: **MSD**	TestCode: **6020_W_CRP**	Units: **µg/L**	Prep Date: **3/29/2022**	RunNo: **161171**
Client ID: **ZZZZZZ**	Batch ID: **92121**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/29/2022**	SeqNo: **4580316**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	487.752	5.0	10.00	459.1	287	75	125	481.2	1.35	20	S

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference
- DO Surrogate Diluted Out

Calculations are based on raw values

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_W_CRPGE_TPK

Sample ID: **N049835-002C-PS** SampType: **PS** TestCode: **6020_W_CRP** Units: **µg/L** Prep Date: RunNo: **161171**
Client ID: **ZZZZZZ** Batch ID: **92121** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/29/2022** SeqNo: **4580314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	473.816	5.0	10.00	459.1	148	80	120				S

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-031422
Lab Order:	N049835	**Collection Date:**	3/14/2022 11:45:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049835-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220321A**	QC Batch: **91967**			PrepDate:	**3/18/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/21/2022 12:03 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-031422
Lab Order:	N049835	**Collection Date:**	3/14/2022 12:00:00 PM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049835-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220321A**	QC Batch: **91967**				PrepDate:	**3/18/2022**	Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/21/2022 12:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91967**	SampType: **MBLK**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **PBW**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91967**	SampType: **LCS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **LCSW**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570576**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	92.250	20	100.0	0	92.2	85	115				

Sample ID: **N049787-001B-MS**	SampType: **MS**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **ZZZZZZ**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570580**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	88.620	20	100.0	0	88.6	75	125				

Sample ID: **N049787-001B-MSD**	SampType: **MSD**	TestCode: **6010_WDPG**	Units: **µg/L**	Prep Date: **3/18/2022**	RunNo: **160980**
Client ID: **ZZZZZZ**	Batch ID: **91967**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/21/2022**	SeqNo: **4570581**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	95.853	20	100.0	0	95.9	75	125	88.62	7.84	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Pre-filter-031422
Lab Order:	N049835	**Collection Date:**	3/14/2022 11:45:00 AM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049835-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220318A**	QC Batch: **91915**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Manganese	130	0.026	0.50		µg/L	1	3/18/2022 05:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	Backwash Post-filter-031422
Lab Order:	N049835	**Collection Date:**	3/14/2022 12:00:00 PM
Project:	PG&E Topock - OMM TCS PWTF, 30106892	**Matrix:**	WATER
Lab ID:	N049835-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220318A**	QC Batch: **91915**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Manganese	130	0.026	0.50		µg/L	1	3/18/2022 05:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049835
Project: PG&E Topock - OMM TCS PWTF, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91915**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160971**
Client ID: **PBW**	Batch ID: **91915**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/18/2022**	SeqNo: **4570304**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Sample ID: **LCS-91915**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160971**
Client ID: **LCSW**	Batch ID: **91915**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/18/2022**	SeqNo: **4570305**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	102.681	0.50	100.0	0	103	85	115				

Sample ID: **N049774-001I-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160971**
Client ID: **ZZZZZZ**	Batch ID: **91915**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/18/2022**	SeqNo: **4570315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	146.792	0.50	100.0	62.05	84.7	75	125				

Sample ID: **N049774-001I-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160971**
Client ID: **ZZZZZZ**	Batch ID: **91915**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/18/2022**	SeqNo: **4570333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	146.522	0.50	100.0	62.05	84.5	75	125	146.8	0.184	20	

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

N049835

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Brian Prowd	Bill to: Marty Bloes	EDD Requirement / QA/QC
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:	Excel EDD / RTNE
Address: Roseville, CA 95678	Email: brian.prowd@arcadis.com; daniel.moore@critigan.com	Address:	Geotracker / RWQCB ✓
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Ste 200 Roseville, CA 95678	Email to: mbloes@pivox.com	P.O.# SWA-ASSET-C9817-051
Submitted By: Kevin A.	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200	Fax:
Title: OMM operator			
Signature: Date: 3/14/22	Sampled By: Kevin Ashley		
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for		
Project Name: PG&E Topock - OMM TCS PWTF	Signature: Date: 3/14/22		
Project Number: 30106892			

Matrix: Ground; Sediment; Potable; Soil; NPDES; Other Solid; Surface; Water X

EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB

QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:

Sample Receipt Condition

	Y	N
1. Chilled	✓	
2. Headspace		
3. Container Intact	✓	
4. Seal Present		✓
5. IR number	3	

6. Method of Cooling: IR3 ICE

Sample Temp: 2.9 °C

Courier: ASSET

Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	250 mL poly: Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered	500 mL poly: Dissolved metals: iron, manganese (SW6020) HN03; Filtered	500 mL poly: Total chromium (SW6020) HN03; NOT Filtered	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049835-01	Backwash Pre-filter-[redacted]03/14/22	3/14/22	11:45a		x	x	x	E	3	PV	BNS	
2	-02	Backwash Post-filter-[redacted]03/14/22	3/14/22	12 pm		x	x	x	E	3	PV	BNS	
3									E	3	PV	BNS	
4									E	3	PV	BNS	
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Kevin Ashley	3/14/22 16:5	Donae Poach	3/14/22 16:50
Donae Poach	3/14/22 20:06	Donae Poach	3/14/22 20:06

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:
Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report
2. Regular TAT is 6-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs.=200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/14/2022	Workorder:	N049835
Rep sample Temp (Deg C):	2.9	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 3/15/2022

Reviewed By: MBC 3/17/2022

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049835

Client ID: ARCUS02

Project: PG&E Topock - OMM TCS PWTF, 30106892 **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049835-001A	Backwash Pre-filter-031422	3/14/2022 11:45:00 AM	3/28/2022	Water	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049835-001B			3/28/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/28/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/28/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/28/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049835-001C			3/28/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/28/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049835-002A	Backwash Post-filter-031422	3/14/2022 12:00:00 PM	3/28/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049835-002B			3/28/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/28/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/28/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/28/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049835-002C			3/28/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/28/2022		EPA 6020	TOTAL METALS BY ICPMS	☐	☐	☐	WW
N049835-003A	FOLDER	3/28/2022	3/28/2022		Folder	Folder	☐	☐	☐	LAB
			3/28/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/28/2022		Folder	Folder	☐	☐	☐	LAB

March 18, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049836

RE: PG&E Topock - PCM, 30121866.1Q22GW

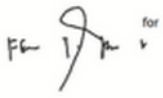
Attention: Dan Bush

Enclosed are the results for sample(s) received on March 14, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Ammonia subcontracted to BC Labs- Bakersfield,CA.

Analytical Comments for EPA 218.6:

Dilution was necessary for sample N049836-004 due to matrix interference. Sample was analyzed at lower dilution however matrix spike recovery and retention time criteria were not met indicating possible matrix interference. Sample was reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Because the results for total dissolved chromium (5.6 ug/L) and hexavalent chromium (2.3 ug/L) for sample N049836-001 (MW-21-Q122) are discrepant, sample re-analysis and Matrix Spike protocol were performed and result confirmed initial analysis.

Because the results for total dissolved chromium (5.7 ug/L) and hexavalent chromium (2.4 ug/L) for sample N049836-002 (MW-904-Q122) are discrepant, sample re-analysis and Matrix Spike protocol were performed and result confirmed initial analysis.

Analytical Comments for EPA 6020_Dissolved:

Because the results for total dissolved chromium (5.6 ug/L) and hexavalent chromium (2.3 ug/L) for sample N049836-001 (MW-21-Q122) are discrepant, sample from both the total dissolved chromium and hexavalent chromium containers were redigested and analyzed for total dissolved chromium. The results from the redigested samples were 5.6 and 3.0 ug/L, respectively. Since these data confirmed the original result for total dissolved chromium, the original result is reported.

Because the results for total dissolved chromium (5.7 ug/L) and hexavalent chromium (2.4 ug/L) for sample N049836-002 (MW-904-Q122) are discrepant, sample from both the total dissolved chromium and hexavalent chromium containers were redigested and analyzed for total dissolved chromium. The results from the redigested samples were 5.7 and 3.0 ug/L, respectively. Since these data confirmed the original result for total dissolved chromium, the original result is reported.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049836-001D-MS and N049836-001D-MSD at lower dilutions possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049836-001D and MS/MSD were reported at 20x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6010B:

Dilution was necessary for some samples since plasma was extinguished when samples were analyzed at lower dilution.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Arsenic in QC samples N049836-001C-MS and N049836-001C-MSD possibly due to matrix interference. Post Spike (PS) passed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049836-001A	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001B	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001C	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001D	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001E	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-002A	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002B	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002C	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002D	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002E	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-003A	MW-21-EB-Q122	Groundwater	3/14/2022 12:30:00 PM	3/14/2022	3/18/2022
N049836-004A	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004B	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004C	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004D	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004E	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-005A	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005B	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005C	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005D	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005E	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-006A	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006B	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006C	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006D	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006E	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-007A	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-007B	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-007C	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049836-007D	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-007E	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-008A	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008B	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008C	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008D	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008E	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-009A	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009B	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009C	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009D	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009E	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-010A	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010B	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010C	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010D	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010E	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-011A	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011B	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011C	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011D	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011E	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-012A	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012B	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012C	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012D	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012E	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-013A	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-013B	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-013C	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049836-013D	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-013E	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-014A	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014B	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014C	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014D	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014E	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-015A	EB-724-Q122	Groundwater	3/14/2022 5:10:00 PM	3/14/2022	3/18/2022

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2.3	0.025	0.20		µg/L	1	3/15/2022 10:24 AM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	5.6	0.035	1.0		µg/L	1	3/16/2022 02:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-002

Client Sample ID: MW-904-Q122
Collection Date: 3/14/2022 1:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2.4	0.025	0.20		µg/L	1	3/15/2022 10:33 AM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:		**3/15/2022**	Analyst: **CEI**
Chromium	5.7	0.035	1.0		µg/L	1	3/16/2022 04:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-EB-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/15/2022 05:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/15/2022 03:44 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A				**EPA 6020**
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:		**3/15/2022**	Analyst: **CEI**
Chromium	ND	0.035	1.0		µg/L	1	3/16/2022 04:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	690	2.5	20		µg/L	100	3/15/2022 11:01 AM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	680	0.18	5.0		µg/L	5	3/16/2022 04:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:50:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2200	13	100		µg/L	500	3/15/2022 01:32 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2300	0.88	25		µg/L	25	3/16/2022 04:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-007

Client Sample ID: MW-913-Q122
Collection Date: 3/14/2022 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2300	13	100		µg/L	500	3/15/2022 01:51 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2300	0.88	25		µg/L	25	3/16/2022 05:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-008

Client Sample ID: MW-79-058-Q122
Collection Date: 3/14/2022 4:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2900	13	100		µg/L	500	3/15/2022 11:57 AM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	3000	0.88	25		µg/L	25	3/16/2022 05:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	3600	13	100		µg/L	500	3/15/2022 02:10 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	3500	0.88	25		µg/L	25	3/16/2022 05:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	3600	13	100		µg/L	500	3/15/2022 02:29 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	3600	0.88	25		µg/L	25	3/16/2022 05:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1600	5.0	40		µg/L	200	3/15/2022 04:44 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	1600	0.88	25		µg/L	25	3/16/2022 06:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-012

Client Sample ID: MW-905-Q122
Collection Date: 3/14/2022 3:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1600	5.0	40		µg/L	200	3/15/2022 05:22 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	1600	0.88	25		µg/L	25	3/16/2022 06:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2300	13	100		µg/L	500	3/15/2022 04:03 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2400	0.88	25		µg/L	25	3/16/2022 06:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-014

Client Sample ID: MW-907-Q122
Collection Date: 3/14/2022 3:14:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2300	13	100		µg/L	500	3/15/2022 04:23 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2300	0.88	25		µg/L	25	3/16/2022 06:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	EB-724-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 5:10:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-015		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/15/2022 03:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160857**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **PBW**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160857**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **LCSW**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.178	0.20	5.000	0	104	90	110				

Sample ID: **N049836-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1200.150	20	500.0	694.6	101	90	110				

Sample ID: **N049836-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5577.700	100	2500	2926	106	90	110				

Sample ID: **N049836-008AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5496.150	100	2500	2926	103	90	110	5578	1.47	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049835-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	476.970	10						482.8	1.21	20	

Sample ID: **N049835-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	738.610	10	250.0	482.8	102	90	110				

Sample ID: **N049835-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	737.790	10	250.0	483.1	102	90	110				

Sample ID: **N049836-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4905.450	100	2500	2234	107	90	110				

Sample ID: **N049836-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4862.150	100	2500	2260	104	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-009AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6140.950	100	2500	3574	103	90	110				

Sample ID: **N049836-010AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6162.850	100	2500	3612	102	90	110				

Sample ID: **N049836-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.355	0.20	1.000	2.346	101	90	110				

Sample ID: **N049836-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565119**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.481	0.20	1.000	2.406	107	90	110				

Sample ID: **N049836-015AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.051	0.20	1.000	0	105	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.475	1.0	5.000	0	109	90	110				

Sample ID: **N049836-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4869.500	100	2500	2281	104	90	110				

Sample ID: **N049836-014AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565129**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4806.350	100	2500	2283	101	90	110				

Sample ID: **N049836-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2627.420	40	1000	1572	106	90	110				

Sample ID: **N049836-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2572.240	40	1000	1550	102	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.059	0.20	1.000	0	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91905**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **PBW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567230**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91905**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **LCSW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567231**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.970	1.0	10.00	0	99.7	85	115				

Sample ID: **N049836-001C-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567235**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	14.818	1.0	10.00	5.605	92.1	75	125				

Sample ID: **N049836-001C-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567238**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	15.141	1.0	10.00	5.605	95.4	75	125	14.82	2.16	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	1400	12	100		mg/L	200	3/15/2022 04:27 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	3.9	0.095	0.50		mg/L	10	3/15/2022 08:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-002

Client Sample ID: MW-904-Q122
Collection Date: 3/14/2022 1:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	1400	12	100		mg/L	200	3/15/2022 05:43 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	3.7	0.095	0.50		mg/L	10	3/15/2022 08:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	1200	6.1	50		mg/L	100	3/15/2022 06:12 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/15/2022 09:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	490	3.0	25		mg/L	50	3/15/2022 06:27 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	11	0.095	0.50		mg/L	10	3/15/2022 09:24 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-006

Client Sample ID: MW-80-082-Q122
Collection Date: 3/14/2022 1:50:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	580	3.0	25		mg/L	50	3/15/2022 06:43 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.4	0.095	0.50		mg/L	10	3/15/2022 09:39 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-007

Client Sample ID: MW-913-Q122
Collection Date: 3/14/2022 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	580	3.0	25		mg/L	50	3/15/2022 06:58 PM
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.3	0.095	0.50		mg/L	10	3/15/2022 09:54 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-008

Client Sample ID: MW-79-058-Q122
Collection Date: 3/14/2022 4:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	400	3.0	25		mg/L	50	3/15/2022 07:13 PM
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.7	0.095	0.50		mg/L	10	3/15/2022 10:10 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	880	6.1	50		mg/L	100	3/15/2022 03:41 PM
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	15	0.095	0.50		mg/L	10	3/15/2022 12:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	850	6.1	50		mg/L	100	3/15/2022 07:28 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	15	0.095	0.50		mg/L	10	3/15/2022 01:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	380	3.0	25		mg/L	50	3/15/2022 07:44 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	6.8	0.095	0.50		mg/L	10	3/15/2022 11:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-012

Client Sample ID: MW-905-Q122
Collection Date: 3/14/2022 3:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	390	3.0	25		mg/L	50	3/15/2022 07:59 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	6.7	0.095	0.50		mg/L	10	3/15/2022 12:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	670	3.0	25		mg/L	50	3/15/2022 08:14 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	5.5	0.095	0.50		mg/L	10	3/15/2022 12:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-014

Client Sample ID: MW-907-Q122
Collection Date: 3/14/2022 3:14:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	680	3.0	25		mg/L	50	3/15/2022 09:00 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	5.5	0.095	0.50		mg/L	10	3/15/2022 12:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **MB-R160854_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **PBW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565850**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **LCS-R160854_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **LCSW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.993	0.50	4.000	0	99.8	90	110				

Sample ID: **N049836-009BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1290.780	50	400.0	878.4	103	80	120				

Sample ID: **N049836-009BMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1289.380	50	400.0	878.4	103	80	120	1291	0.109	20	

Sample ID: **N049836-001BDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565860**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1358.661	100						1363	0.339	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049836-001BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	2192.188	100	800.0	1363	104	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160854_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **PBW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160854_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **LCSW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.302	0.050	1.250	0	104	90	110				

Sample ID: **N049836-002BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	15.895	0.50	12.50	3.733	97.3	80	120				

Sample ID: **N049836-002BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	15.626	0.50	12.50	3.733	95.1	80	120	15.90	1.71	20	

Sample ID: **N049836-014BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.936	0.50	12.50	5.507	99.4	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049836-011BDUP** SampType: **DUP** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160854**
Client ID: **ZZZZZZ** Batch ID: **R160854** TestNo: **EPA 300.0** Analysis Date: **3/15/2022** SeqNo: **4565835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	6.810	0.50						6.824	0.205	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:56:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	1.7	20		mg/L	20	3/16/2022 11:33 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-904-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 12:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:50:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-913-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-912-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:32:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-905-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 03:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 03:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-907-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:14:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 04:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160896**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **PBW**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566953**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160896**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **LCSW**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566954**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.001	1.0	5.000	0	100	85	115				

Sample ID: **N049836-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **ZZZZZZ**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566962**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	89.148	20	100.0	2.512	86.6	75	125				

Sample ID: **N049836-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **ZZZZZZ**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566965**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	90.182	20	100.0	2.512	87.7	75	125	89.15	1.15	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:56:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	130	13	20		µg/L	1	3/16/2022 12:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-904-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	160	64	100		µg/L	5	3/16/2022 02:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C** QC Batch: **91906**				PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	36	13	20		µg/L	1	3/16/2022 01:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	34	13	20		µg/L	1	3/16/2022 01:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:50:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/16/2022 01:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-913-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/16/2022 01:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C** QC Batch: **91906**				PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	77	13	20		µg/L	1	3/16/2022 01:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	70	13	20		µg/L	1	3/16/2022 01:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	73	13	20		µg/L	1	3/16/2022 01:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C** QC Batch: **91906**				PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	22	13	20		µg/L	1	3/16/2022 01:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-905-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/16/2022 02:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/16/2022 02:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-907-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:14:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/16/2022 02:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91906**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **PBW**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566498**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91906**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **LCSW**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566499**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	101.965	20	100.0	0	102	85	115				

Sample ID: **N049836-002C-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **ZZZZZZ**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566520**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	239.786	100	100.0	155.9	83.8	75	125				

Sample ID: **N049836-002C-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **ZZZZZZ**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566521**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	241.334	100	100.0	155.9	85.4	75	125	239.8	0.643	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	14	0.050	0.10		µg/L	1	3/16/2022 02:57 PM
Barium	35	0.083	1.0		µg/L	1	3/16/2022 02:57 PM
Manganese	28	0.026	0.50		µg/L	1	3/15/2022 06:16 PM
Molybdenum	28	0.12	0.50		µg/L	1	3/15/2022 06:16 PM
Selenium	76	0.044	0.50		µg/L	1	3/16/2022 02:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-002

Client Sample ID: MW-904-Q122
Collection Date: 3/14/2022 1:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	9.0	0.050	0.10		µg/L	1	3/16/2022 04:02 PM
Barium	36	0.083	1.0		µg/L	1	3/16/2022 04:02 PM
Manganese	29	0.026	0.50		µg/L	1	3/15/2022 07:27 PM
Molybdenum	28	0.12	0.50		µg/L	1	3/15/2022 07:27 PM
Selenium	78	0.044	0.50		µg/L	1	3/16/2022 04:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/16/2022 04:14 PM
Barium	47	0.083	1.0		µg/L	1	3/16/2022 04:14 PM
Manganese	20	0.026	0.50		µg/L	1	3/15/2022 07:39 PM
Molybdenum	13	0.12	0.50		µg/L	1	3/15/2022 07:39 PM
Selenium	ND	0.044	0.50		µg/L	1	3/16/2022 04:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	1.0	0.050	0.10		µg/L	1	3/16/2022 04:26 PM
Barium	53	0.083	1.0		µg/L	1	3/16/2022 04:26 PM
Manganese	4.1	0.026	0.50		µg/L	1	3/15/2022 07:51 PM
Molybdenum	46	0.12	0.50		µg/L	1	3/15/2022 07:51 PM
Selenium	26	0.044	0.50		µg/L	1	3/16/2022 04:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-006

Client Sample ID: MW-80-082-Q122
Collection Date: 3/14/2022 1:50:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.22	0.050	0.10		µg/L	1	3/16/2022 09:28 PM
Barium	42	0.083	1.0		µg/L	1	3/16/2022 04:38 PM
Manganese	0.78	0.026	0.50		µg/L	1	3/16/2022 04:38 PM
Molybdenum	19	0.12	0.50		µg/L	1	3/15/2022 08:03 PM
Selenium	12	0.044	0.50		µg/L	1	3/16/2022 04:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-007

Client Sample ID: MW-913-Q122
Collection Date: 3/14/2022 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.31	0.050	0.10		µg/L	1	3/16/2022 09:39 PM
Barium	43	0.083	1.0		µg/L	1	3/16/2022 05:14 PM
Manganese	0.89	0.026	0.50		µg/L	1	3/15/2022 08:27 PM
Molybdenum	19	0.12	0.50		µg/L	1	3/15/2022 08:27 PM
Selenium	12	0.044	0.50		µg/L	1	3/16/2022 05:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-008

Client Sample ID: MW-79-058-Q122
Collection Date: 3/14/2022 4:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.34	0.050	0.10		µg/L	1	3/16/2022 05:26 PM
Barium	84	0.083	1.0		µg/L	1	3/16/2022 05:26 PM
Manganese	2.1	0.026	0.50		µg/L	1	3/15/2022 08:38 PM
Molybdenum	8.6	0.12	0.50		µg/L	1	3/15/2022 08:38 PM
Selenium	8.8	0.044	0.50		µg/L	1	3/16/2022 05:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.78	0.050	0.10		µg/L	1	3/16/2022 05:37 PM
Barium	38	0.083	1.0		µg/L	1	3/16/2022 05:37 PM
Manganese	4.2	0.026	0.50		µg/L	1	3/15/2022 08:50 PM
Molybdenum	29	0.12	0.50		µg/L	1	3/15/2022 08:50 PM
Selenium	65	0.044	0.50		µg/L	1	3/16/2022 05:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.75	0.050	0.10		µg/L	1	3/16/2022 05:49 PM
Barium	38	0.083	1.0		µg/L	1	3/16/2022 05:49 PM
Manganese	4.1	0.026	0.50		µg/L	1	3/15/2022 09:02 PM
Molybdenum	29	0.12	0.50		µg/L	1	3/15/2022 09:02 PM
Selenium	64	0.044	0.50		µg/L	1	3/16/2022 05:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.82	0.050	0.10		µg/L	1	3/16/2022 06:01 PM
Barium	45	0.083	1.0		µg/L	1	3/16/2022 06:01 PM
Manganese	620	0.13	2.5		µg/L	5	3/15/2022 09:20 PM
Molybdenum	13	0.12	0.50		µg/L	1	3/15/2022 09:14 PM
Selenium	8.5	0.044	0.50		µg/L	1	3/16/2022 06:01 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-012

Client Sample ID: MW-905-Q122
Collection Date: 3/14/2022 3:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.75	0.050	0.10		µg/L	1	3/16/2022 06:25 PM
Barium	44	0.083	1.0		µg/L	1	3/16/2022 06:25 PM
Manganese	640	0.13	2.5		µg/L	5	3/15/2022 09:44 PM
Molybdenum	13	0.12	0.50		µg/L	1	3/15/2022 09:38 PM
Selenium	8.5	0.044	0.50		µg/L	1	3/16/2022 06:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/16/2022 06:37 PM
Barium	37	0.083	1.0		µg/L	1	3/16/2022 06:37 PM
Manganese	6.3	0.13	2.5		µg/L	5	3/15/2022 09:55 PM
Molybdenum	49	0.60	2.5		µg/L	5	3/15/2022 09:55 PM
Selenium	17	0.044	0.50		µg/L	1	3/16/2022 06:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-014

Client Sample ID: MW-907-Q122
Collection Date: 3/14/2022 3:14:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/16/2022 06:49 PM
Barium	38	0.083	1.0		µg/L	1	3/16/2022 06:49 PM
Manganese	6.1	0.026	0.50		µg/L	1	3/15/2022 10:01 PM
Molybdenum	49	0.12	0.50		µg/L	1	3/15/2022 10:01 PM
Selenium	17	0.044	0.50		µg/L	1	3/16/2022 06:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91905** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **160883**
Client ID: **PBW** Batch ID: **91905** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/15/2022** SeqNo: **4566587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID: **LCS-91905** SampType: **LCS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **160883**
Client ID: **LCSW** Batch ID: **91905** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/15/2022** SeqNo: **4566588**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	100.060	0.50	100.0	0	100	85	115				
Molybdenum	9.679	0.50	10.00	0	96.8	85	115				

Sample ID: **N049836-001C-MS** SampType: **MS** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **160883**
Client ID: **ZZZZZZ** Batch ID: **91905** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/15/2022** SeqNo: **4566594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	118.761	0.50	100.0	28.02	90.7	75	125				
Molybdenum	38.642	0.50	10.00	28.23	104	75	125				

Sample ID: **N049836-001C-MSD** SampType: **MSD** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **160883**
Client ID: **ZZZZZZ** Batch ID: **91905** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/15/2022** SeqNo: **4566598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	119.130	0.50	100.0	28.02	91.1	75	125	118.8	0.310	20	
Molybdenum	38.490	0.50	10.00	28.23	103	75	125	38.64	0.394	20	

Sample ID: **MB-91905** SampType: **MBLK** TestCode: **6020_DIS_TP** Units: **µg/L** Prep Date: **3/15/2022** RunNo: **160902**
Client ID: **PBW** Batch ID: **91905** TestNo: **EPA 6020** **EPA 3010A** Analysis Date: **3/16/2022** SeqNo: **4567324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91905**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **PBW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Selenium	ND	0.50									

Sample ID: **LCS-91905**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **LCSW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.133	0.10	10.00	0	101	85	115				
Barium	10.340	1.0	10.00	0	103	85	115				
Selenium	9.665	0.50	10.00	0	96.6	85	115				

Sample ID: **N049836-001C-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	20.863	0.10	10.00	14.31	65.6	75	125				S
Barium	44.222	1.0	10.00	35.01	92.2	75	125				
Selenium	84.923	0.50	10.00	75.53	93.9	75	125				

Sample ID: **N049836-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.165	0.10	10.00	14.31	48.6	75	125	20.86	8.49	20	S
Barium	44.454	1.0	10.00	35.01	94.5	75	125	44.22	0.524	20	
Selenium	84.576	0.50	10.00	75.53	90.4	75	125	84.92	0.410	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049836-001C-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4566592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	118.980	0.50	100.0	28.02	91.0	80	120				
Molybdenum	39.135	0.50	10.00	28.23	109	80	120				

Sample ID: **N049836-001C-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.223	0.10	10.00	14.31	99.2	80	120				
Barium	44.980	1.0	10.00	35.01	99.7	80	120				
Selenium	85.990	0.50	10.00	75.53	105	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

N049836

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@arcadis.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted By: Nara Tey		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Project Manager	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: Date: 3/14/22	Sampled By: Nara Tey		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for			Specify State:	6. Method of Cooling: IR3 ICE
Project Name: PG&E Topock - PCM	Signature: Date: 3/14/22				Sample Temp: 3.1°C / 2.3°C / 2.9°C
Project Number: 30121866.1Q22GW					Courier: ASSET
					Tracking No.:

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Nitrate (EPA 300.0) (1 L poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049836-01	MW-21-Q122	3/14/2022	12:56		X	X	X	X	X	X		X		A	7	P	BNS	
2	-02	MW-904-Q122	3/14/2022	13:06		X	X	X	X	X	X		X		A	7	P	BNS	
3	-03	MW-21-EB-Q122	3/14/2022	12:30		X									A	1	P	BNS	
4	-04	MW-71-035-Q122	3/14/2022	12:06		X	X	X	X	X	X		X		A	7	P	BNS	
5	-05	MW-80-057-Q122	3/14/2022	14:27		X	X	X	X	X	X		X		A	7	P	BNS	
6	-06	MW-80-082-Q122	3/14/2022	13:50		X	X	X	X	X	X		X		A	7	P	BNS	
7	-07	MW-913-Q122	3/14/2022	14:00		X	X	X	X	X	X		X		A	7	P	BNS	
8	-08	MW-79-058-Q122	3/14/2022	16:54		X	X	X	X	X	X		X		A	7	P	BNS	
9	-09	MW-79-102-Q122	3/14/2022	16:22		X	X	X	X	X	X		X		A	7	P	BNS	
10	-10	MW-912-Q122	3/14/2022	16:32		X	X	X	X	X	X		X		A	7	P	BNS	
11	-11	MW-26-Q122	3/14/2022	15:44		X	X	X	X	X	X		X		A	7	P	BNS	
12	-12	MW-905-Q122	3/14/2022	15:54		X	X	X	X	X	X		X		A	7	P	BNS	
13																			
14																			

Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Nara Tey	3/14/22 1720	Jonas Dacda	3/14/22 1720
Jonas Dacda	3/14/22 20:06	Jonas Dacda	3/14/22 20:06

Turn Around Time (TAT)

- [X] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		
Others/Specify:	B	(NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@crlaw.com	Address:	Global ID: Specify State:
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	
Submitted By: Nara Tey	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:	
Title: Project Manager			
Signature: Date: 3/14/22	Sampled By: Nara Tey		
I hereby authorize ASSET Labs to perform the tests indicated below.	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for*		
Project Name: PG&E Topock - PCM	Signature: Date: 3/14/22		
Project Number: 30121866.1Q22GW			

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Sample Receipt Condition: 1. Chilled ✓ Y; 2. Headspace; 3. Container Intact ✓ Y; 4. Seal Present ✓ Y; 5. IR number 3; 6. Method of Cooling: IR3 ICE; Sample Temp: 3.1°C / 2.3°C / 2.9°C; Courier: ASSET; Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049836-13	MW-51-Q122	3/14/2022	15:04		X	X	X	X	X	X		X	A	7	P	BNS	
2	-14	MW-907-Q122	3/14/2022	15:14		X	X	X	X	X	X		X	A	7	P	BNS	
3	-15	EB-724-Q122	3/14/2022	17:10		X								A	1	P	BNS	
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Nara Tey	3/14/22 1720	Jonas Deada	3/14/22 17 20
Jonas Deada	3/14/22 20:06	Jonas Deada	3/14/22 20:06

Turn Around Time (TAT)

- [X] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [ ] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3.00PM.

Special Instruction:

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1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B (NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/14/2022	Workorder:	N049836
Rep sample Temp (Deg C):	3.1/2.3/2.9	IR Gun ID:	3

Temp Blank: ☑ Yes ☐ No

Carrier name: ASSET

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 3/15/2022

Reviewed By: MBC 3/16/2022

Subject: RE: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049836)
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 3/15/2022, 9:01 AM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>
CC: "maryann.balilu@assetlaboratoriesph.com" <maryann.balilu@assetlaboratoriesph.com>, "giselle@assetlaboratories.com" <giselle@assetlaboratories.com>

It should be A – 24 hrs for all test and samples.

Thanks,
Laura

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Tuesday, March 15, 2022 11:05 AM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com; giselle@assetlaboratories.com
Subject: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049836)

Hi Laura,

I'd like to confirm if the TAT should be A for all tests.

Both A and E are marked at the bottom of page 1 of the attached COC.

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

ASSET LABORATORIES - Serving Clients with Passion and Professionalism

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ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-001A	MW-21-Q122	3/14/2022 12:56:00 PM	3/15/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-001B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-001C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-001D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-001E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-002A	MW-904-Q122	3/14/2022 1:06:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-002B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-002C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-002D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-002E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-003A	MW-21-EB-Q122	3/14/2022 12:30:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-004A	MW-71-035-Q122	3/14/2022 12:06:00 PM	3/15/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-004B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-004C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-004D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-004E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-005A	MW-80-057-Q122	3/14/2022 2:27:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-005B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-005C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-005D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-005E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-006A	MW-80-082-Q122	3/14/2022 1:50:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-006B	MW-80-082-Q122	3/14/2022 1:50:00 PM	3/15/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-006C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-006D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-006E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-007A	MW-913-Q122	3/14/2022 2:00:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-007B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-007C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-007D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-007E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-008A	MW-79-058-Q122	3/14/2022 4:54:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-008B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-008B	MW-79-058-Q122	3/14/2022 4:54:00 PM	3/15/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-008C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-008D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-008E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-009A	MW-79-102-Q122	3/14/2022 4:22:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-009B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-009C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-009D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-009E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-010A	MW-912-Q122	3/14/2022 4:32:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-010B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-010C	MW-912-Q122	3/14/2022 4:32:00 PM	3/15/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-010D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-010E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-011A	MW-26-Q122	3/14/2022 3:44:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-011B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-011C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-011D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-011E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-012A	MW-905-Q122	3/14/2022 3:54:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-012B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-012C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-012C	MW-905-Q122	3/14/2022 3:54:00 PM	3/15/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-012D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-012E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-013A	MW-51-Q122	3/14/2022 3:04:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-013B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-013C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-013D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-013E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-014A	MW-907-Q122	3/14/2022 3:14:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-014B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-014C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-014C	MW-907-Q122	3/14/2022 3:14:00 PM	3/15/2022	Groundwater	EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-014D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-014E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-015A	EB-724-Q122	3/14/2022 5:10:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-016A	FOLDER	3/15/2022	3/15/2022		Folder	Folder	☐	☐	☐	LAB
			3/15/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/15/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Nara Tep

15-Mar-22

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**SM4500-NH3D**		
N049836-001E / MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	16OZP	1		
N049836-002E / MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	16OZP	1		
N049836-004E / MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	16OZP	1		
N049836-005E / MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	16OZP	1		
N049836-006E / MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	16OZP	1		
N049836-007E / MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	16OZP	1		
N049836-008E / MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	16OZP	1		
N049836-009E / MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	16OZP	1		
N049836-010E / MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	16OZP	1		
N049836-011E / MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	16OZP	1		
N049836-012E / MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	16OZP	1		
N049836-013E / MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	16OZP	1		
N049836-014E / MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49836A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 1-day TAT.

Please analyze for Ammonia by SM4500NH3D. EDD requirement Labspec7 edata.

GSO #: 556323037

		Date/Time		Date/Time
Relinquished by:	YRJ	3/15/2022 1630	**Received by:**	
Relinquished by:			**Received by:**	

ARCADIS

Project: PG&E Topock - PCM

Project No.: 30121866.1Q22GW

ASSET Laboratories Work Order:

N049836

ANALYTICAL and QC RESULTS
SAMPLE RECEIVING ITEMS

PRIVILEGED AND CONFIDENTIAL

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EPA 6020_Dissolved	309-397

March 18, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049836

RE: PG&E Topock - PCM, 30121866.1Q22GW

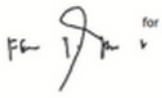
Attention: Dan Bush

Enclosed are the results for sample(s) received on March 14, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Nancy Sibucao
Laboratory Director

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CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Subcontracted Analyses:

Ammonia subcontracted to BC Labs- Bakersfield,CA.

Analytical Comments for EPA 218.6:

Dilution was necessary for sample N049836-004 due to matrix interference. Sample was analyzed at lower dilution however matrix spike recovery and retention time criteria were not met indicating possible matrix interference. Sample was reported at dilution that meets matrix spike recovery limit and the detected peak within retention time window.

Because the results for total dissolved chromium (5.6 ug/L) and hexavalent chromium (2.3 ug/L) for sample N049836-001 (MW-21-Q122) are discrepant, sample re-analysis and Matrix Spike protocol were performed and result confirmed initial analysis.

Because the results for total dissolved chromium (5.7 ug/L) and hexavalent chromium (2.4 ug/L) for sample N049836-002 (MW-904-Q122) are discrepant, sample re-analysis and Matrix Spike protocol were performed and result confirmed initial analysis.

Analytical Comments for EPA 6020_Dissolved:

Because the results for total dissolved chromium (5.6 ug/L) and hexavalent chromium (2.3 ug/L) for sample N049836-001 (MW-21-Q122) are discrepant, sample from both the total dissolved chromium and hexavalent chromium containers were redigested and analyzed for total dissolved chromium. The results from the redigested samples were 5.6 and 3.0 ug/L, respectively. Since these data confirmed the original result for total dissolved chromium, the original result is reported.

Because the results for total dissolved chromium (5.7 ug/L) and hexavalent chromium (2.4 ug/L) for sample N049836-002 (MW-904-Q122) are discrepant, sample from both the total dissolved chromium and hexavalent chromium containers were redigested and analyzed for total dissolved chromium. The results from the redigested samples were 5.7 and 3.0 ug/L, respectively. Since these data confirmed the original result for total dissolved chromium, the original result is reported.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049836-001D-MS and N049836-001D-MSD at lower dilutions possibly due to matrix interference. QC samples were diluted and recovery passed criteria. Thus sample reference N049836-001D and MS/MSD were reported at 20x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 6010B:

Dilution was necessary for some samples since plasma was extinguished when samples were analyzed at lower dilution.

Analytical Comments for EPA 6020:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Arsenic in QC samples N049836-001C-MS and N049836-001C-MSD possibly due to matrix interference. Post Spike (PS) passed acceptance criteria. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *18-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049836-001A	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001B	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001C	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001D	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-001E	MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	3/14/2022	3/18/2022
N049836-002A	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002B	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002C	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002D	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-002E	MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	3/14/2022	3/18/2022
N049836-003A	MW-21-EB-Q122	Groundwater	3/14/2022 12:30:00 PM	3/14/2022	3/18/2022
N049836-004A	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004B	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004C	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004D	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-004E	MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	3/14/2022	3/18/2022
N049836-005A	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005B	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005C	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005D	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-005E	MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	3/14/2022	3/18/2022
N049836-006A	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006B	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006C	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006D	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-006E	MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	3/14/2022	3/18/2022
N049836-007A	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-007B	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-007C	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049836-007D	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-007E	MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	3/14/2022	3/18/2022
N049836-008A	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008B	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008C	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008D	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-008E	MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	3/14/2022	3/18/2022
N049836-009A	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009B	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009C	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009D	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-009E	MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	3/14/2022	3/18/2022
N049836-010A	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010B	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010C	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010D	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-010E	MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	3/14/2022	3/18/2022
N049836-011A	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011B	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011C	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011D	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-011E	MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	3/14/2022	3/18/2022
N049836-012A	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012B	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012C	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012D	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-012E	MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	3/14/2022	3/18/2022
N049836-013A	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-013B	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-013C	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab Order: N049836
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049836-013D	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-013E	MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	3/14/2022	3/18/2022
N049836-014A	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014B	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014C	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014D	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-014E	MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	3/14/2022	3/18/2022
N049836-015A	EB-724-Q122	Groundwater	3/14/2022 5:10:00 PM	3/14/2022	3/18/2022

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2.3	0.025	0.20		µg/L	1	3/15/2022 10:24 AM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A			**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	5.6	0.035	1.0		µg/L	1	3/16/2022 02:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-002

Client Sample ID: MW-904-Q122
Collection Date: 3/14/2022 1:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2.4	0.025	0.20		µg/L	1	3/15/2022 10:33 AM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	5.7	0.035	1.0		µg/L	1	3/16/2022 04:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-EB-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:30:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-003		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/15/2022 05:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.13	1.0		µg/L	5	3/15/2022 03:44 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A				**EPA 6020**
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:		**3/15/2022**	Analyst: **CEI**
Chromium	ND	0.035	1.0		µg/L	1	3/16/2022 04:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	690	2.5	20		µg/L	100	3/15/2022 11:01 AM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	680	0.18	5.0		µg/L	5	3/16/2022 04:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-006

Client Sample ID: MW-80-082-Q122
Collection Date: 3/14/2022 1:50:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2200	13	100		µg/L	500	3/15/2022 01:32 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2300	0.88	25		µg/L	25	3/16/2022 04:44 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-007

Client Sample ID: MW-913-Q122
Collection Date: 3/14/2022 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2300	13	100		µg/L	500	3/15/2022 01:51 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2300	0.88	25		µg/L	25	3/16/2022 05:20 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-008

Client Sample ID: MW-79-058-Q122
Collection Date: 3/14/2022 4:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2900	13	100		µg/L	500	3/15/2022 11:57 AM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	3000	0.88	25		µg/L	25	3/16/2022 05:32 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	3600	13	100		µg/L	500	3/15/2022 02:10 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	3500	0.88	25		µg/L	25	3/16/2022 05:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	3600	13	100		µg/L	500	3/15/2022 02:29 PM
DISSOLVED METALS BY ICP-MS							
		EPA 3010A		**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	3600	0.88	25		µg/L	25	3/16/2022 05:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1600	5.0	40		µg/L	200	3/15/2022 04:44 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	1600	0.88	25		µg/L	25	3/16/2022 06:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-012

Client Sample ID: MW-905-Q122
Collection Date: 3/14/2022 3:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A** QC Batch: **R160857**				PrepDate:			Analyst: **RAB**
Hexavalent Chromium	1600	5.0	40		µg/L	200	3/15/2022 05:22 PM
DISSOLVED METALS BY ICP-MS							
			EPA 3010A		**EPA 6020**		
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	1600	0.88	25		µg/L	25	3/16/2022 06:31 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2300	13	100		µg/L	500	3/15/2022 04:03 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2400	0.88	25		µg/L	25	3/16/2022 06:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-014

Client Sample ID: MW-907-Q122
Collection Date: 3/14/2022 3:14:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	2300	13	100		µg/L	500	3/15/2022 04:23 PM
DISSOLVED METALS BY ICP-MS							
	EPA 3010A		**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Chromium	2300	0.88	25		µg/L	25	3/16/2022 06:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-015

Client Sample ID: EB-724-Q122
Collection Date: 3/14/2022 5:10:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 218.6				
RunID: **NV00922-IC7_220315A**	QC Batch: **R160857**			PrepDate:			Analyst: **RAB**
Hexavalent Chromium	ND	0.025	0.20		µg/L	1	3/15/2022 03:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **MB-R160857**	SampType: **MBLK**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **PBW**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R160857**	SampType: **LCS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **LCSW**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.178	0.20	5.000	0	104	90	110				

Sample ID: **N049836-005AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1200.150	20	500.0	694.6	101	90	110				

Sample ID: **N049836-008AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5577.700	100	2500	2926	106	90	110				

Sample ID: **N049836-008AMSD**	SampType: **MSD**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565102**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5496.150	100	2500	2926	103	90	110	5578	1.47	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049835-001ADUP**	SampType: **DUP**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565104**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	476.970	10						482.8	1.21	20	

Sample ID: **N049835-001AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565105**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	738.610	10	250.0	482.8	102	90	110				

Sample ID: **N049835-002AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	737.790	10	250.0	483.1	102	90	110				

Sample ID: **N049836-006AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4905.450	100	2500	2234	107	90	110				

Sample ID: **N049836-007AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565113**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4862.150	100	2500	2260	104	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-009AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565115**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6140.950	100	2500	3574	103	90	110				

Sample ID: **N049836-010AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565117**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	6162.850	100	2500	3612	102	90	110				

Sample ID: **N049836-001AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565118**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.355	0.20	1.000	2.346	101	90	110				

Sample ID: **N049836-002AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565119**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	3.481	0.20	1.000	2.406	107	90	110				

Sample ID: **N049836-015AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.051	0.20	1.000	0	105	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-004AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.475	1.0	5.000	0	109	90	110				

Sample ID: **N049836-013AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565127**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4869.500	100	2500	2281	104	90	110				

Sample ID: **N049836-014AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565129**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4806.350	100	2500	2283	101	90	110				

Sample ID: **N049836-011AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2627.420	40	1000	1572	106	90	110				

Sample ID: **N049836-012AMS** SampType: **MS** TestCode: **218.6_WPGE** Units: **µg/L** Prep Date: RunNo: **160857**
Client ID: **ZZZZZZ** Batch ID: **R160857** TestNo: **EPA 218.6** Analysis Date: **3/15/2022** SeqNo: **4565135**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2572.240	40	1000	1550	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **N049836-003AMS**	SampType: **MS**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.059	0.20	1.000	0	106	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID: **MB-91905**	SampType: **MBLK**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **PBW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567230**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID: **LCS-91905**	SampType: **LCS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **LCSW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567231**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.970	1.0	10.00	0	99.7	85	115				

Sample ID: **N049836-001C-MS**	SampType: **MS**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567235**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	14.818	1.0	10.00	5.605	92.1	75	125				

Sample ID: **N049836-001C-MSD**	SampType: **MSD**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567238**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	15.141	1.0	10.00	5.605	95.4	75	125	14.82	2.16	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	1400	12	100		mg/L	200	3/15/2022 04:27 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	3.9	0.095	0.50		mg/L	10	3/15/2022 08:38 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-002

Client Sample ID: MW-904-Q122
Collection Date: 3/14/2022 1:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	1400	12	100		mg/L	200	3/15/2022 05:43 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	3.7	0.095	0.50		mg/L	10	3/15/2022 08:53 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A**	QC Batch: **R160854**			PrepDate:			Analyst: **RAB**
Sulfate	1200	6.1	50		mg/L	100	3/15/2022 06:12 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A**	QC Batch: **R160854**			PrepDate:			Analyst: **RAB**
Nitrate as N	ND	0.095	0.50		mg/L	10	3/15/2022 09:08 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	490	3.0	25		mg/L	50	3/15/2022 06:27 PM
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	11	0.095	0.50		mg/L	10	3/15/2022 09:24 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-006

Client Sample ID: MW-80-082-Q122
Collection Date: 3/14/2022 1:50:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	580	3.0	25		mg/L	50	3/15/2022 06:43 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.4	0.095	0.50		mg/L	10	3/15/2022 09:39 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-007

Client Sample ID: MW-913-Q122
Collection Date: 3/14/2022 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	580	3.0	25		mg/L	50	3/15/2022 06:58 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.3	0.095	0.50		mg/L	10	3/15/2022 09:54 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-008

Client Sample ID: MW-79-058-Q122
Collection Date: 3/14/2022 4:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	400	3.0	25		mg/L	50	3/15/2022 07:13 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	9.7	0.095	0.50		mg/L	10	3/15/2022 10:10 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	880	6.1	50		mg/L	100	3/15/2022 03:41 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	15	0.095	0.50		mg/L	10	3/15/2022 12:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	850	6.1	50		mg/L	100	3/15/2022 07:28 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	15	0.095	0.50		mg/L	10	3/15/2022 01:08 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	380	3.0	25		mg/L	50	3/15/2022 07:44 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	6.8	0.095	0.50		mg/L	10	3/15/2022 11:51 AM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-012

Client Sample ID: MW-905-Q122
Collection Date: 3/14/2022 3:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	390	3.0	25		mg/L	50	3/15/2022 07:59 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	6.7	0.095	0.50		mg/L	10	3/15/2022 12:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Sulfate	670	3.0	25		mg/L	50	3/15/2022 08:14 PM
ANIONS BY ION CHROMATOGRAPHY							
			EPA 300.0				
RunID: **NV00922-IC8_220315A** QC Batch: **R160854**				PrepDate:			Analyst: **RAB**
Nitrate as N	5.5	0.095	0.50		mg/L	10	3/15/2022 12:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-014

Client Sample ID: MW-907-Q122
Collection Date: 3/14/2022 3:14:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854** PrepDate: Analyst: **RAB**							
Sulfate	680	3.0	25		mg/L	50	3/15/2022 09:00 PM
ANIONS BY ION CHROMATOGRAPHY							
EPA 300.0							
RunID: **NV00922-IC8_220315A** QC Batch: **R160854** PrepDate: Analyst: **RAB**							
Nitrate as N	5.5	0.095	0.50		mg/L	10	3/15/2022 12:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **MB-R160854_SO4**	SampType: **MBLK**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **PBW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565850**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **LCS-R160854_SO4**	SampType: **LCS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **LCSW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.993	0.50	4.000	0	99.8	90	110				

Sample ID: **N049836-009BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1290.780	50	400.0	878.4	103	80	120				

Sample ID: **N049836-009BMSD**	SampType: **MSD**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1289.380	50	400.0	878.4	103	80	120	1291	0.109	20	

Sample ID: **N049836-001BDUP**	SampType: **DUP**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565860**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	1358.661	100						1363	0.339	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **N049836-001BMS**	SampType: **MS**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	2192.188	100	800.0	1363	104	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **MB-R160854_NO3**	SampType: **MBLK**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **PBW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **LCS-R160854_NO3**	SampType: **LCS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **LCSW**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.302	0.050	1.250	0	104	90	110				

Sample ID: **N049836-002BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	15.895	0.50	12.50	3.733	97.3	80	120				

Sample ID: **N049836-002BMSD**	SampType: **MSD**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	15.626	0.50	12.50	3.733	95.1	80	120	15.90	1.71	20	

Sample ID: **N049836-014BMS**	SampType: **MS**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	17.936	0.50	12.50	5.507	99.4	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **N049836-011BDUP**	SampType: **DUP**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:			RunNo: **160854**				
Client ID: **ZZZZZZ**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**			SeqNo: **4565835**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	6.810	0.50						6.824	0.205	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-21-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:56:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	1.7	20		mg/L	20	3/16/2022 11:33 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-904-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 12:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:22 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:50:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-913-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 01:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-912-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:32:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-010		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:40 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-26-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:44:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-011		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 02:56 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-905-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 03:43 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 03:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-907-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:14:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220316A**	QC Batch: **R160896**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	ND	0.084	1.0		mg/L	1	3/16/2022 04:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R160896**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **PBW**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566953**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R160896**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **LCSW**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566954**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.001	1.0	5.000	0	100	85	115				

Sample ID: **N049836-001D-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **ZZZZZZ**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566962**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	89.148	20	100.0	2.512	86.6	75	125				

Sample ID: **N049836-001D-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **ZZZZZZ**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566965**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	90.182	20	100.0	2.512	87.7	75	125	89.15	1.15	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	130	13	20		µg/L	1	3/16/2022 12:55 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-904-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	160	64	100		µg/L	5	3/16/2022 02:16 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-71-035-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 12:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-004		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	36	13	20		µg/L	1	3/16/2022 01:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-057-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:27:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-005		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	34	13	20		µg/L	1	3/16/2022 01:13 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:50:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/16/2022 01:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-913-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 2:00:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-007		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/16/2022 01:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-058-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-008		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A				**EPA 6010B**		
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**				PrepDate:	**3/15/2022**	Analyst: **DJ**
Iron	77	13	20		µg/L	1	3/16/2022 01:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-79-102-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 4:22:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-009		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	70	13	20		µg/L	1	3/16/2022 01:45 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	73	13	20		µg/L	1	3/16/2022 01:52 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
	EPA 3010A			**EPA 6010B**			
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:		**3/15/2022**	Analyst: **DJ**
Iron	22	13	20		µg/L	1	3/16/2022 01:58 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

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ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-905-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:54:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-012		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	13	20		µg/L	1	3/16/2022 02:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

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ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-51-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:04:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-013		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/16/2022 02:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

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ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-907-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 3:14:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-014		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP							
EPA 3010A			**EPA 6010B**				
RunID: **NV00922-ICP2_220316C**	QC Batch: **91906**			PrepDate:	**3/15/2022**		Analyst: **DJ**
Iron	ND	64	100		µg/L	5	3/16/2022 02:54 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **MB-91906**	SampType: **MBLK**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **PBW**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566498**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	ND	20									

Sample ID: **LCS-91906**	SampType: **LCS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **LCSW**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566499**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	101.965	20	100.0	0	102	85	115				

Sample ID: **N049836-002C-MS**	SampType: **MS**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **ZZZZZZ**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566520**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	239.786	100	100.0	155.9	83.8	75	125				

Sample ID: **N049836-002C-MSD**	SampType: **MSD**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160886**
Client ID: **ZZZZZZ**	Batch ID: **91906**	TestNo: **EPA 6010B**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4566521**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	241.334	100	100.0	155.9	85.4	75	125	239.8	0.643	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-001

Client Sample ID: MW-21-Q122
Collection Date: 3/14/2022 12:56:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220316B** QC Batch: **91905**				PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	14	0.050	0.10		µg/L	1	3/16/2022 02:57 PM
Barium	35	0.083	1.0		µg/L	1	3/16/2022 02:57 PM
Manganese	28	0.026	0.50		µg/L	1	3/15/2022 06:16 PM
Molybdenum	28	0.12	0.50		µg/L	1	3/15/2022 06:16 PM
Selenium	76	0.044	0.50		µg/L	1	3/16/2022 02:57 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-904-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:06:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Arsenic	9.0	0.050	0.10		µg/L	1	3/16/2022 04:02 PM
Barium	36	0.083	1.0		µg/L	1	3/16/2022 04:02 PM
Manganese	29	0.026	0.50		µg/L	1	3/15/2022 07:27 PM
Molybdenum	28	0.12	0.50		µg/L	1	3/15/2022 07:27 PM
Selenium	78	0.044	0.50		µg/L	1	3/16/2022 04:02 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-004

Client Sample ID: MW-71-035-Q122
Collection Date: 3/14/2022 12:06:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/16/2022 04:14 PM
Barium	47	0.083	1.0		µg/L	1	3/16/2022 04:14 PM
Manganese	20	0.026	0.50		µg/L	1	3/15/2022 07:39 PM
Molybdenum	13	0.12	0.50		µg/L	1	3/15/2022 07:39 PM
Selenium	ND	0.044	0.50		µg/L	1	3/16/2022 04:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-005

Client Sample ID: MW-80-057-Q122
Collection Date: 3/14/2022 2:27:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	1.0	0.050	0.10		µg/L	1	3/16/2022 04:26 PM
Barium	53	0.083	1.0		µg/L	1	3/16/2022 04:26 PM
Manganese	4.1	0.026	0.50		µg/L	1	3/15/2022 07:51 PM
Molybdenum	46	0.12	0.50		µg/L	1	3/15/2022 07:51 PM
Selenium	26	0.044	0.50		µg/L	1	3/16/2022 04:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	MW-80-082-Q122
Lab Order:	N049836	**Collection Date:**	3/14/2022 1:50:00 PM
Project:	PG&E Topock - PCM, 30121866.1Q22GW	**Matrix:**	GROUNDWATER
Lab ID:	N049836-006		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Arsenic	0.22	0.050	0.10		µg/L	1	3/16/2022 09:28 PM
Barium	42	0.083	1.0		µg/L	1	3/16/2022 04:38 PM
Manganese	0.78	0.026	0.50		µg/L	1	3/16/2022 04:38 PM
Molybdenum	19	0.12	0.50		µg/L	1	3/15/2022 08:03 PM
Selenium	12	0.044	0.50		µg/L	1	3/16/2022 04:38 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-007

Client Sample ID: MW-913-Q122
Collection Date: 3/14/2022 2:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.31	0.050	0.10		µg/L	1	3/16/2022 09:39 PM
Barium	43	0.083	1.0		µg/L	1	3/16/2022 05:14 PM
Manganese	0.89	0.026	0.50		µg/L	1	3/15/2022 08:27 PM
Molybdenum	19	0.12	0.50		µg/L	1	3/15/2022 08:27 PM
Selenium	12	0.044	0.50		µg/L	1	3/16/2022 05:14 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-008

Client Sample ID: MW-79-058-Q122
Collection Date: 3/14/2022 4:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.34	0.050	0.10		µg/L	1	3/16/2022 05:26 PM
Barium	84	0.083	1.0		µg/L	1	3/16/2022 05:26 PM
Manganese	2.1	0.026	0.50		µg/L	1	3/15/2022 08:38 PM
Molybdenum	8.6	0.12	0.50		µg/L	1	3/15/2022 08:38 PM
Selenium	8.8	0.044	0.50		µg/L	1	3/16/2022 05:26 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-009

Client Sample ID: MW-79-102-Q122
Collection Date: 3/14/2022 4:22:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
EPA 3010A			**EPA 6020**				
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:	**3/15/2022**		Analyst: **CEI**
Arsenic	0.78	0.050	0.10		µg/L	1	3/16/2022 05:37 PM
Barium	38	0.083	1.0		µg/L	1	3/16/2022 05:37 PM
Manganese	4.2	0.026	0.50		µg/L	1	3/15/2022 08:50 PM
Molybdenum	29	0.12	0.50		µg/L	1	3/15/2022 08:50 PM
Selenium	65	0.044	0.50		µg/L	1	3/16/2022 05:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Mar-22*

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-010

Client Sample ID: MW-912-Q122
Collection Date: 3/14/2022 4:32:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.75	0.050	0.10		µg/L	1	3/16/2022 05:49 PM
Barium	38	0.083	1.0		µg/L	1	3/16/2022 05:49 PM
Manganese	4.1	0.026	0.50		µg/L	1	3/15/2022 09:02 PM
Molybdenum	29	0.12	0.50		µg/L	1	3/15/2022 09:02 PM
Selenium	64	0.044	0.50		µg/L	1	3/16/2022 05:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-011

Client Sample ID: MW-26-Q122
Collection Date: 3/14/2022 3:44:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.82	0.050	0.10		µg/L	1	3/16/2022 06:01 PM
Barium	45	0.083	1.0		µg/L	1	3/16/2022 06:01 PM
Manganese	620	0.13	2.5		µg/L	5	3/15/2022 09:20 PM
Molybdenum	13	0.12	0.50		µg/L	1	3/15/2022 09:14 PM
Selenium	8.5	0.044	0.50		µg/L	1	3/16/2022 06:01 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-012

Client Sample ID: MW-905-Q122
Collection Date: 3/14/2022 3:54:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	0.75	0.050	0.10		µg/L	1	3/16/2022 06:25 PM
Barium	44	0.083	1.0		µg/L	1	3/16/2022 06:25 PM
Manganese	640	0.13	2.5		µg/L	5	3/15/2022 09:44 PM
Molybdenum	13	0.12	0.50		µg/L	1	3/15/2022 09:38 PM
Selenium	8.5	0.044	0.50		µg/L	1	3/16/2022 06:25 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-013

Client Sample ID: MW-51-Q122
Collection Date: 3/14/2022 3:04:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**				PrepDate:	**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/16/2022 06:37 PM
Barium	37	0.083	1.0		µg/L	1	3/16/2022 06:37 PM
Manganese	6.3	0.13	2.5		µg/L	5	3/15/2022 09:55 PM
Molybdenum	49	0.60	2.5		µg/L	5	3/15/2022 09:55 PM
Selenium	17	0.044	0.50		µg/L	1	3/16/2022 06:37 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW
Lab ID: N049836-014

Client Sample ID: MW-907-Q122
Collection Date: 3/14/2022 3:14:00 PM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
DISSOLVED METALS BY ICP-MS							
	EPA 3010A			**EPA 6020**			
RunID: **NV00922-ICP8_220316B**	QC Batch: **91905**			PrepDate:		**3/15/2022**	Analyst: **CEI**
Arsenic	ND	0.050	0.10		µg/L	1	3/16/2022 06:49 PM
Barium	38	0.083	1.0		µg/L	1	3/16/2022 06:49 PM
Manganese	6.1	0.026	0.50		µg/L	1	3/15/2022 10:01 PM
Molybdenum	49	0.12	0.50		µg/L	1	3/15/2022 10:01 PM
Selenium	17	0.044	0.50		µg/L	1	3/16/2022 06:49 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out
E	Value above quantitation range
ND	Not Detected at the Reporting Limit
	Results are wet unless otherwise specified

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91905**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160883**
Client ID: **PBW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4566587**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID: **LCS-91905**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160883**
Client ID: **LCSW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4566588**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	100.060	0.50	100.0	0	100	85	115				
Molybdenum	9.679	0.50	10.00	0	96.8	85	115				

Sample ID: **N049836-001C-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160883**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4566594**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	118.761	0.50	100.0	28.02	90.7	75	125				
Molybdenum	38.642	0.50	10.00	28.23	104	75	125				

Sample ID: **N049836-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160883**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4566598**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	119.130	0.50	100.0	28.02	91.1	75	125	118.8	0.310	20	
Molybdenum	38.490	0.50	10.00	28.23	103	75	125	38.64	0.394	20	

Sample ID: **MB-91905**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **PBW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **MB-91905**	SampType: **MBLK**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **PBW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Selenium	ND	0.50									

Sample ID: **LCS-91905**	SampType: **LCS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **LCSW**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.133	0.10	10.00	0	101	85	115				
Barium	10.340	1.0	10.00	0	103	85	115				
Selenium	9.665	0.50	10.00	0	96.6	85	115				

Sample ID: **N049836-001C-MS**	SampType: **MS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	20.863	0.10	10.00	14.31	65.6	75	125				S
Barium	44.222	1.0	10.00	35.01	92.2	75	125				
Selenium	84.923	0.50	10.00	75.53	93.9	75	125				

Sample ID: **N049836-001C-MSD**	SampType: **MSD**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date: **3/15/2022**	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.165	0.10	10.00	14.31	48.6	75	125	20.86	8.49	20	S
Barium	44.454	1.0	10.00	35.01	94.5	75	125	44.22	0.524	20	
Selenium	84.576	0.50	10.00	75.53	90.4	75	125	84.92	0.410	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID: **N049836-001C-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/15/2022**	SeqNo: **4566592**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	118.980	0.50	100.0	28.02	91.0	80	120				
Molybdenum	39.135	0.50	10.00	28.23	109	80	120				

Sample ID: **N049836-001C-PS**	SampType: **PS**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **91905**	TestNo: **EPA 6020**	**EPA 3010A**	Analysis Date: **3/16/2022**	SeqNo: **4567328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.223	0.10	10.00	14.31	99.2	80	120				
Barium	44.980	1.0	10.00	35.01	99.7	80	120				
Selenium	85.990	0.50	10.00	75.53	105	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

SAMPLE RECEIVING ITEMS

N049836

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement	QA/QC	Sample Receipt Condition
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:	Excel EDD	RTNE	Y N
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@gridiron.com	Address:	Geotracker	RWQCB ✓	1. Chilled ✓
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#	Labspec	CalTrans	2. Headspace
Submitted By: Nara Tey		Phone: 949-727-1400, ext 200 Fax:	Others ✓	LEVEL III	3. Container Intact ✓
Title: Project Manager	Phone: 916-786-3302 Fax:		Specify: RWQCB	LEVEL IV	4. Seal Present ✓
Signature: Date: 3/14/22	Sampled By: Nara Tey		Global ID:	Regulatory	5. IR number 3
I hereby authorize ASSET Labs to perform the tests indicated below.	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for			Specify State:	6. Method of Cooling: IR3 ICE
Project Name: PG&E Topock - PCM	Signature: Date: 3/14/22				Sample Temp: 3.1°C / 2.3°C / 2.9°C
Project Number: 30121866.1Q22GW					Courier: ASSET
					Tracking No.:

Matrix: Ground X | Sediment | Potable | Soil | NPDES | Other Solid | Surface

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Nitrate (EPA 300.0) (1 L poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049836-01	MW-21-Q122	3/14/2022	12:56		X	X	X	X	X	X		X		A	7	P	BNS	
2	-02	MW-904-Q122	3/14/2022	13:06		X	X	X	X	X	X		X		A	7	P	BNS	
3	-03	MW-21-EB-Q122	3/14/2022	12:30		X									A	1	P	BNS	
4	-04	MW-71-035-Q122	3/14/2022	12:06		X	X	X	X	X	X		X		A	7	P	BNS	
5	-05	MW-80-057-Q122	3/14/2022	14:27		X	X	X	X	X	X		X		A	7	P	BNS	
6	-06	MW-80-082-Q122	3/14/2022	13:50		X	X	X	X	X	X		X		A	7	P	BNS	
7	-07	MW-913-Q122	3/14/2022	14:00		X	X	X	X	X	X		X		A	7	P	BNS	
8	-08	MW-79-058-Q122	3/14/2022	16:54		X	X	X	X	X	X		X		A	7	P	BNS	
9	-09	MW-79-102-Q122	3/14/2022	16:22		X	X	X	X	X	X		X		A	7	P	BNS	
10	-10	MW-912-Q122	3/14/2022	16:32		X	X	X	X	X	X		X		A	7	P	BNS	
11	-11	MW-26-Q122	3/14/2022	15:44		X	X	X	X	X	X		X		A	7	P	BNS	
12	-12	MW-905-Q122	3/14/2022	15:54		X	X	X	X	X	X		X		A	7	P	BNS	
13																			
14																			

Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Nara Tey	3/14/22 1720	Jonas Dacda	3/14/22 1720
Jonas Dacda	3/14/22 20:06	Jonas Dacda	3/14/22 20:06

Turn Around Time (TAT)

- [X] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:

Preservatives: H=HCL; N=HNO_3; S=H_2SO_4; C=4°C; Z=$Zn(AC)_2$; O=NaOH; T=$Na_2S_2O_3$; Others/Specify: B (NH4)2SO4/NH4OH

Container Type: T=Tube; V=VOA; P=Pint; J=Jar; B=Tedlar; G=Glass; M=Metal; M=Metal; C=Can

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

White=Laboratory Copy
Yellow=Customer's Copy

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F:562.219.7436
www.assetlaboratories.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes	EDD Requirement: Excel EDD; Geotracker; Labspec; Others ✓; Specify: RWQCB	QA/QC: RTNE; RWQCB ✓; CalTrans; LEVEL III; LEVEL IV; Regulatory; Specify State:
Address: 1410 Rocky Ridge Dr # 330	Company: Arcadis	Address:		
Address: Roseville, CA 95661	Email: dan.bush@arcadis.com; daniel.moore@crlaw.com	Address:		
Phone: 916-786-3302 Fax:	Address: 1410 Rocky Ridge Dr # 330 Roseville, CA 95661	Email to: mbloes@pivox.com P.O.#		
Submitted By: Nara Tey		Phone: 949-727-1400, ext 200 Fax:		
Title: Project Manager	Phone: 916-786-3302 Fax:			
Signature: Date: 3/14/22	Sampled By: Nara Tey			
Project Name: PG&E Topock - PCM	Signature: Date: 3/14/22			
Project Number: 30121866.1Q22GW				

I hereby authorize ASSET Labs to perform the tests indicated below.

I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for

Matrix: Ground X; Sediment; Potable; Soil; NPDES; Other Solid; Surface

Sample Receipt Condition

	Y	N
1. Chilled		
2. Headspace		
3. Container Intact	✓	
4. Seal Present	✓	
5. IR number	3	
6. Method of Cooling: IR3 ICE		

Sample Temp: 3.1°C / 2.3°C / 2.9°C

Courier: ASSET

Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH (250 mL poly)	Nitrate, sulfate (EPA 300.0) (1 L poly)	Dissolved metals (SW6020) FF; HNO3 Arsenic, Iron, Barium, Manganese (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Total Dissolved Chromium, (500mL poly)	Dissolved metals (SW6020) FF; HNO3 Molybdenum, Selenium (500mL poly)	Total Organic Carbon (SM5310C); H2SO4 (3x40 mL VOA)	Total metals (SW6010) No filter; HNO3 Total Iron (500mL poly)	Ammonia as Nitrogen (SM4500NH3); H2SO4 (1 L poly)	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
1	N049836-13	MW-51-Q122	3/14/2022	15:04		X	X	X	X	X	X		X	A	7	P	BNS	
2	-14	MW-907-Q122	3/14/2022	15:14		X	X	X	X	X	X		X	A	7	P	BNS	
3	-15	EB-724-Q122	3/14/2022	17:10		X								A	1	P	BNS	
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		

Relinquished by (Signature and Printed Name):	Date/Time:	Relinquished by (Signature and Printed Name):	Date/Time:
Nara Tey	3/14/22 1720	Jonas Deada	3/14/22 17 20
Jonas Deada	3/14/22 20:06	Jonas Deada	3/14/22 20:06

Turn Around Time (TAT)

X	A	< 24 Hrs or Same Day TAT
	B	= Next Workday
	C	= 2 Workdays
	D	= 3 Workdays
	E	= Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3.00PM.

Special Instruction:

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1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
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8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H=HCL	N=HNO_3	S=H_2SO_4	C=4°C
Z=Zn(AC)$_2$	O=NaOH	T=$Na_2S_2O_3$	
Others/Specify:	B (NH4)2SO4/NH4OH		

Container Type:

T=Tube	V=VOA	P=Pint
J=Jar	B=Tedlar	G=Glass
M=Metal	M=Metal	C=Can

White=Laboratory Copy

Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/14/2022	Workorder:	N049836
Rep sample Temp (Deg C):	3.1/2.3/2.9	IR Gun ID:	3

Temp Blank: ☑ Yes ☐ No

Carrier name: ASSET

Last 4 digits of Tracking No.: NA Packing Material Used: None

Cooling process: ☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☐	No ☐	NA ☑
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☑	No ☐	NA ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: GGJ GGarcia 3/15/2022

Reviewed By: MBC 3/16/2022

Subject: RE: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049836)
From: "Madsen, Laura" <Laura.Madsen@arcadis.com>
Date: 3/15/2022, 9:01 AM
To: Yoandra Rodriguez <yoandra@assetlaboratories.com>
CC: "maryann.balilu@assetlaboratoriesph.com" <maryann.balilu@assetlaboratoriesph.com>, "giselle@assetlaboratories.com" <giselle@assetlaboratories.com>

It should be A – 24 hrs for all test and samples.

Thanks,
Laura

From: Yoandra Rodriguez <yoandra@assetlaboratories.com>
Sent: Tuesday, March 15, 2022 11:05 AM
To: Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: maryann.balilu@assetlaboratoriesph.com; giselle@assetlaboratories.com
Subject: PG&E Topock - PCM, 30121866.1Q22GW (ASSET Labs No. N049836)

Hi Laura,

I'd like to confirm if the TAT should be A for all tests.

Both A and E are marked at the bottom of page 1 of the attached COC.

--
Thanks,

Yoandra Rodriguez
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | P: 702.307.2659 | F: 702.307.2691
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | P: 562.219.7435 | F: 562.219.7436

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ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-001A	MW-21-Q122	3/14/2022 12:56:00 PM	3/15/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-001B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-001C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-001D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-001E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-002A	MW-904-Q122	3/14/2022 1:06:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-002B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-002C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-002D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-002E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-003A	MW-21-EB-Q122	3/14/2022 12:30:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-004A	MW-71-035-Q122	3/14/2022 12:06:00 PM	3/15/2022	Groundwater	EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-004B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-004C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-004D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-004E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-005A	MW-80-057-Q122	3/14/2022 2:27:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-005B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-005C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-005D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-005E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-006A	MW-80-082-Q122	3/14/2022 1:50:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-006B	MW-80-082-Q122	3/14/2022 1:50:00 PM	3/15/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-006C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-006D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-006E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-007A	MW-913-Q122	3/14/2022 2:00:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-007B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-007C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-007D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-007E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-008A	MW-79-058-Q122	3/14/2022 4:54:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-008B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-008B	MW-79-058-Q122	3/14/2022 4:54:00 PM	3/15/2022	Groundwater	EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-008C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-008D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-008E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-009A	MW-79-102-Q122	3/14/2022 4:22:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-009B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-009C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-009D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-009E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-010A	MW-912-Q122	3/14/2022 4:32:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-010B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-010C	MW-912-Q122	3/14/2022 4:32:00 PM	3/15/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-010D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-010E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-011A	MW-26-Q122	3/14/2022 3:44:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-011B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-011C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-011D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-011E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-012A	MW-905-Q122	3/14/2022 3:54:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-012B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-012C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-012C	MW-905-Q122	3/14/2022 3:54:00 PM	3/15/2022	Groundwater	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-012D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-012E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-013A	MW-51-Q122	3/14/2022 3:04:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-013B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-013C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-013D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-013E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-014A	MW-907-Q122	3/14/2022 3:14:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-014B			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
			3/15/2022		EPA 300.0	ANIONS BY ION CHROMATOGRAPHY	☐	☐	☐	WW
N049836-014C			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/15/2022		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

15-Mar-22

WorkOrder: N049836

Client ID: ARCUS02

Project: PG&E Topock - PCM, 30121866.1Q22GW **QC Level:** Level IV **Date Received:** 3/14/2022

Comments:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049836-014C	MW-907-Q122	3/14/2022 3:14:00 PM	3/15/2022	Groundwater	EPA 6010B	DISSOLVED METALS BY ICP	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
			3/15/2022		EPA 6020	DISSOLVED METALS BY ICP-MS	☐	☐	☐	WW
N049836-014D			3/15/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049836-014E			3/15/2022		SM4500-NH3D	AMMONIA-N BY ION SELECTIVE ELECTRODE	☐	☐	☑	SUB
N049836-015A	EB-724-Q122	3/14/2022 5:10:00 PM	3/15/2022		EPA 218.6	Hexavalent Chromium by IC	☐	☐	☐	WW
N049836-016A	FOLDER	3/15/2022	3/15/2022		Folder	Folder	☐	☐	☐	LAB
			3/15/2022		Folder	Level IV Report	☐	☐	☐	LAB
			3/15/2022		Folder	Folder	☐	☐	☐	LAB

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: Level IV

Subcontractor:

BC Labs
4100 Atlas Court
Bakersfield, CA 93308

TEL: (661) 327-4911
FAX: (661) 327-1918
Acct #:

Field Sampler: Nara Tep

15-Mar-22

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				SM4500-NH3D		
N049836-001E / MW-21-Q122	Groundwater	3/14/2022 12:56:00 PM	16OZP	1		
N049836-002E / MW-904-Q122	Groundwater	3/14/2022 1:06:00 PM	16OZP	1		
N049836-004E / MW-71-035-Q122	Groundwater	3/14/2022 12:06:00 PM	16OZP	1		
N049836-005E / MW-80-057-Q122	Groundwater	3/14/2022 2:27:00 PM	16OZP	1		
N049836-006E / MW-80-082-Q122	Groundwater	3/14/2022 1:50:00 PM	16OZP	1		
N049836-007E / MW-913-Q122	Groundwater	3/14/2022 2:00:00 PM	16OZP	1		
N049836-008E / MW-79-058-Q122	Groundwater	3/14/2022 4:54:00 PM	16OZP	1		
N049836-009E / MW-79-102-Q122	Groundwater	3/14/2022 4:22:00 PM	16OZP	1		
N049836-010E / MW-912-Q122	Groundwater	3/14/2022 4:32:00 PM	16OZP	1		
N049836-011E / MW-26-Q122	Groundwater	3/14/2022 3:44:00 PM	16OZP	1		
N049836-012E / MW-905-Q122	Groundwater	3/14/2022 3:54:00 PM	16OZP	1		
N049836-013E / MW-51-Q122	Groundwater	3/14/2022 3:04:00 PM	16OZP	1		
N049836-014E / MW-907-Q122	Groundwater	3/14/2022 3:14:00 PM	16OZP	1		

General Comments: PLEASE EMAIL SAMPLE RECEIPT ACKNOWLEDGEMENT TO THE PM. ALWAYS CC: sonny.lorenzo@assetlaboratories.com

Please use PO#:N49836A Please email Invoices and Account Receivable Statements to elvira@assetlaboratories.com. For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 1-day TAT.

Please analyze for Ammonia by SM4500NH3D. EDD requirement Labspec7 edata.

GSO #: 556323037

		Date/Time		Date/Time
Relinquished by:	YRJ	3/15/2022 1630	**Received by:**	
Relinquished by:			**Received by:**	

List of Analysts

ASSET Laboratories Work Order: N049836

NAME	TEST METHOD
Claire Ignacio	SM 5310C, EPA 6020_Dissolved
Ria Abes	EPA 218.6, EPA 300.0
Diane Jetajobe	EPA 6010B_Dissolved

EPA 218.6

IC Technical Batch Review Checklist (ARCUS02)

ASSET LABORATORIES - LAS VEGAS

IC ARCUS
REV 2.0
011416

QC Batch Number: R160857
ASSET #: N049836

Instrument ID: IC-07
Analyst: RBA
Date Analyzed: 3/15/2022

Method:

- [ ] EPA 300.0
- [ ] EPA 7199
- [X] EPA 218.6/EPA 218.7
- [ ] EPA 218.6/EPA 218.7 LL
- [ ] Others _____

Initial Calibration and Initial Calibration Verification	1st Level Review			2nd Level Review		
	Y	N	N/A	Y	N	N/A
1. ICAL before initial sample analysis and is not more than 4 weeks old.	X			X		
2. Does correlation coefficient,r, meet criteria ?(r = 0.995, r =0.999 (Cr6+))	X			X		
3. ICV within ± 10% of expected value.	X			X		
Continuing Calibration						
4. CCV after every 10 injections and at the end of analysis sequence.	X			X		
5. CCV within ± 10% of expected value. (± 5% for EPA 218.6)	X			X		
6. Calibration blanks run after ICV and CCV?	X			X		
7. Is the buffer less than MDL? If not, discontinue analysis. (Cr6+ only)	X			X		
8. Do all calibration blanks (ICB and CCBs) meet criteria? (<1/2PQL for 300, <0.02 for Cr6+)	X			X		
9. Is low level check at PQL within ± 20% for 218.6/218.7/7199? ± 30% for 218.6/218.7LL?	X			X		
Sample Information						
10. All samples are within linear range.	X			X		
11. All samples pH within 9.3-9.7 when analyzed?	X			X		
12. Duplicate sample injections for every sample. (7199 only)			X			X
13. For Topock, matrix spike protocol performed on all samples? (Cr6+ only)	X			X		
14. For Hinkley DOM samples, matrix spike protocol performed on all samples ? (Cr6+ only)			X			X
15. For samples < 4 ppb, does the Cr result differs with Cr6+ by no more than 0.7 ppb?	X			X		
16. For samples > 4 ppb, does the Cr result differs with Cr6+ by no more than 20%?		X			X	
17. For samples that failed Cr vs Cr6+ criteria, is matrix spike protocol performed ?	X			X		
18. For dilution and MS spike protocol, spike recovery within 90-110%? (Cr6+ only)	X			X		
19. EPA 3060A digestion performed on solid samples (7199 only)			X			X
20. Are all peaks within RT window, ± 0.2 min?	X			X		
21. Are all samples analyzed within hold time?	X			X		
22. For Hinkley projects (DOM & ATU only), are samples with result ≤ 0.2 ug/L analyzed by low level method? (Cr6+ only)			X			X
QC Items						
23. Method blank values meets criteria. (<1/2 PQL for 300, <0.02 for Cr6+)	X			X		
24. LCS compounds are within control limits.	X			X		
25. MS/MSD, RPD's are within control limits.	X			X		
26. Soluble and Insoluble matrix spike within control limits (7199 solids only)			X			X
Raw Data and Miscellaneous Information						
27. Runlog complete and included in package.	X			X		
28. Extraction log complete and included in package (if applicable)			X			X
29. All manual integrations initialed, date and reasons included.	X			X		
30. Before and after manual integration chromatogram included in the package	X			X		
31. All samples and QC raw data present in package.	X			X		
Preliminary Report						
32. Does the raw data match the preliminary report?	X			X		
33. Are analytical results correct?(Ex. dilutions, calculations.etc.)	X			X		
34 Is the QC summary report present and complete?	X			X		

Comments:

N049836-001A = 2.3 ppb ; N049836-001C = 5.6 ppb N049836-002A = 2.4 ppb ; N049836-002C = 5.7 ppb
MS protocol performed. Recovery within criteria.

SECOND LEVEL REVIEW:

	Y	N	N/A
1. All assigned sample(s) analyzed	x		
2. Matrix / units correct	x		
3. Is QC present and complete?	x		
4. Are analytical results correct? (dilutions,calculations)	x		
5. Is first level review correct and complete?	x		

1st Level Reviewer RBA Date: _____

2nd Level Reviewer JRB 3/16/2022 Date: _____

SAMPLE CALCULATION

Sample Calculation

METHOD: EPA 218.6
TEST NAME: HEXAVALENT CHROMIUM BY IC
MATRIX: Groundwater

FORMULA:

Calculate the Hexavalent Chromium concentration, in µg/L, in the original sample as follows:

$$Cr^{+6}, \mu g/L = A * DF$$

where:

A = µg/L, IC Cr+6 calculated concentration
DF = dilution factor

For Sample **N049836-001A** , the concentration in µg/L is calculated as follows:

$$Cr^{+6}, \mu g/L = 2.3462 * 1$$

$$Cr^{+6}, \mu g/L = 2.3462$$

Reporting results in two significant figures,

$$\mathbf{Cr^{+6}, \mu g/L = 2.3}$$

Reviewed by:

JRB 3/24/2022

ANALYSIS RUN LOG

INJECTION LOG: 220301A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
1	BLANK	BLANK	1	Hexavalent Chromium	03/01/22 9:10 AM	Not Reported
2	iBLANK	iBLANK	1	Hexavalent Chromium	03/01/22 9:21 AM	Reported
3	STD-0.2 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:30 AM	Reported
4	STD-1.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:39 AM	Reported
5	STD-5.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:49 AM	Reported
6	STD-10.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:58 AM	Reported
7	STD-15.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:08 AM	Reported
8	STD-20.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:17 AM	Reported
9	ICV	ICV	1	Hexavalent Chromium	03/01/22 10:27 AM	Reported
10	PQL@0.2ppb	CCV2	1	Hexavalent Chromium	03/01/22 10:36 AM	Reported
11	ICB	ICB	1	Hexavalent Chromium	03/01/22 10:46 AM	Reported
12	MB-R160532	MBLK	1	Hexavalent Chromium	03/01/22 10:55 AM	Reported
13	LCS-R160532	LCS	1	Hexavalent Chromium	03/01/22 11:05 AM	Reported
14	N049585-006A	SAMP	5	Hexavalent Chromium	03/01/22 11:40 AM	Reported
15	N049585-001A	SAMP	1	Hexavalent Chromium	03/01/22 11:51 AM	Reported
16	N049585-001AMS	MS	1	Hexavalent Chromium	03/01/22 12:00 PM	Reported
17	N049585-002A	SAMP	1	Hexavalent Chromium	03/01/22 12:10 PM	Reported
18	N049585-002AMS	MS	1	Hexavalent Chromium	03/01/22 12:19 PM	Reported
19	N049585-002AMSD	MSD	1	Hexavalent Chromium	03/01/22 12:29 PM	Reported
20	N049585-003A	SAMP	1	Hexavalent Chromium	03/01/22 12:38 PM	Reported
21	N049585-003AMS	MS	1	Hexavalent Chromium	03/01/22 12:48 PM	Reported
22	CCV-1	CCV1	1	Hexavalent Chromium	03/01/22 12:57 PM	Reported
23	CCB-1	CCB	1	Hexavalent Chromium	03/01/22 1:07 PM	Reported
24	N049585-004A	SAMP	1	Hexavalent Chromium	03/01/22 1:16 PM	Reported
25	N049585-004AMS	MS	1	Hexavalent Chromium	03/01/22 1:26 PM	Not Reported
26	N049585-005A	SAMP	1	Hexavalent Chromium	03/01/22 1:35 PM	Reported
27	N049585-005AMS	MS	1	Hexavalent Chromium	03/01/22 1:44 PM	Reported
28	N049585-007A	SAMP	1	Hexavalent Chromium	03/01/22 1:54 PM	Reported
29	N049585-007AMS	MS	1	Hexavalent Chromium	03/01/22 2:03 PM	Reported
30	N049586-001A	SAMP	1	Hexavalent Chromium	03/01/22 2:13 PM	Reported
31	N049586-002A	SAMP	1	Hexavalent Chromium	03/01/22 2:22 PM	Reported
32	N049585-004AMS	MS	1	Hexavalent Chromium	03/01/22 2:32 PM	Reported
33	N049586-004A	SAMP	1	Hexavalent Chromium	03/01/22 2:41 PM	Reported
34	CCV-2	CCV	1	Hexavalent Chromium	03/01/22 2:52 PM	Reported
35	CCB-2	CCB	1	Hexavalent Chromium	03/01/22 3:01 PM	Reported
36	N049586-005A	SAMP	1	Hexavalent Chromium	03/01/22 3:10 PM	Reported
37	N049586-006A	SAMP	1	Hexavalent Chromium	03/01/22 3:20 PM	Reported
38	N049587-001A	SAMP	1	Hexavalent Chromium	03/01/22 3:29 PM	Reported
39	N049588-001A	SAMP	1	Hexavalent Chromium	03/01/22 3:39 PM	Reported
40	N049585-006AMS	MS	5	Hexavalent Chromium	03/01/22 3:48 PM	Not Reported
41	N049585-006A	SAMP	1	Hexavalent Chromium	03/01/22 3:58 PM	Not Reported
42	N049585-006AMS	MS	1	Hexavalent Chromium	03/01/22 4:07 PM	Not Reported

INJECTION LOG: 220301A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
43	N049586-003A	SAMP	1	Hexavalent Chromium	03/01/22 4:17 PM	Reported
44	N049586-002ADUP	DUP	1	Hexavalent Chromium	03/01/22 4:26 PM	Reported
45	CCV-3	CCV1	1	Hexavalent Chromium	03/01/22 4:36 PM	Reported
46	CCB-3	CCB	1	Hexavalent Chromium	03/01/22 4:45 PM	Reported
47	BLANK	BLANK	1	Hexavalent Chromium	03/01/22 4:55 PM	Not Reported

Injection Log Summary

Sequence Details

Name:	**IC-07_220301A**	*Created On:*	**24/Jul/12 17:17:21**
Directory:	**Instrument Data\IC-7\2019**	*Created By:*	**ics 5000**
Data Vault:	**ChromeleonLocal3**	*Updated On:*	**01/Mar/22 17:25:20**
No. of Injections:	**50**	*Updated By:*	**ics 5000**

Injection Details

No.	Injection Name	Position	Volume µL	Type	Level	Inject Time	Status	Comment
1	BLANK	1	1000	Unknown		03/01/2022 09:10	Finished	BLANK
2	iBLANK	2	1000	Unknown		03/01/2022 09:21	Finished	INSTRUMENT BLANK
3	STD1-0.2 ppb	3	1000	Calibration Standard	01	03/01/2022 09:30	Finished	0.2 ppb, IWST-220131A
4	STD2-1.0 ppb	4	1000	Calibration Standard	02	03/01/2022 09:39	Finished	1.0 ppb, IWST-220131A
5	STD3-5.0 ppb	5	1000	Calibration Standard	03	03/01/2022 09:49	Finished	5.0 ppb, IWST-220131A
6	STD4-10.0 ppb	6	1000	Calibration Standard	04	03/01/2022 09:58	Finished	10 ppb, IWST-220131A
7	STD5-15.0 ppb	7	1000	Calibration Standard	05	03/01/2022 10:08	Finished	15 ppb, IWST-220131A
8	STD6-20.0 ppb	8	1000	Calibration Standard	06	03/01/2022 10:17	Finished	20 ppb, IWST-220131A
9	ICV,ICV,1,	9	1000	Unknown		03/01/2022 10:27	Finished	ICV @5ppb, IWST-220131B
10	PQL@0.2ppb,CCV2,1	10	1000	Unknown		03/01/2022 10:36	Finished	PQL @ 0.2ppb
11	ICB,ICB,1,	11	1000	Unknown		03/01/2022 10:46	Finished	ICB R220111A
12	MB-H2O,MBLK,1,	12	1000	Unknown		03/01/2022 10:55	Finished	MB R220111A
13	LCS-H2O,LCS,1,	13	1000	Unknown		03/01/2022 11:05	Finished	LCS (5ppb), IWST-220131B
14	N049585-006A,SAMF	1	1000	Unknown		03/01/2022 11:40	Finished	SAMP,2>10 mL
15	N049585-001A,SAMF	2	1000	Unknown		03/01/2022 11:51	Finished	SAMP,10 mL
16	N049585-001AMS,MS	3	1000	Unknown		03/01/2022 12:00	Finished	MS (1ppb), IWST-220131B,10r
17	N049585-002A,SAMF	4	1000	Unknown		03/01/2022 12:10	Finished	SAMP,10 mL
18	N049585-002AMS,MS	5	1000	Unknown		03/01/2022 12:19	Finished	MS (1ppb), IWST-220131B,10r
19	N049585-002AMSD,M	6	1000	Unknown		03/01/2022 12:29	Finished	MSD (1ppb), IWST-220131B,1
20	N049585-003A,SAMF	7	1000	Unknown		03/01/2022 12:38	Finished	SAMP,10 mL
21	N049585-003AMS,MS	8	1000	Unknown		03/01/2022 12:48	Finished	MS (1ppb), IWST-220131B,10r
22	CCV-1,CCV1,1,	9	1000	Unknown		03/01/2022 12:57	Finished	CCV @10ppb, IWST-220131A
23	CCB-1,CCB,1,	10	1000	Unknown		03/01/2022 13:07	Finished	CCB R220111A
24	N049585-004A,SAMF	11	1000	Unknown		03/01/2022 13:16	Finished	SAMP,10 mL
25	N049585-004AMS,MS	12	1000	Unknown		03/01/2022 13:26	Finished	MS (1ppb), IWST-220131B,10r
26	N049585-005A,SAMF	13	1000	Unknown		03/01/2022 13:35	Finished	SAMP,10 mL
27	N049585-005AMS,MS	14	1000	Unknown		03/01/2022 13:44	Finished	MS (1ppb), IWST-220131B,10r
28	N049585-007A,SAMF	15	1000	Unknown		03/01/2022 13:54	Finished	SAMP,10 mL
29	N049585-007AMS,MS	16	1000	Unknown		03/01/2022 14:03	Finished	MS (1ppb), IWST-220131B,10r
30	N049586-001A,SAMF	17	1000	Unknown		03/01/2022 14:13	Finished	SAMP,10 mL
31	N049586-002A,SAMF	18	1000	Unknown		03/01/2022 14:22	Finished	SAMP,10 mL
32	N049585-004AMS,MS	19	1000	Unknown		03/01/2022 14:32	Finished	MS (1ppb), IWST-220131B,10r
33	N049586-004A,SAMF	20	1000	Unknown		03/01/2022 14:41	Finished	SAMP,10 mL
34	CCV-2,CCV,1,	21	1000	Unknown		03/01/2022 14:52	Finished	CCV @5ppb, IWST-220131A
35	CCB-2,CCB,1,	22	1000	Unknown		03/01/2022 15:01	Finished	CCB R220111A
36	N049586-005A,SAMF	23	1000	Unknown		03/01/2022 15:10	Finished	SAMP,10 mL
37	N049586-006A,SAMF	24	1000	Unknown		03/01/2022 15:20	Finished	SAMP,10 mL
38	N049587-001A,SAMF	25	1000	Unknown		03/01/2022 15:29	Finished	SAMP,10 mL
39	N049588-001A,SAMF	26	1000	Unknown		03/01/2022 15:39	Finished	SAMP,10 mL
40	N049585-006AMS,MS	27	1000	Unknown		03/01/2022 15:48	Finished	MS (1ppb), IWST-220131B,2>
41	N049585-006A,SAMF	28	1000	Unknown		03/01/2022 15:58	Finished	SAMP,10 mL
42	N049585-006AMS,MS	29	1000	Unknown		03/01/2022 16:07	Finished	MS (5ppb), IWST-220131B,10r
43	N049586-003A,SAMF	30	1000	Unknown		03/01/2022 16:17	Finished	SAMP,10 mL
44	N049586-002ADUP,D	31	1000	Unknown		03/01/2022 16:26	Finished	DUP,10 mL
45	CCV-3,CCV1,1,	32	1000	Unknown		03/01/2022 16:36	Finished	CCV @10ppb, IWST-220131A
46	CCB-3,CCB,1,	33	1000	Unknown		03/01/2022 16:45	Finished	CCB R220111A
47	BLANK	34	1000	Unknown		03/01/2022 16:55	Finished	BLANK
48	SHUTDOWN	35	1000	Unknown		03/01/2022 17:04	Finished	
49	Eluent: R220228A	36	1000	Unknown		n.a.	Finished	Eluent
50	PCR: R220228B	37	1000	Unknown		n.a.	Finished	Post-Column Reagent

INJECTION LOG: 220315A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
1	BLANK	BLANK	1	Hexavalent Chromium	03/01/22 9:10 AM	Not Reported
2	iBLANK	iBLANK	1	Hexavalent Chromium	03/01/22 9:21 AM	Reported
3	STD-0.2 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:30 AM	Reported
4	STD-1.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:39 AM	Reported
5	STD-5.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:49 AM	Reported
6	STD-10.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:58 AM	Reported
7	STD-15.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:08 AM	Reported
8	STD-20.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:17 AM	Reported
9	BLANK	BLANK	1	Hexavalent Chromium	03/15/22 9:02 AM	Not Reported
10	CCV-1	CCV	1	Hexavalent Chromium	03/15/22 9:13 AM	Reported
11	PQL@0.2ppb	CCV2	1	Hexavalent Chromium	03/15/22 9:22 AM	Reported
12	CCB-1	CCB	1	Hexavalent Chromium	03/15/22 9:32 AM	Reported
13	MB-R160857	MBLK	1	Hexavalent Chromium	03/15/22 9:41 AM	Reported
14	LCS-R160857	LCS	1	Hexavalent Chromium	03/15/22 9:51 AM	Reported
15	N049835-001A	SAMP	1	Hexavalent Chromium	03/15/22 10:03 AM	Not Reported
16	N049835-002A	SAMP	1	Hexavalent Chromium	03/15/22 10:14 AM	Not Reported
17	N049836-001A	SAMP	1	Hexavalent Chromium	03/15/22 10:24 AM	Reported
18	N049836-002A	SAMP	1	Hexavalent Chromium	03/15/22 10:33 AM	Reported
19	N049836-004A	SAMP	1	Hexavalent Chromium	03/15/22 10:43 AM	Not Reported
20	N049836-004AMS	MS	1	Hexavalent Chromium	03/15/22 10:52 AM	Not Reported
21	N049836-005A	SAMP	100	Hexavalent Chromium	03/15/22 11:01 AM	Reported
22	N049836-005AMS	MS	100	Hexavalent Chromium	03/15/22 11:10 AM	Reported
23	CCV-2	CCV1	1	Hexavalent Chromium	03/15/22 11:20 AM	Reported
24	CCB-2	CCB	1	Hexavalent Chromium	03/15/22 11:29 AM	Reported
25	N049835-001A	SAMP	1	Hexavalent Chromium	03/15/22 11:38 AM	Not Reported
26	N049835-002A	SAMP	1	Hexavalent Chromium	03/15/22 11:48 AM	Not Reported
27	N049836-008A	SAMP	500	Hexavalent Chromium	03/15/22 11:57 AM	Reported
28	N049836-008AMS	MS	500	Hexavalent Chromium	03/15/22 12:07 PM	Reported
29	N049836-008AMSD	MSD	500	Hexavalent Chromium	03/15/22 12:16 PM	Reported
30	N049835-001A	SAMP	50	Hexavalent Chromium	03/15/22 12:26 PM	Reported
31	N049835-001ADUP	DUP	50	Hexavalent Chromium	03/15/22 12:35 PM	Reported
32	N049835-001AMS	MS	50	Hexavalent Chromium	03/15/22 12:45 PM	Reported
33	N049835-002A	SAMP	50	Hexavalent Chromium	03/15/22 12:54 PM	Reported
34	N049835-002AMS	MS	50	Hexavalent Chromium	03/15/22 1:04 PM	Reported
35	CCV-3	CCV	1	Hexavalent Chromium	03/15/22 1:13 PM	Reported
36	CCB-3	CCB	1	Hexavalent Chromium	03/15/22 1:23 PM	Reported
37	N049836-006A	SAMP	500	Hexavalent Chromium	03/15/22 1:32 PM	Reported
38	N049836-006AMS	MS	500	Hexavalent Chromium	03/15/22 1:41 PM	Reported
39	N049836-007A	SAMP	500	Hexavalent Chromium	03/15/22 1:51 PM	Reported
40	N049836-007AMS	MS	500	Hexavalent Chromium	03/15/22 2:00 PM	Reported
41	N049836-009A	SAMP	500	Hexavalent Chromium	03/15/22 2:10 PM	Reported
42	N049836-009AMS	MS	500	Hexavalent Chromium	03/15/22 2:19 PM	Reported

INJECTION LOG: 220315A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
43	N049836-010A	SAMP	500	Hexavalent Chromium	03/15/22 2:29 PM	Reported
44	N049836-010AMS	MS	500	Hexavalent Chromium	03/15/22 2:38 PM	Reported
45	N049836-001AMS	MS	1	Hexavalent Chromium	03/15/22 2:48 PM	Reported
46	N049836-002AMS	MS	1	Hexavalent Chromium	03/15/22 2:57 PM	Reported
47	CCV-4	CCV1	1	Hexavalent Chromium	03/15/22 3:07 PM	Reported
48	CCB-4	CCB	1	Hexavalent Chromium	03/15/22 3:16 PM	Reported
49	N049836-015A	SAMP	1	Hexavalent Chromium	03/15/22 3:26 PM	Reported
50	N049836-015AMS	MS	1	Hexavalent Chromium	03/15/22 3:35 PM	Reported
51	N049836-004A	SAMP	5	Hexavalent Chromium	03/15/22 3:44 PM	Reported
52	N049836-004AMS	MS	5	Hexavalent Chromium	03/15/22 3:54 PM	Reported
53	N049836-013A	SAMP	500	Hexavalent Chromium	03/15/22 4:03 PM	Reported
54	N049836-013AMS	MS	500	Hexavalent Chromium	03/15/22 4:13 PM	Reported
55	N049836-014A	SAMP	500	Hexavalent Chromium	03/15/22 4:23 PM	Reported
56	N049836-014AMS	MS	500	Hexavalent Chromium	03/15/22 4:34 PM	Reported
57	N049836-011A	SAMP	200	Hexavalent Chromium	03/15/22 4:44 PM	Reported
58	N049836-011AMS	MS	200	Hexavalent Chromium	03/15/22 4:53 PM	Reported
59	CCV-5	CCV	1	Hexavalent Chromium	03/15/22 5:03 PM	Reported
60	CCB-5	CCB	1	Hexavalent Chromium	03/15/22 5:12 PM	Reported
61	N049836-012A	SAMP	200	Hexavalent Chromium	03/15/22 5:22 PM	Reported
62	N049836-012AMS	MS	200	Hexavalent Chromium	03/15/22 5:31 PM	Reported
63	N049836-003A	SAMP	1	Hexavalent Chromium	03/15/22 5:40 PM	Reported
64	N049836-003AMS	MS	1	Hexavalent Chromium	03/15/22 5:50 PM	Reported
65	CCV-6	CCV1	1	Hexavalent Chromium	03/15/22 5:59 PM	Reported
66	CCB-6	CCB	1	Hexavalent Chromium	03/15/22 6:09 PM	Not Reported
67	CCB-6	CCB	1	Hexavalent Chromium	03/15/22 6:18 PM	Reported

Injection Log Summary

Sequence Details

Name:	**IC-07_220315A**	*Created On:*	**24/Jul/12 17:17:21**
Directory:	**Instrument Data\IC-7\2019**	*Created By:*	**ics 5000**
Data Vault:	**ChromeleonLocal3**	*Updated On:*	**15/Mar/22 18:30:05**
No. of Injections:	**70**	*Updated By:*	**ics 5000**

Injection Details

No.	Injection Name	Position	Volume µL	Type	Level	Inject Time	Status	Comment
1	BLANK	1	1000	Unknown		03/01/2022 09:10	Finished	BLANK
2	iBLANK	2	1000	Unknown		03/01/2022 09:21	Finished	INSTRUMENT BLANK
3	STD1-0.2 ppb	3	1000	Calibration Standard	01	03/01/2022 09:30	Finished	0.2 ppb, IWST-220131A
4	STD2-1.0 ppb	4	1000	Calibration Standard	02	03/01/2022 09:39	Finished	1.0 ppb, IWST-220131A
5	STD3-5.0 ppb	5	1000	Calibration Standard	03	03/01/2022 09:49	Finished	5.0 ppb, IWST-220131A
6	STD4-10.0 ppb	6	1000	Calibration Standard	04	03/01/2022 09:58	Finished	10 ppb, IWST-220131A
7	STD5-15.0 ppb	7	1000	Calibration Standard	05	03/01/2022 10:08	Finished	15 ppb, IWST-220131A
8	STD6-20.0 ppb	8	1000	Calibration Standard	06	03/01/2022 10:17	Finished	20 ppb, IWST-220131A
9	BLANK	1	1000	Unknown		03/15/2022 09:02	Finished	BLANK
10	CCV-1,CCV,1,	2	1000	Unknown		03/15/2022 09:13	Finished	CCV @5ppb, IWST-220131A
11	PQL@0.2ppb,CCV2,	3	1000	Unknown		03/15/2022 09:22	Finished	PQL @ 0.2ppb
12	CCB-1,CCB,1,	4	1000	Unknown		03/15/2022 09:32	Finished	CCB R220302A
13	MB-H2O,MBLK,1,	5	1000	Unknown		03/15/2022 09:41	Finished	MB R220302A
14	LCS-H2O,LCS,1,	6	1000	Unknown		03/15/2022 09:51	Finished	LCS (5ppb), IWST-220131B
15	N049835-001A,SAMF	1	1000	Unknown		03/15/2022 10:03	Finished	SAMP,10 mL
16	N049835-002A,SAMF	2	1000	Unknown		03/15/2022 10:14	Finished	SAMP,10 mL
17	N049836-001A,SAMF	3	1000	Unknown		03/15/2022 10:24	Finished	SAMP,10 mL
18	N049836-002A,SAMF	4	1000	Unknown		03/15/2022 10:33	Finished	SAMP,10 mL
19	N049836-004A,SAMF	5	1000	Unknown		03/15/2022 10:43	Finished	SAMP,10 mL
20	N049836-004AMS,MS	6	1000	Unknown		03/15/2022 10:52	Finished	MS (1ppb), IWST-220131B,10r
21	N049836-005A,SAMF	7	1000	Unknown		03/15/2022 11:01	Finished	SAMP,0.01>10 mL
22	N049836-005AMS,MS	8	1000	Unknown		03/15/2022 11:10	Finished	MS (5ppb), IWST-220131B,0.0
23	CCV-2,CCV1,1,	9	1000	Unknown		03/15/2022 11:20	Finished	CCV @10ppb, IWST-220131A
24	CCB-2,CCB,1,	10	1000	Unknown		03/15/2022 11:29	Finished	CCB R220302A
25	N049835-001A,SAMF	11	1000	Unknown		03/15/2022 11:38	Finished	SAMP,10 mL
26	N049835-002A,SAMF	12	1000	Unknown		03/15/2022 11:48	Finished	SAMP,10 mL
27	N049836-008A,SAMF	13	1000	Unknown		03/15/2022 11:57	Finished	SAMP,0.02>10 mL
28	N049836-008AMS,MS	14	1000	Unknown		03/15/2022 12:07	Finished	MS (5ppb), IWST-220131B,0.0
29	N049836-008AMSD,M	15	1000	Unknown		03/15/2022 12:16	Finished	MSD (5ppb), IWST-220131B,0
30	N049835-001A,SAMF	16	1000	Unknown		03/15/2022 12:26	Finished	SAMP,0.2>10 mL
31	N049835-001ADUP,D	17	1000	Unknown		03/15/2022 12:35	Finished	DUP,0.2>10 mL
32	N049835-001AMS,MS	18	1000	Unknown		03/15/2022 12:45	Finished	MS (5ppb), IWST-220131B,0.2
33	N049835-002A,SAMF	19	1000	Unknown		03/15/2022 12:54	Finished	SAMP,0.2>10 mL
34	N049835-002AMS,MS	20	1000	Unknown		03/15/2022 13:04	Finished	MS (5ppb), IWST-220131B,0.2
35	CCV-3,CCV,1,	21	1000	Unknown		03/15/2022 13:13	Finished	CCV @5ppb, IWST-220131A
36	CCB-3,CCB,1,	22	1000	Unknown		03/15/2022 13:23	Finished	CCB R220302A
37	N049836-006A,SAMF	23	1000	Unknown		03/15/2022 13:32	Finished	SAMP,0.02>10 mL
38	N049836-006AMS,MS	24	1000	Unknown		03/15/2022 13:41	Finished	MS (5ppb), IWST-220131B,0.0
39	N049836-007A,SAMF	25	1000	Unknown		03/15/2022 13:51	Finished	SAMP,0.02>10 mL
40	N049836-007AMS,MS	26	1000	Unknown		03/15/2022 14:00	Finished	MS (5ppb), IWST-220131B,0.0
41	N049836-009A,SAMF	27	1000	Unknown		03/15/2022 14:10	Finished	SAMP,0.02>10 mL
42	N049836-009AMS,MS	28	1000	Unknown		03/15/2022 14:19	Finished	MS (5ppb), IWST-220131B,0.0
43	N049836-010A,SAMF	29	1000	Unknown		03/15/2022 14:29	Finished	SAMP,0.02>10 mL
44	N049836-010AMS,MS	30	1000	Unknown		03/15/2022 14:38	Finished	MS (5ppb), IWST-220131B,0.0
45	N049836-001AMS,MS	31	1000	Unknown		03/15/2022 14:48	Finished	MS (1ppb), IWST-220131B,10r
46	N049836-002AMS,MS	32	1000	Unknown		03/15/2022 14:57	Finished	MS (1ppb), IWST-220131B,10r
47	CCV-4,CCV1,1,	33	1000	Unknown		03/15/2022 15:07	Finished	CCV @10ppb, IWST-220131A
48	CCB-4,CCB,1,	34	1000	Unknown		03/15/2022 15:16	Finished	CCB R220302A
49	N049836-015A,SAMF	35	1000	Unknown		03/15/2022 15:26	Finished	SAMP,10 mL
50	N049836-015AMS,MS	36	1000	Unknown		03/15/2022 15:35	Finished	MS (1ppb), IWST-220131B,10r
51	N049836-004A,SAMF	37	1000	Unknown		03/15/2022 15:44	Finished	SAMP,2>10 mL
52	N049836-004AMS,MS	38	1000	Unknown		03/15/2022 15:54	Finished	MS (1ppb), IWST-220131B,2>
53	N049836-013A,SAMF	39	1000	Unknown		03/15/2022 16:03	Finished	SAMP,0.02>10 mL
54	N049836-013AMS,MS	40	1000	Unknown		03/15/2022 16:13	Finished	MS (5ppb), IWST-220131B,0.0
55	N049836-014A,SAMF	1	1000	Unknown		03/15/2022 16:23	Finished	SAMP,0.02>10 mL
56	N049836-014AMS,MS	2	1000	Unknown		03/15/2022 16:34	Finished	MS (5ppb), IWST-220131B,0.0
57	N049836-011A,SAMF	3	1000	Unknown		03/15/2022 16:44	Finished	SAMP,0.05>10 mL
58	N049836-011AMS,MS	4	1000	Unknown		03/15/2022 16:53	Finished	MS (5ppb), IWST-220131B,0.0
59	CCV-5,CCV,1,	5	1000	Unknown		03/15/2022 17:03	Finished	CCV @5ppb, IWST-220131A
60	CCB-5,CCB,1,	6	1000	Unknown		03/15/2022 17:12	Finished	CCB R220302A

61	N049836-012A,SAMP	7	1000	Unknown		03/15/2022 17:22	Finished	SAMP,0.05>10 mL
62	N049836-012AMS,MS	8	1000	Unknown		03/15/2022 17:31	Finished	MS (5ppb), IWST-220131B,0.0
63	N049836-003A,SAMP	9	1000	Unknown		03/15/2022 17:40	Finished	SAMP,10 mL
64	N049836-003AMS,MS	10	1000	Unknown		03/15/2022 17:50	Finished	MS (1ppb), IWST-220131B,10r
65	CCV-6,CCV1,1,	11	1000	Unknown		03/15/2022 17:59	Finished	CCV @10ppb, IWST-220131A
66	CCB-6,CCB,1,	12	1000	Unknown		03/15/2022 18:09	Finished	CCB R220302A
67	CCB-6,CCB,1,	13	1000	Unknown		03/15/2022 18:18	Finished	CCB R220302A
68	SHUTDOWN	14	1000	Unknown		n.a.	Running	
69	Eluent: R220312A	15	1000	Unknown		n.a.	Finished	Eluent
70	PCR: R220312B	16	1000	Unknown		n.a.	Finished	Post-Column Reagent

SAMPLE PREPARATION LOG

Hexavalent Chromium Preparation and Runlog

Sample Preparation

Date Prepared: 3/15/22
Time Prepared: 0920H
Prepared By: MG

Reagent ID:
Sulfuric Acid: 12513
Diphenylcarbazide: CW-21052[illegible]
NH4OH + NH4SO4 eluent: M220302A
NH4OH + NH4SO4 buffer: M220302A

6W WQM
M220816C

	Sample ID.	pH of sample	pH after treatment	Initial Volume of sample	Final Volume after buffer add'n	Volume of buffer added	Comments
1)	MW9875-1A	9.45	-	~250 ml	~250ml		
2)	2A	9.43	-				
3)	MW9876-1A	9.18	9.30			+3 dp NaN	
4)	2A	9.20	9.34			+3 "	
5)	3A	9.66	-				
6)	4A	9.26	9.32			+2 dp NaN	
7)	5A	9.51	-				
8)	6A	9.45	-				
9)	7A	9.48	-				
10)	8A	9.53	-				
11)	9A	9.49	-				
12)	10A	9.47	-				
13)	11A	9.59	-				
14)	12A	9.60	-				
15)	13A	9.55	-				
	14A	9.53	-				
	15A	9.68	-				

Sample Preparation

Date Prepared: 3/21/22
Time Prepared: 1015H
Prepared By: MG

Reagent ID:
Sulfuric Acid: 12513
Diphenylcarbazide: CW-21052[illegible]F
NH4OH + NH4SO4 eluent: M220322A
NH4OH + NH4SO4 buffer: M220302A

	Sample ID.	pH of sample	pH after treatment	Initial Volume of sample	Final Volume after buffer add'n	Volume of buffer added	Comments
1)	MW9902-1A	9.56	-	~250ml	~250ml		
2)							
3)							
4)							
5)							
6)							
7)							
8)							
9)							
10)							
11)							
12)							
13)							
14)							
15)							

Logbook No. 21

INITIAL CALIBRATION DATA SUMMARY

(EPA 218.6) - INITIAL CALIBRATION

Instrument ID: IC-07
Date Calibrated: 3/1/2022

Initial Calibration:

Hexavalent Chromium	STD1	STD2	STD3	STD4	STD5	STD6	
COMPOUND, in ug/L	0.2	1	5	10	15	20	R^2
Area,mAU*min	0.0383	0.1818	0.9508	1.8684	2.8050	3.7849	0.9999

	Stock	Working
Standard Concentration:	1,000,000 PPB	1,000 PPB
Standard ID:	ISST-210322A	IWST-220131A

Calibration Acceptance Criteria: > 0.999 Correlation

* Please note that the instrument printout for Area were represented in three decimal places. The exact values are represented in the ICAL summary for calculation purposes.

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **ICV**	SampType: **ICV**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ICV**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4565086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.104	0.20	5.000	0	102	90	110				

Sample ID: **PQL@0.2ppb**	SampType: **CCV2**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4565087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.189	0.20	0.2000	0	94.4	80	120				

Sample ID: **CCV-1**	SampType: **CCV**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCV**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.998	0.20	5.000	0	100	95	105				

Sample ID: **PQL@0.2ppb**	SampType: **CCV2**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565090**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.194	0.20	0.2000	0	97.0	80	120				

Sample ID: **CCV-2**	SampType: **CCV1**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.266	0.20	10.00	0	103	95	105				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **CCV-3**	SampType: **CCV**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCV**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565108**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.148	0.20	5.000	0	103	95	105				

Sample ID: **CCV-4**	SampType: **CCV1**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565120**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.434	0.20	10.00	0	104	95	105				

Sample ID: **CCV-5**	SampType: **CCV**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCV**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565132**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.095	0.20	5.000	0	102	95	105				

Sample ID: **CCV-6**	SampType: **CCV1**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ZZZZZZ**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.089	0.20	10.00	0	101	95	105				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

SUMMARY OF INSTRUMENT BLANKS

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **ICB**	SampType: **ICB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **ICB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/1/2022**	SeqNo: **4565088**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **CCB-1**	SampType: **CCB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **CCB-2**	SampType: **CCB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565099**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **CCB-3**	SampType: **CCB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565109**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **CCB-4**	SampType: **CCB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565121**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
  Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 218.6_WPGE

Sample ID: **CCB-5**	SampType: **CCB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565133**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **CCB-6**	SampType: **CCB**	TestCode: **218.6_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **160857**
Client ID: **CCB**	Batch ID: **R160857**	TestNo: **EPA 218.6**		Analysis Date: **3/15/2022**	SeqNo: **4565139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

RETENTION TIME SUMMARY

RETENTION TIME (RT) SUMMARY

Instrument ID: IC-07

Analytical Sequence

Date Analyzed: 3/15/2022

Sample Name	Retention Time	Evaluation
ICV	4.165	
CCV-1	4.181	
CCV-2	4.181	
CCV-3	4.181	
CCV-4	4.181	
CCV-5	4.181	
CCV-6	4.190	

Average	4.183
Actual RT Window	4.103 - 4.263
Applied RT Window	3.983 - 4.383

MB-R160857	N.A.	N.A.
LCS-R160857	4.181	PASS
N049836-001A	3.998	PASS
N049836-002A	3.998	PASS
N049836-004A	N.A.	N.A.
N049836-005A	4.181	PASS
N049836-005AMS	4.181	PASS
N049835-001A	3.990	PASS
N049835-002A	4.006	PASS
N049836-008A	4.181	PASS
N049836-008AMS	4.181	PASS
N049836-008AMSD	4.181	PASS
N049835-001A	4.181	PASS
N049835-001ADUP	4.181	PASS
N049835-001AMS	4.181	PASS
N049835-002A	4.181	PASS
N049835-002AMS	4.181	PASS
N049836-006A	4.181	PASS
N049836-006AMS	4.181	PASS
N049836-007A	4.181	PASS
N049836-007AMS	4.181	PASS
N049836-009A	4.181	PASS

Reviewed by:

JRB 3/24/2022

RETENTION TIME (RT) SUMMARY

Instrument ID: IC-07

Analytical Sequence

Date Analyzed: 3/15/2022

Sample Name	Retention Time	Evaluation
ICV	4.165	
CCV-1	4.181	
CCV-2	4.181	
CCV-3	4.181	
CCV-4	4.181	
CCV-5	4.181	
CCV-6	4.190	
Average	4.183	
Actual RT Window	4.103 - 4.263	
Applied RT Window	3.983 - 4.383	
N049836-009AMS	4.181	PASS
N049836-010A	4.181	PASS
N049836-010AMS	4.181	PASS
N049836-001AMS	3.998	PASS
N049836-002AMS	3.998	PASS
N049836-015A	N.A.	N.A.
N049836-015AMS	4.181	PASS
N049836-004A	N.A.	N.A.
N049836-004AMS	4.131	PASS
N049836-013A	4.190	PASS
N049836-013AMS	4.190	PASS
N049836-014A	4.190	PASS
N049836-014AMS	4.181	PASS
N049836-011A	4.190	PASS
N049836-011AMS	4.181	PASS
N049836-012A	4.190	PASS
N049836-012AMS	4.190	PASS
N049836-003A	N.A.	N.A.
N049836-003AMS	4.190	PASS

Reviewed by:

JRB 3/24/2022

MDL STUDY

METHOD DETECTION LIMIT 2020

Method Name: **HEXAVALENT CHROMIUM by Ion Chromatography**
Method Number: EPA 218.6 / EPA 7199
Analysis Date(s): 1/09,15/2020; 2/06/2020; 5/06/2020; 6/08/2020; 7/09/2020; 8/11/2020
Analyst: Ria Abes

Matrix: **WATER**
Unit: ug/L

Instrument Name: **IC-07**

Datafile 200109A D 200115A D11 200206A D11 200506B D11 200608A D12 200709A D11 200811 D12

Analyte	#1	#2	#3	#4	#5	#6	#7	Spike Conc., mg/L	SD	$t_{(n-1)}$ value	MDL	PQL	Remarks
Hexavalent Chromium	0.1866	0.2074	0.1969	0.2040	0.2101	0.1976	0.2046	0.20	0.0080	3.143	**0.0251**	**0.20**	OK,meets criteria

Note: All 7 Method Blanks analyzed together with the MDL samples have 0 ug/L concentrations

Students' **t** Values at 99% CL

#	$t_{(n-1)}$
10	2.821
9	2.896
8	2.998
7	3.143

LOD & PQL Verification 2020

Method Name: **Hexavalent Chromium by IC** Matrix: **WATER**
Method Number: EPA Method 218.6/7199 Unit: µg/L
Analysis Date(s): 10/27/2020
Analyst: Ria Abes

Instrument Name: **IC-07**

Compound	MDL	LOD Spike Conc., µg/L	LOD actual Conc., µg/L
Hexavalent Chromium	0.0251	0.060	0.066

Compound	PQL	PQL Spike Conc., µg/L	PQL actual Conc., µg/L	% Recovery
Hexavalent Chromium	0.200	0.200	0.197	**99**

RAW DATA

INITIAL CALIBRATION

INJECTION LOG: 220301A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
1	BLANK	BLANK	1	Hexavalent Chromium	03/01/22 9:10 AM	Not Reported
2	iBLANK	iBLANK	1	Hexavalent Chromium	03/01/22 9:21 AM	Reported
3	STD-0.2 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:30 AM	Reported
4	STD-1.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:39 AM	Reported
5	STD-5.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:49 AM	Reported
6	STD-10.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:58 AM	Reported
7	STD-15.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:08 AM	Reported
8	STD-20.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:17 AM	Reported
9	ICV	ICV	1	Hexavalent Chromium	03/01/22 10:27 AM	Reported
10	PQL@0.2ppb	CCV2	1	Hexavalent Chromium	03/01/22 10:36 AM	Reported
11	ICB	ICB	1	Hexavalent Chromium	03/01/22 10:46 AM	Reported
12	MB-R160532	MBLK	1	Hexavalent Chromium	03/01/22 10:55 AM	Reported
13	LCS-R160532	LCS	1	Hexavalent Chromium	03/01/22 11:05 AM	Reported
14	N049585-006A	SAMP	5	Hexavalent Chromium	03/01/22 11:40 AM	Reported
15	N049585-001A	SAMP	1	Hexavalent Chromium	03/01/22 11:51 AM	Reported
16	N049585-001AMS	MS	1	Hexavalent Chromium	03/01/22 12:00 PM	Reported
17	N049585-002A	SAMP	1	Hexavalent Chromium	03/01/22 12:10 PM	Reported
18	N049585-002AMS	MS	1	Hexavalent Chromium	03/01/22 12:19 PM	Reported
19	N049585-002AMSD	MSD	1	Hexavalent Chromium	03/01/22 12:29 PM	Reported
20	N049585-003A	SAMP	1	Hexavalent Chromium	03/01/22 12:38 PM	Reported
21	N049585-003AMS	MS	1	Hexavalent Chromium	03/01/22 12:48 PM	Reported
22	CCV-1	CCV1	1	Hexavalent Chromium	03/01/22 12:57 PM	Reported
23	CCB-1	CCB	1	Hexavalent Chromium	03/01/22 1:07 PM	Reported
24	N049585-004A	SAMP	1	Hexavalent Chromium	03/01/22 1:16 PM	Reported
25	N049585-004AMS	MS	1	Hexavalent Chromium	03/01/22 1:26 PM	Not Reported
26	N049585-005A	SAMP	1	Hexavalent Chromium	03/01/22 1:35 PM	Reported
27	N049585-005AMS	MS	1	Hexavalent Chromium	03/01/22 1:44 PM	Reported
28	N049585-007A	SAMP	1	Hexavalent Chromium	03/01/22 1:54 PM	Reported
29	N049585-007AMS	MS	1	Hexavalent Chromium	03/01/22 2:03 PM	Reported
30	N049586-001A	SAMP	1	Hexavalent Chromium	03/01/22 2:13 PM	Reported
31	N049586-002A	SAMP	1	Hexavalent Chromium	03/01/22 2:22 PM	Reported
32	N049585-004AMS	MS	1	Hexavalent Chromium	03/01/22 2:32 PM	Reported
33	N049586-004A	SAMP	1	Hexavalent Chromium	03/01/22 2:41 PM	Reported
34	CCV-2	CCV	1	Hexavalent Chromium	03/01/22 2:52 PM	Reported
35	CCB-2	CCB	1	Hexavalent Chromium	03/01/22 3:01 PM	Reported
36	N049586-005A	SAMP	1	Hexavalent Chromium	03/01/22 3:10 PM	Reported
37	N049586-006A	SAMP	1	Hexavalent Chromium	03/01/22 3:20 PM	Reported
38	N049587-001A	SAMP	1	Hexavalent Chromium	03/01/22 3:29 PM	Reported
39	N049588-001A	SAMP	1	Hexavalent Chromium	03/01/22 3:39 PM	Reported
40	N049585-006AMS	MS	5	Hexavalent Chromium	03/01/22 3:48 PM	Not Reported
41	N049585-006A	SAMP	1	Hexavalent Chromium	03/01/22 3:58 PM	Not Reported
42	N049585-006AMS	MS	1	Hexavalent Chromium	03/01/22 4:07 PM	Not Reported

INJECTION LOG: 220301A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
43	N049586-003A	SAMP	1	Hexavalent Chromium	03/01/22 4:17 PM	Reported
44	N049586-002ADUP	DUP	1	Hexavalent Chromium	03/01/22 4:26 PM	Reported
45	CCV-3	CCV1	1	Hexavalent Chromium	03/01/22 4:36 PM	Reported
46	CCB-3	CCB	1	Hexavalent Chromium	03/01/22 4:45 PM	Reported
47	BLANK	BLANK	1	Hexavalent Chromium	03/01/22 4:55 PM	Not Reported

Injection Log Summary

Sequence Details

Name:	**IC-07_220301A**	*Created On:*	**24/Jul/12 17:17:21**
Directory:	**Instrument Data\IC-7\2019**	*Created By:*	**ics 5000**
Data Vault:	**ChromeleonLocal3**	*Updated On:*	**01/Mar/22 17:25:20**
No. of Injections:	**50**	*Updated By:*	**ics 5000**

Injection Details

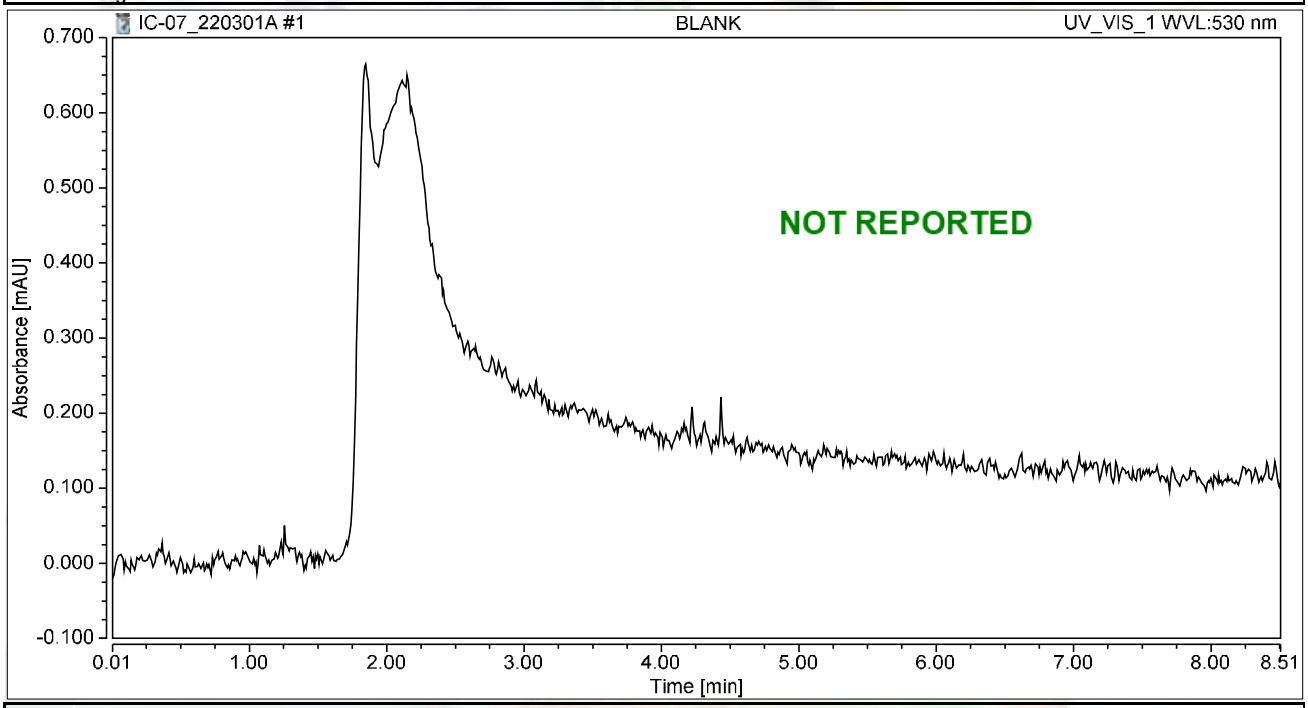
No.	Injection Name	Position	Volume µL	Type	Level	Inject Time	Status	Comment
1	BLANK	1	1000	Unknown		03/01/2022 09:10	Finished	BLANK
2	iBLANK	2	1000	Unknown		03/01/2022 09:21	Finished	INSTRUMENT BLANK
3	STD1-0.2 ppb	3	1000	Calibration Standard	01	03/01/2022 09:30	Finished	0.2 ppb, IWST-220131A
4	STD2-1.0 ppb	4	1000	Calibration Standard	02	03/01/2022 09:39	Finished	1.0 ppb, IWST-220131A
5	STD3-5.0 ppb	5	1000	Calibration Standard	03	03/01/2022 09:49	Finished	5.0 ppb, IWST-220131A
6	STD4-10.0 ppb	6	1000	Calibration Standard	04	03/01/2022 09:58	Finished	10 ppb, IWST-220131A
7	STD5-15.0 ppb	7	1000	Calibration Standard	05	03/01/2022 10:08	Finished	15 ppb, IWST-220131A
8	STD6-20.0 ppb	8	1000	Calibration Standard	06	03/01/2022 10:17	Finished	20 ppb, IWST-220131A
9	ICV,ICV,1,	9	1000	Unknown		03/01/2022 10:27	Finished	ICV @5ppb, IWST-220131B
10	PQL@0.2ppb,CCV2,1	10	1000	Unknown		03/01/2022 10:36	Finished	PQL @ 0.2ppb
11	ICB,ICB,1,	11	1000	Unknown		03/01/2022 10:46	Finished	ICB R220111A
12	MB-H2O,MBLK,1,	12	1000	Unknown		03/01/2022 10:55	Finished	MB R220111A
13	LCS-H2O,LCS,1,	13	1000	Unknown		03/01/2022 11:05	Finished	LCS (5ppb), IWST-220131B
14	N049585-006A,SAMF	1	1000	Unknown		03/01/2022 11:40	Finished	SAMP,2>10 mL
15	N049585-001A,SAMF	2	1000	Unknown		03/01/2022 11:51	Finished	SAMP,10 mL
16	N049585-001AMS,MS	3	1000	Unknown		03/01/2022 12:00	Finished	MS (1ppb), IWST-220131B,10r
17	N049585-002A,SAMF	4	1000	Unknown		03/01/2022 12:10	Finished	SAMP,10 mL
18	N049585-002AMS,MS	5	1000	Unknown		03/01/2022 12:19	Finished	MS (1ppb), IWST-220131B,10r
19	N049585-002AMSD,M	6	1000	Unknown		03/01/2022 12:29	Finished	MSD (1ppb), IWST-220131B,1(
20	N049585-003A,SAMF	7	1000	Unknown		03/01/2022 12:38	Finished	SAMP,10 mL
21	N049585-003AMS,MS	8	1000	Unknown		03/01/2022 12:48	Finished	MS (1ppb), IWST-220131B,10r
22	CCV-1,CCV1,1,	9	1000	Unknown		03/01/2022 12:57	Finished	CCV @10ppb, IWST-220131A
23	CCB-1,CCB,1,	10	1000	Unknown		03/01/2022 13:07	Finished	CCB R220111A
24	N049585-004A,SAMF	11	1000	Unknown		03/01/2022 13:16	Finished	SAMP,10 mL
25	N049585-004AMS,MS	12	1000	Unknown		03/01/2022 13:26	Finished	MS (1ppb), IWST-220131B,10r
26	N049585-005A,SAMF	13	1000	Unknown		03/01/2022 13:35	Finished	SAMP,10 mL
27	N049585-005AMS,MS	14	1000	Unknown		03/01/2022 13:44	Finished	MS (1ppb), IWST-220131B,10r
28	N049585-007A,SAMF	15	1000	Unknown		03/01/2022 13:54	Finished	SAMP,10 mL
29	N049585-007AMS,MS	16	1000	Unknown		03/01/2022 14:03	Finished	MS (1ppb), IWST-220131B,10r
30	N049586-001A,SAMF	17	1000	Unknown		03/01/2022 14:13	Finished	SAMP,10 mL
31	N049586-002A,SAMF	18	1000	Unknown		03/01/2022 14:22	Finished	SAMP,10 mL
32	N049585-004AMS,MS	19	1000	Unknown		03/01/2022 14:32	Finished	MS (1ppb), IWST-220131B,10r
33	N049586-004A,SAMF	20	1000	Unknown		03/01/2022 14:41	Finished	SAMP,10 mL
34	CCV-2,CCV,1,	21	1000	Unknown		03/01/2022 14:52	Finished	CCV @5ppb, IWST-220131A
35	CCB-2,CCB,1,	22	1000	Unknown		03/01/2022 15:01	Finished	CCB R220111A
36	N049586-005A,SAMF	23	1000	Unknown		03/01/2022 15:10	Finished	SAMP,10 mL
37	N049586-006A,SAMF	24	1000	Unknown		03/01/2022 15:20	Finished	SAMP,10 mL
38	N049587-001A,SAMF	25	1000	Unknown		03/01/2022 15:29	Finished	SAMP,10 mL
39	N049588-001A,SAMF	26	1000	Unknown		03/01/2022 15:39	Finished	SAMP,10 mL
40	N049585-006AMS,MS	27	1000	Unknown		03/01/2022 15:48	Finished	MS (1ppb), IWST-220131B,2>1
41	N049585-006A,SAMF	28	1000	Unknown		03/01/2022 15:58	Finished	SAMP,10 mL
42	N049585-006AMS,MS	29	1000	Unknown		03/01/2022 16:07	Finished	MS (5ppb), IWST-220131B,10r
43	N049586-003A,SAMF	30	1000	Unknown		03/01/2022 16:17	Finished	SAMP,10 mL
44	N049586-002ADUP,D	31	1000	Unknown		03/01/2022 16:26	Finished	DUP,10 mL
45	CCV-3,CCV1,1,	32	1000	Unknown		03/01/2022 16:36	Finished	CCV @10ppb, IWST-220131A
46	CCB-3,CCB,1,	33	1000	Unknown		03/01/2022 16:45	Finished	CCB R220111A
47	BLANK	34	1000	Unknown		03/01/2022 16:55	Finished	BLANK
48	SHUTDOWN	35	1000	Unknown		03/01/2022 17:04	Finished	
49	Eluent: R220228A	36	1000	Unknown		n.a.	Finished	Eluent
50	PCR: R220228B	37	1000	Unknown		n.a.	Finished	Post-Column Reagent

Chromatogram and Results

Injection Details

Injection Name:	**BLANK**	*Run Time (min):*	**8.50**
Vial Number:	**1**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 09:10**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

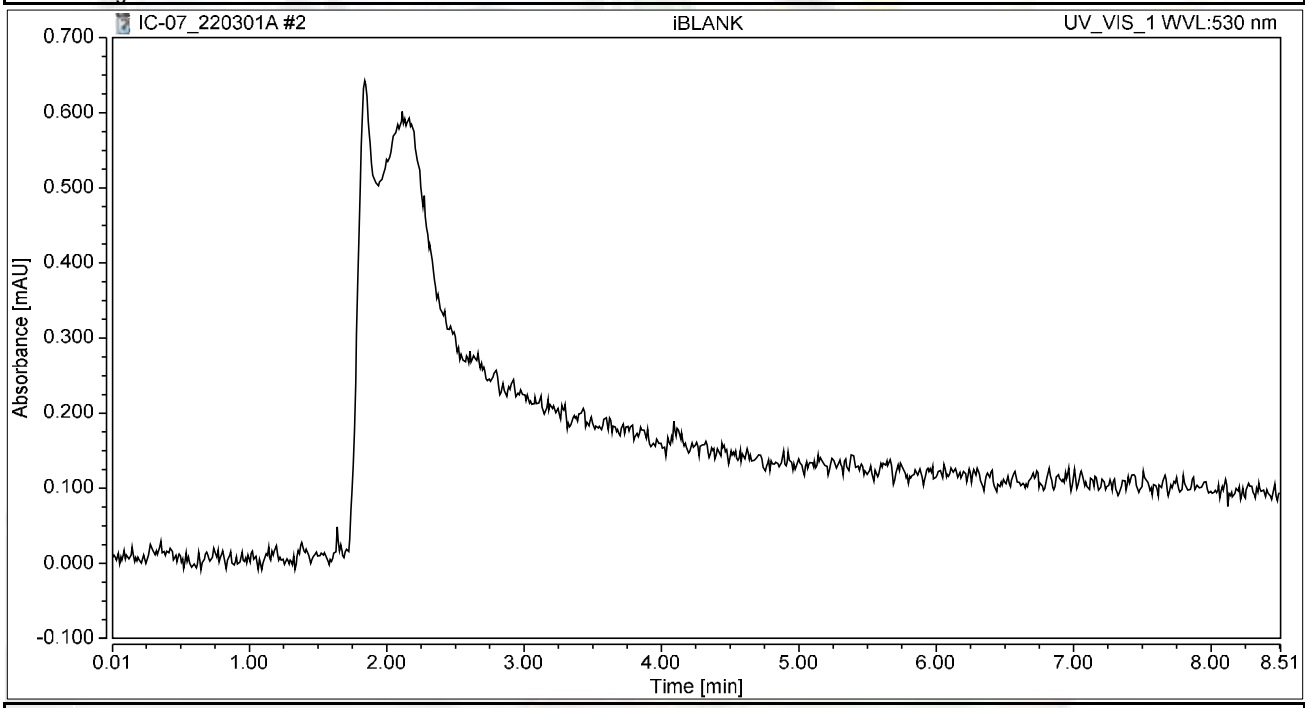
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**iBLANK**	*Run Time (min):*	**8.50**
Vial Number:	**2**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 09:21**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Reviewed by:

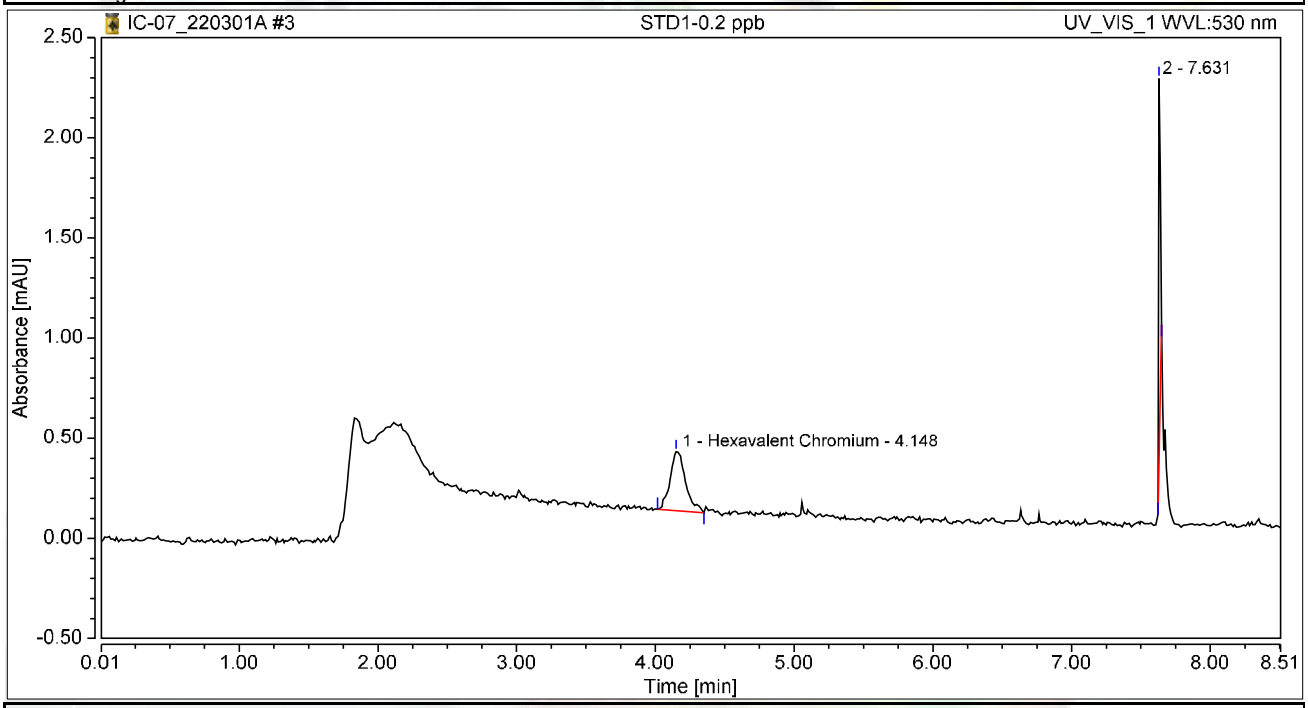
JRB 3/7/2022

Chromatogram and Results

Injection Details

Injection Name:	**STD1-0.2 ppb**	*Run Time (min):*	**8.50**
Vial Number:	**3**	*Injection Volume:*	**1000.00**
Injection Type:	**Calibration Standard**	*Channel:*	**UV_VIS_1**
Calibration Level:	**01**	*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 09:30**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

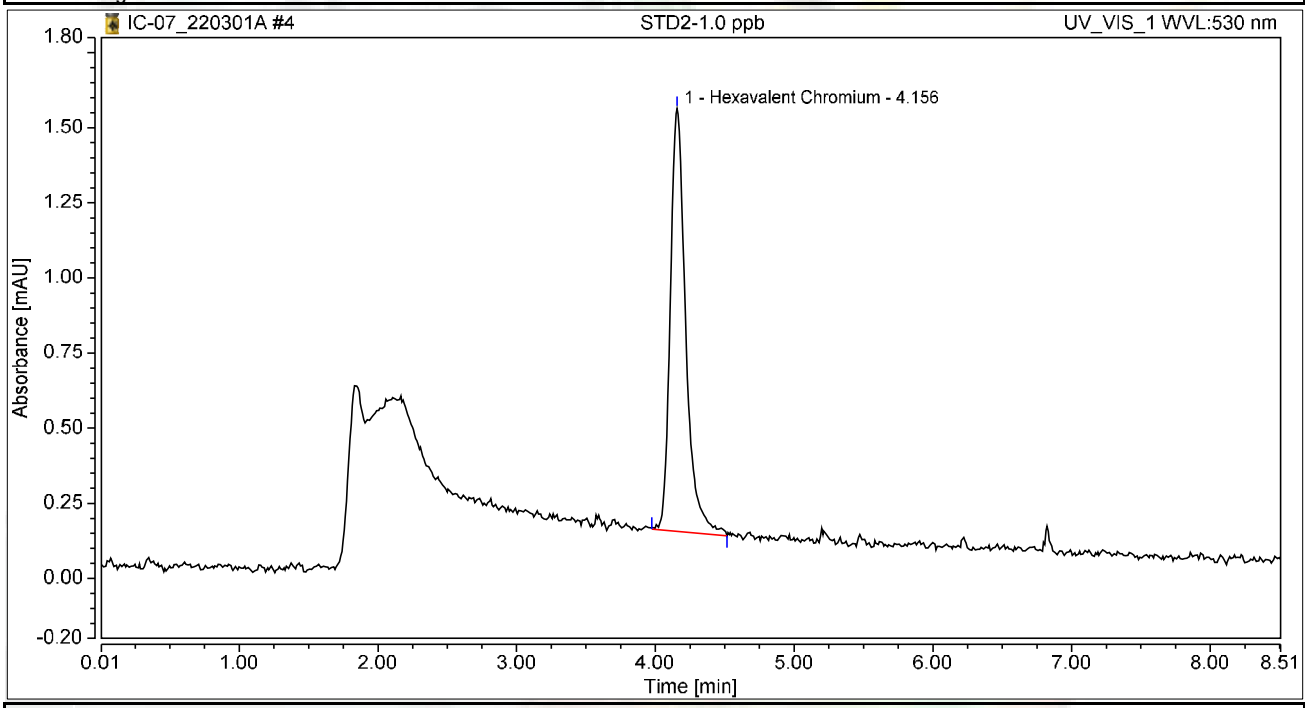
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.148	0.038	0.294	60.94	13.63	0.2033
2		7.631	0.025	1.860	39.06	86.37	n.a.
Total:			**0.063**	**2.154**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD2-1.0 ppb**	*Run Time (min):*	**8.50**
Vial Number:	**4**	*Injection Volume:*	**1000.00**
Injection Type:	**Calibration Standard**	*Channel:*	**UV_VIS_1**
Calibration Level:	**02**	*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 09:39**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

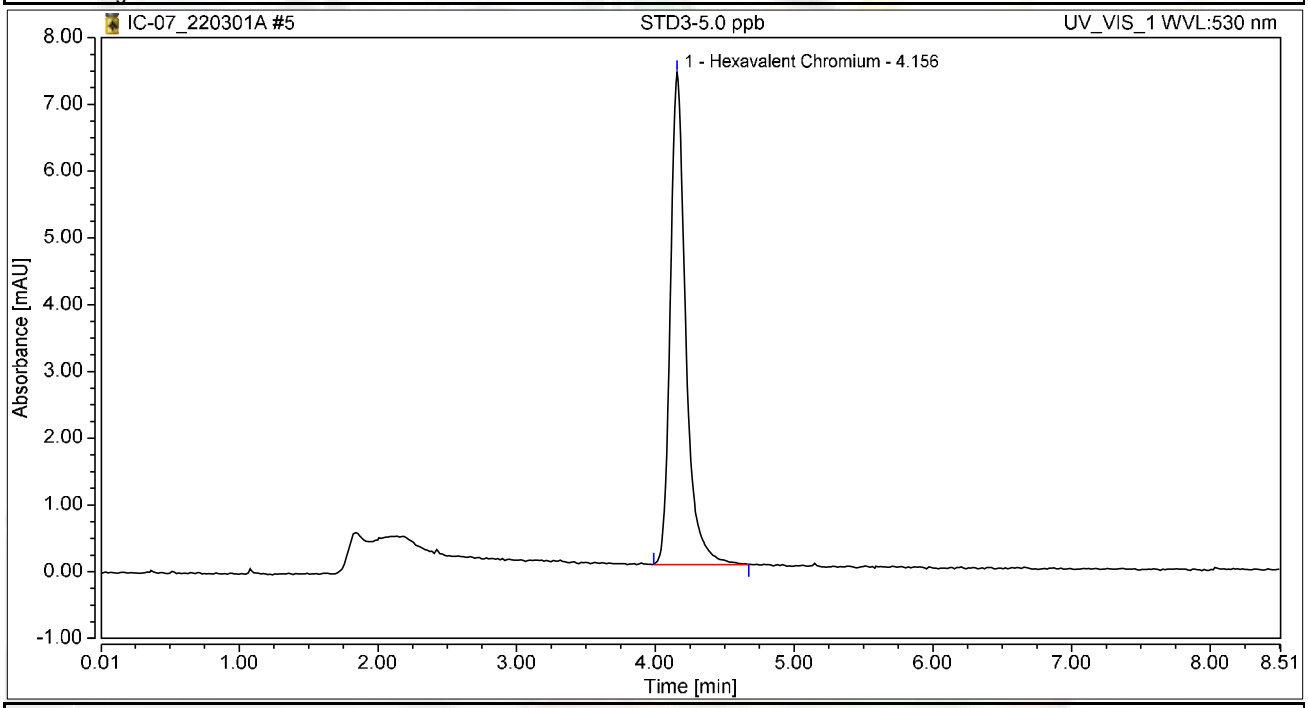
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.156	0.182	1.408	100.00	100.00	0.9655
Total:			**0.182**	**1.408**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD3-5.0 ppb**	*Run Time (min):*	**8.50**
Vial Number:	**5**	*Injection Volume:*	**1000.00**
Injection Type:	**Calibration Standard**	*Channel:*	**UV_VIS_1**
Calibration Level:	**03**	*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 09:49**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

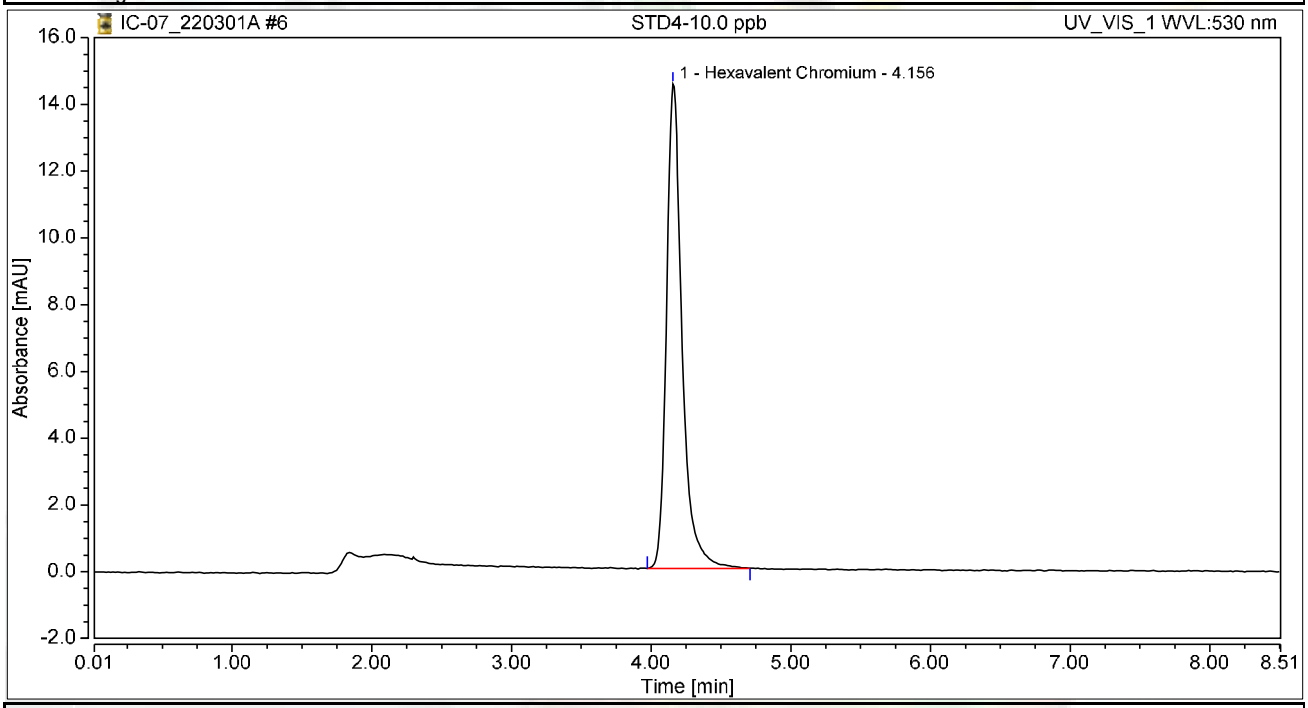
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.156	0.951	7.374	100.00	100.00	5.0502
Total:			**0.951**	**7.374**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD4-10.0 ppb**	*Run Time (min):*	**8.49**
Vial Number:	**6**	*Injection Volume:*	**1000.00**
Injection Type:	**Calibration Standard**	*Channel:*	**UV_VIS_1**
Calibration Level:	**04**	*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 09:58**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

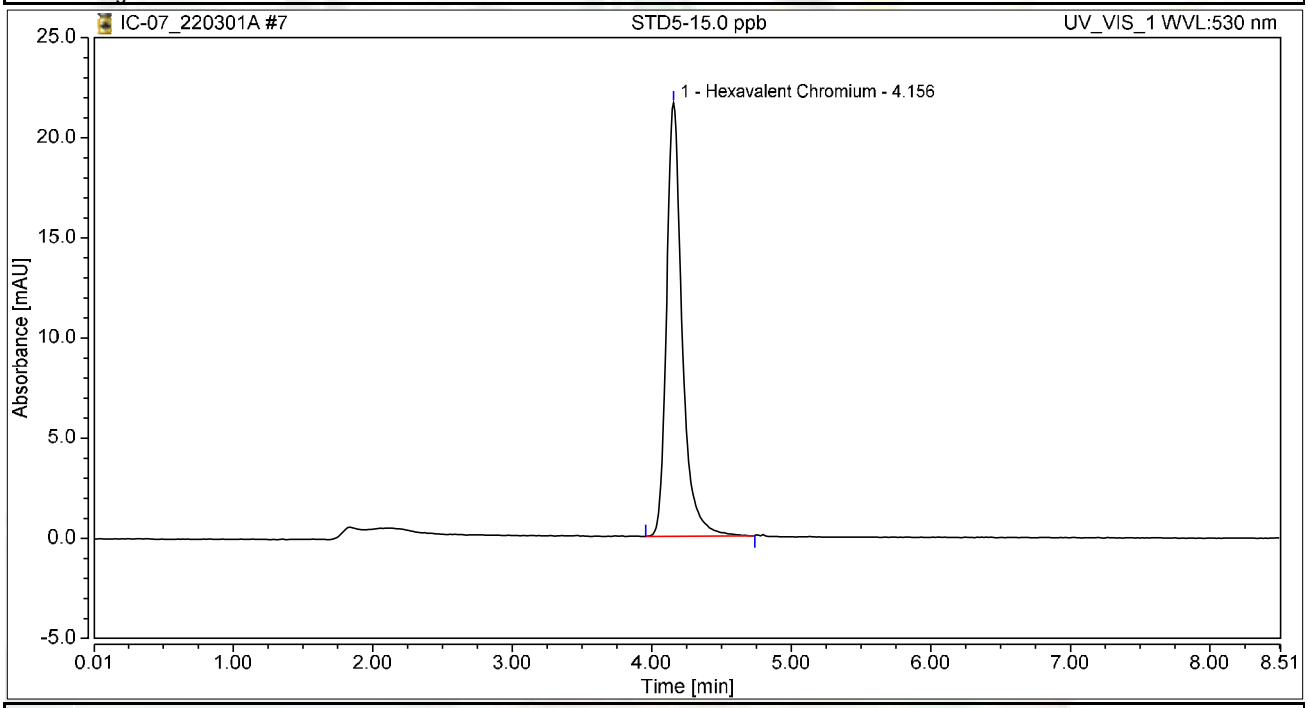
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.156	1.868	14.505	100.00	100.00	9.9238
Total:			**1.868**	**14.505**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD5-15.0 ppb**	*Run Time (min):*	**8.50**
Vial Number:	**7**	*Injection Volume:*	**1000.00**
Injection Type:	**Calibration Standard**	*Channel:*	**UV_VIS_1**
Calibration Level:	**05**	*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 10:08**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

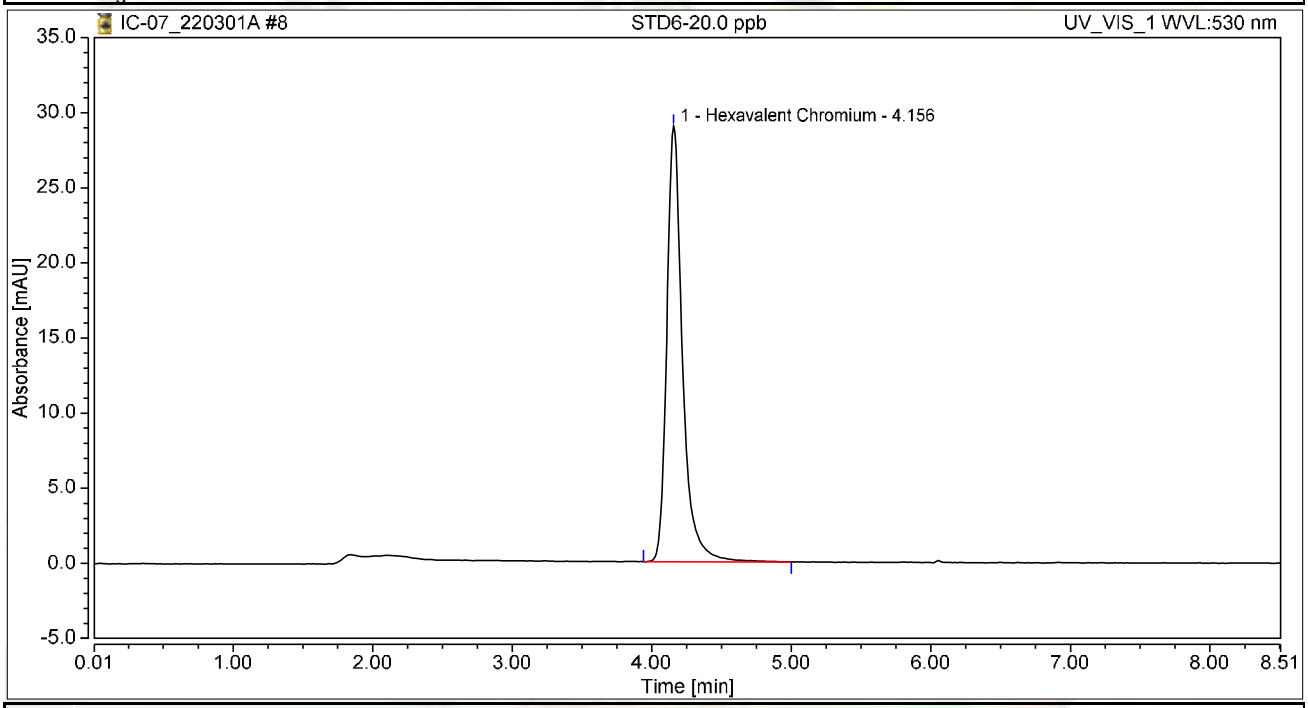
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.156	2.805	21.643	100.00	100.00	14.8985
Total:			**2.805**	**21.643**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**STD6-20.0 ppb**	*Run Time (min):*	**8.50**
Vial Number:	**8**	*Injection Volume:*	**1000.00**
Injection Type:	**Calibration Standard**	*Channel:*	**UV_VIS_1**
Calibration Level:	**06**	*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 10:17**	*Sample Weight:*	**1.0000**

Chromatogram



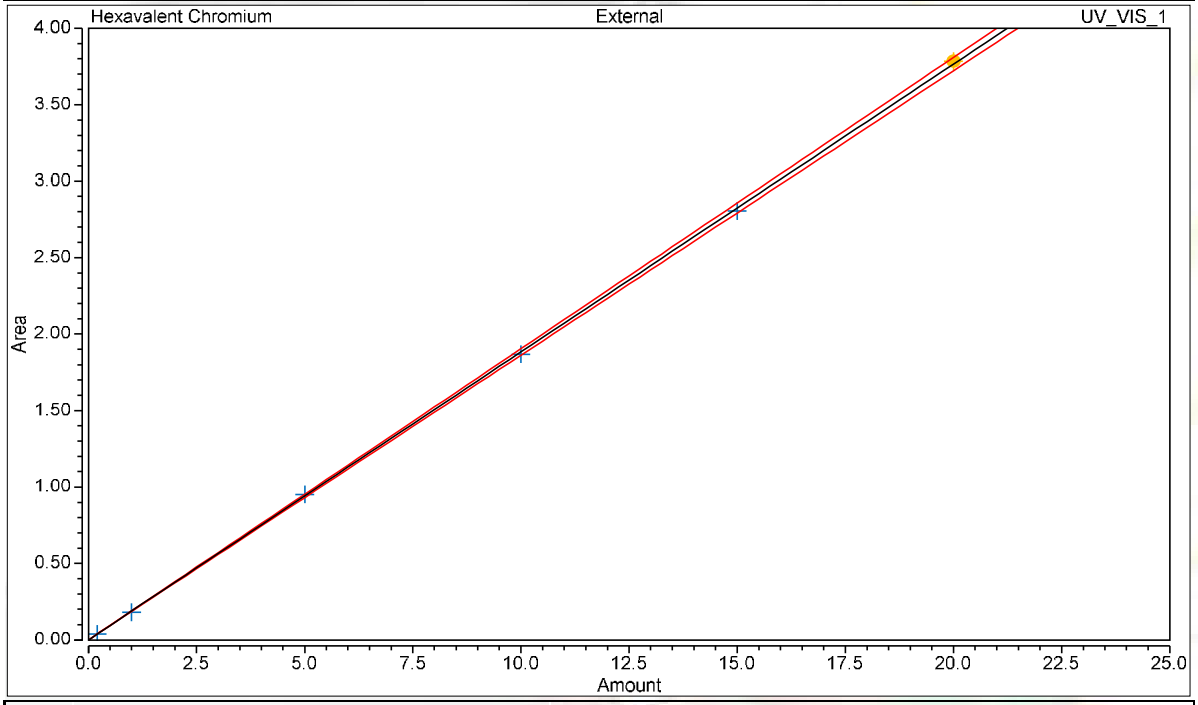
Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.156	3.785	29.000	100.00	100.00	20.1034
Total:			**3.785**	**29.000**	**100.00**	**100.00**	

Initial Calibration Summary

Calibration Details	Hexavalent Chromium		
Calibration Type	Lin	*Offset (C0)*	0.0000
Evaluation Type	Area	*Slope (C1)*	0.1883
Number of Calibration Points	6	*Curve (C2)*	0.0000
Number of disabled Calibration Points	0	*R-Square*	0.99990

Calibration Plot Hexavalent Chromium



Calibration Results Hexavalent Chromium

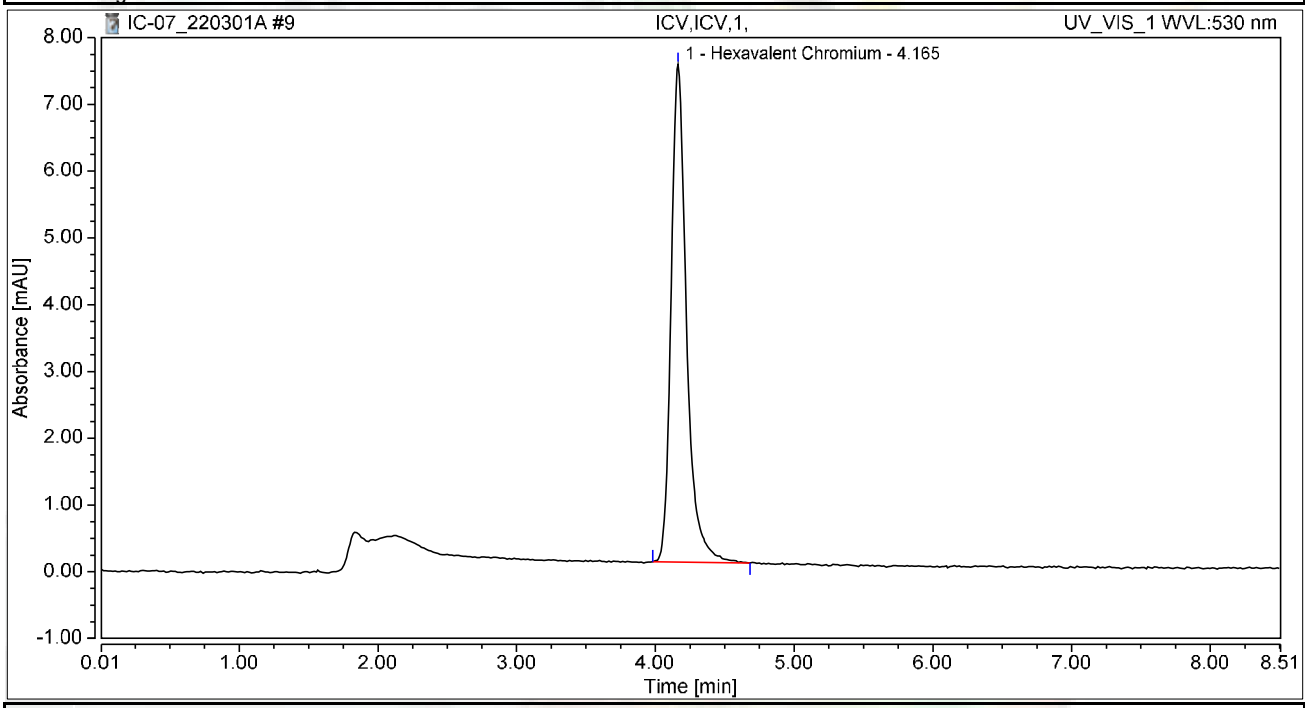
No.	Injection Name	Calibration Level	X Value	Y Value	Area mAU*min	Height mAU
3	STD1-0.2 ppb	01	0.2000	0.0383	0.038	0.294
4	STD2-1.0 ppb	02	1.0000	0.1818	0.182	1.408
5	STD3-5.0 ppb	03	5.0000	0.9508	0.951	7.374
6	STD4-10.0 ppb	04	10.0000	1.8684	1.868	14.505
7	STD5-15.0 ppb	05	15.0000	2.8050	2.805	21.643
8	STD6-20.0 ppb	06	20.0000	3.7849	3.785	29.000

Chromatogram and Results

Injection Details

Injection Name:	**ICV,ICV,1,**	*Run Time (min):*	**8.50**
Vial Number:	**9**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 10:27**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

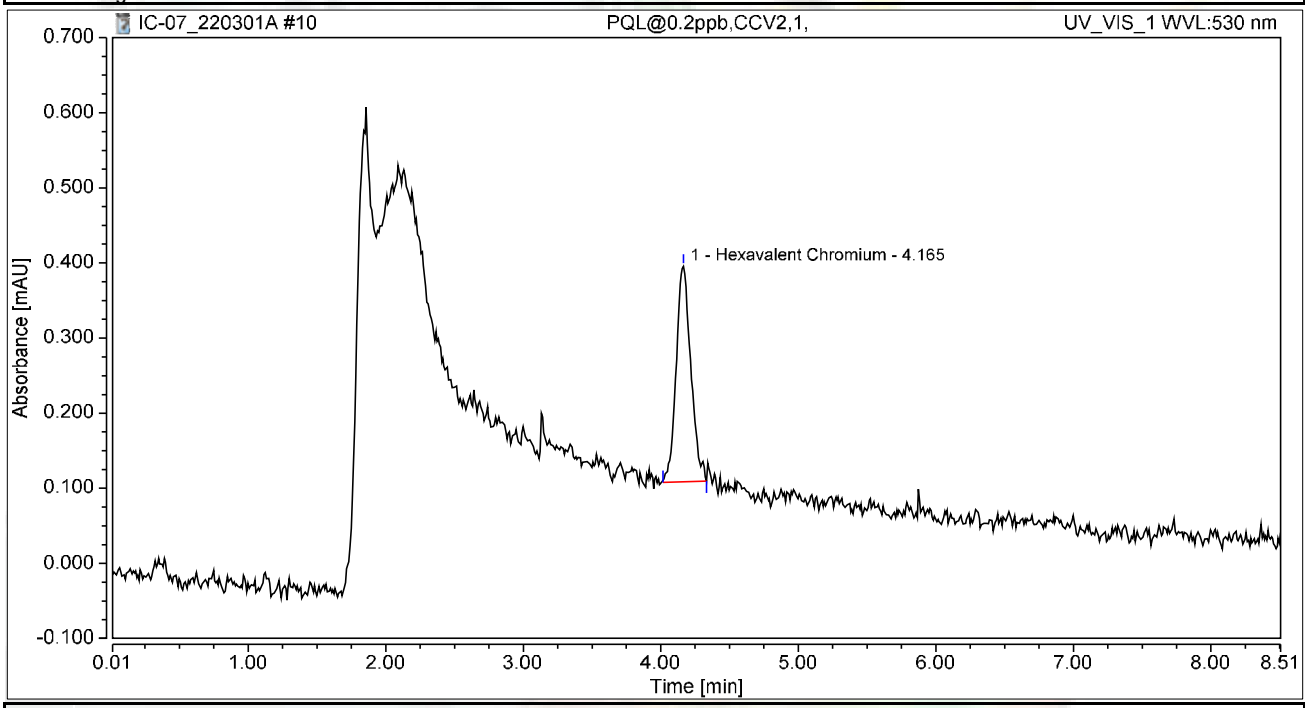
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.165	0.961	7.451	100.00	100.00	5.1037
Total:			**0.961**	**7.451**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**PQL@0.2ppb,CCV2,1,**	*Run Time (min):*	**8.49**
Vial Number:	**10**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 10:36**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

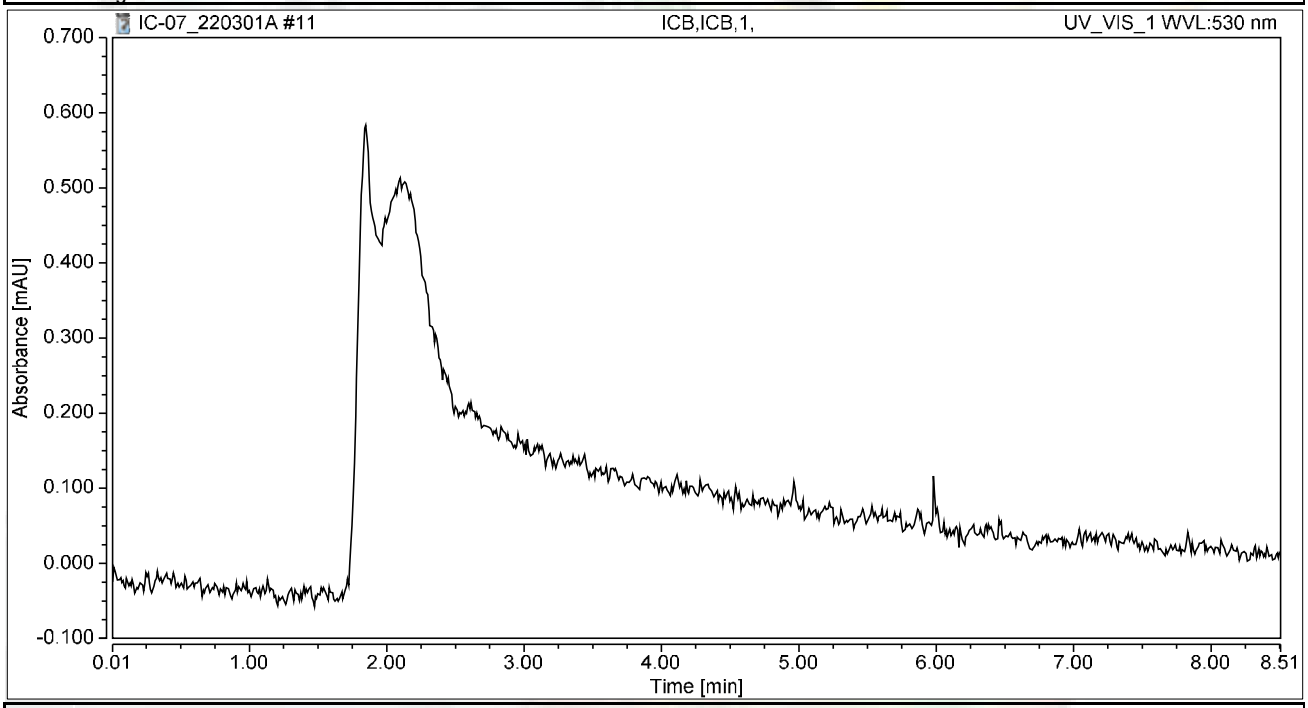
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.165	0.036	0.287	100.00	100.00	0.1888
Total:			**0.036**	**0.287**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**ICB,ICB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**11**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**01/Mar/22 10:46**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

JRB 3/7/2022

RAW DATA

INJECTION LOG: 220315A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
1	BLANK	BLANK	1	Hexavalent Chromium	03/01/22 9:10 AM	Not Reported
2	iBLANK	iBLANK	1	Hexavalent Chromium	03/01/22 9:21 AM	Reported
3	STD-0.2 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:30 AM	Reported
4	STD-1.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:39 AM	Reported
5	STD-5.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:49 AM	Reported
6	STD-10.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 9:58 AM	Reported
7	STD-15.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:08 AM	Reported
8	STD-20.0 ppb	ICAL	1	Hexavalent Chromium	03/01/22 10:17 AM	Reported
9	BLANK	BLANK	1	Hexavalent Chromium	03/15/22 9:02 AM	Not Reported
10	CCV-1	CCV	1	Hexavalent Chromium	03/15/22 9:13 AM	Reported
11	PQL@0.2ppb	CCV2	1	Hexavalent Chromium	03/15/22 9:22 AM	Reported
12	CCB-1	CCB	1	Hexavalent Chromium	03/15/22 9:32 AM	Reported
13	MB-R160857	MBLK	1	Hexavalent Chromium	03/15/22 9:41 AM	Reported
14	LCS-R160857	LCS	1	Hexavalent Chromium	03/15/22 9:51 AM	Reported
15	N049835-001A	SAMP	1	Hexavalent Chromium	03/15/22 10:03 AM	Not Reported
16	N049835-002A	SAMP	1	Hexavalent Chromium	03/15/22 10:14 AM	Not Reported
17	N049836-001A	SAMP	1	Hexavalent Chromium	03/15/22 10:24 AM	Reported
18	N049836-002A	SAMP	1	Hexavalent Chromium	03/15/22 10:33 AM	Reported
19	N049836-004A	SAMP	1	Hexavalent Chromium	03/15/22 10:43 AM	Not Reported
20	N049836-004AMS	MS	1	Hexavalent Chromium	03/15/22 10:52 AM	Not Reported
21	N049836-005A	SAMP	100	Hexavalent Chromium	03/15/22 11:01 AM	Reported
22	N049836-005AMS	MS	100	Hexavalent Chromium	03/15/22 11:10 AM	Reported
23	CCV-2	CCV1	1	Hexavalent Chromium	03/15/22 11:20 AM	Reported
24	CCB-2	CCB	1	Hexavalent Chromium	03/15/22 11:29 AM	Reported
25	N049835-001A	SAMP	1	Hexavalent Chromium	03/15/22 11:38 AM	Not Reported
26	N049835-002A	SAMP	1	Hexavalent Chromium	03/15/22 11:48 AM	Not Reported
27	N049836-008A	SAMP	500	Hexavalent Chromium	03/15/22 11:57 AM	Reported
28	N049836-008AMS	MS	500	Hexavalent Chromium	03/15/22 12:07 PM	Reported
29	N049836-008AMSD	MSD	500	Hexavalent Chromium	03/15/22 12:16 PM	Reported
30	N049835-001A	SAMP	50	Hexavalent Chromium	03/15/22 12:26 PM	Reported
31	N049835-001ADUP	DUP	50	Hexavalent Chromium	03/15/22 12:35 PM	Reported
32	N049835-001AMS	MS	50	Hexavalent Chromium	03/15/22 12:45 PM	Reported
33	N049835-002A	SAMP	50	Hexavalent Chromium	03/15/22 12:54 PM	Reported
34	N049835-002AMS	MS	50	Hexavalent Chromium	03/15/22 1:04 PM	Reported
35	CCV-3	CCV	1	Hexavalent Chromium	03/15/22 1:13 PM	Reported
36	CCB-3	CCB	1	Hexavalent Chromium	03/15/22 1:23 PM	Reported
37	N049836-006A	SAMP	500	Hexavalent Chromium	03/15/22 1:32 PM	Reported
38	N049836-006AMS	MS	500	Hexavalent Chromium	03/15/22 1:41 PM	Reported
39	N049836-007A	SAMP	500	Hexavalent Chromium	03/15/22 1:51 PM	Reported
40	N049836-007AMS	MS	500	Hexavalent Chromium	03/15/22 2:00 PM	Reported
41	N049836-009A	SAMP	500	Hexavalent Chromium	03/15/22 2:10 PM	Reported
42	N049836-009AMS	MS	500	Hexavalent Chromium	03/15/22 2:19 PM	Reported

Reviewed by:

JRB 3/16/2022

INJECTION LOG: 220315A

Instrument ID: IC-07

Sample No	Sample Name	Type	DF	Peak Name	Injection Date/Time	Comments
43	N049836-010A	SAMP	500	Hexavalent Chromium	03/15/22 2:29 PM	Reported
44	N049836-010AMS	MS	500	Hexavalent Chromium	03/15/22 2:38 PM	Reported
45	N049836-001AMS	MS	1	Hexavalent Chromium	03/15/22 2:48 PM	Reported
46	N049836-002AMS	MS	1	Hexavalent Chromium	03/15/22 2:57 PM	Reported
47	CCV-4	CCV1	1	Hexavalent Chromium	03/15/22 3:07 PM	Reported
48	CCB-4	CCB	1	Hexavalent Chromium	03/15/22 3:16 PM	Reported
49	N049836-015A	SAMP	1	Hexavalent Chromium	03/15/22 3:26 PM	Reported
50	N049836-015AMS	MS	1	Hexavalent Chromium	03/15/22 3:35 PM	Reported
51	N049836-004A	SAMP	5	Hexavalent Chromium	03/15/22 3:44 PM	Reported
52	N049836-004AMS	MS	5	Hexavalent Chromium	03/15/22 3:54 PM	Reported
53	N049836-013A	SAMP	500	Hexavalent Chromium	03/15/22 4:03 PM	Reported
54	N049836-013AMS	MS	500	Hexavalent Chromium	03/15/22 4:13 PM	Reported
55	N049836-014A	SAMP	500	Hexavalent Chromium	03/15/22 4:23 PM	Reported
56	N049836-014AMS	MS	500	Hexavalent Chromium	03/15/22 4:34 PM	Reported
57	N049836-011A	SAMP	200	Hexavalent Chromium	03/15/22 4:44 PM	Reported
58	N049836-011AMS	MS	200	Hexavalent Chromium	03/15/22 4:53 PM	Reported
59	CCV-5	CCV	1	Hexavalent Chromium	03/15/22 5:03 PM	Reported
60	CCB-5	CCB	1	Hexavalent Chromium	03/15/22 5:12 PM	Reported
61	N049836-012A	SAMP	200	Hexavalent Chromium	03/15/22 5:22 PM	Reported
62	N049836-012AMS	MS	200	Hexavalent Chromium	03/15/22 5:31 PM	Reported
63	N049836-003A	SAMP	1	Hexavalent Chromium	03/15/22 5:40 PM	Reported
64	N049836-003AMS	MS	1	Hexavalent Chromium	03/15/22 5:50 PM	Reported
65	CCV-6	CCV1	1	Hexavalent Chromium	03/15/22 5:59 PM	Reported
66	CCB-6	CCB	1	Hexavalent Chromium	03/15/22 6:09 PM	Not Reported
67	CCB-6	CCB	1	Hexavalent Chromium	03/15/22 6:18 PM	Reported

Injection Log Summary

Sequence Details

Name:	**IC-07_220315A**	*Created On:*	**24/Jul/12 17:17:21**
Directory:	**Instrument Data\IC-7\2019**	*Created By:*	**ics 5000**
Data Vault:	**ChromeleonLocal3**	*Updated On:*	**15/Mar/22 18:30:05**
No. of Injections:	**70**	*Updated By:*	**ics 5000**

Injection Details

No.	Injection Name	Position	Volume µL	Type	Level	Inject Time	Status	Comment
1	BLANK	1	1000	Unknown		03/01/2022 09:10	Finished	BLANK
2	iBLANK	2	1000	Unknown		03/01/2022 09:21	Finished	INSTRUMENT BLANK
3	STD1-0.2 ppb	3	1000	Calibration Standard	01	03/01/2022 09:30	Finished	0.2 ppb, IWST-220131A
4	STD2-1.0 ppb	4	1000	Calibration Standard	02	03/01/2022 09:39	Finished	1.0 ppb, IWST-220131A
5	STD3-5.0 ppb	5	1000	Calibration Standard	03	03/01/2022 09:49	Finished	5.0 ppb, IWST-220131A
6	STD4-10.0 ppb	6	1000	Calibration Standard	04	03/01/2022 09:58	Finished	10 ppb, IWST-220131A
7	STD5-15.0 ppb	7	1000	Calibration Standard	05	03/01/2022 10:08	Finished	15 ppb, IWST-220131A
8	STD6-20.0 ppb	8	1000	Calibration Standard	06	03/01/2022 10:17	Finished	20 ppb, IWST-220131A
9	BLANK	1	1000	Unknown		03/15/2022 09:02	Finished	BLANK
10	CCV-1,CCV,1,	2	1000	Unknown		03/15/2022 09:13	Finished	CCV @5ppb, IWST-220131A
11	PQL@0.2ppb,CCV2,1	3	1000	Unknown		03/15/2022 09:22	Finished	PQL @ 0.2ppb
12	CCB-1,CCB,1,	4	1000	Unknown		03/15/2022 09:32	Finished	CCB R220302A
13	MB-H2O,MBLK,1,	5	1000	Unknown		03/15/2022 09:41	Finished	MB R220302A
14	LCS-H2O,LCS,1,	6	1000	Unknown		03/15/2022 09:51	Finished	LCS (5ppb), IWST-220131B
15	N049835-001A,SAMP	1	1000	Unknown		03/15/2022 10:03	Finished	SAMP,10 mL
16	N049835-002A,SAMP	2	1000	Unknown		03/15/2022 10:14	Finished	SAMP,10 mL
17	N049836-001A,SAMP	3	1000	Unknown		03/15/2022 10:24	Finished	SAMP,10 mL
18	N049836-002A,SAMP	4	1000	Unknown		03/15/2022 10:33	Finished	SAMP,10 mL
19	N049836-004A,SAMP	5	1000	Unknown		03/15/2022 10:43	Finished	SAMP,10 mL
20	N049836-004AMS,MS	6	1000	Unknown		03/15/2022 10:52	Finished	MS (1ppb), IWST-220131B,10r
21	N049836-005A,SAMP	7	1000	Unknown		03/15/2022 11:01	Finished	SAMP,0.01>10 mL
22	N049836-005AMS,MS	8	1000	Unknown		03/15/2022 11:10	Finished	MS (5ppb), IWST-220131B,0.0
23	CCV-2,CCV1,1,	9	1000	Unknown		03/15/2022 11:20	Finished	CCV @10ppb, IWST-220131A
24	CCB-2,CCB,1,	10	1000	Unknown		03/15/2022 11:29	Finished	CCB R220302A
25	N049835-001A,SAMP	11	1000	Unknown		03/15/2022 11:38	Finished	SAMP,10 mL
26	N049835-002A,SAMP	12	1000	Unknown		03/15/2022 11:48	Finished	SAMP,10 mL
27	N049836-008A,SAMP	13	1000	Unknown		03/15/2022 11:57	Finished	SAMP,0.02>10 mL
28	N049836-008AMS,MS	14	1000	Unknown		03/15/2022 12:07	Finished	MS (5ppb), IWST-220131B,0.0
29	N049836-008AMSD,M	15	1000	Unknown		03/15/2022 12:16	Finished	MSD (5ppb), IWST-220131B,0
30	N049835-001A,SAMP	16	1000	Unknown		03/15/2022 12:26	Finished	SAMP,0.2>10 mL
31	N049835-001ADUP,D	17	1000	Unknown		03/15/2022 12:35	Finished	DUP,0.2>10 mL
32	N049835-001AMS,MS	18	1000	Unknown		03/15/2022 12:45	Finished	MS (5ppb), IWST-220131B,0.2
33	N049835-002A,SAMP	19	1000	Unknown		03/15/2022 12:54	Finished	SAMP,0.2>10 mL
34	N049835-002AMS,MS	20	1000	Unknown		03/15/2022 13:04	Finished	MS (5ppb), IWST-220131B,0.2
35	CCV-3,CCV,1,	21	1000	Unknown		03/15/2022 13:13	Finished	CCV @5ppb, IWST-220131A
36	CCB-3,CCB,1,	22	1000	Unknown		03/15/2022 13:23	Finished	CCB R220302A
37	N049836-006A,SAMP	23	1000	Unknown		03/15/2022 13:32	Finished	SAMP,0.02>10 mL
38	N049836-006AMS,MS	24	1000	Unknown		03/15/2022 13:41	Finished	MS (5ppb), IWST-220131B,0.0
39	N049836-007A,SAMP	25	1000	Unknown		03/15/2022 13:51	Finished	SAMP,0.02>10 mL
40	N049836-007AMS,MS	26	1000	Unknown		03/15/2022 14:00	Finished	MS (5ppb), IWST-220131B,0.0
41	N049836-009A,SAMP	27	1000	Unknown		03/15/2022 14:10	Finished	SAMP,0.02>10 mL
42	N049836-009AMS,MS	28	1000	Unknown		03/15/2022 14:19	Finished	MS (5ppb), IWST-220131B,0.0
43	N049836-010A,SAMP	29	1000	Unknown		03/15/2022 14:29	Finished	SAMP,0.02>10 mL
44	N049836-010AMS,MS	30	1000	Unknown		03/15/2022 14:38	Finished	MS (5ppb), IWST-220131B,0.0
45	N049836-001AMS,MS	31	1000	Unknown		03/15/2022 14:48	Finished	MS (1ppb), IWST-220131B,10r
46	N049836-002AMS,MS	32	1000	Unknown		03/15/2022 14:57	Finished	MS (1ppb), IWST-220131B,10r
47	CCV-4,CCV1,1,	33	1000	Unknown		03/15/2022 15:07	Finished	CCV @10ppb, IWST-220131A
48	CCB-4,CCB,1,	34	1000	Unknown		03/15/2022 15:16	Finished	CCB R220302A
49	N049836-015A,SAMP	35	1000	Unknown		03/15/2022 15:26	Finished	SAMP,10 mL
50	N049836-015AMS,MS	36	1000	Unknown		03/15/2022 15:35	Finished	MS (1ppb), IWST-220131B,10r
51	N049836-004A,SAMP	37	1000	Unknown		03/15/2022 15:44	Finished	SAMP,2>10 mL
52	N049836-004AMS,MS	38	1000	Unknown		03/15/2022 15:54	Finished	MS (1ppb), IWST-220131B,2>1
53	N049836-013A,SAMP	39	1000	Unknown		03/15/2022 16:03	Finished	SAMP,0.02>10 mL
54	N049836-013AMS,MS	40	1000	Unknown		03/15/2022 16:13	Finished	MS (5ppb), IWST-220131B,0.0
55	N049836-014A,SAMP	1	1000	Unknown		03/15/2022 16:23	Finished	SAMP,0.02>10 mL
56	N049836-014AMS,MS	2	1000	Unknown		03/15/2022 16:34	Finished	MS (5ppb), IWST-220131B,0.0
57	N049836-011A,SAMP	3	1000	Unknown		03/15/2022 16:44	Finished	SAMP,0.05>10 mL
58	N049836-011AMS,MS	4	1000	Unknown		03/15/2022 16:53	Finished	MS (5ppb), IWST-220131B,0.0
59	CCV-5,CCV,1,	5	1000	Unknown		03/15/2022 17:03	Finished	CCV @5ppb, IWST-220131A
60	CCB-5,CCB,1,	6	1000	Unknown		03/15/2022 17:12	Finished	CCB R220302A

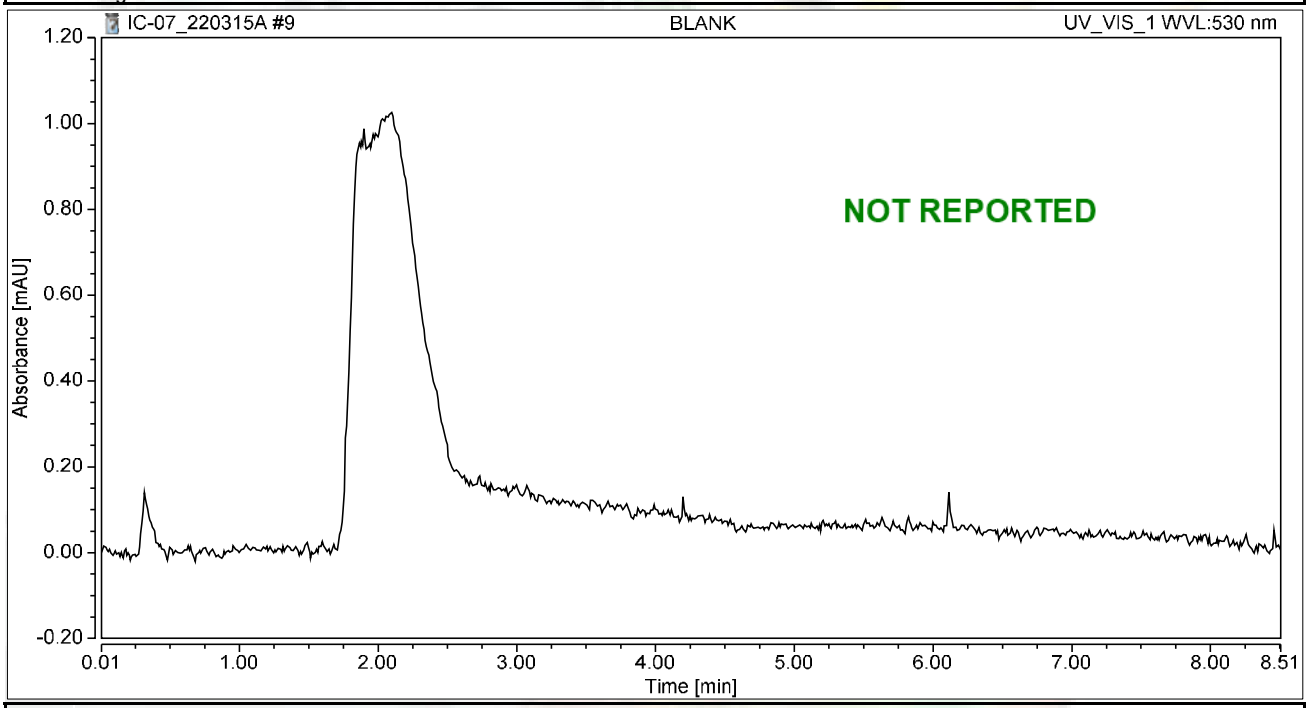
61	N049836-012A,SAMP	7	1000	Unknown		03/15/2022 17:22	Finished	SAMP,0.05>10 mL
62	N049836-012AMS,MS	8	1000	Unknown		03/15/2022 17:31	Finished	MS (5ppb), IWST-220131B,0.0
63	N049836-003A,SAMP	9	1000	Unknown		03/15/2022 17:40	Finished	SAMP,10 mL
64	N049836-003AMS,MS	10	1000	Unknown		03/15/2022 17:50	Finished	MS (1ppb), IWST-220131B,10r
65	CCV-6,CCV1,1,	11	1000	Unknown		03/15/2022 17:59	Finished	CCV @10ppb, IWST-220131A
66	CCB-6,CCB,1,	12	1000	Unknown		03/15/2022 18:09	Finished	CCB R220302A
67	CCB-6,CCB,1,	13	1000	Unknown		03/15/2022 18:18	Finished	CCB R220302A
68	SHUTDOWN	14	1000	Unknown		n.a.	Running	
69	Eluent: R220312A	15	1000	Unknown		n.a.	Finished	Eluent
70	PCR: R220312B	16	1000	Unknown		n.a.	Finished	Post-Column Reagent

Chromatogram and Results

Injection Details

Injection Name:	**BLANK**	*Run Time (min):*	**8.50**
Vial Number:	**1**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 09:02**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

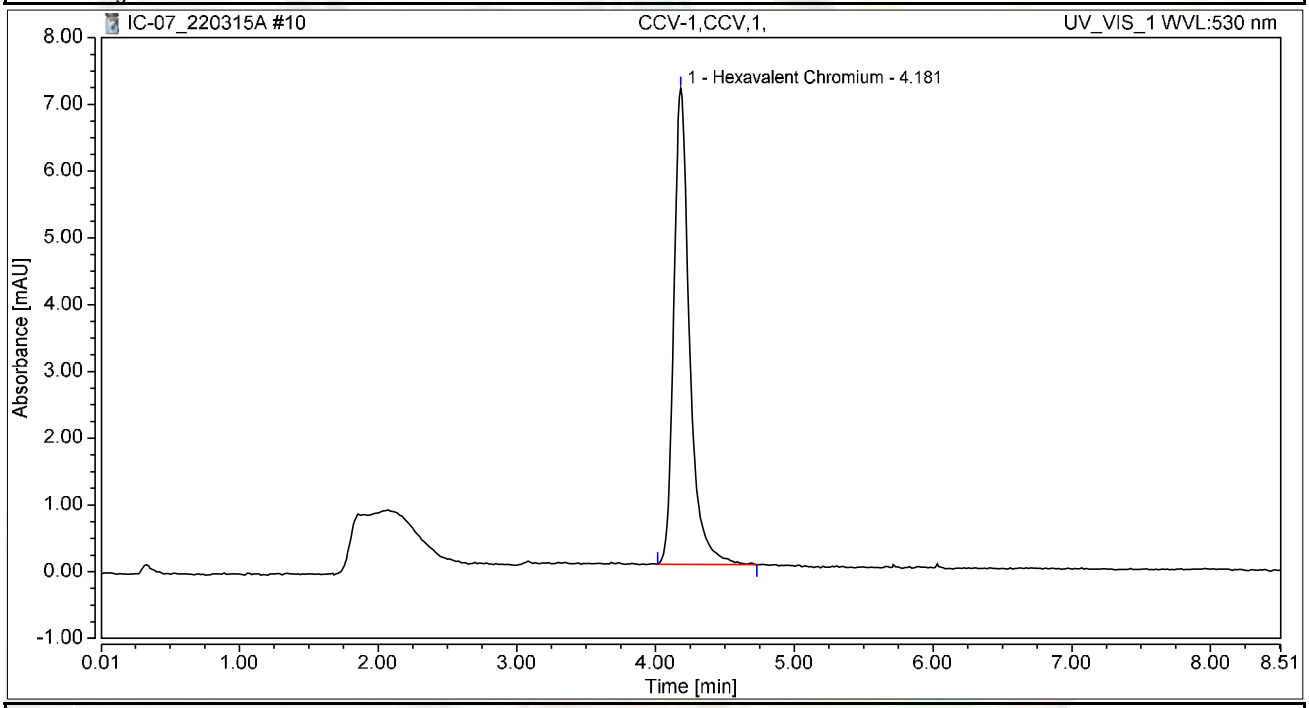
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV-1,CCV,1,**	*Run Time (min):*	**8.50**
Vial Number:	**2**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 09:13**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.941	7.126	100.00	100.00	4.9978
Total:			**0.941**	**7.126**	**100.00**	**100.00**	

Reviewed by:

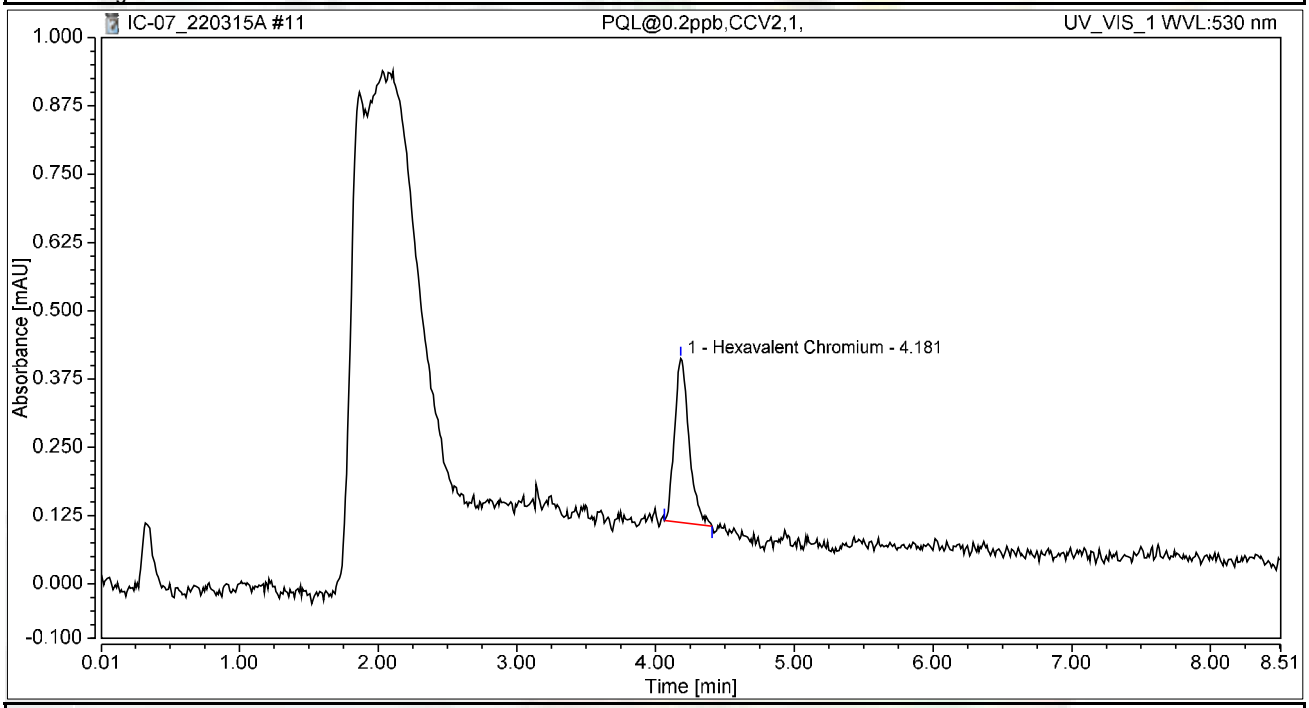
JRB 3/16/2022

Chromatogram and Results

Injection Details

Injection Name:	**PQL@0.2ppb,CCV2,1,**	*Run Time (min):*	**8.50**
Vial Number:	**3**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 09:22**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

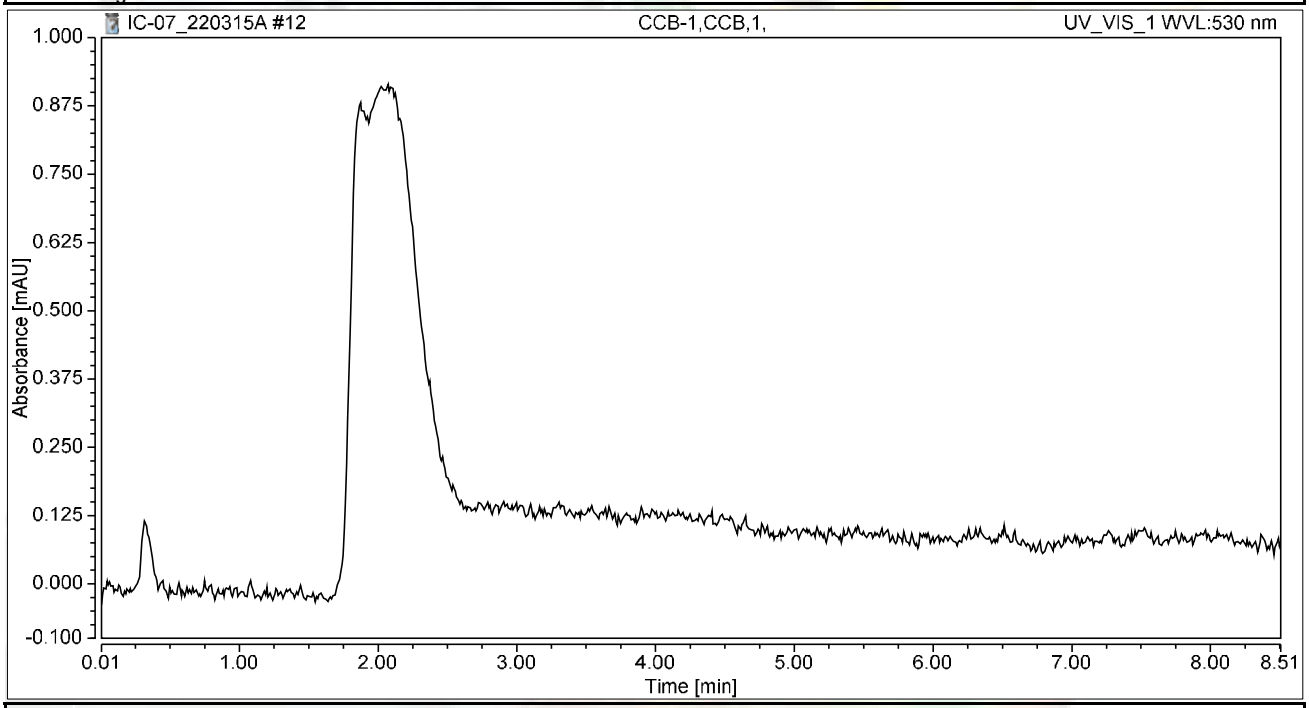
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.037	0.300	100.00	100.00	0.1940
Total:			**0.037**	**0.300**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-1,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**4**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 09:32**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

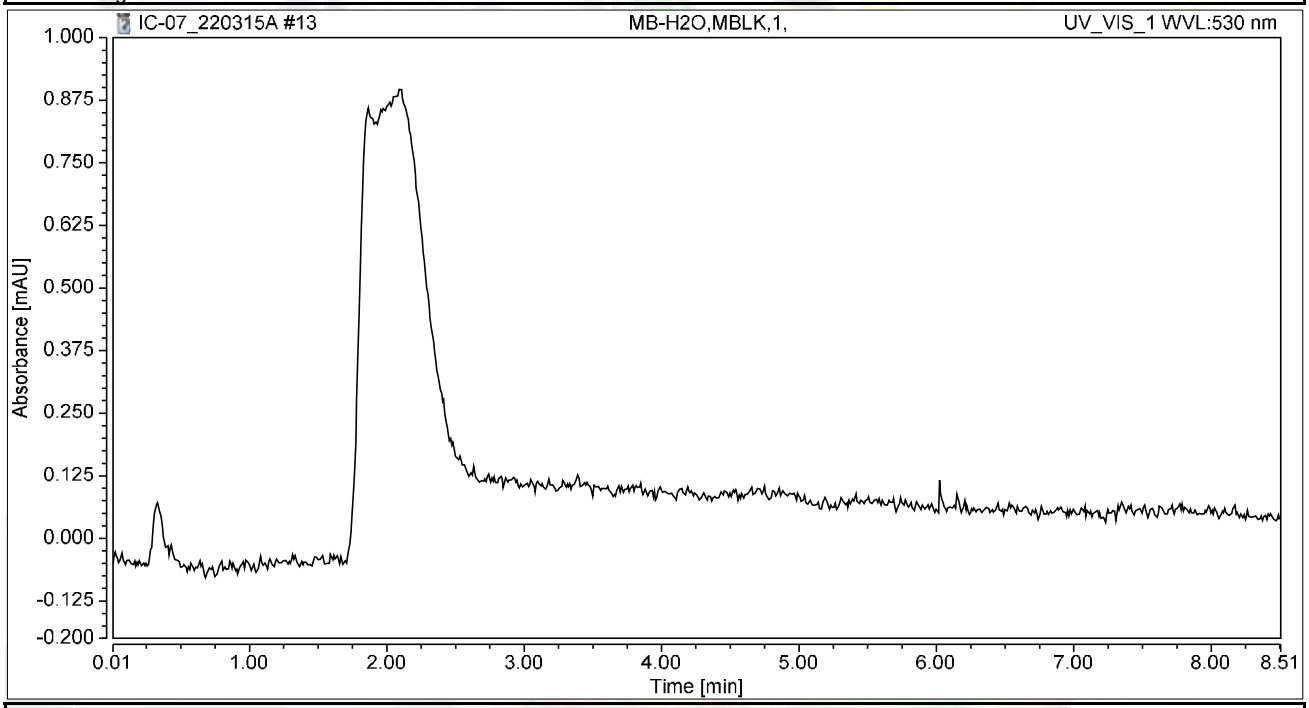
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**MB-H2O,MBLK,1,**	*Run Time (min):*	**8.50**
Vial Number:	**5**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 09:41**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

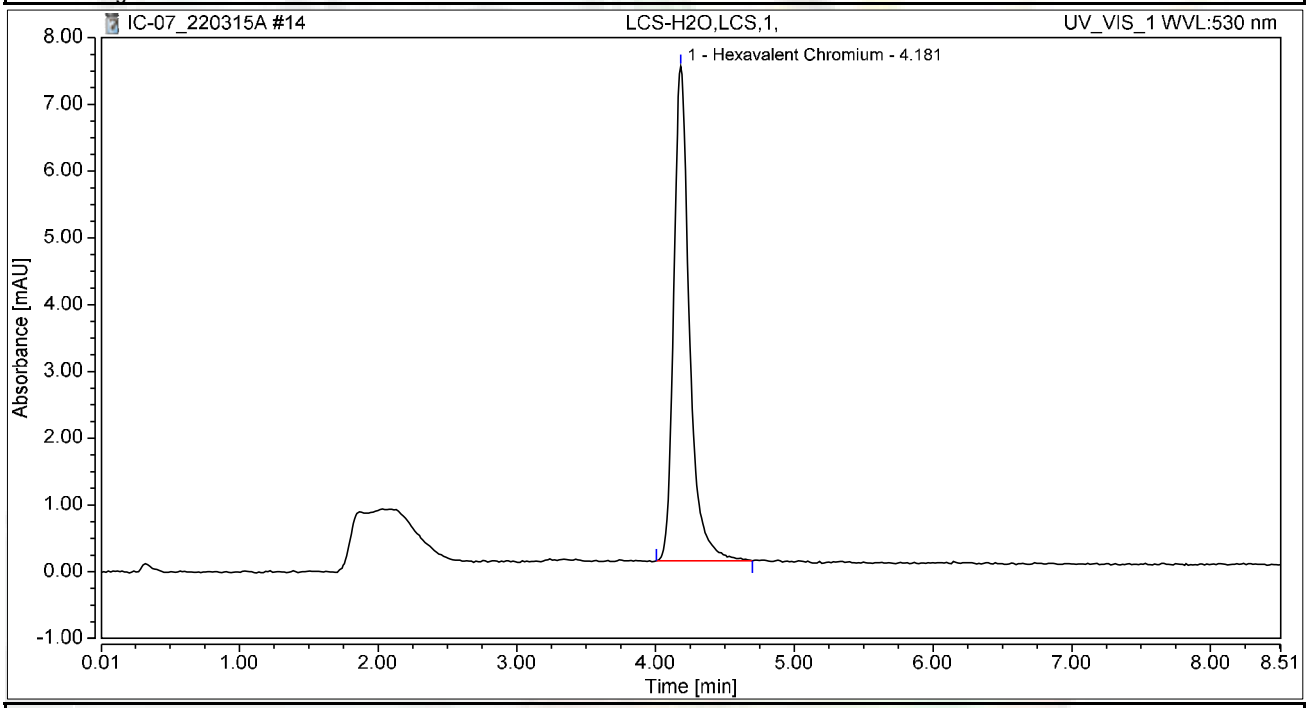
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**LCS-H2O,LCS,1,**	*Run Time (min):*	**8.50**
Vial Number:	**6**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 09:51**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

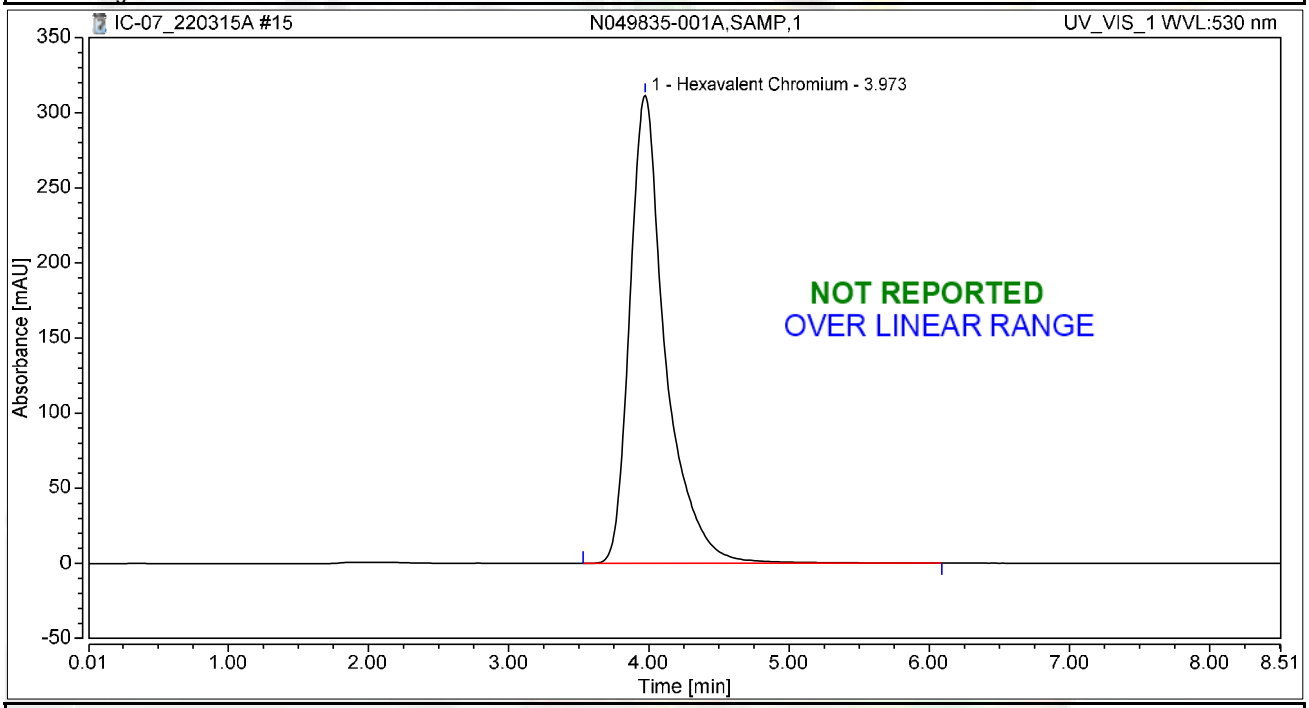
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.975	7.407	100.00	100.00	5.1780
Total:			**0.975**	**7.407**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-001A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**1**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:03**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

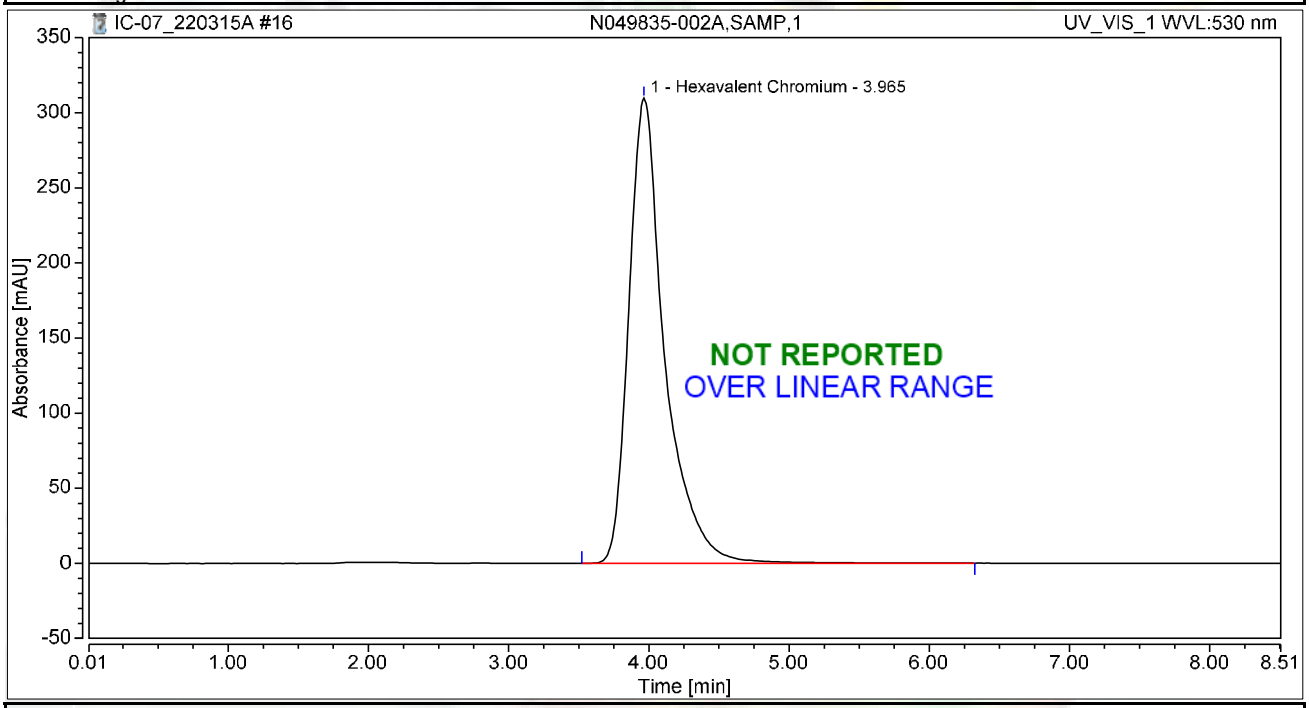
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.973	91.574	311.466	100.00	100.00	486.3861
Total:			**91.574**	**311.466**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-002A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**2**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:14**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

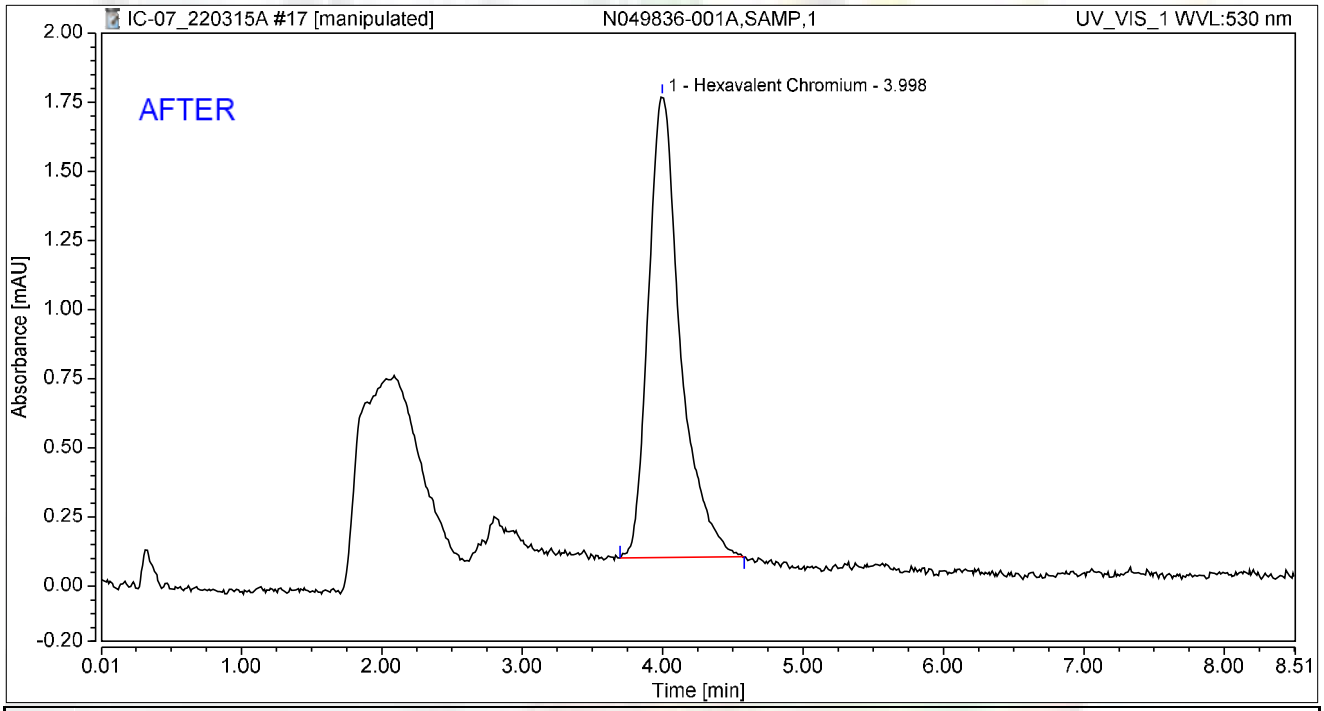
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.965	91.585	309.540	100.00	100.00	486.4476
Total:			**91.585**	**309.540**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-001A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**3**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:24**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.442	1.668	100.00	100.00	2.3462
Total:			**0.442**	**1.668**	**100.00**	**100.00**	

Reviewed by:

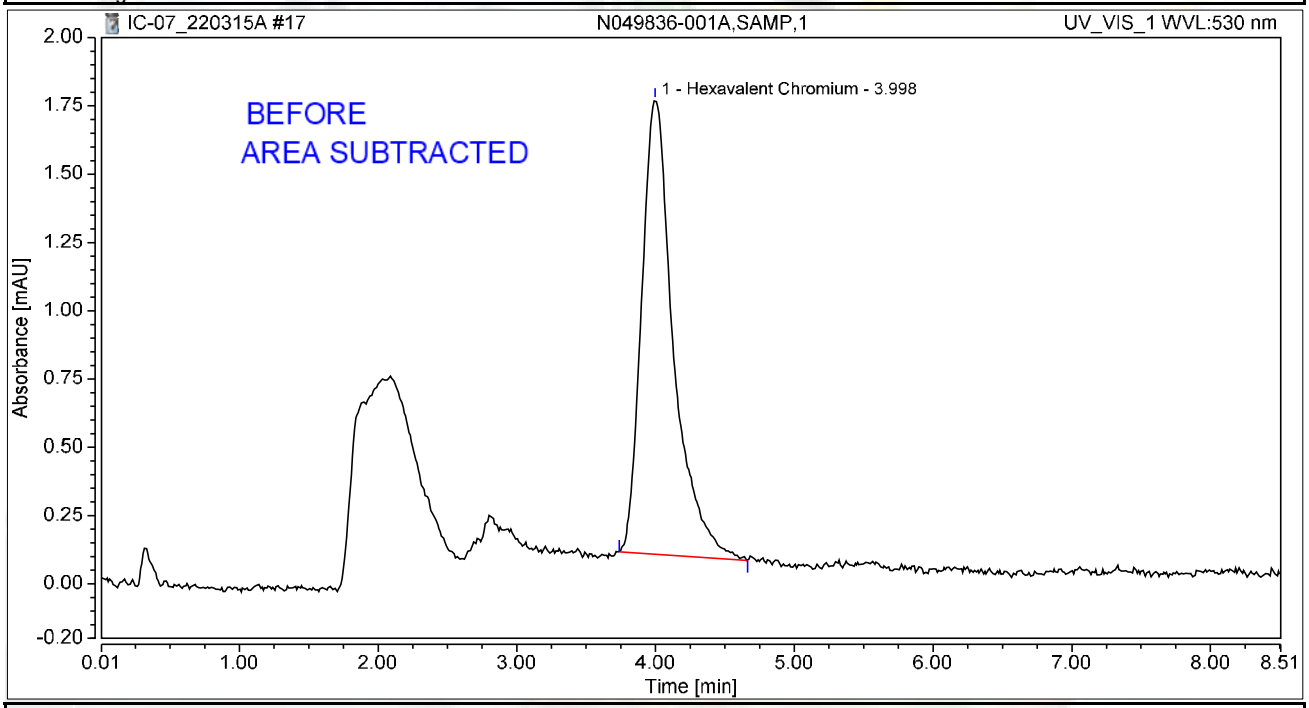
JRB 3/16/2022

Chromatogram and Results

Injection Details

Injection Name:	**N049836-001A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**3**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:24**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

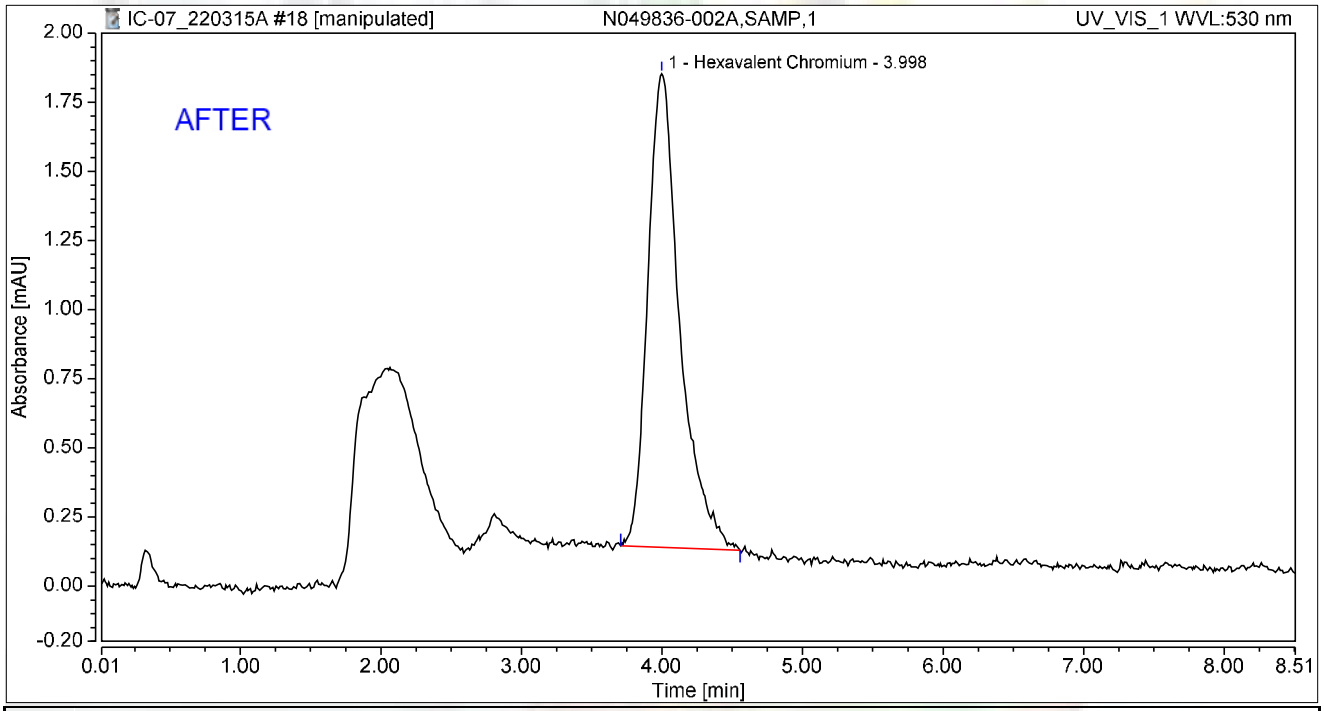
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.443	1.663	100.00	100.00	2.3518
Total:			**0.443**	**1.663**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-002A,SAMP,1**	*Run Time (min):*	**8.49**
Vial Number:	**4**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:33**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

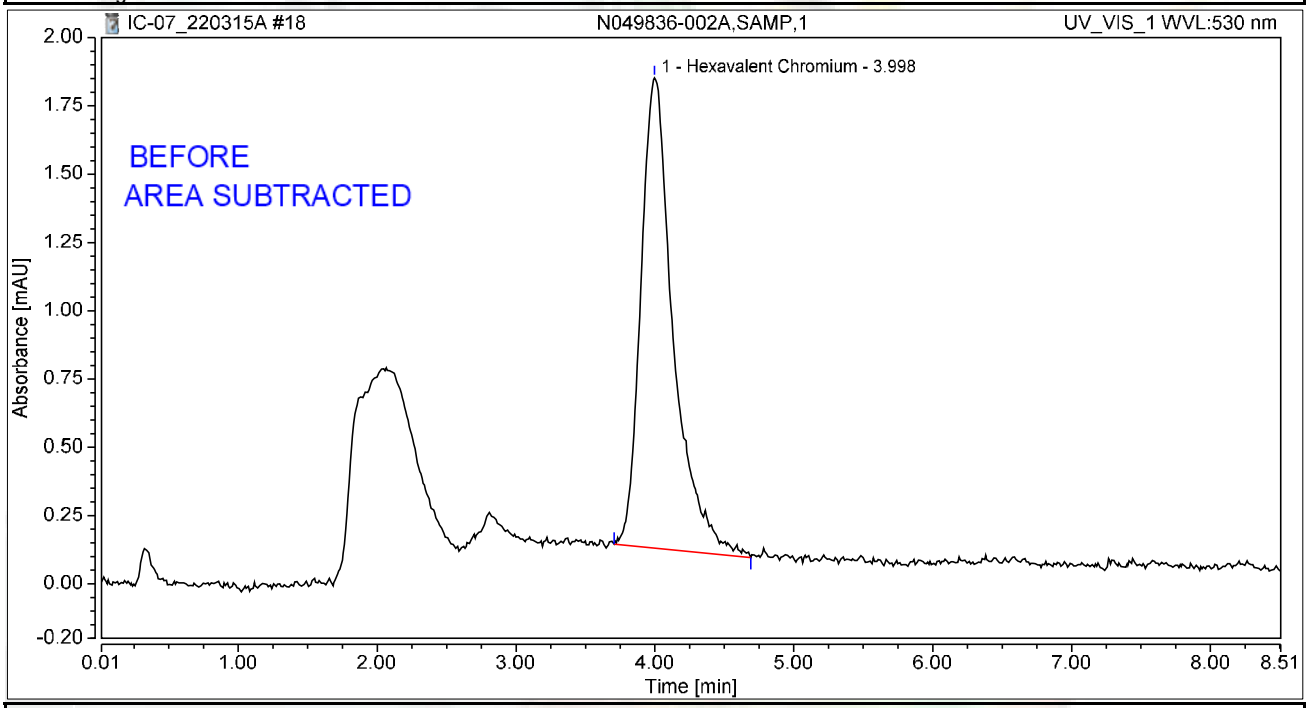
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.453	1.713	100.00	100.00	2.4063
Total:			**0.453**	**1.713**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-002A,SAMP,1**	*Run Time (min):*	**8.49**
Vial Number:	**4**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:33**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

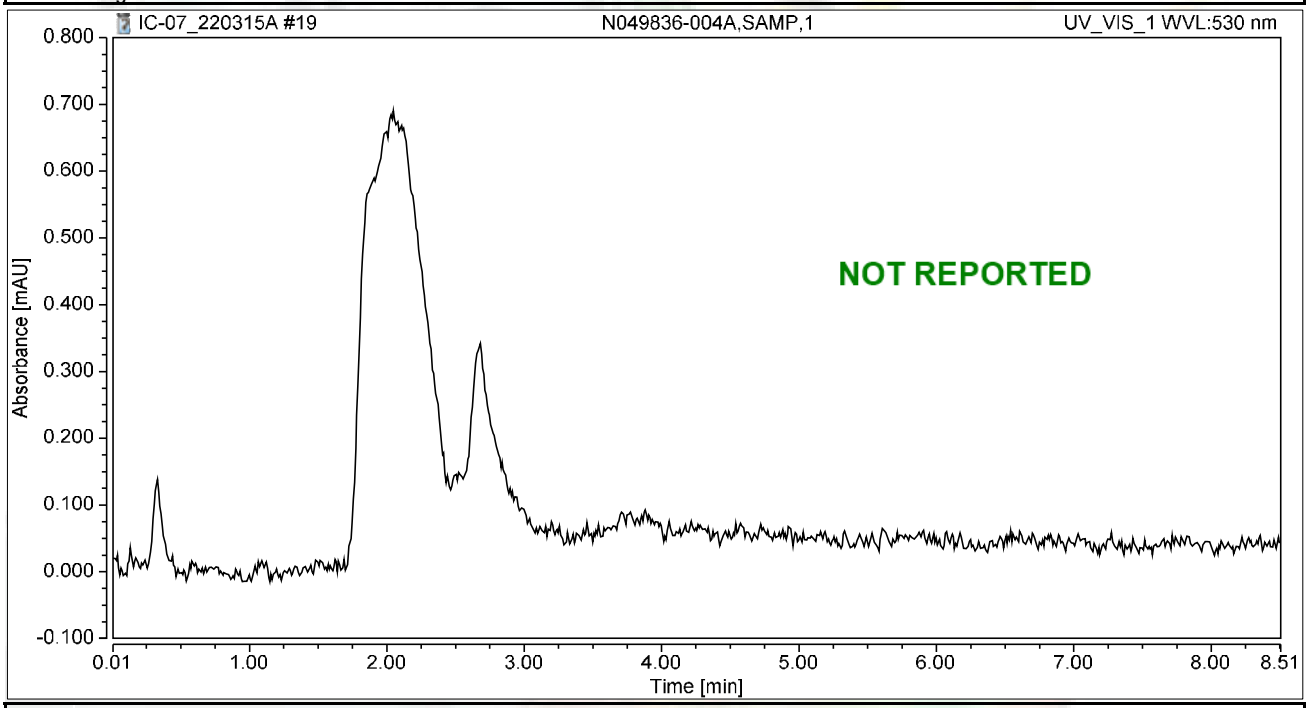
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.467	1.722	100.00	100.00	2.4803
Total:			**0.467**	**1.722**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-004A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**5**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:43**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

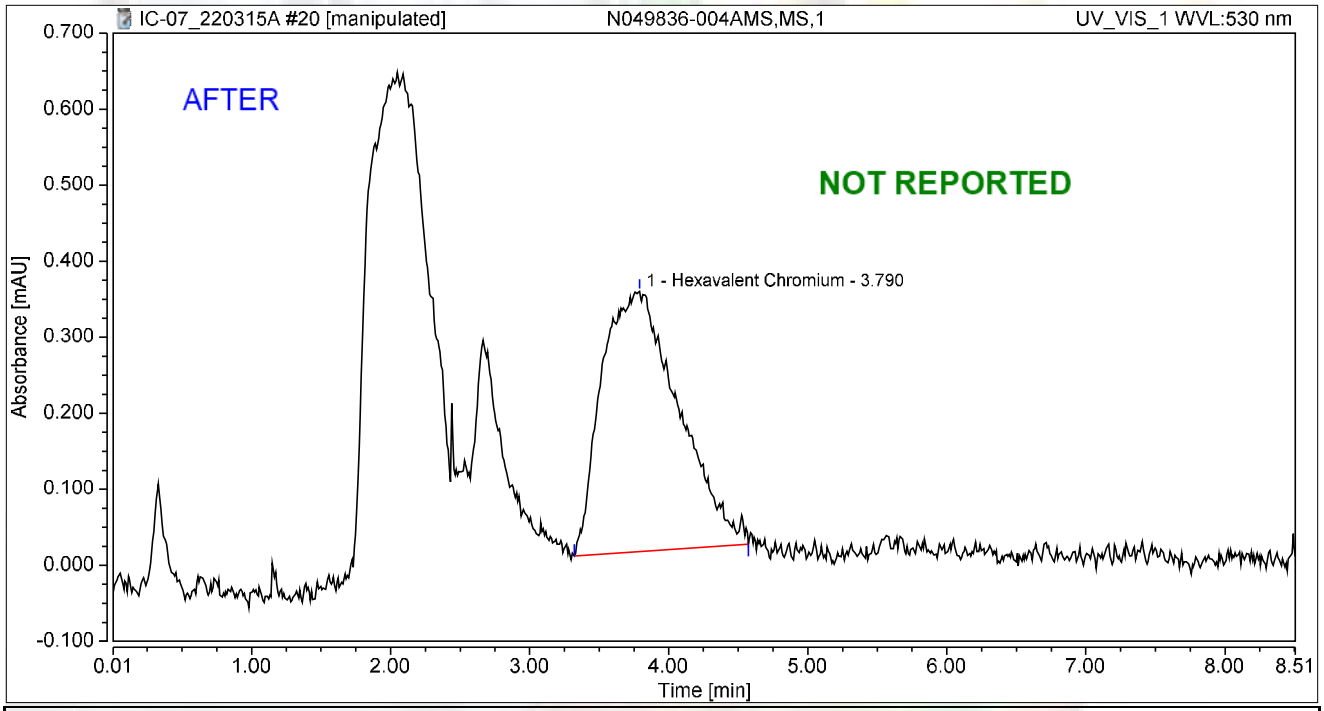
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-004AMS,MS,1**	*Run Time (min):*	**8.50**
Vial Number:	**6**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:52**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

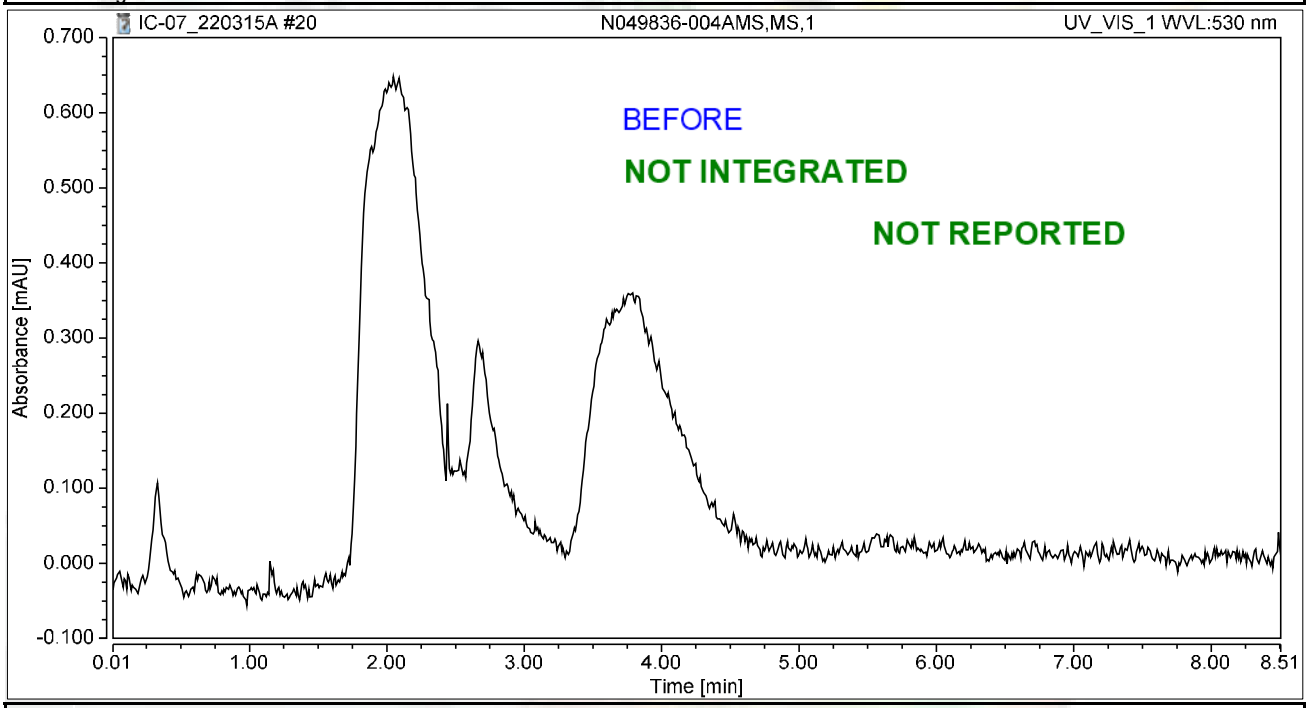
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.790	0.220	0.342	100.00	100.00	1.1672
Total:			**0.220**	**0.342**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-004AMS,MS,1**	*Run Time (min):*	**8.50**
Vial Number:	**6**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 10:52**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

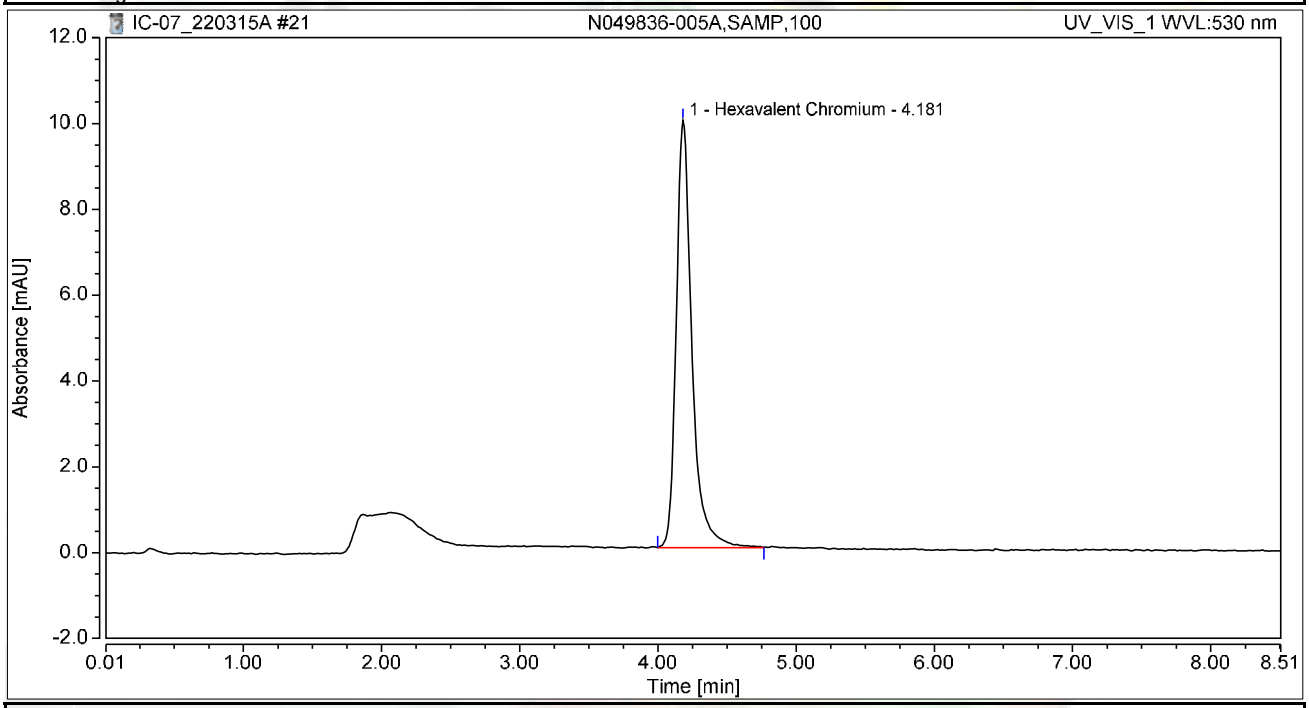
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-005A,SAMP,100**	*Run Time (min):*	**8.50**
Vial Number:	**7**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:01**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

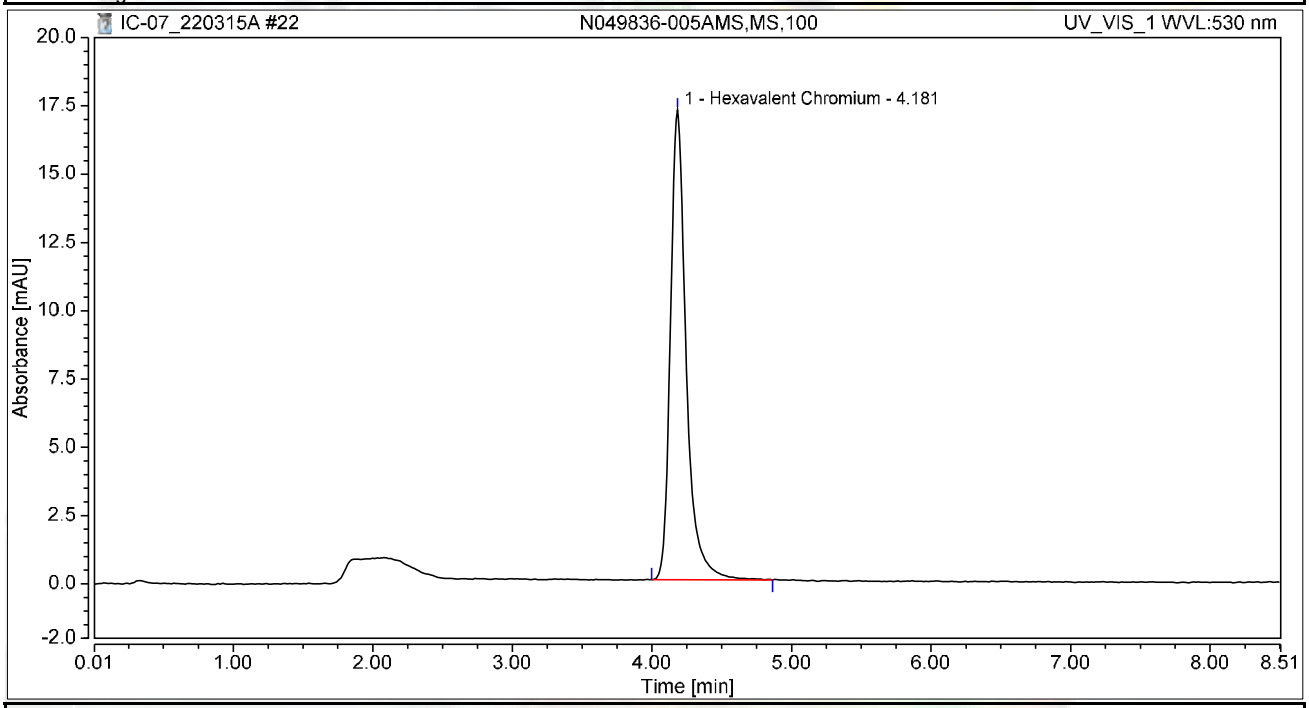
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.308	9.952	100.00	100.00	6.9458
Total:			**1.308**	**9.952**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-005AMS,MS,100**	*Run Time (min):*	**8.50**
Vial Number:	**8**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:10**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

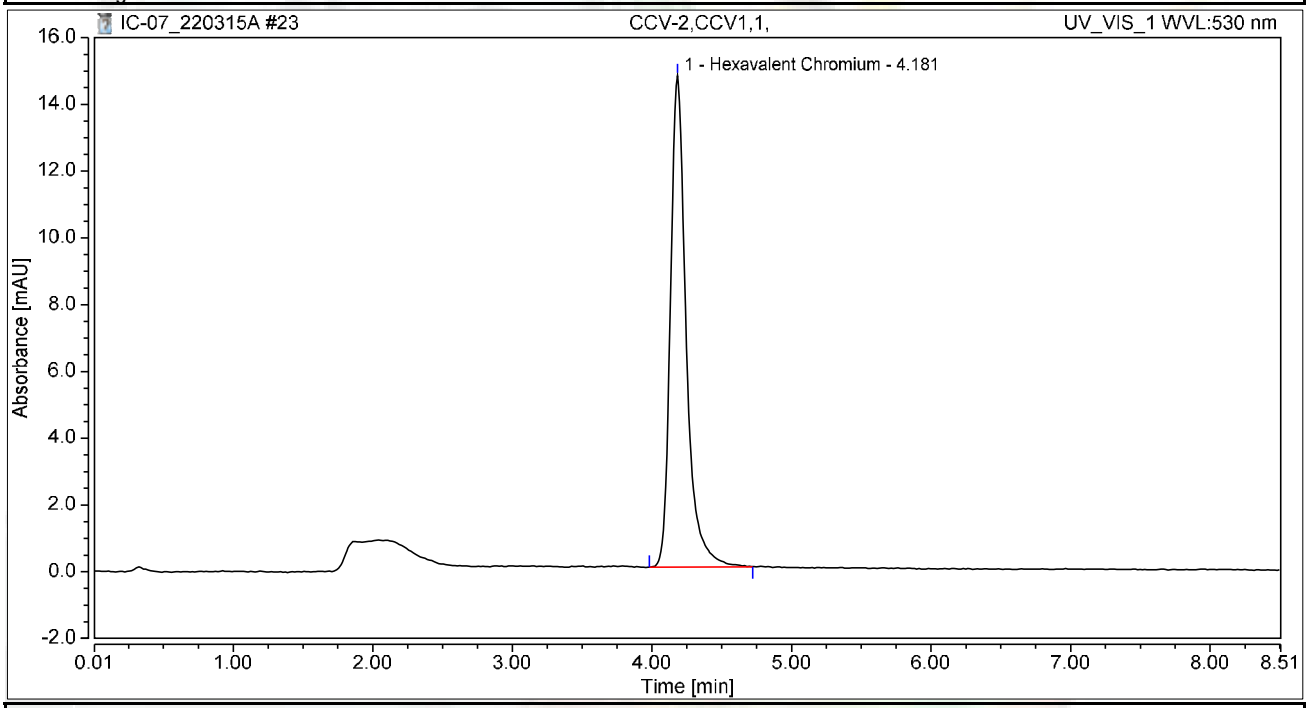
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.260	17.206	100.00	100.00	12.0015
Total:			**2.260**	**17.206**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV-2,CCV1,1,**	*Run Time (min):*	**8.50**
Vial Number:	**9**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:20**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

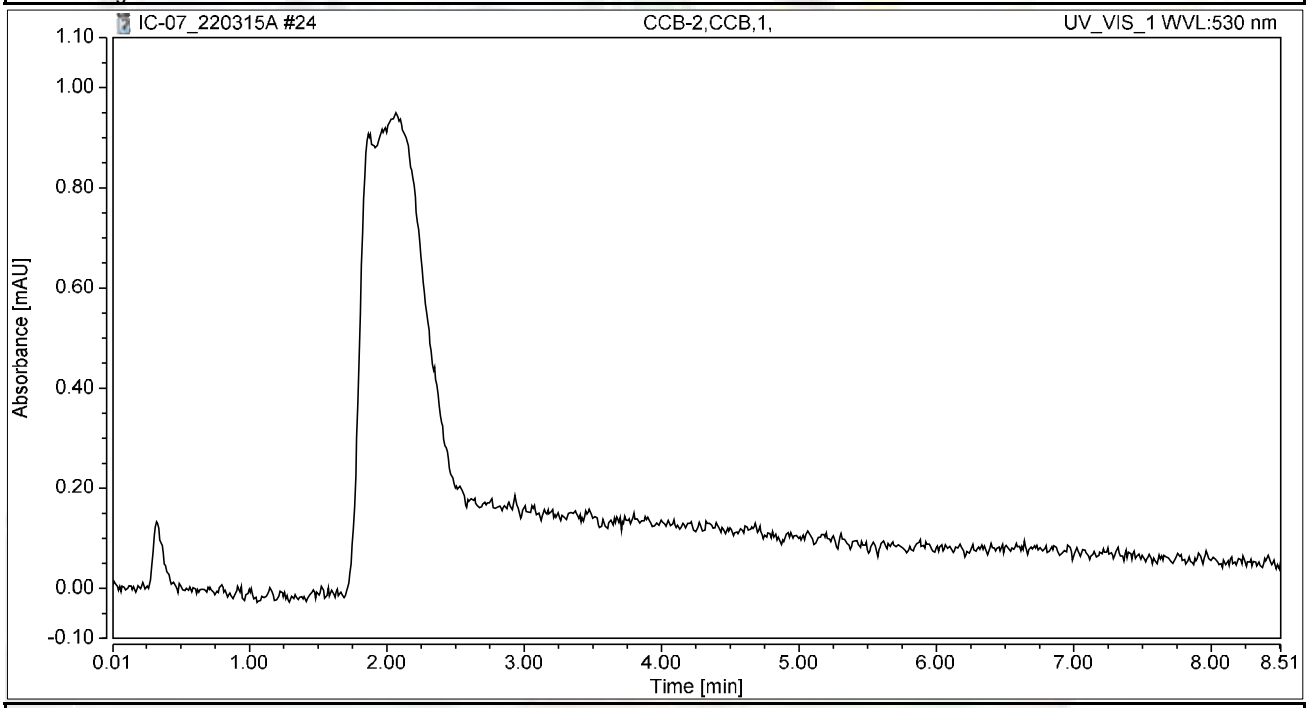
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.933	14.728	100.00	100.00	10.2664
Total:			**1.933**	**14.728**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-2,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**10**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:29**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

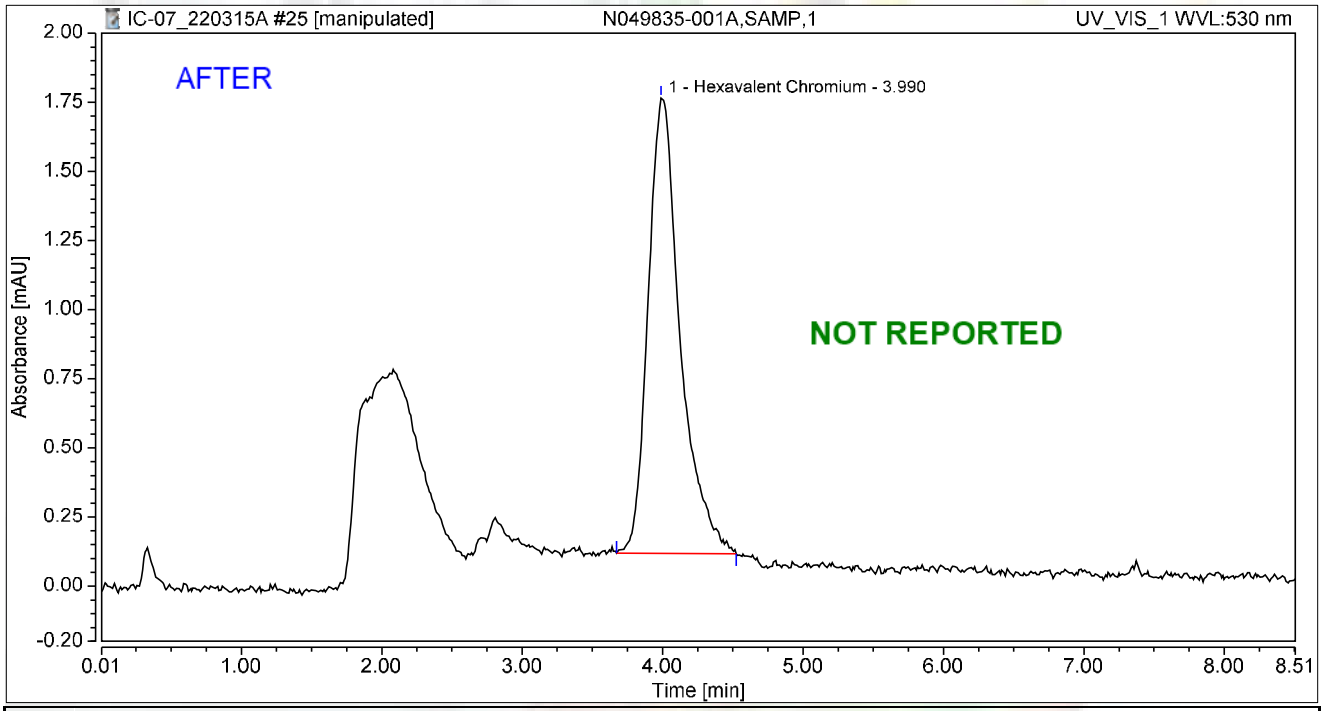
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-001A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**11**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:38**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

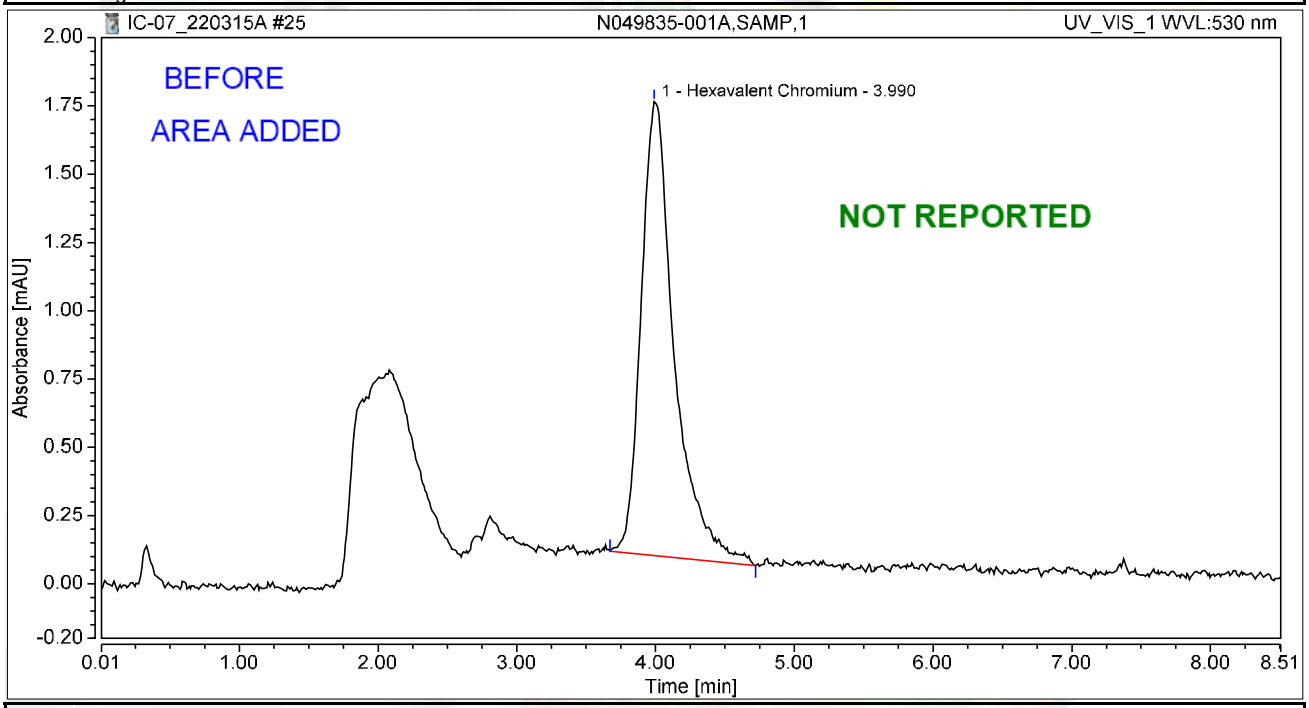
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.990	0.436	1.646	100.00	100.00	2.3159
Total:			**0.436**	**1.646**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-001A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**11**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:38**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

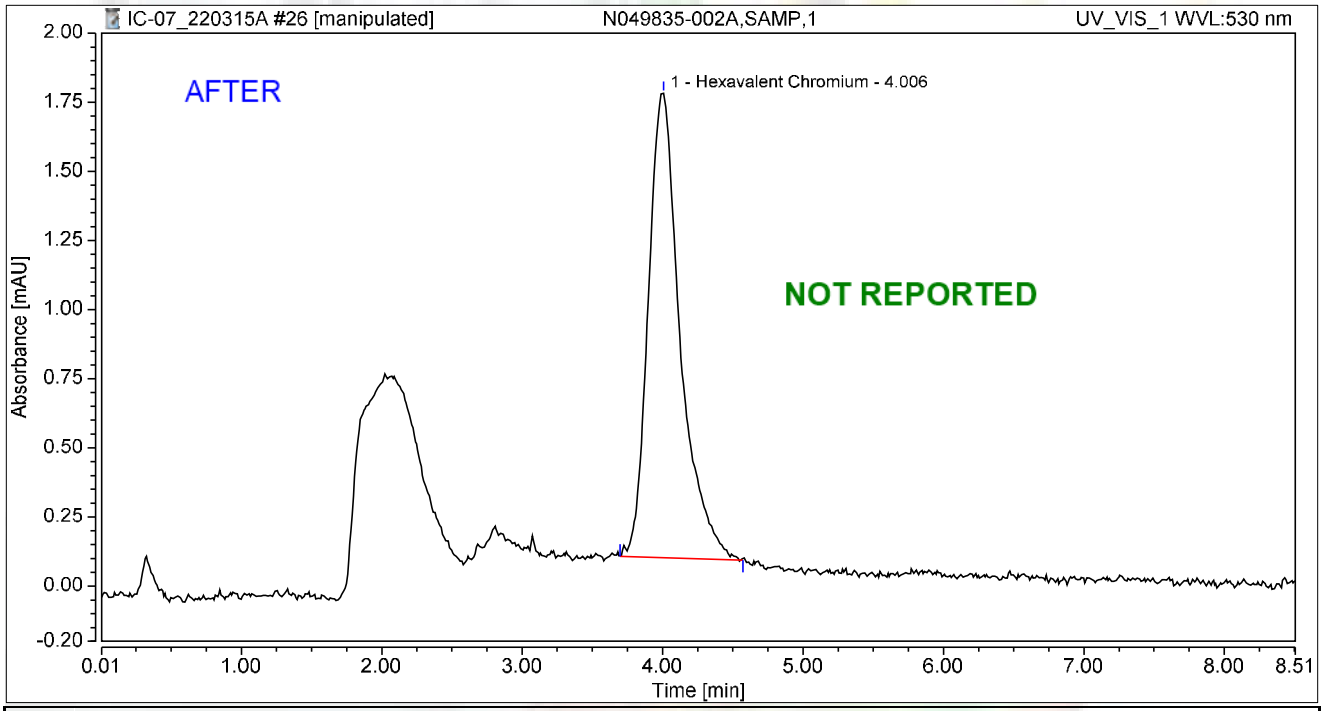
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.990	0.459	1.662	100.00	100.00	2.4380
Total:			**0.459**	**1.662**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-002A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**12**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:48**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

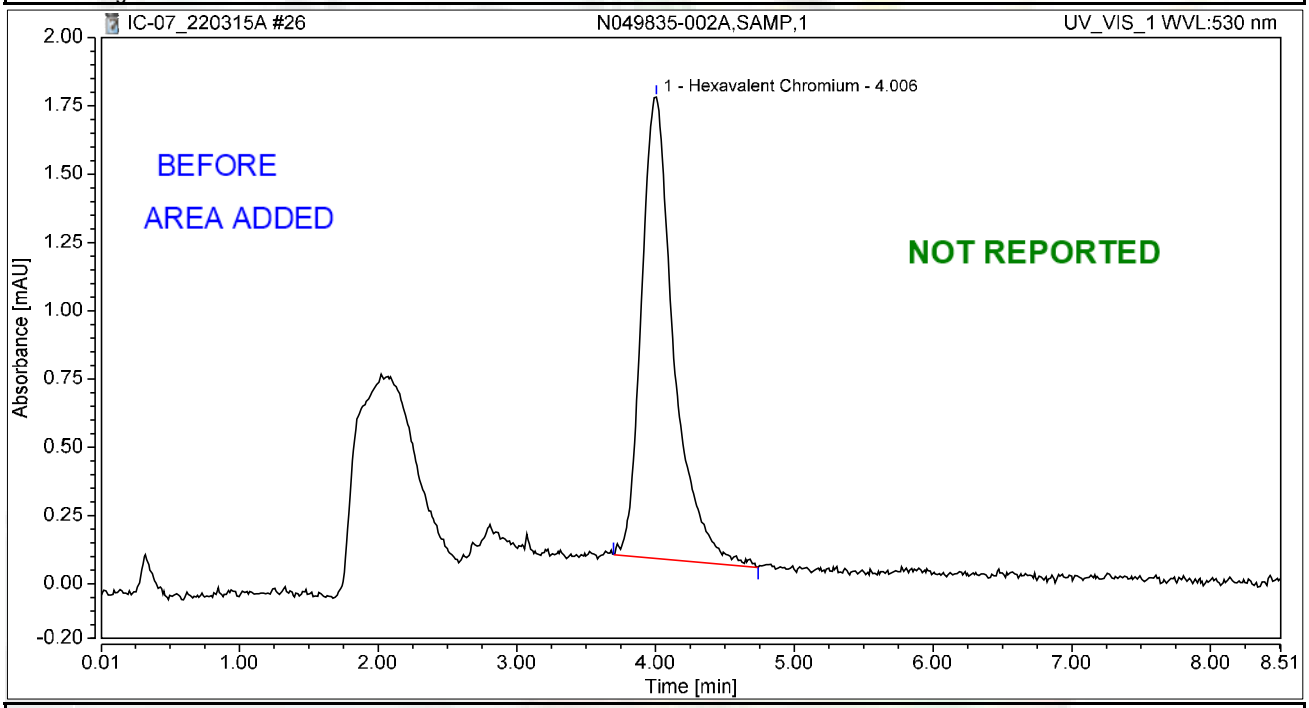
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.006	0.443	1.680	100.00	100.00	2.3551
Total:			**0.443**	**1.680**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-002A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**12**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:48**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

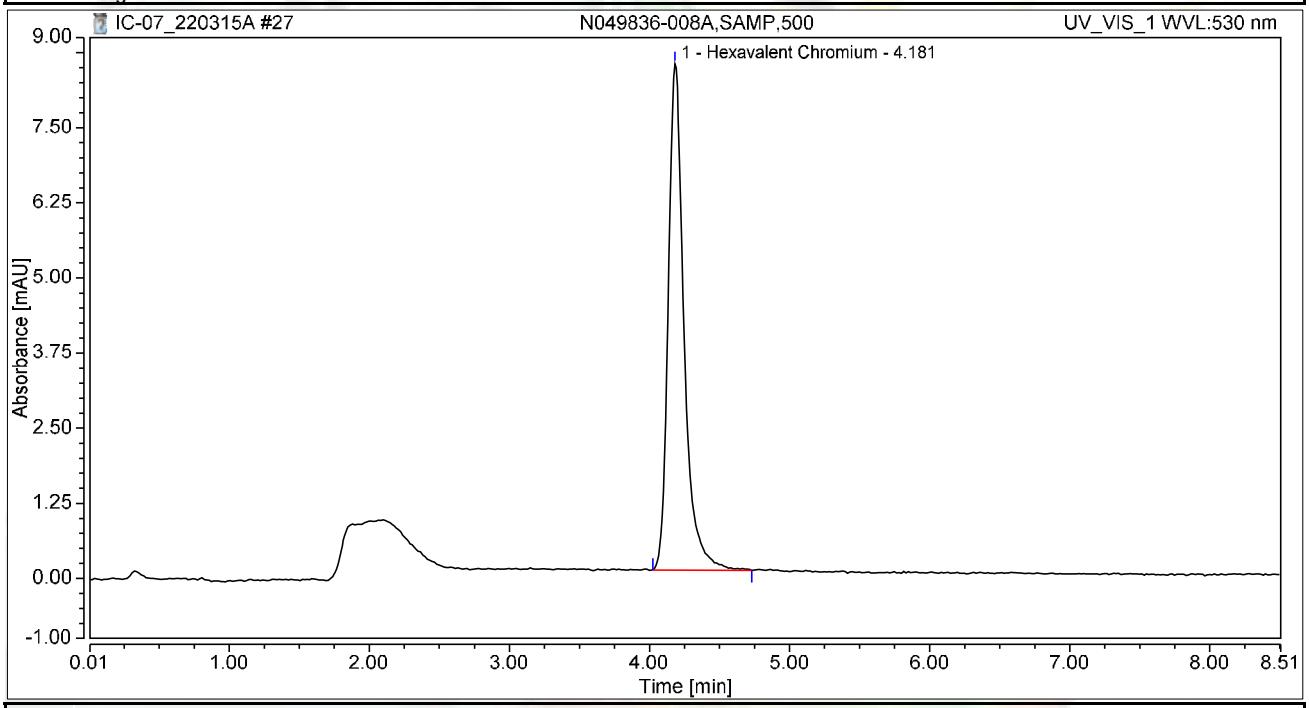
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.006	0.458	1.689	100.00	100.00	2.4304
Total:			**0.458**	**1.689**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-008A,SAMP,500**	*Run Time (min):*	**8.50**
Vial Number:	**13**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 11:57**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

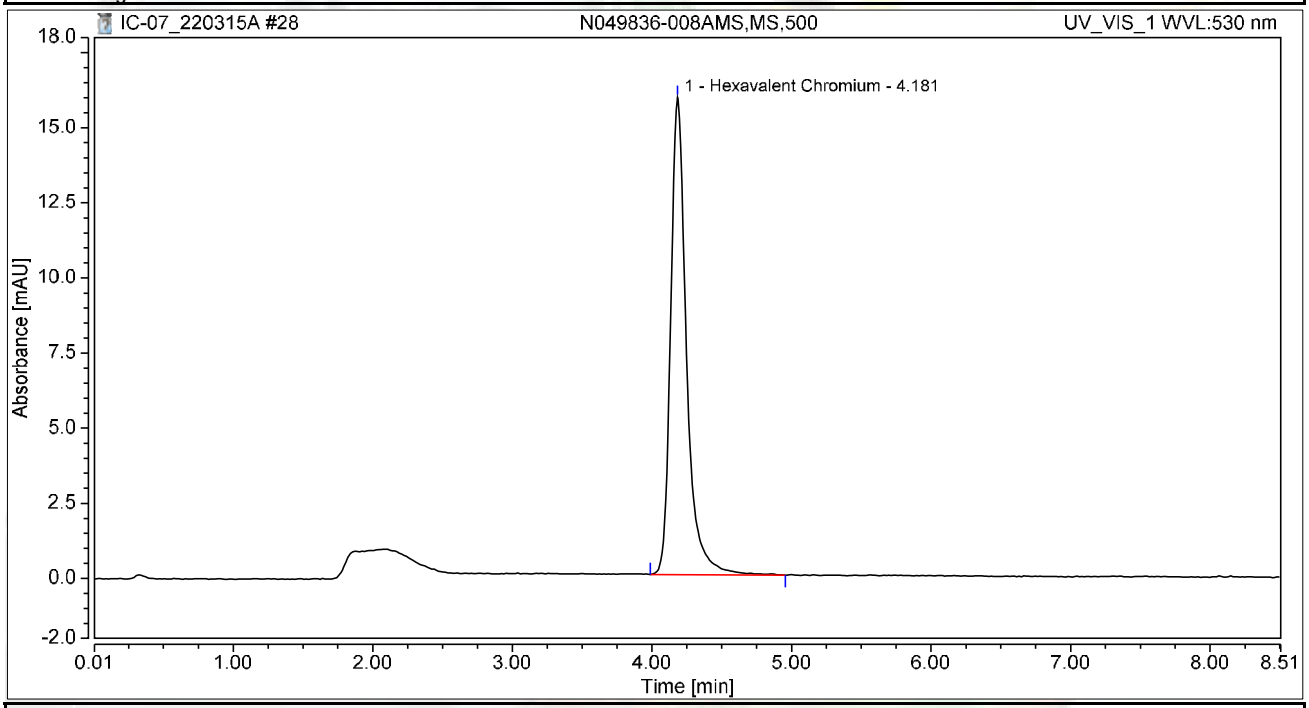
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.102	8.429	100.00	100.00	5.8517
Total:			**1.102**	**8.429**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-008AMS,MS,500**	*Run Time (min):*	**8.50**
Vial Number:	**14**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 12:07**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

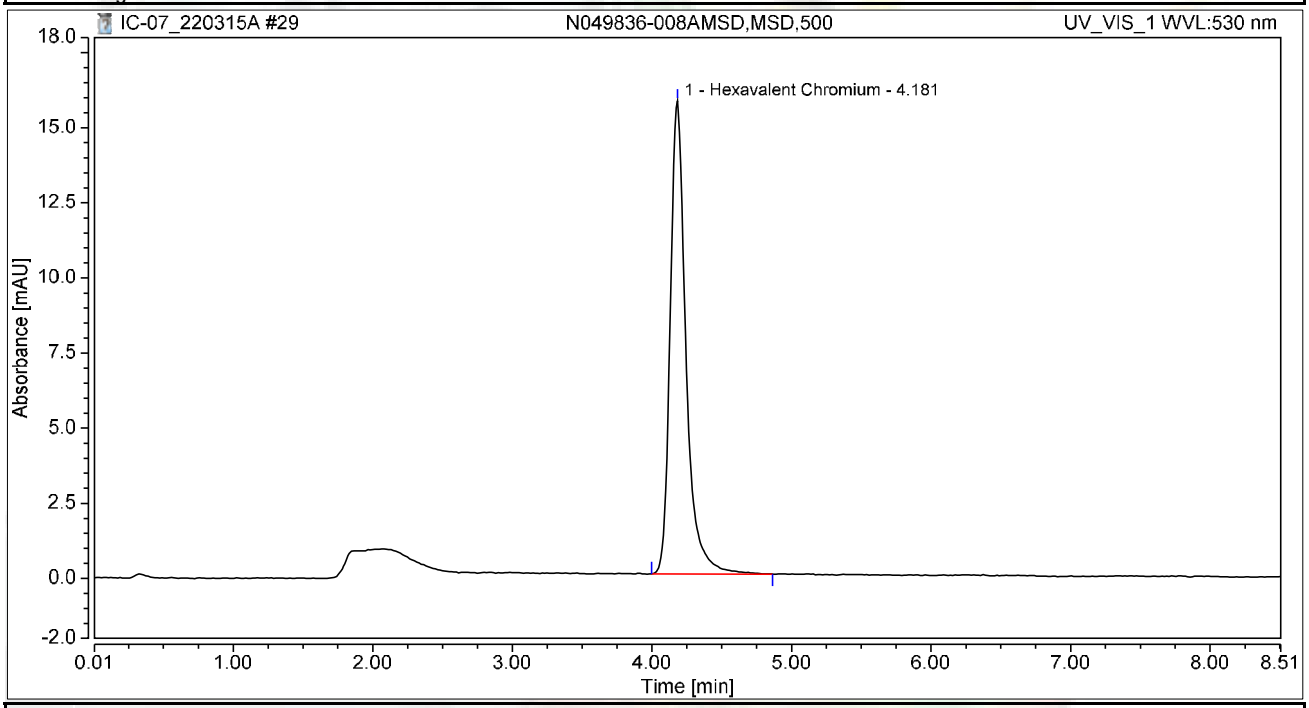
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.100	15.888	100.00	100.00	11.1554
Total:			**2.100**	**15.888**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-008AMSD,MSD,500**	*Run Time (min):*	**8.50**
Vial Number:	**15**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 12:16**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

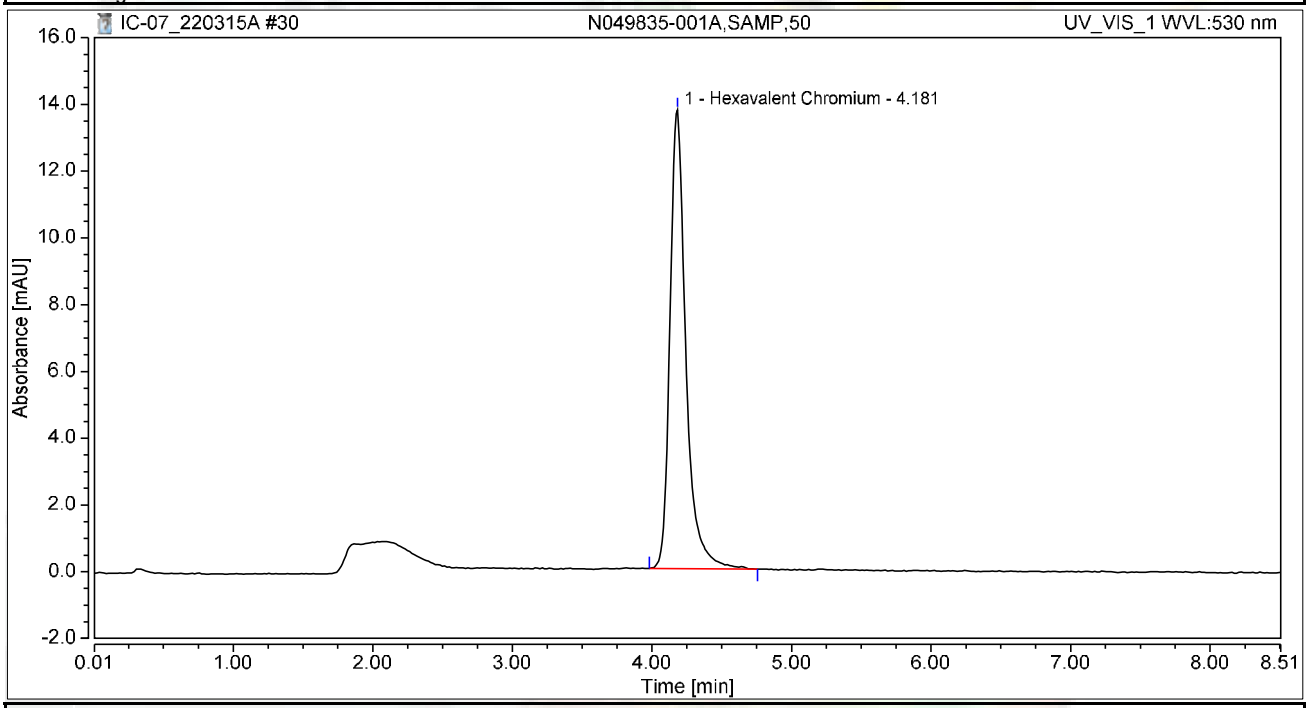
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.070	15.743	100.00	100.00	10.9923
Total:			**2.070**	**15.743**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-001A,SAMP,50**	*Run Time (min):*	**8.50**
Vial Number:	**16**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 12:26**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

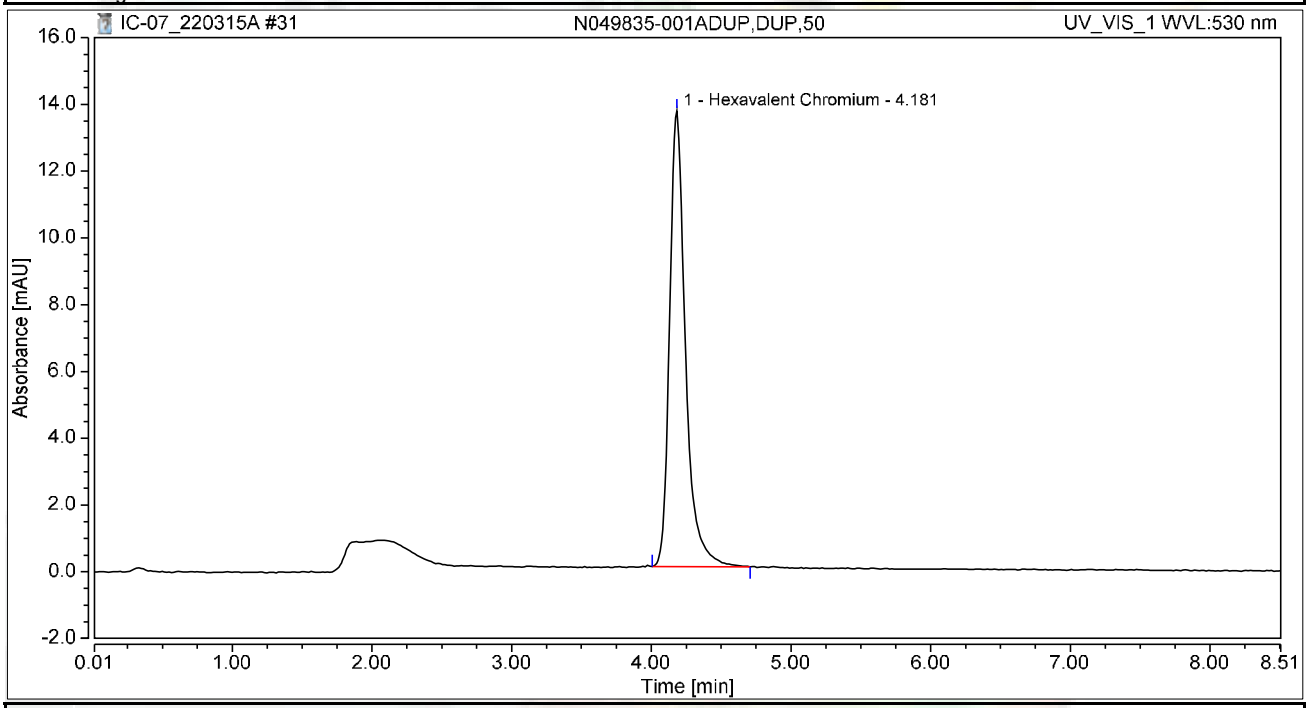
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.818	13.745	100.00	100.00	9.6556
Total:			**1.818**	**13.745**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-001ADUP,DUP,50**	*Run Time (min):*	**8.49**
Vial Number:	**17**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 12:35**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

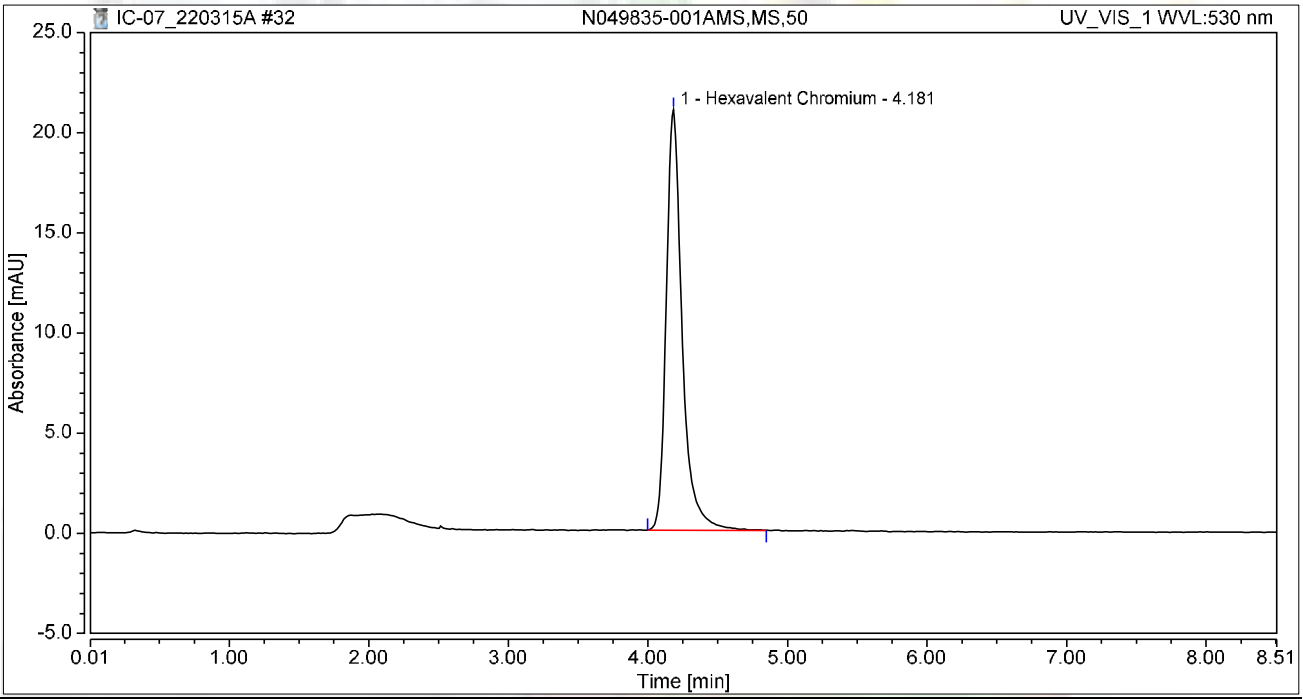
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.796	13.645	100.00	100.00	9.5394
Total:			**1.796**	**13.645**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-001AMS,MS,50**	*Run Time (min):*	**8.50**
Vial Number:	**18**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 12:45**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

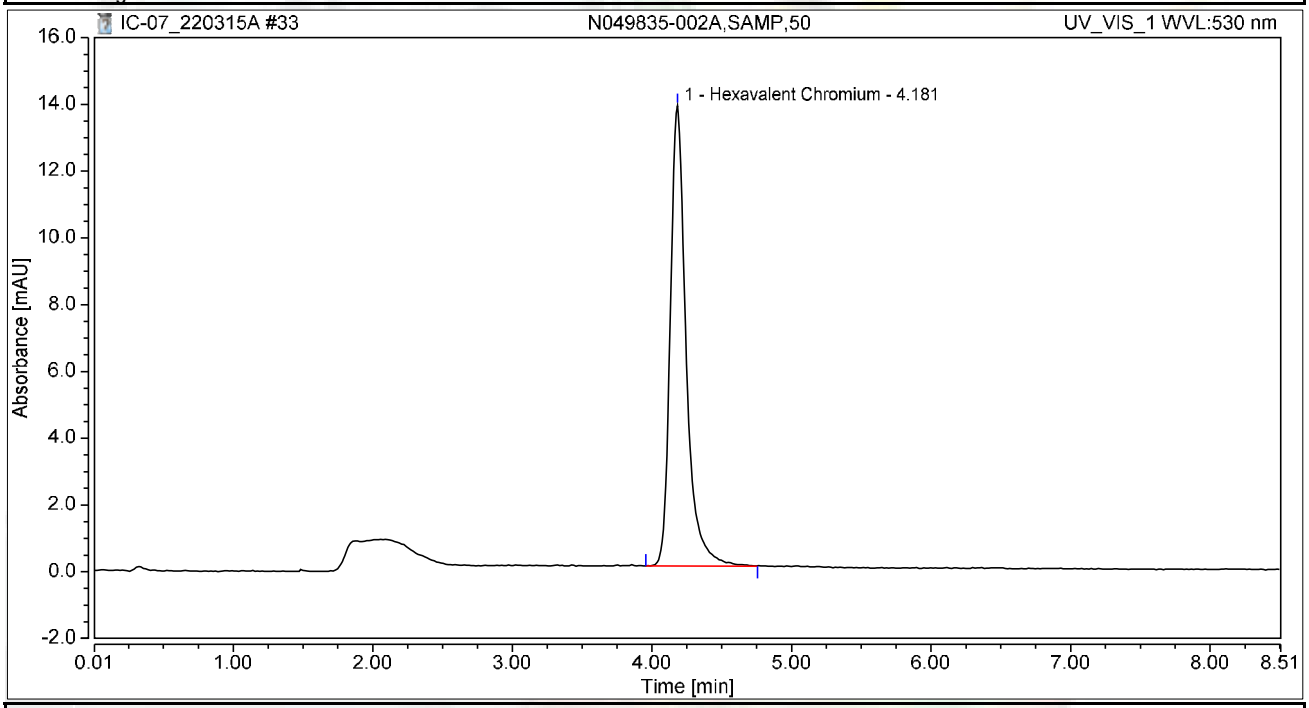
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.781	21.006	100.00	100.00	14.7722
Total:			**2.781**	**21.006**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-002A,SAMP,50**	*Run Time (min):*	**8.50**
Vial Number:	**19**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 12:54**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

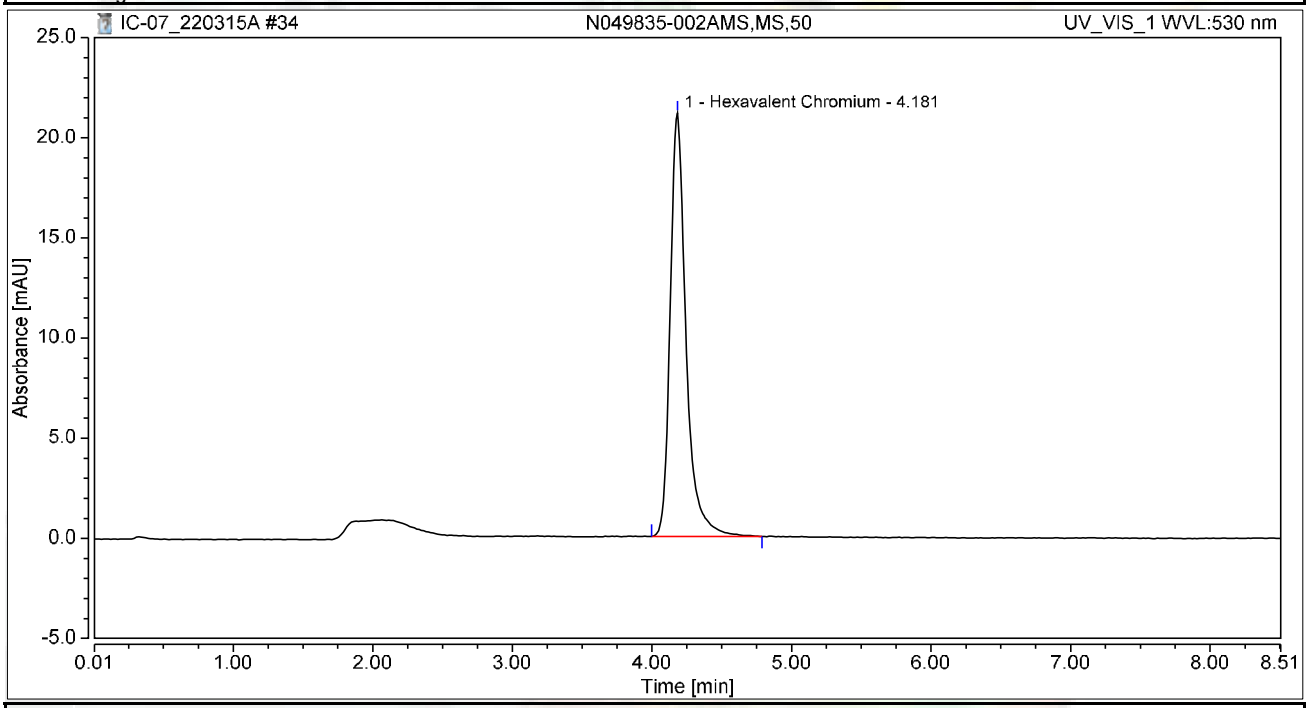
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.819	13.794	100.00	100.00	9.6611
Total:			**1.819**	**13.794**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049835-002AMS,MS,50**	*Run Time (min):*	**8.50**
Vial Number:	**20**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 13:04**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

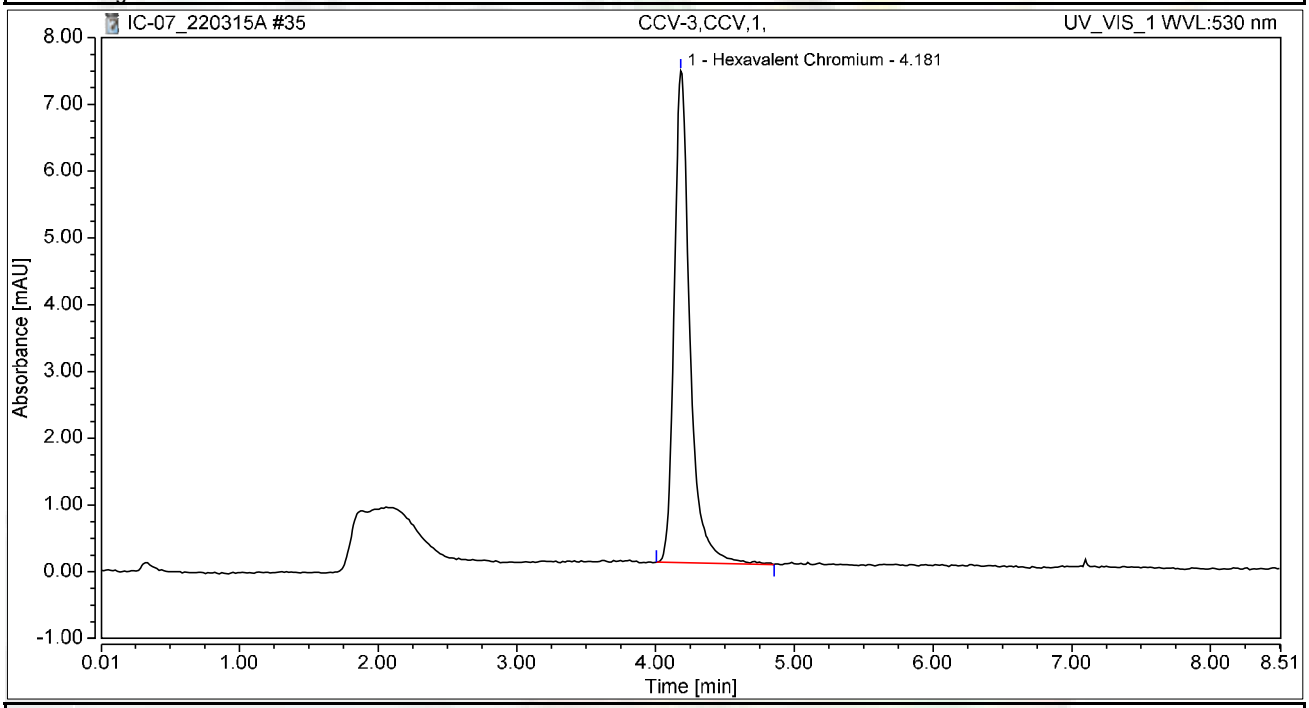
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.778	21.131	100.00	100.00	14.7558
Total:			**2.778**	**21.131**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV-3,CCV,1,**	*Run Time (min):*	**8.50**
Vial Number:	**21**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 13:13**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

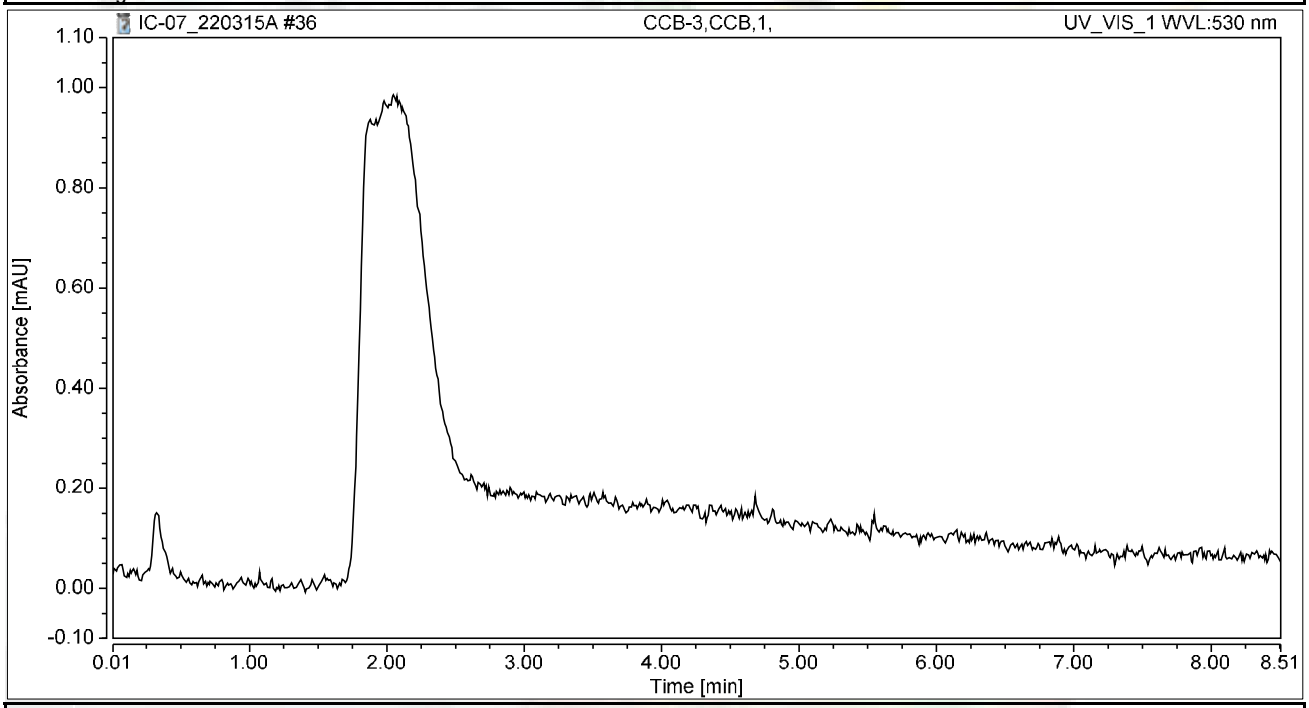
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.969	7.364	100.00	100.00	5.1475
Total:			**0.969**	**7.364**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-3,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**22**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 13:23**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

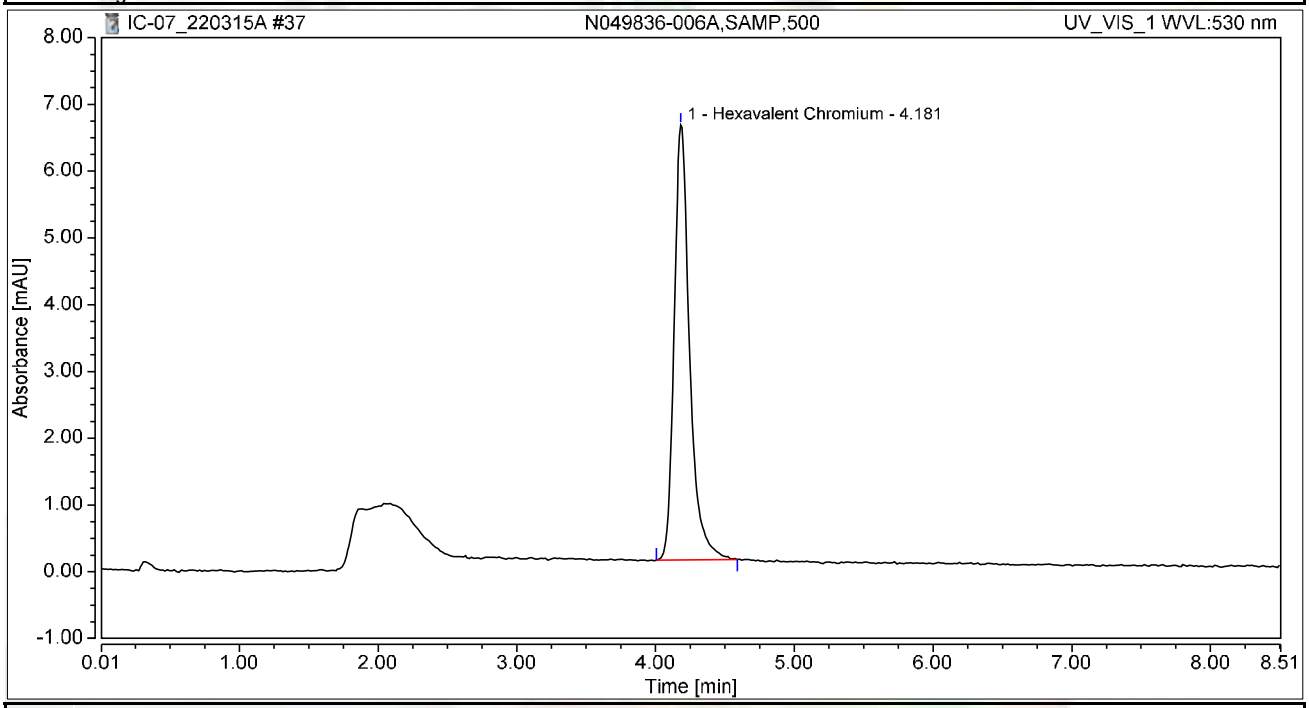
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-006A,SAMP,500**	*Run Time (min):*	**8.50**
Vial Number:	**23**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 13:32**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

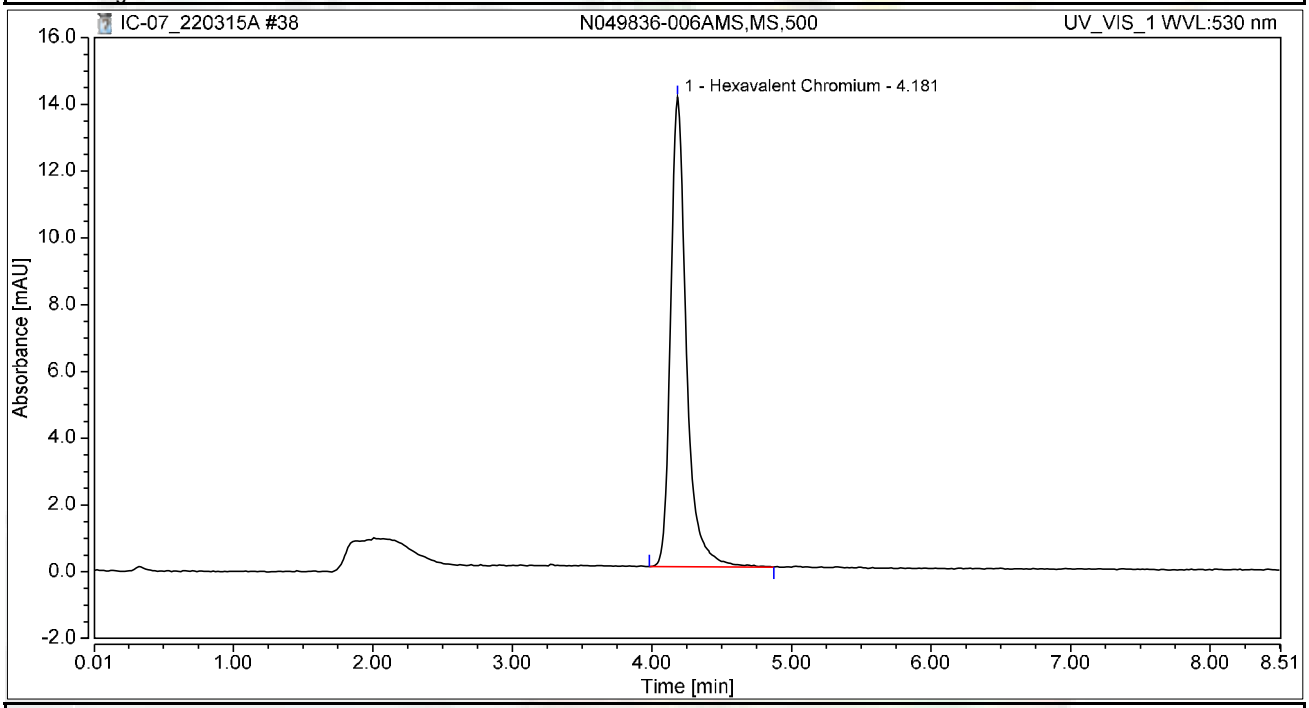
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.841	6.512	100.00	100.00	4.4673
Total:			**0.841**	**6.512**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-006AMS,MS,500**	*Run Time (min):*	**8.50**
Vial Number:	**24**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 13:41**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

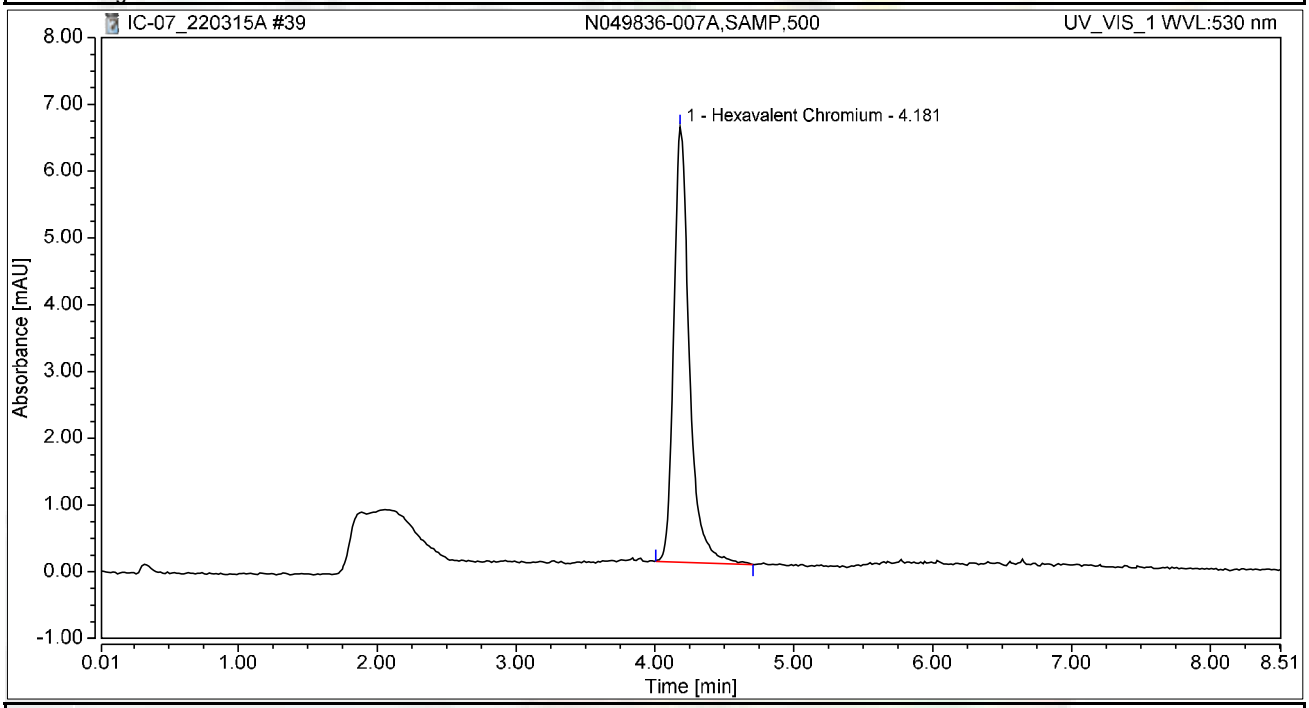
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.847	14.059	100.00	100.00	9.8109
Total:			**1.847**	**14.059**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-007A,SAMP,500**	*Run Time (min):*	**8.49**
Vial Number:	**25**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 13:51**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

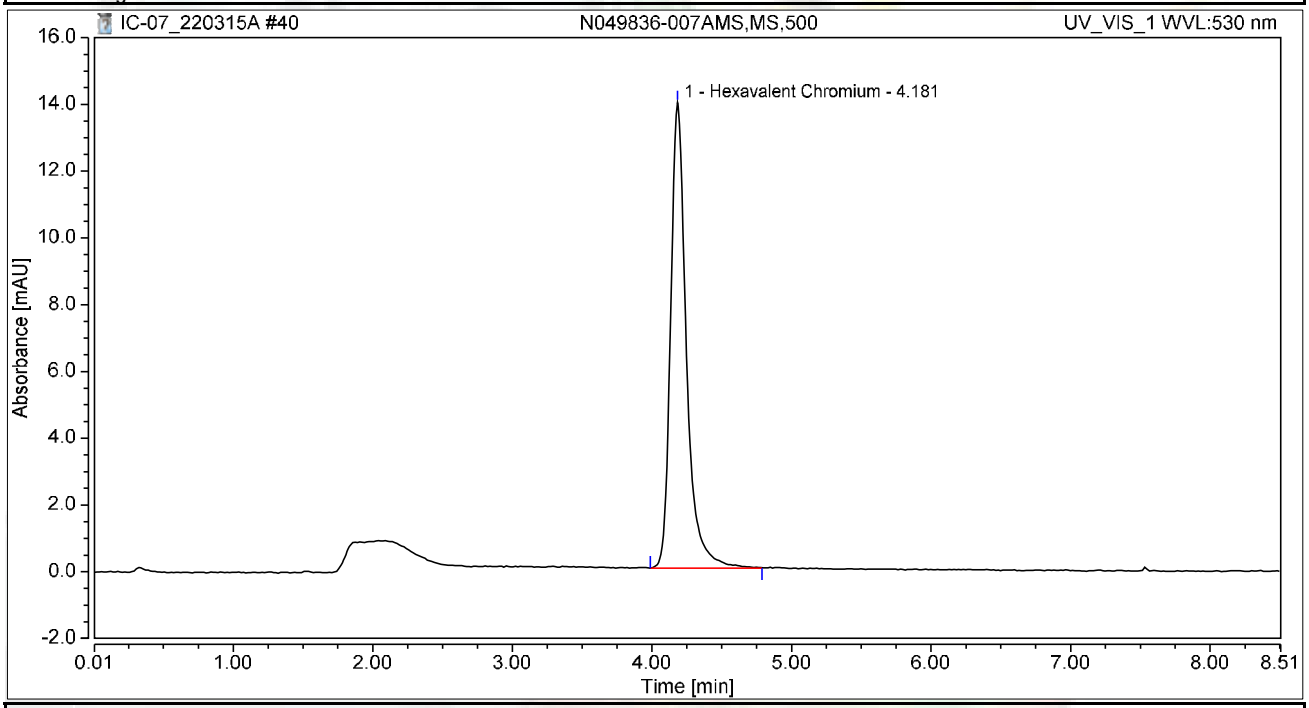
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.851	6.524	100.00	100.00	4.5209
Total:			**0.851**	**6.524**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-007AMS,MS,500**	*Run Time (min):*	**8.50**
Vial Number:	**26**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:00**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

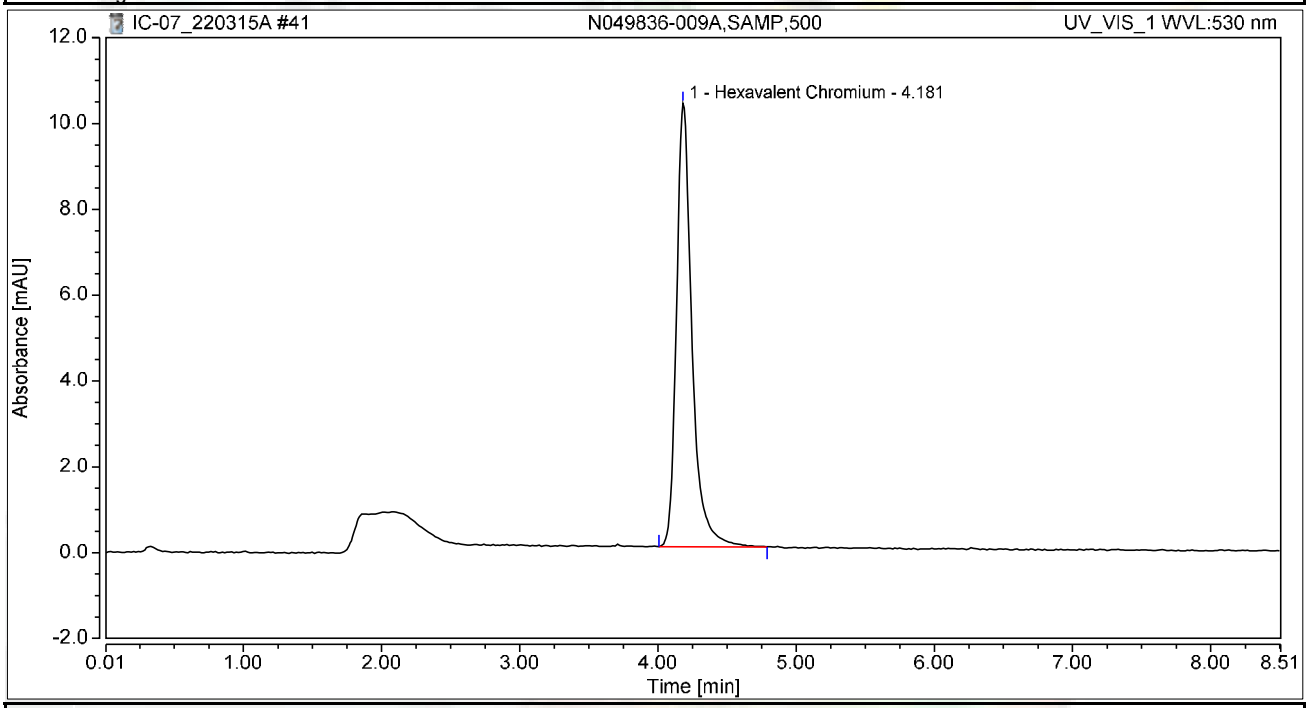
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.831	13.944	100.00	100.00	9.7243
Total:			**1.831**	**13.944**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-009A,SAMP,500**	*Run Time (min):*	**8.50**
Vial Number:	**27**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:10**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

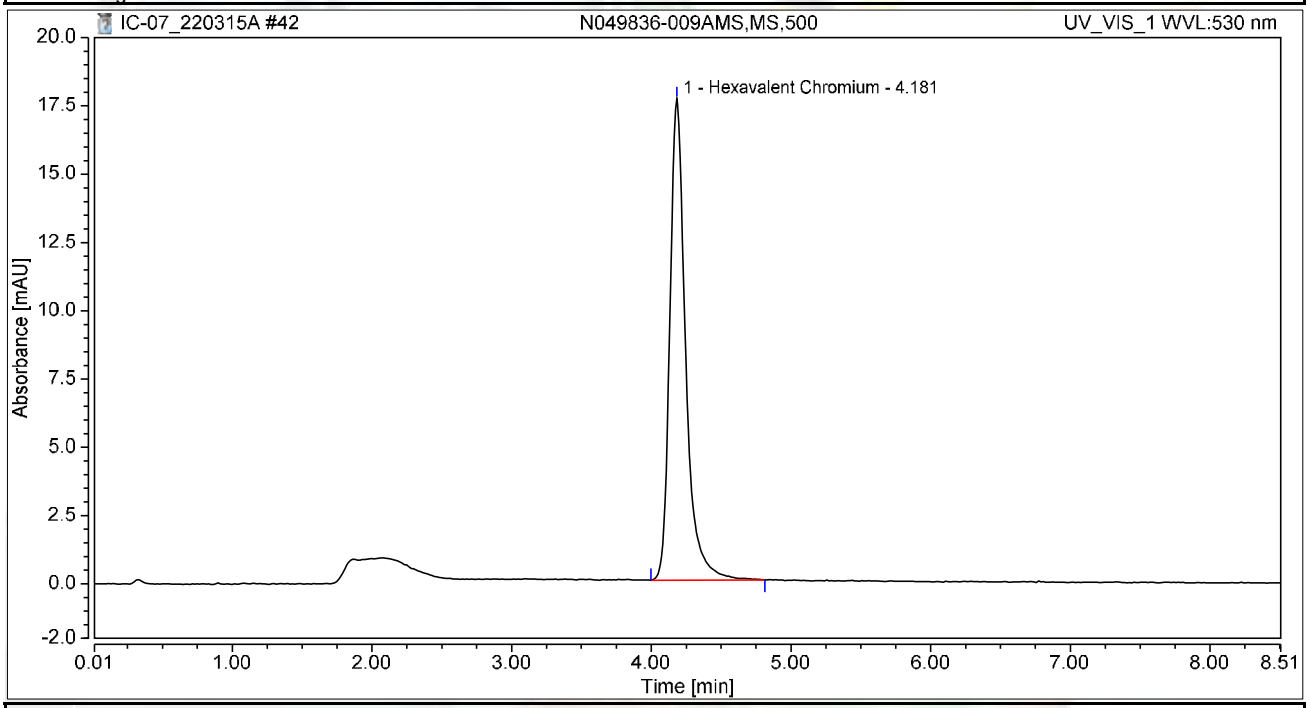
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.346	10.327	100.00	100.00	7.1477
Total:			**1.346**	**10.327**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-009AMS,MS,500**	*Run Time (min):*	**8.49**
Vial Number:	**28**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:19**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

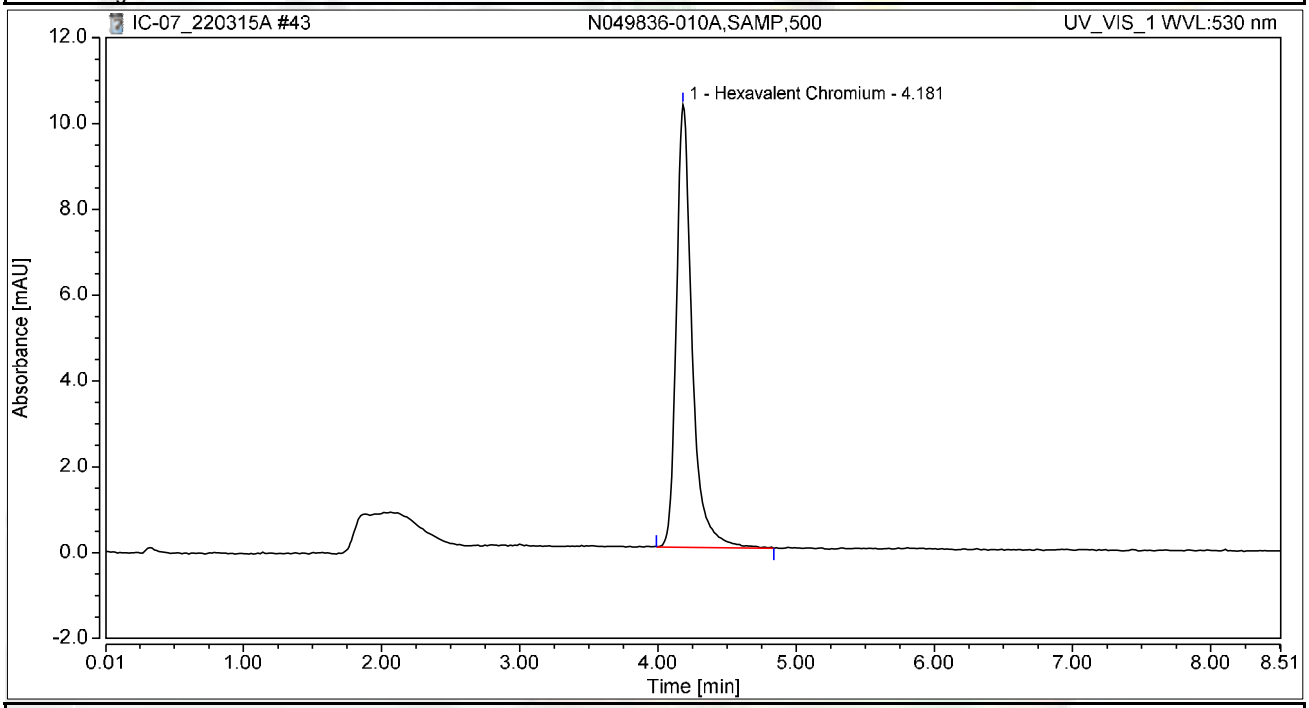
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.312	17.630	100.00	100.00	12.2819
Total:			**2.312**	**17.630**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-010A,SAMP,500**	*Run Time (min):*	**8.50**
Vial Number:	**29**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:29**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

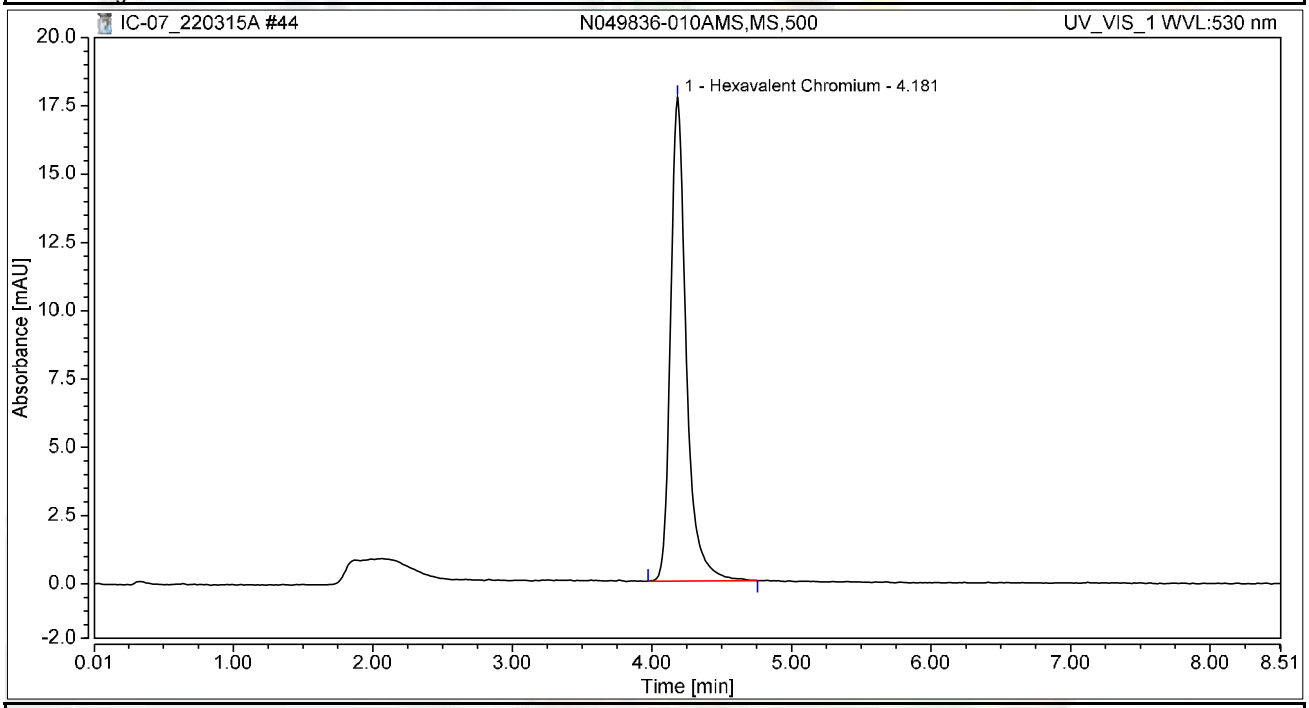
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.360	10.315	100.00	100.00	7.2239
Total:			**1.360**	**10.315**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-010AMS,MS,500**	*Run Time (min):*	**8.50**
Vial Number:	**30**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:38**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

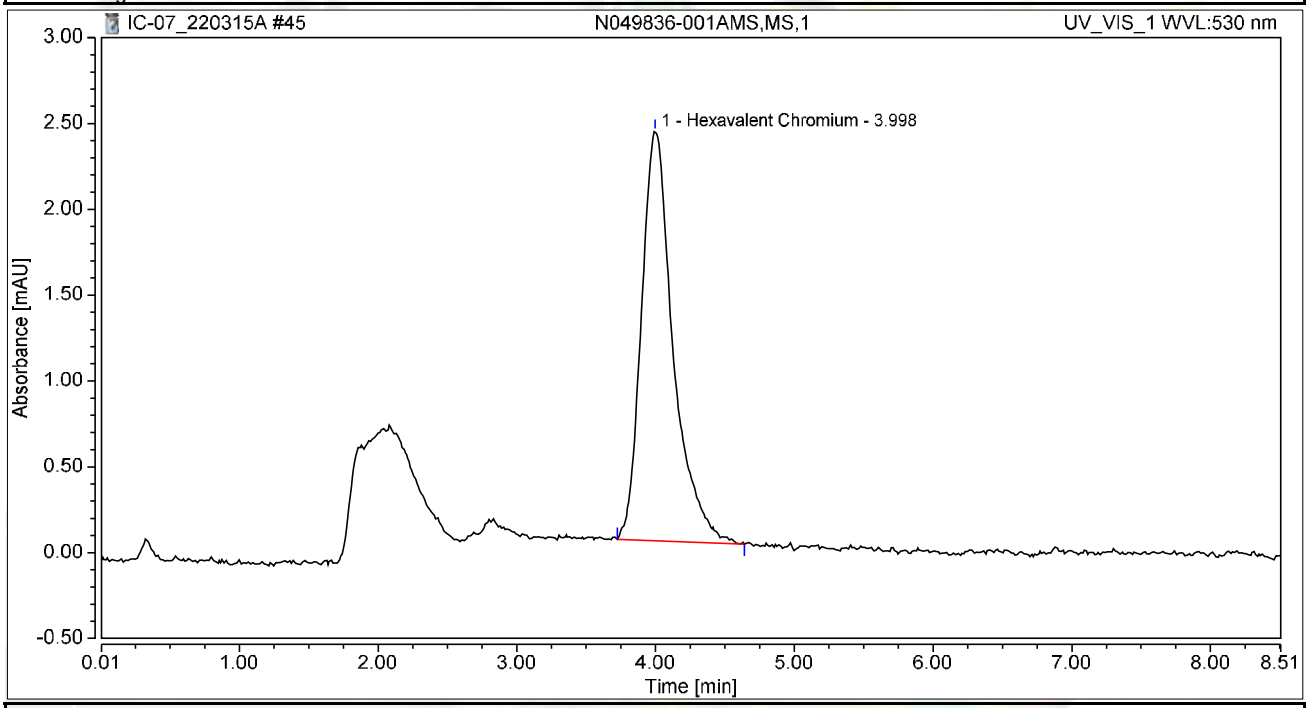
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.321	17.712	100.00	100.00	12.3257
Total:			**2.321**	**17.712**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-001AMS,MS,1**	*Run Time (min):*	**8.50**
Vial Number:	**31**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:48**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

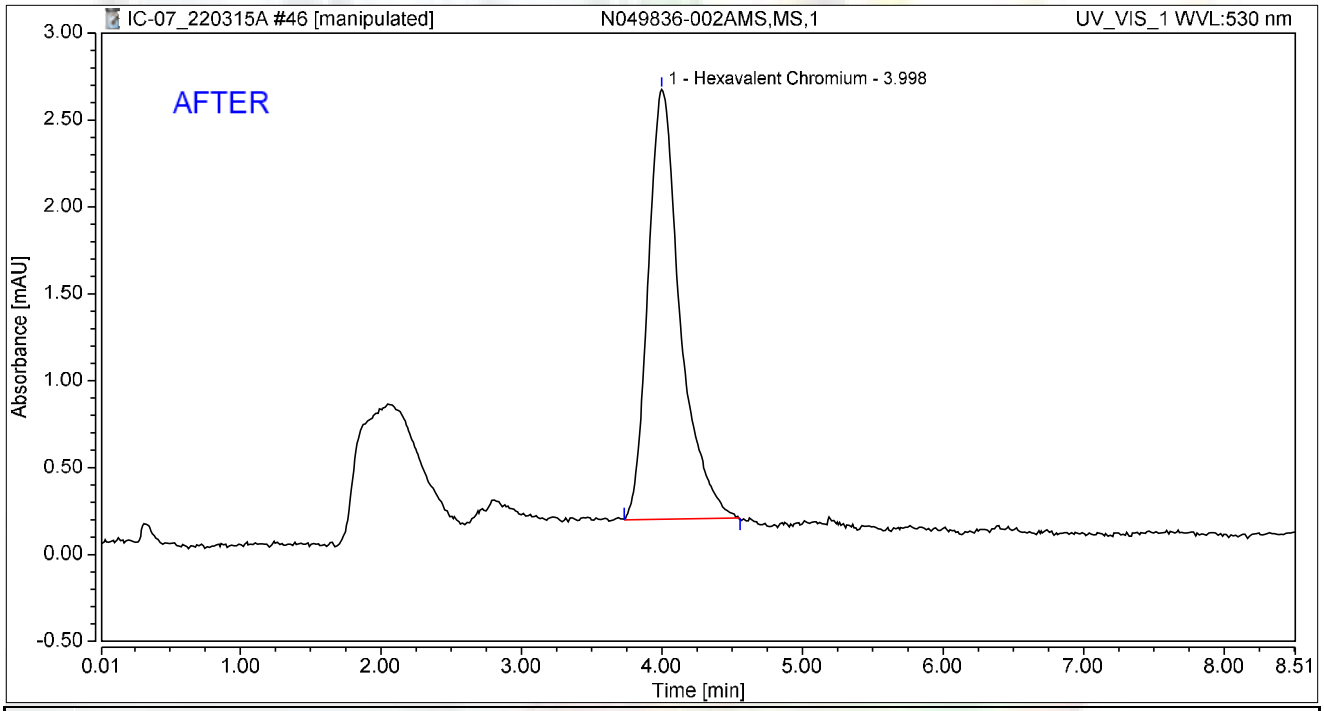
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.632	2.385	100.00	100.00	3.3554
Total:			**0.632**	**2.385**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-002AMS,MS,1**	*Run Time (min):*	**8.49**
Vial Number:	**32**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:57**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.655	2.473	100.00	100.00	3.4812
Total:			**0.655**	**2.473**	**100.00**	**100.00**	

Reviewed by:

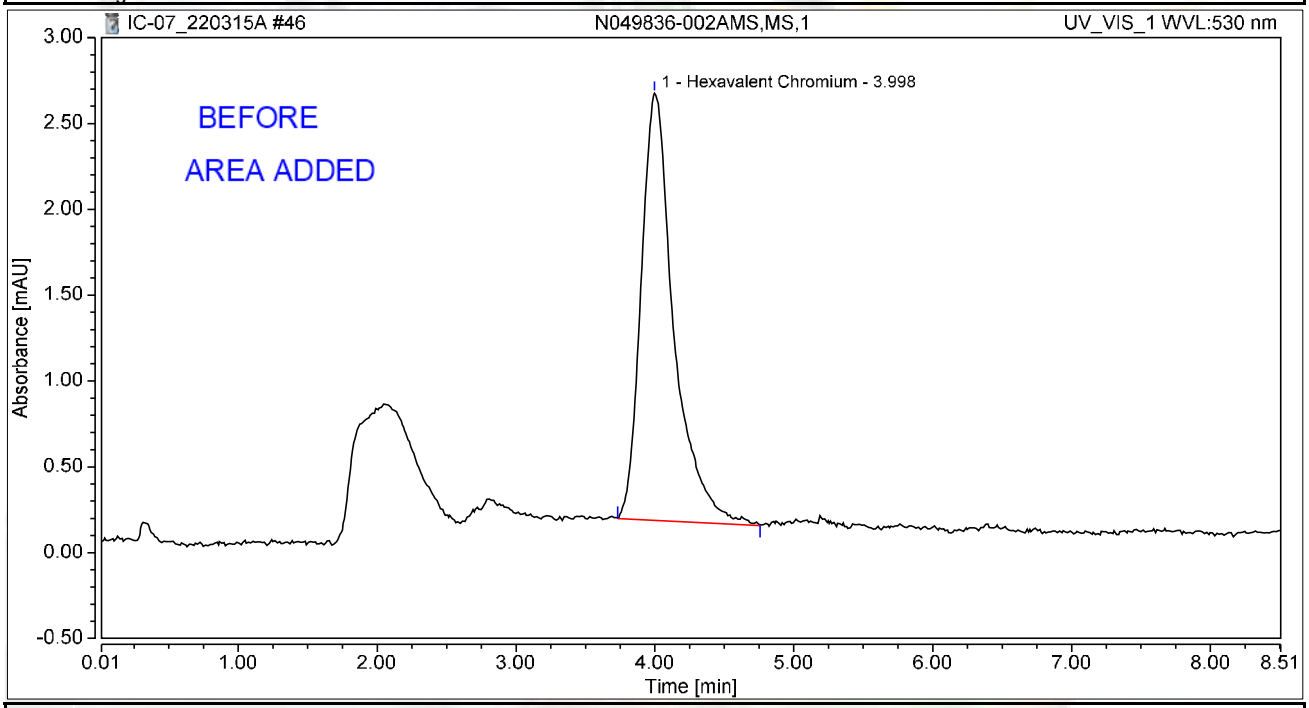
JRB 3/16/2022

Chromatogram and Results

Injection Details

Injection Name:	**N049836-002AMS,MS,1**	*Run Time (min):*	**8.49**
Vial Number:	**32**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 14:57**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

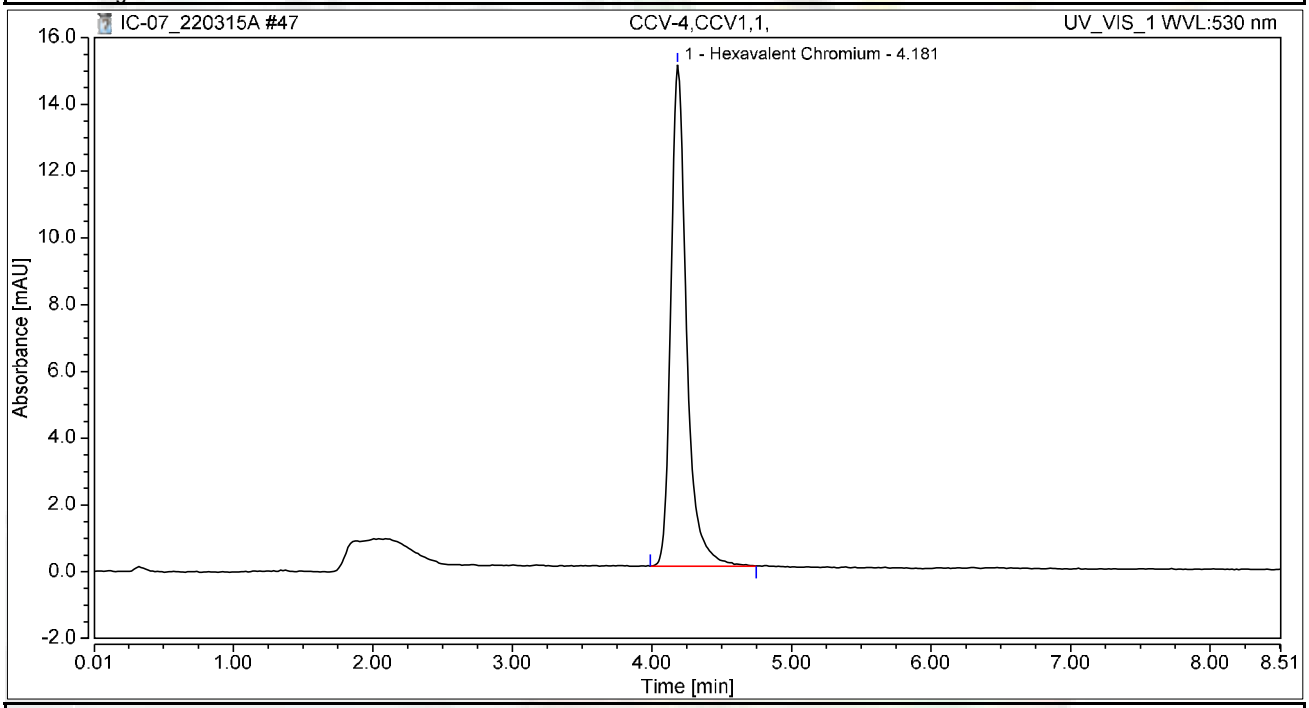
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.679	2.487	100.00	100.00	3.6049
Total:			**0.679**	**2.487**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV-4,CCV1,1,**	*Run Time (min):*	**8.50**
Vial Number:	**33**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 15:07**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

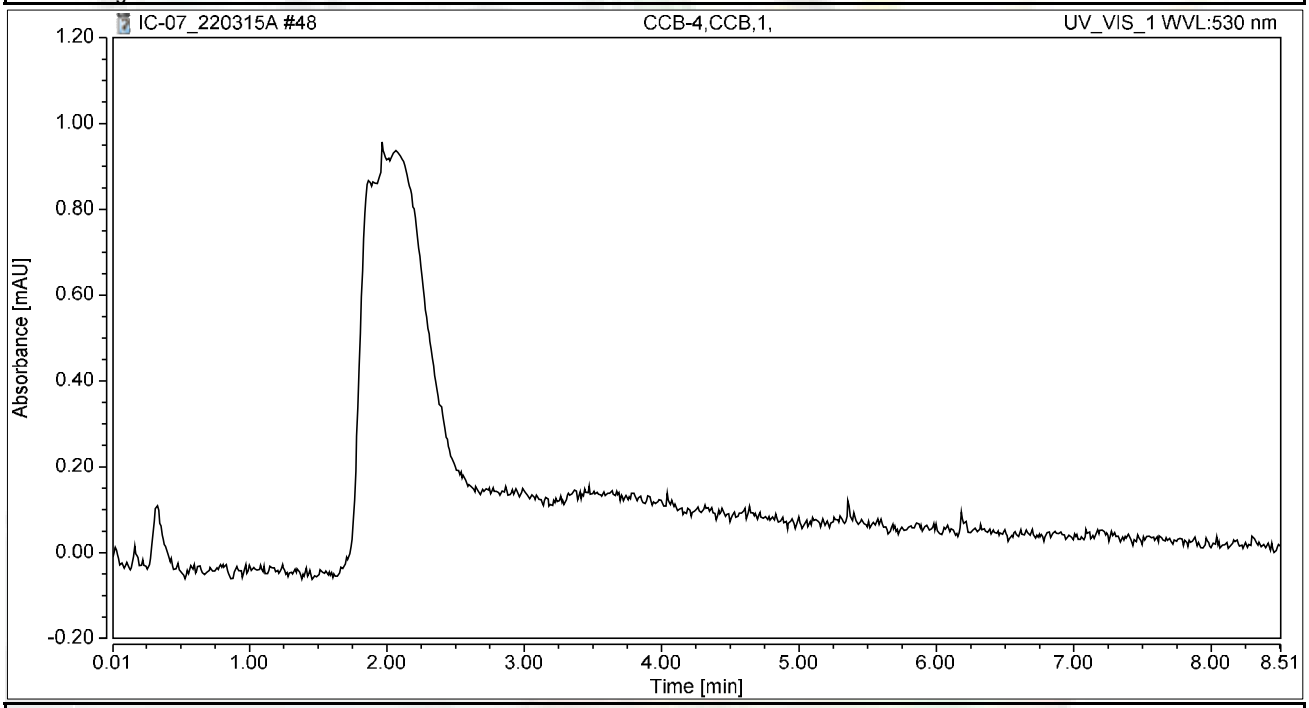
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.964	15.016	100.00	100.00	10.4338
Total:			**1.964**	**15.016**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-4,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**34**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 15:16**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

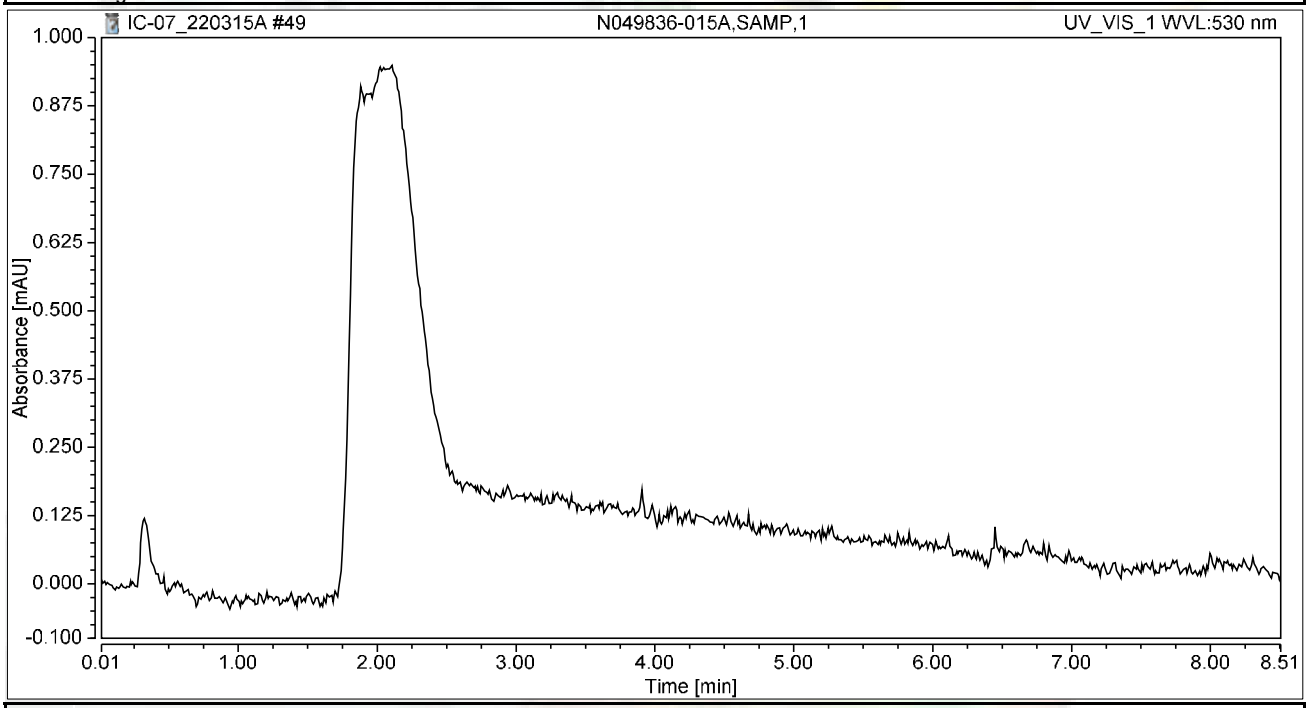
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-015A,SAMP,1**	*Run Time (min):*	**8.49**
Vial Number:	**35**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 15:26**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

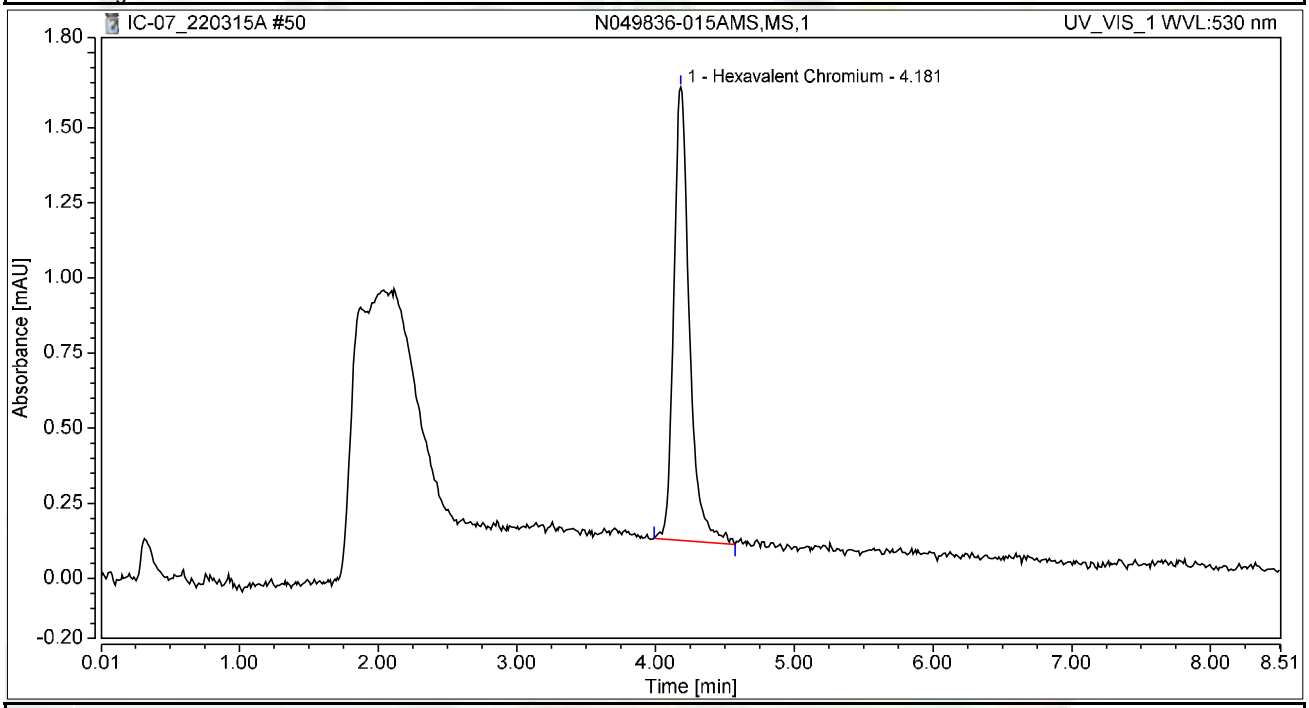
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-015AMS,MS,1**	*Run Time (min):*	**8.50**
Vial Number:	**36**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 15:35**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

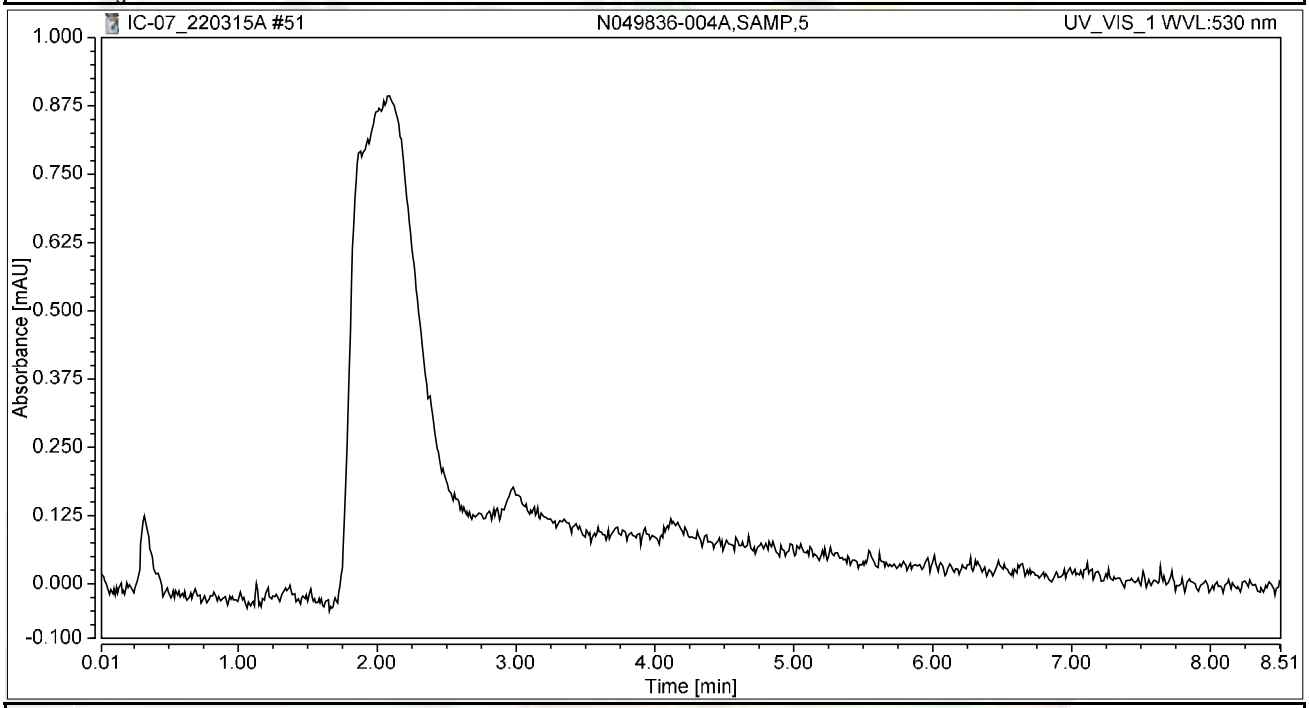
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.198	1.508	100.00	100.00	1.0514
Total:			**0.198**	**1.508**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-004A,SAMP,5**	*Run Time (min):*	**8.49**
Vial Number:	**37**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 15:44**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

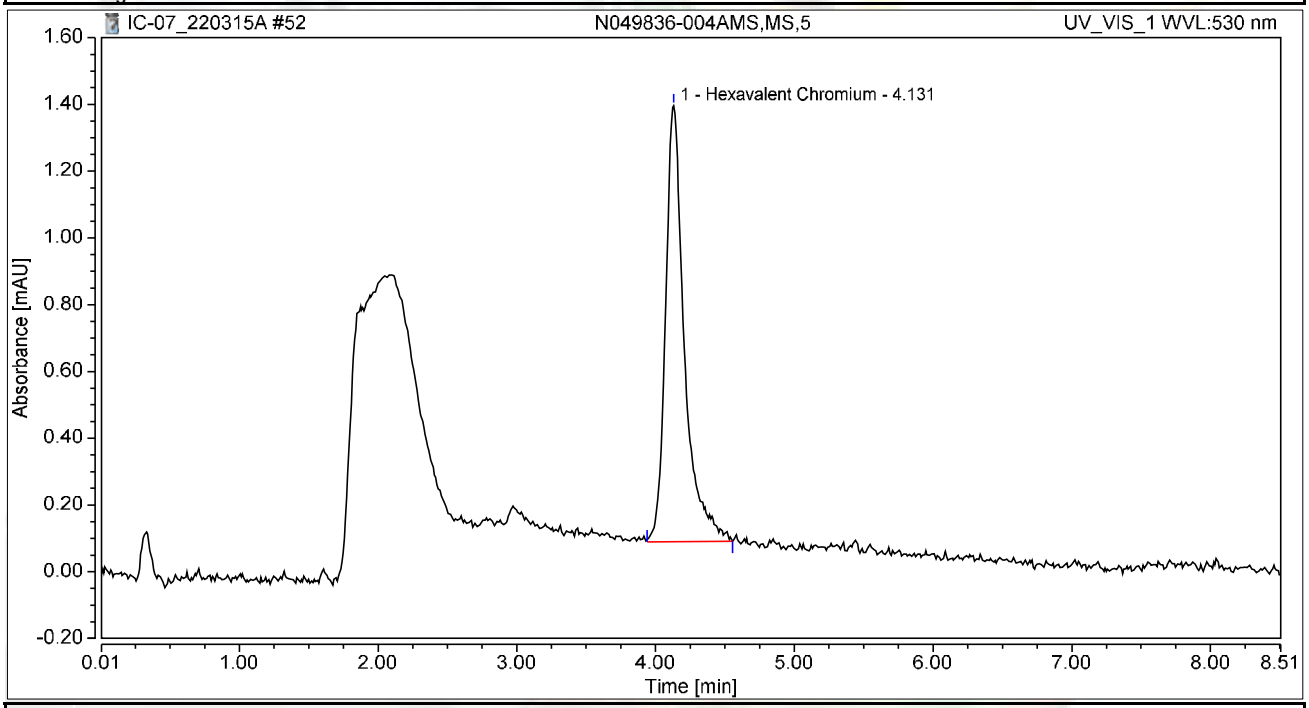
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-004AMS,MS,5**	*Run Time (min):*	**8.50**
Vial Number:	**38**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 15:54**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

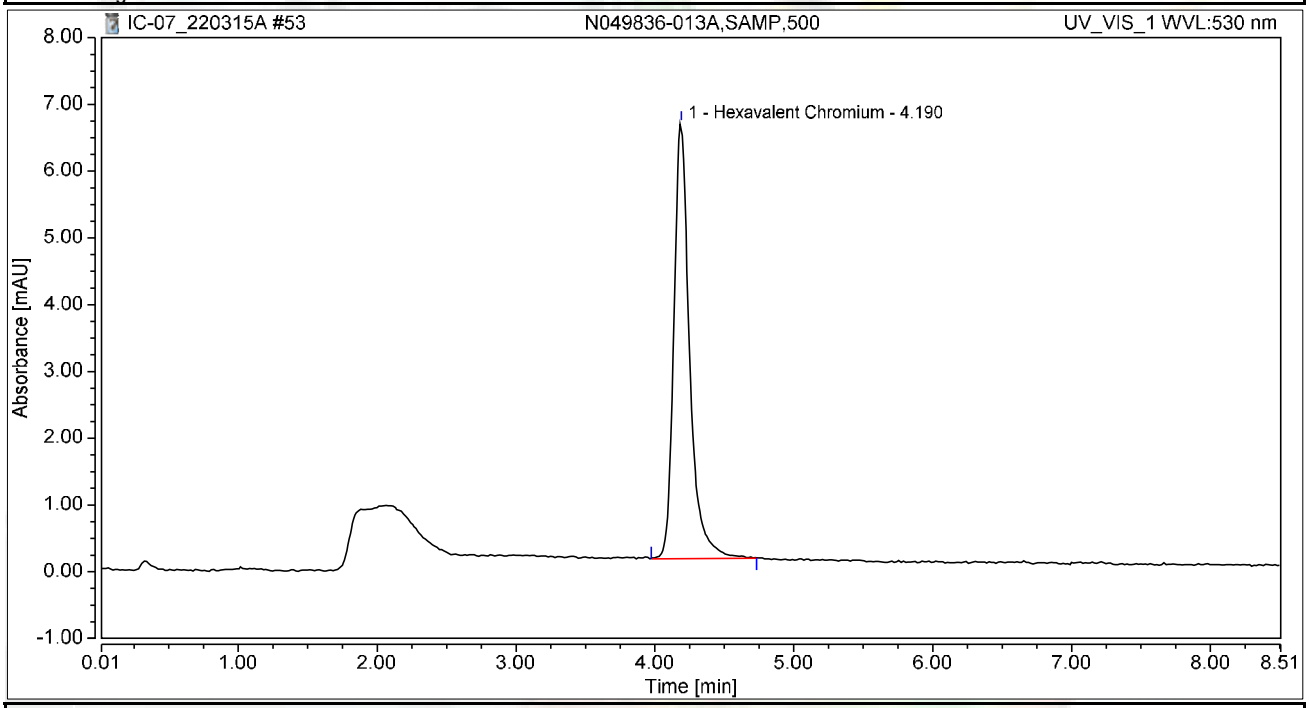
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.131	0.206	1.306	100.00	100.00	1.0949
Total:			**0.206**	**1.306**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-013A,SAMP,500**	*Run Time (min):*	**8.49**
Vial Number:	**39**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 16:03**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

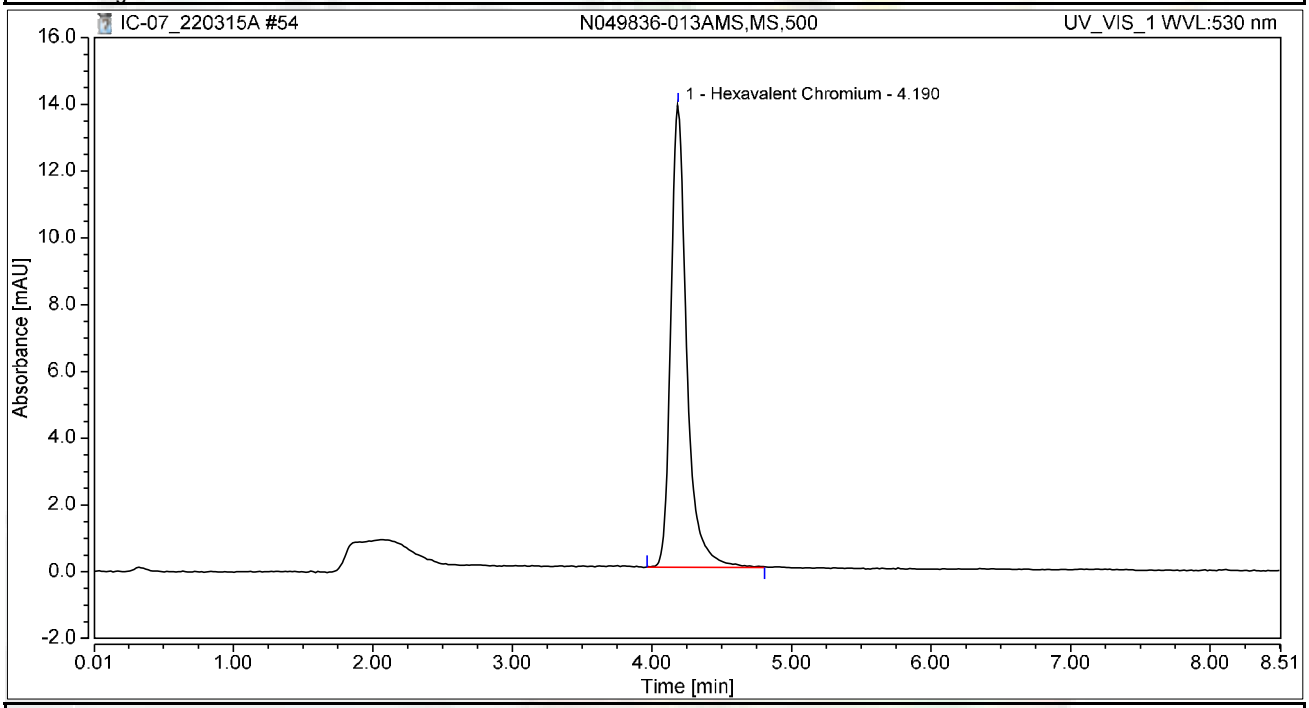
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	0.859	6.520	100.00	100.00	4.5611
Total:			**0.859**	**6.520**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-013AMS,MS,500**	*Run Time (min):*	**8.50**
Vial Number:	**40**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 16:13**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

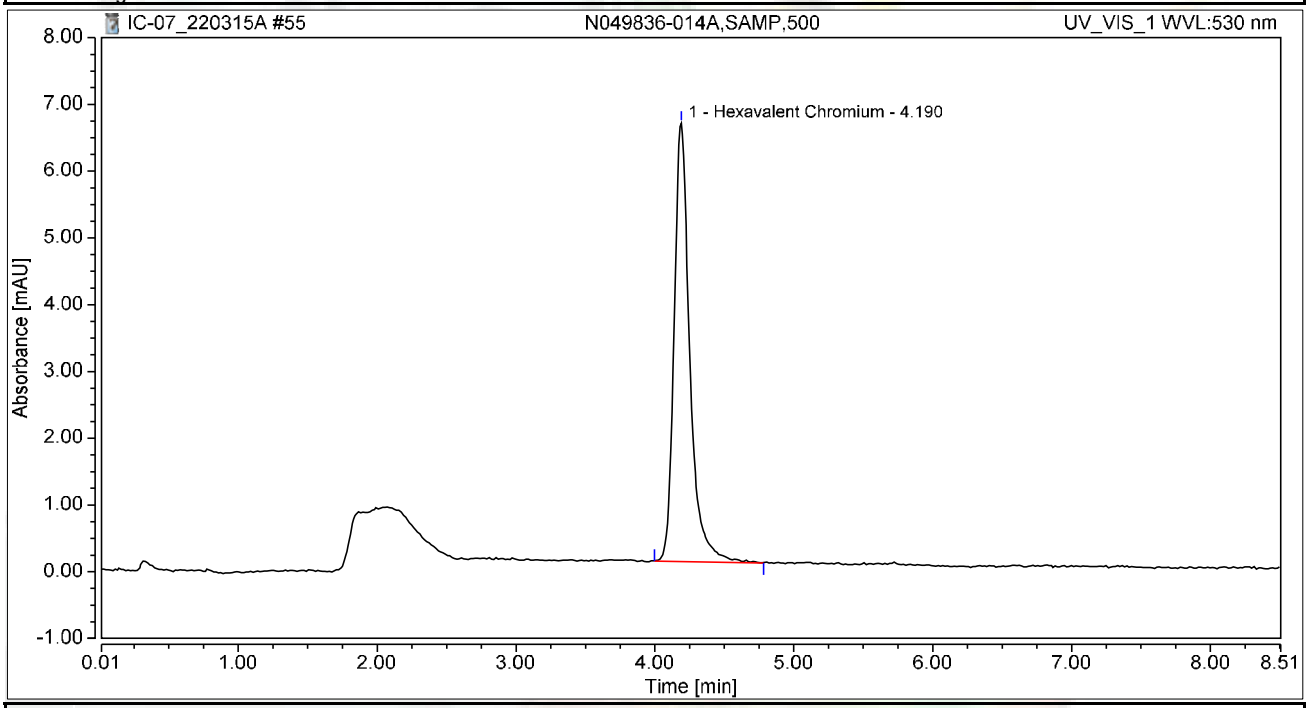
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	1.834	13.849	100.00	100.00	9.7390
Total:			**1.834**	**13.849**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-014A,SAMP,500**	*Run Time (min):*	**8.49**
Vial Number:	**1**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 16:23**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

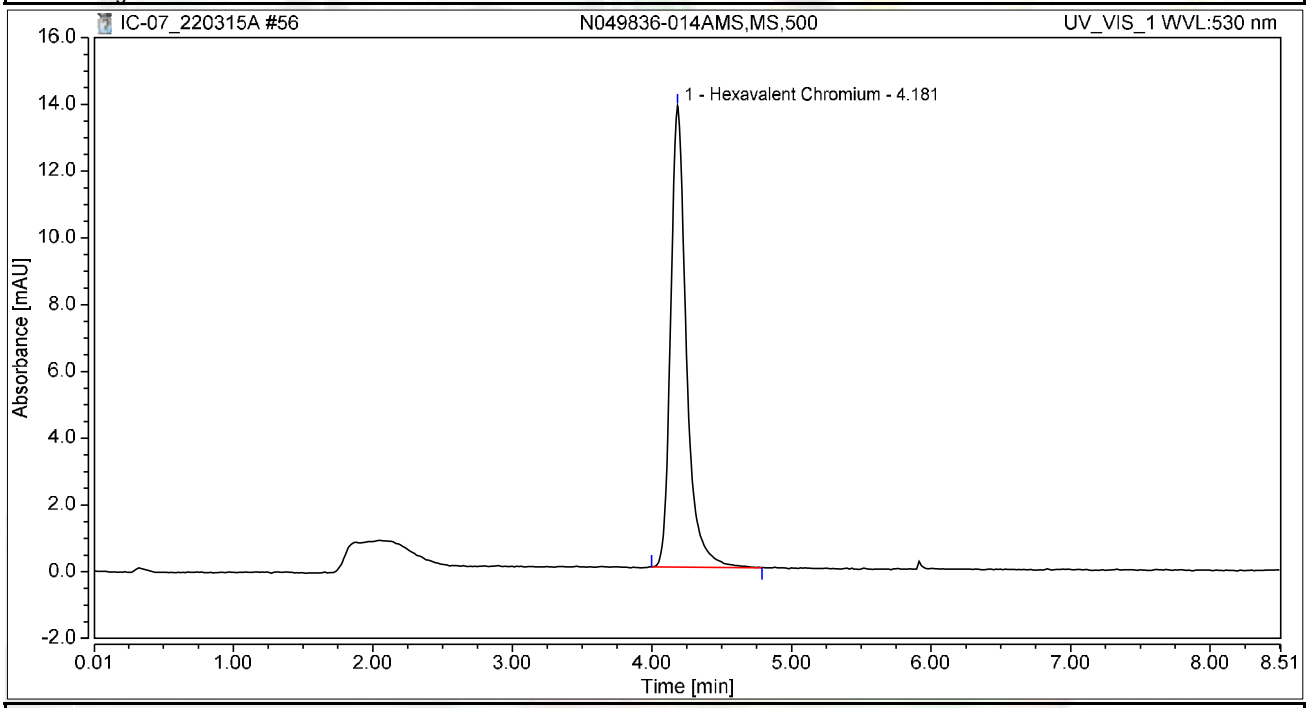
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	0.860	6.569	100.00	100.00	4.5655
Total:			**0.860**	**6.569**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-014AMS,MS,500**	*Run Time (min):*	**8.50**
Vial Number:	**2**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 16:34**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

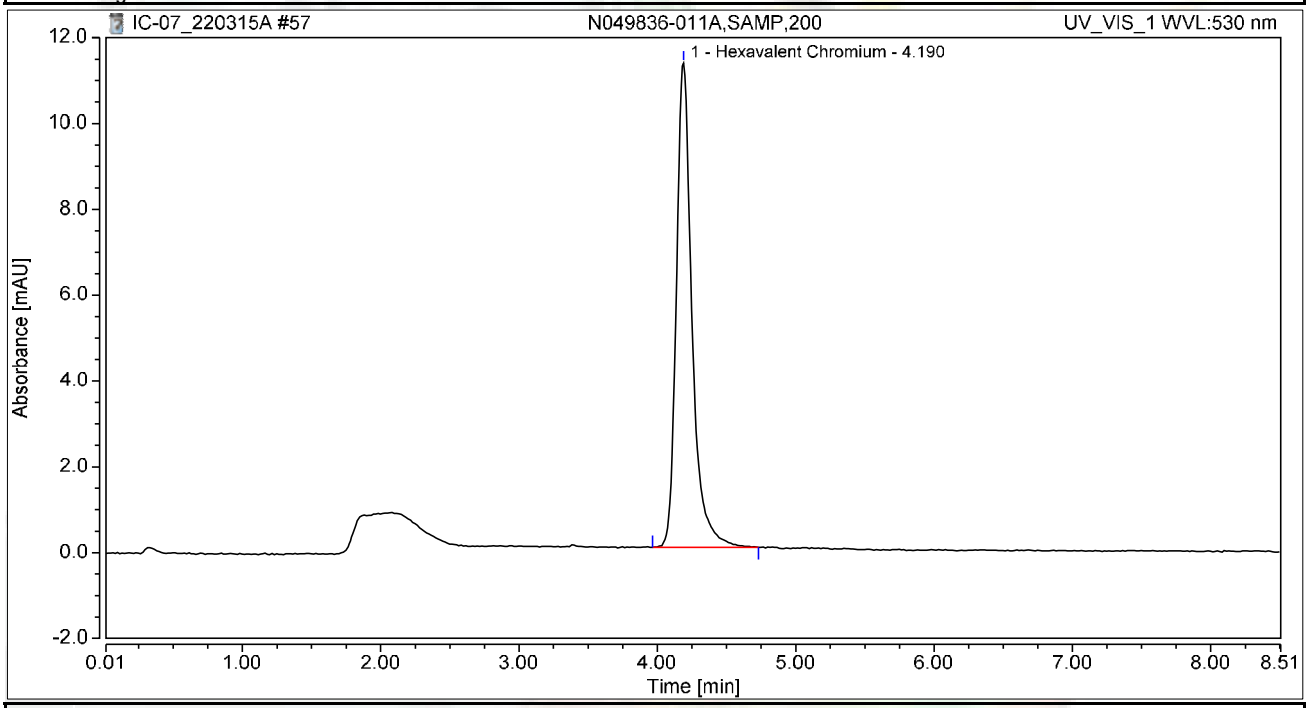
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	1.810	13.816	100.00	100.00	9.6127
Total:			**1.810**	**13.816**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-011A,SAMP,200**	*Run Time (min):*	**8.49**
Vial Number:	**3**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 16:44**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

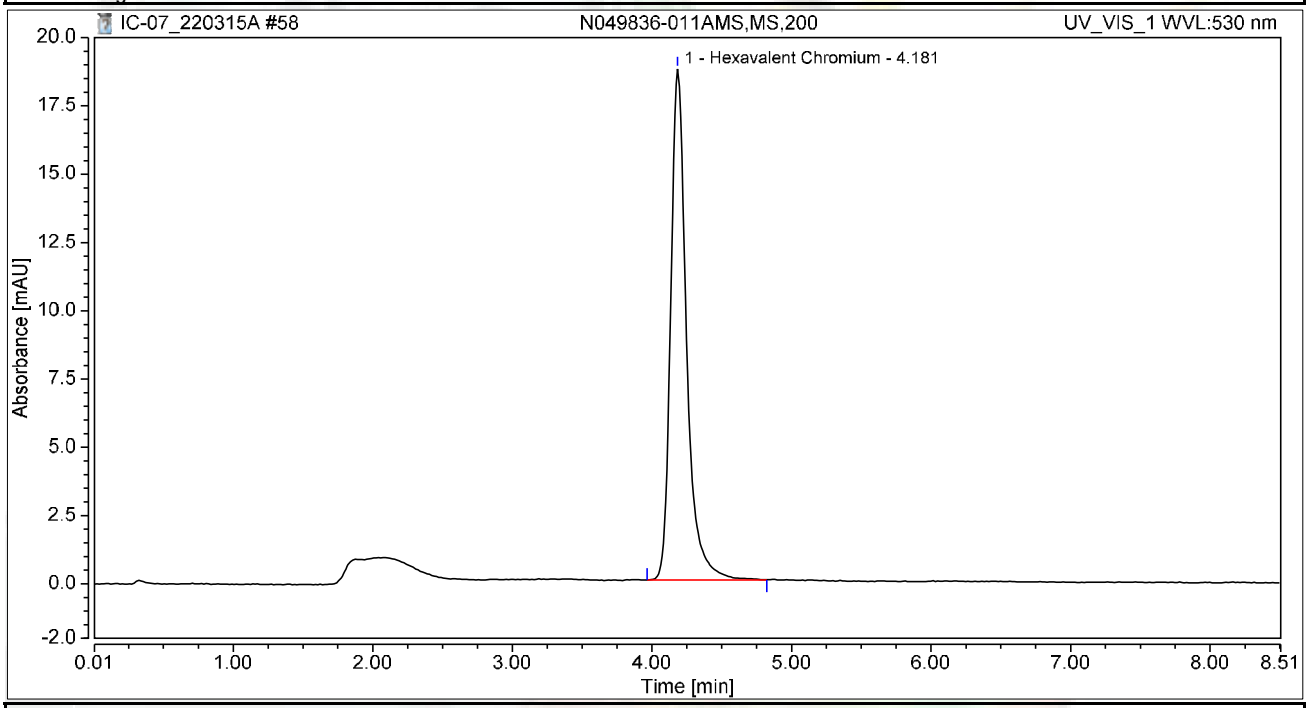
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	1.480	11.285	100.00	100.00	7.8612
Total:			**1.480**	**11.285**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-011AMS,MS,200**	*Run Time (min):*	**8.50**
Vial Number:	**4**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 16:53**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

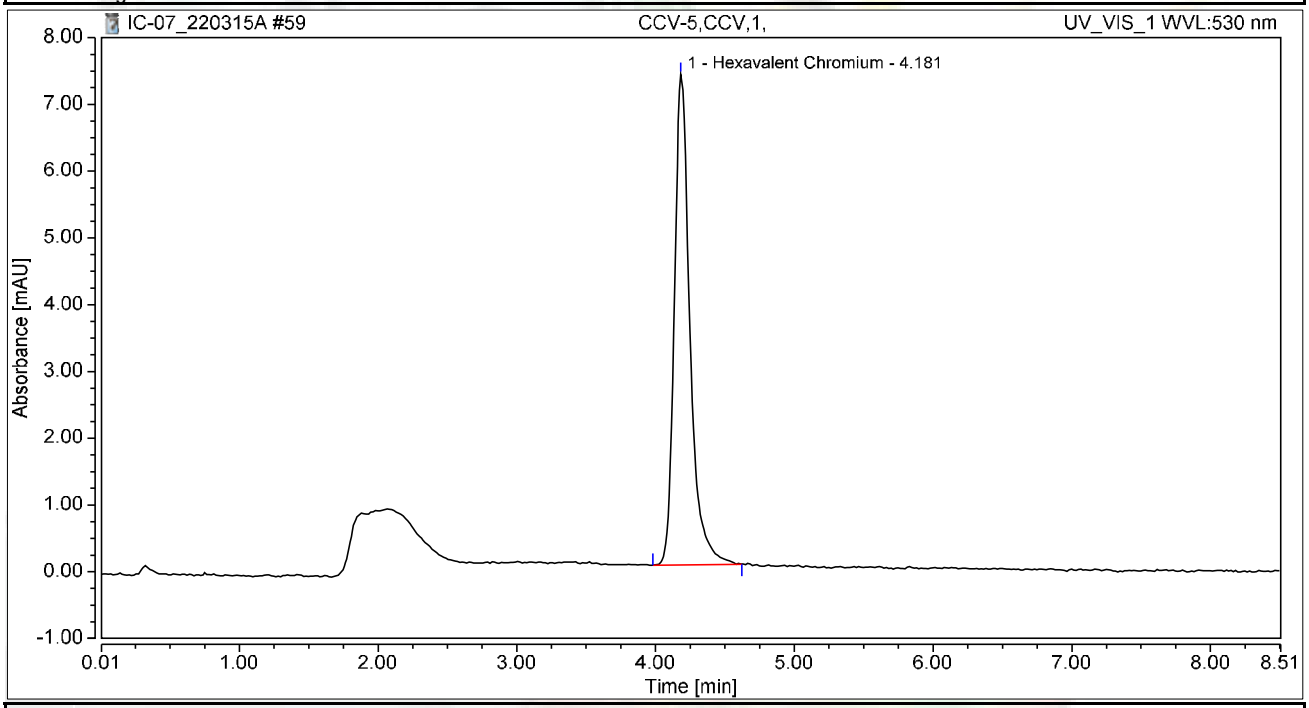
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	2.473	18.716	100.00	100.00	13.1371
Total:			**2.473**	**18.716**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV-5,CCV,1,**	*Run Time (min):*	**8.50**
Vial Number:	**5**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:03**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

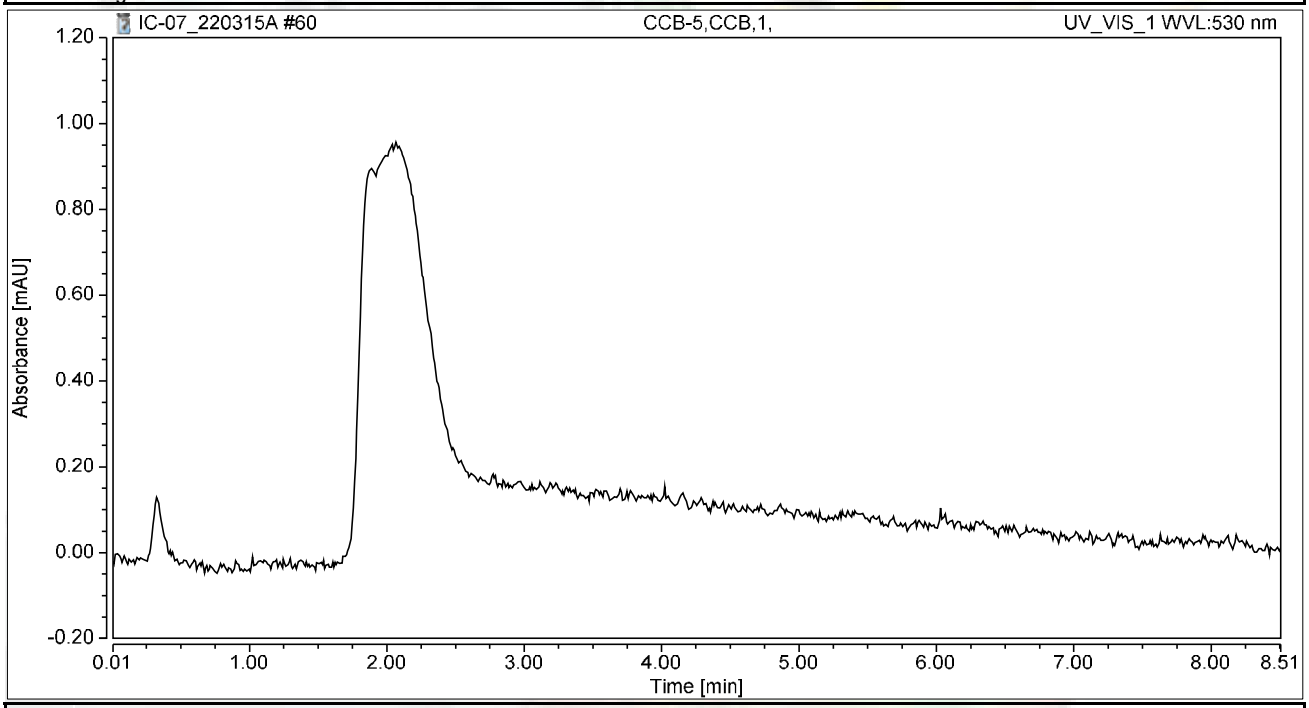
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.181	0.959	7.347	100.00	100.00	5.0951
Total:			**0.959**	**7.347**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-5,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**6**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:12**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

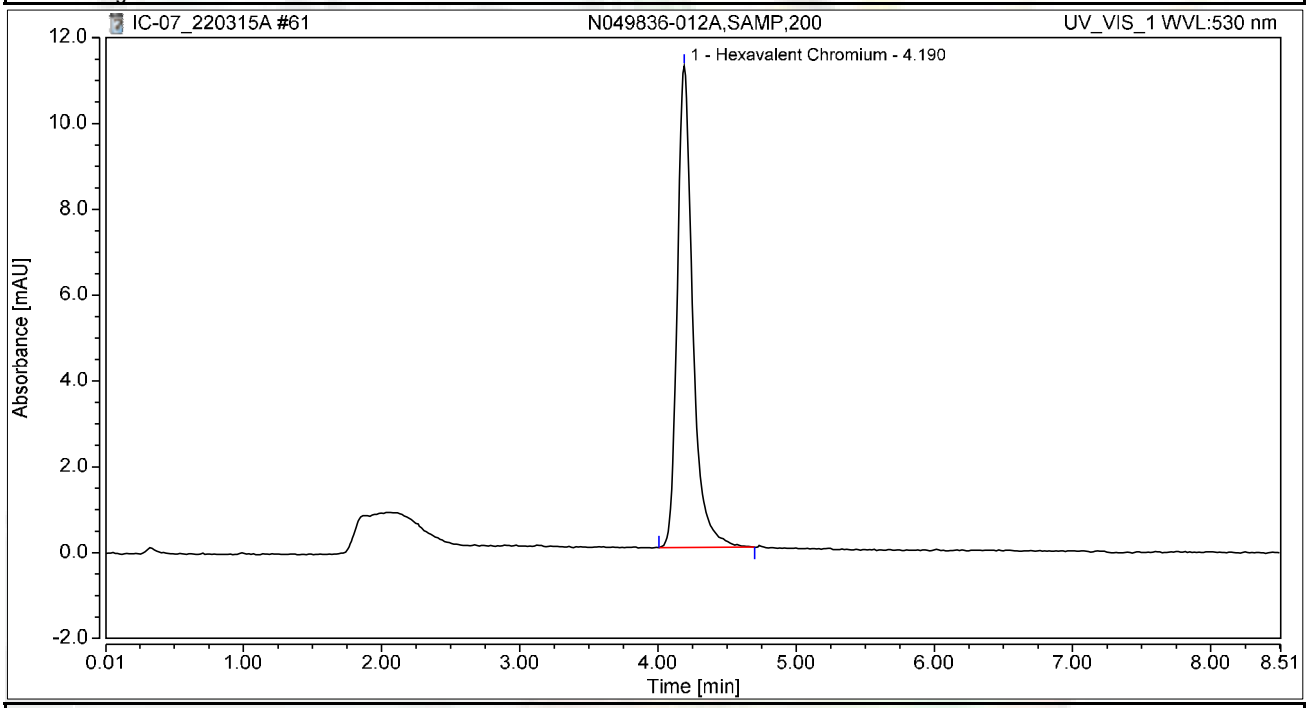
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-012A,SAMP,200**	*Run Time (min):*	**8.50**
Vial Number:	**7**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:22**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

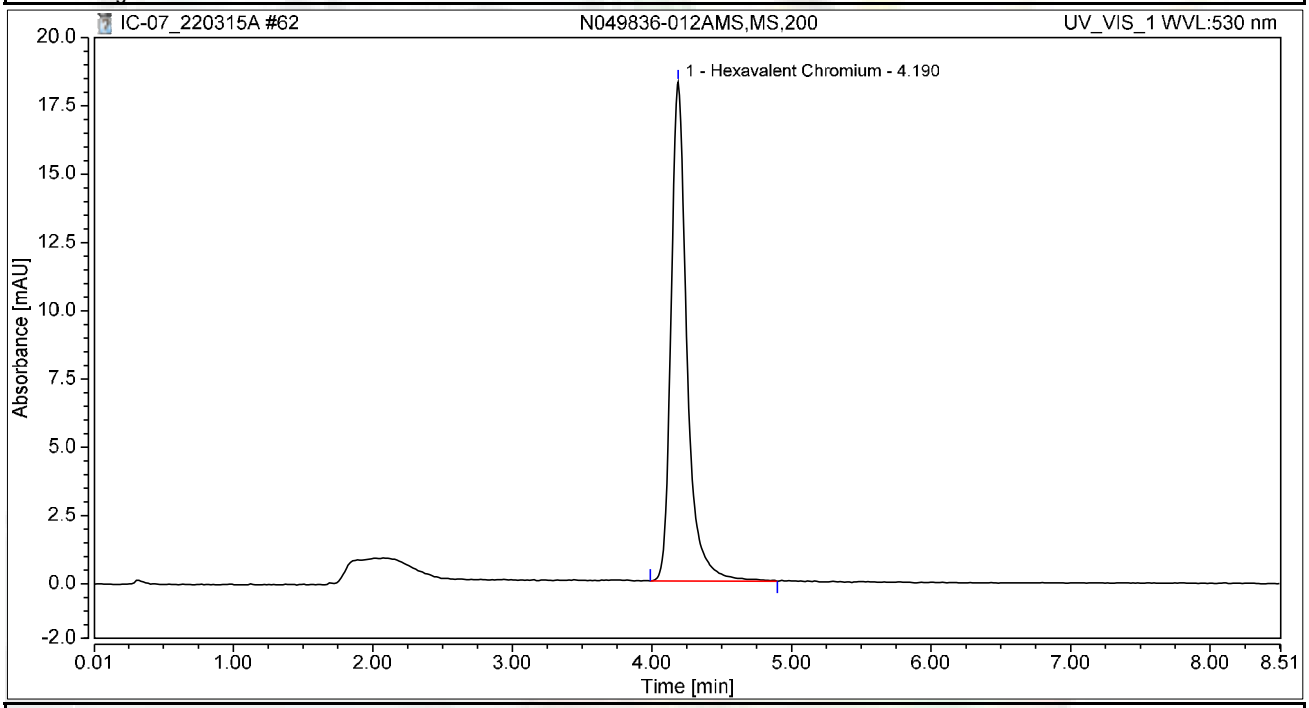
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	1.459	11.218	100.00	100.00	7.7510
Total:			**1.459**	**11.218**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-012AMS,MS,200**	*Run Time (min):*	**8.50**
Vial Number:	**8**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:31**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

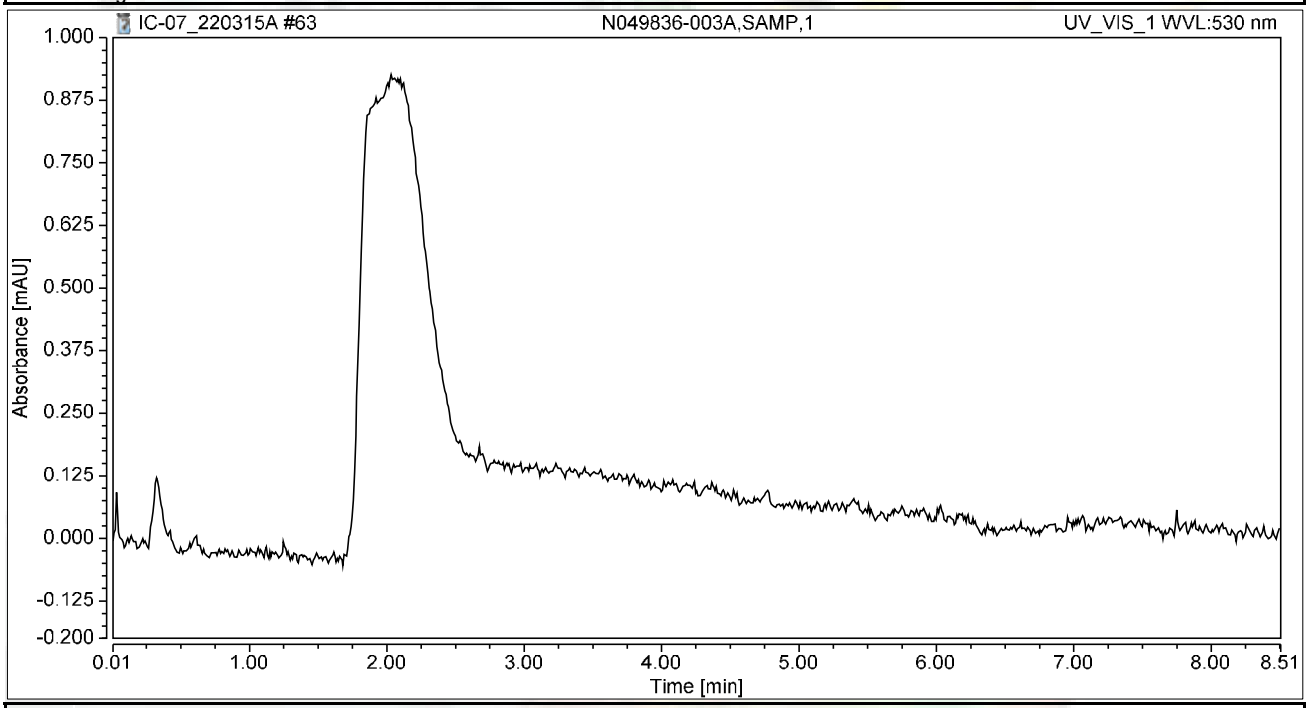
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	2.421	18.269	100.00	100.00	12.8612
Total:			**2.421**	**18.269**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-003A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**9**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:40**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

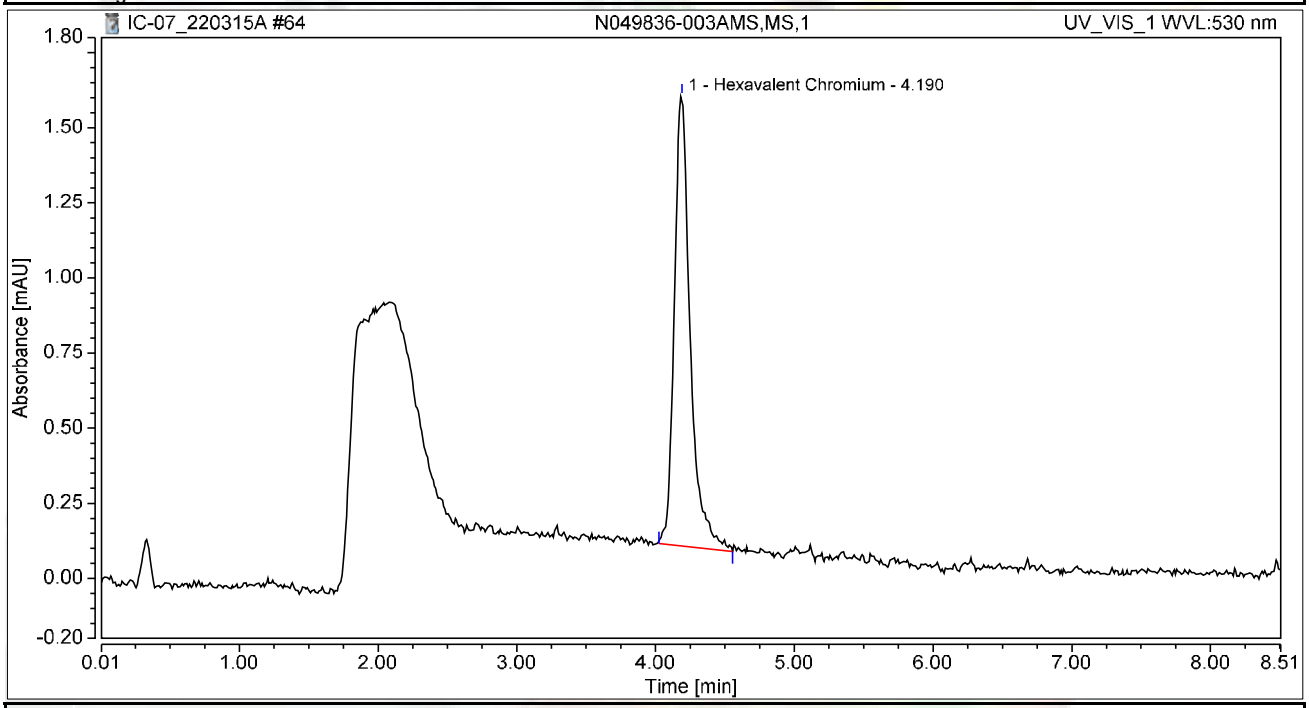
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-003AMS,MS,1**	*Run Time (min):*	**8.50**
Vial Number:	**10**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:50**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

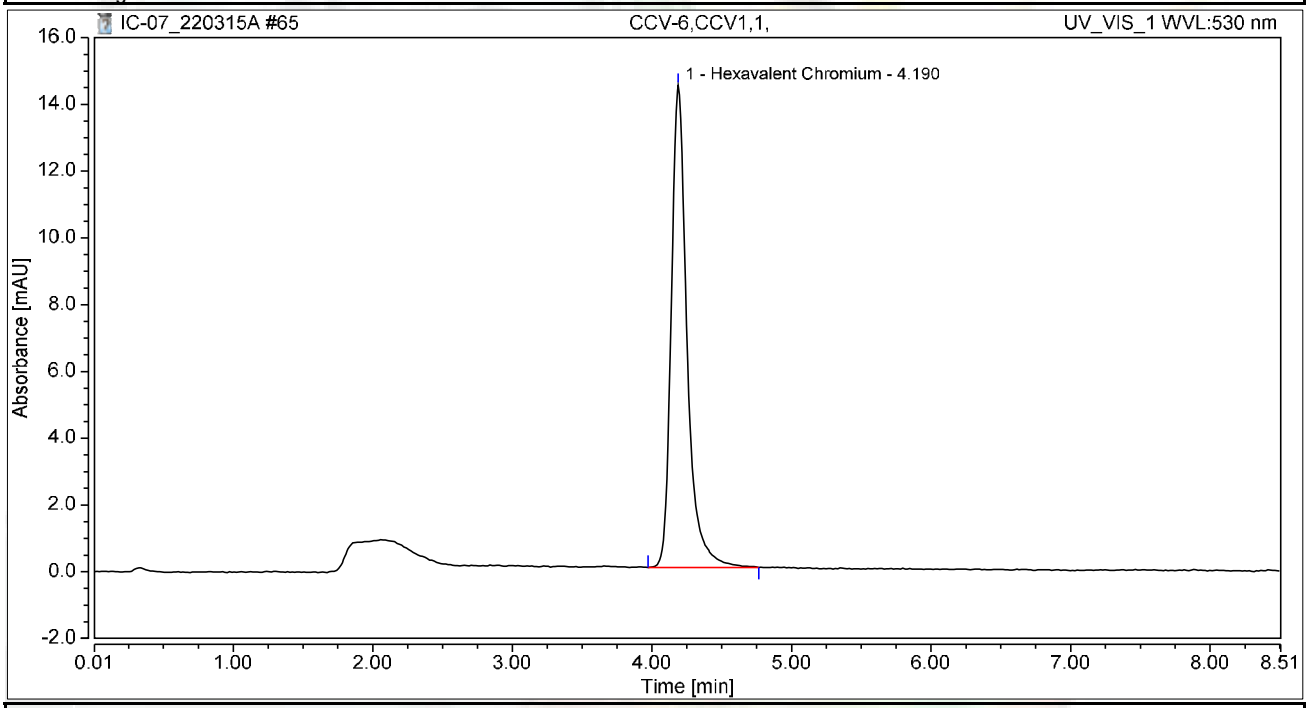
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	0.199	1.498	100.00	100.00	1.0593
Total:			**0.199**	**1.498**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCV-6,CCV1,1,**	*Run Time (min):*	**8.50**
Vial Number:	**11**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 17:59**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

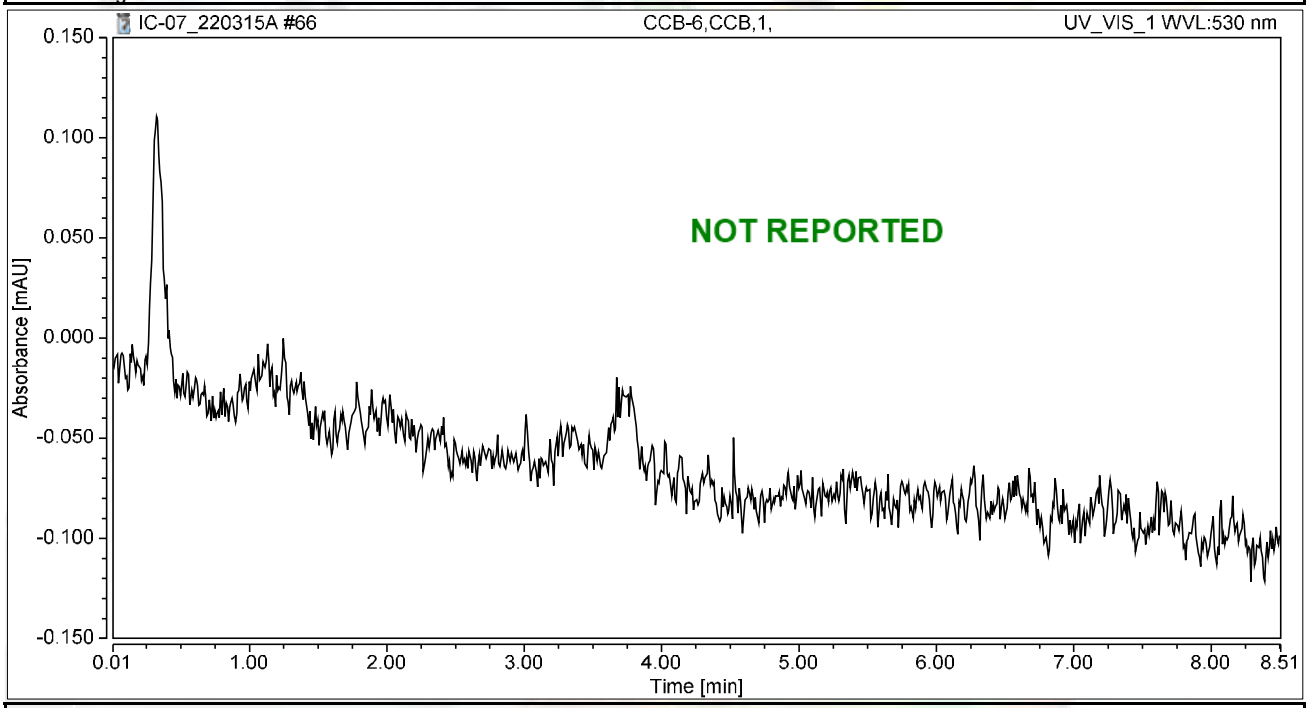
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.190	1.899	14.447	100.00	100.00	10.0889
Total:			**1.899**	**14.447**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-6,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**12**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 18:09**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

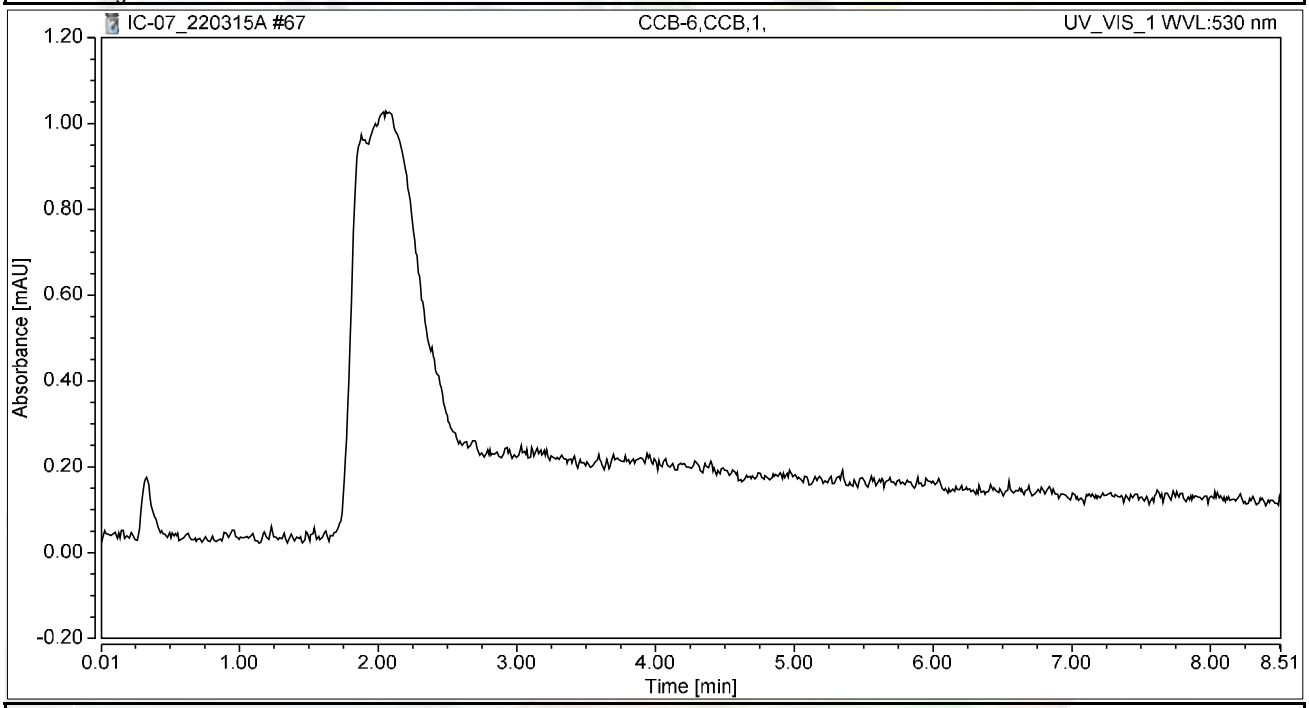
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

Chromatogram and Results

Injection Details

Injection Name:	**CCB-6,CCB,1,**	*Run Time (min):*	**8.50**
Vial Number:	**13**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**15/Mar/22 18:18**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
n.a.	Hexavalent Chromium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			**0.000**	**0.000**	**0.00**	**0.00**	

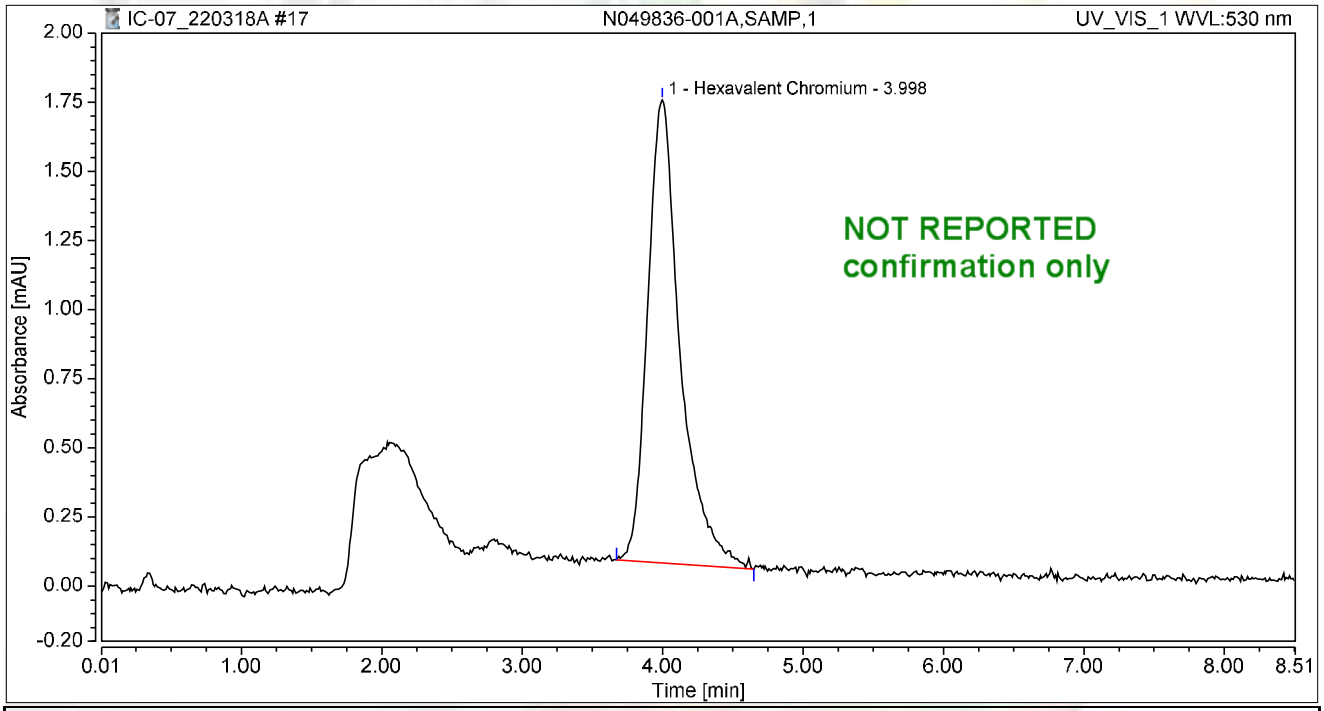
JRB 3/16/2022

Chromatogram and Results

Injection Details

Injection Name:	**N049836-001A,SAMP,1**	*Run Time (min):*	**8.50**
Vial Number:	**9**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**18/Mar/22 13:24**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

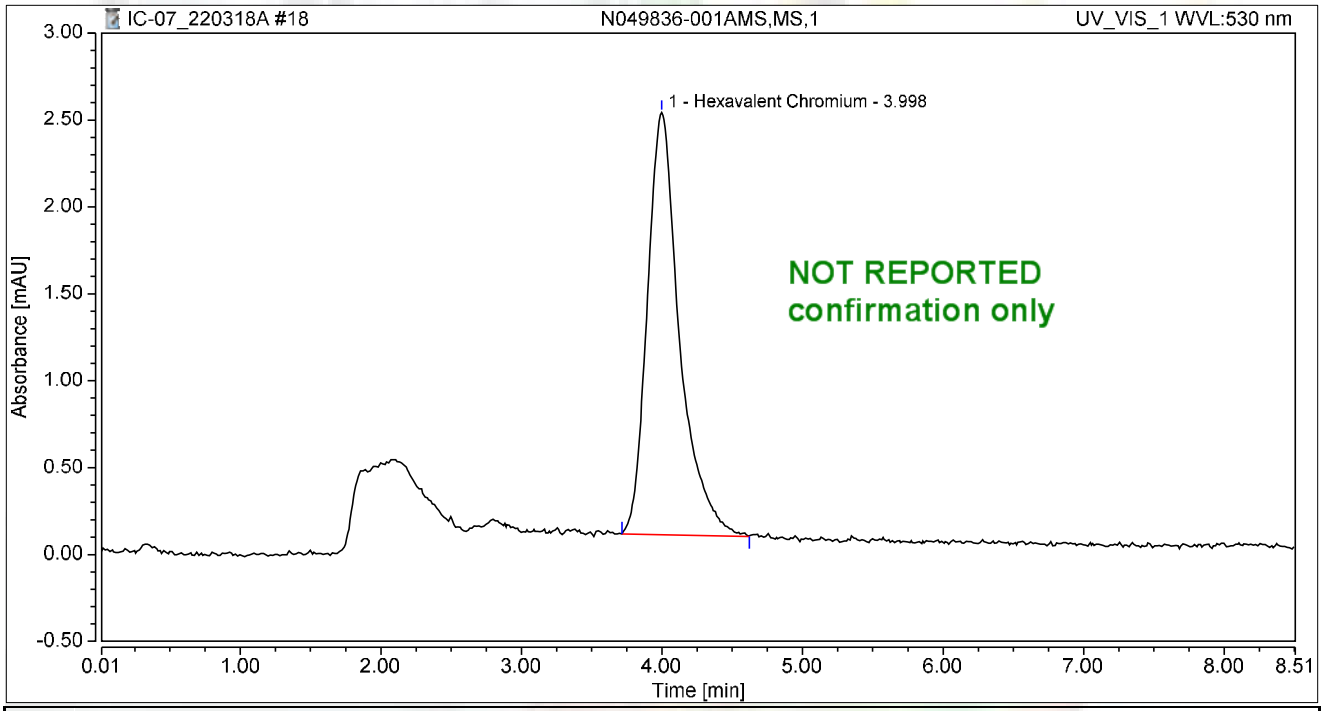
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.452	1.675	100.00	100.00	2.3983
Total:			**0.452**	**1.675**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-001AMS,MS,1**	*Run Time (min):*	**8.49**
Vial Number:	**10**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**18/Mar/22 13:34**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

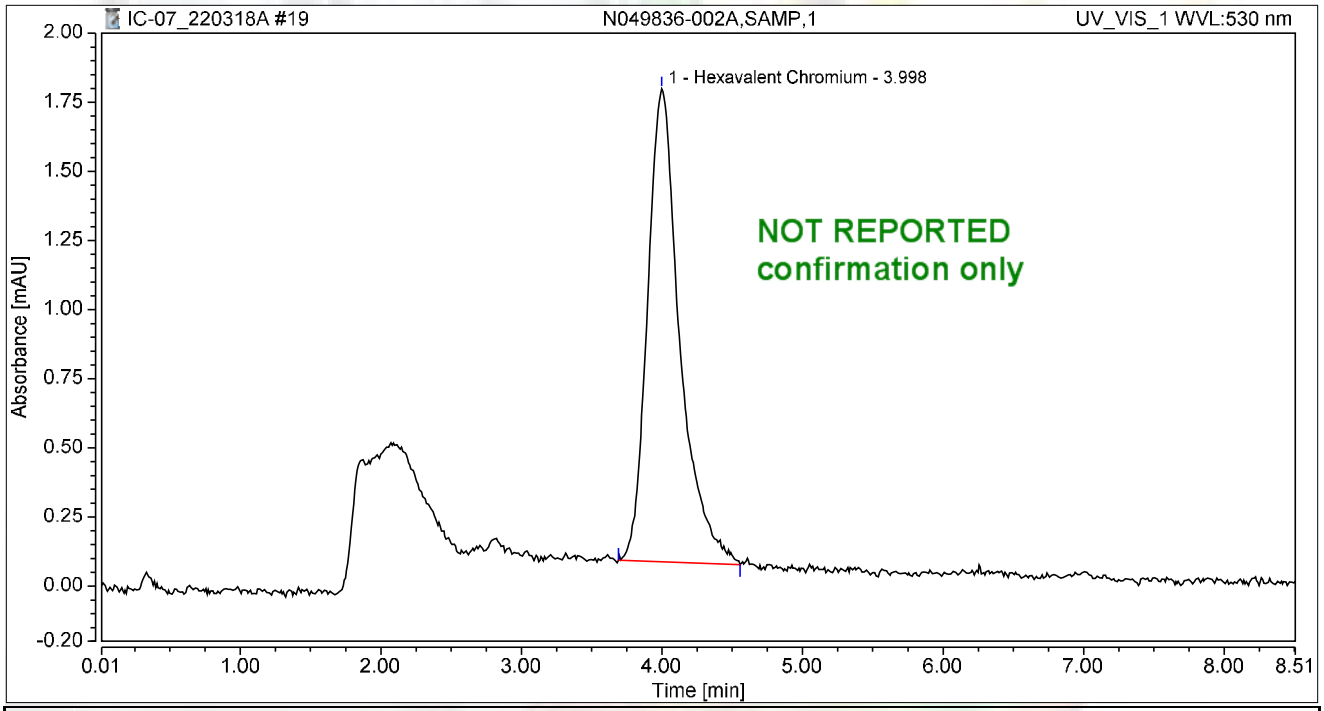
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.646	2.429	100.00	100.00	3.4331
Total:			**0.646**	**2.429**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-002A,SAMP,1**	*Run Time (min):*	**8.49**
Vial Number:	**11**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**18/Mar/22 13:43**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

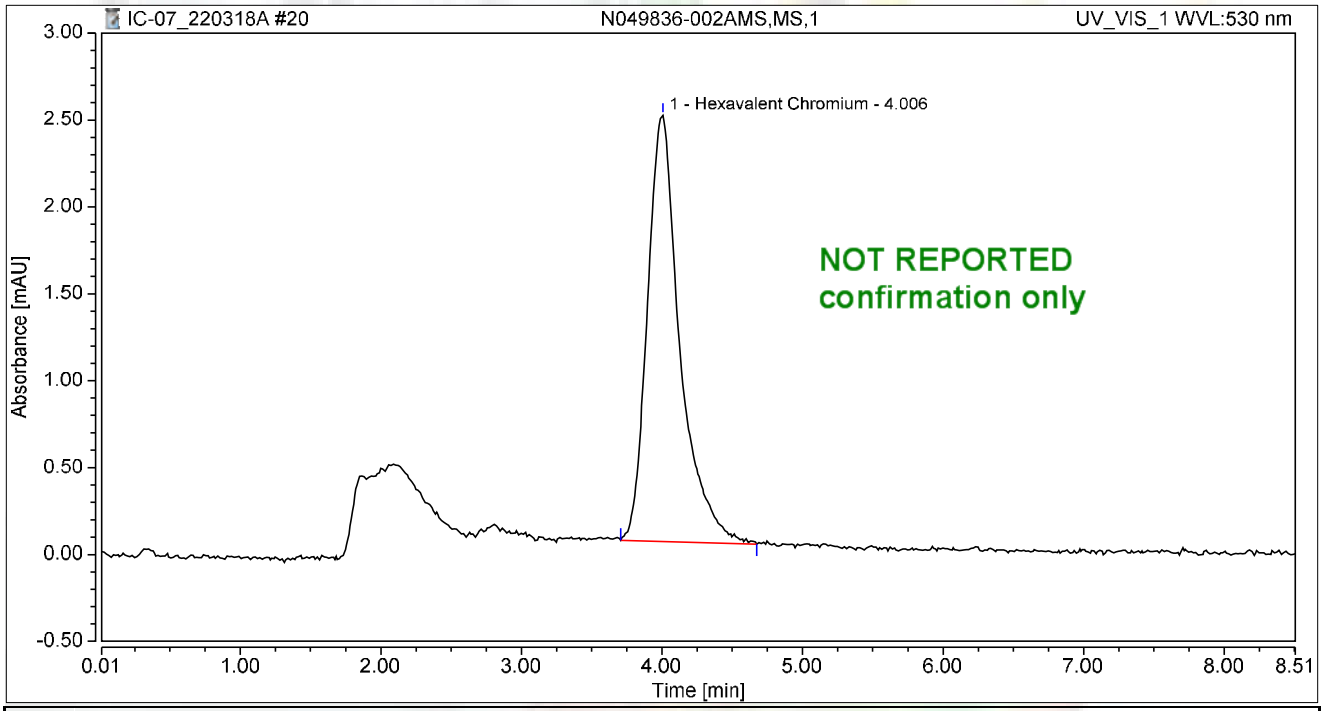
No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	3.998	0.455	1.710	100.00	100.00	2.4156
Total:			**0.455**	**1.710**	**100.00**	**100.00**	

Chromatogram and Results

Injection Details

Injection Name:	**N049836-002AMS,MS,1**	*Run Time (min):*	**8.49**
Vial Number:	**12**	*Injection Volume:*	**1000.00**
Injection Type:	**Unknown**	*Channel:*	**UV_VIS_1**
Calibration Level:		*Wavelength:*	**530.0**
Instrument Method:	**Hex Chrom 4 mm**	*Bandwidth:*	**n.a.**
Processing Method:	**220301_IC-07_Cr6_218_6_HIGH**	*Dilution Factor:*	**1.0000**
Injection Date/Time:	**18/Mar/22 13:53**	*Sample Weight:*	**1.0000**

Chromatogram



Integration Results

No.	Peak Name	Retention Time min	Area mAU*min	Height mAU	Relative Area %	Relative Height %	Amount ug/L
1	Hexavalent Chromium	4.006	0.656	2.453	100.00	100.00	3.4867
Total:			**0.656**	**2.453**	**100.00**	**100.00**	

EPA 300.0

IC Technical Batch Review Checklist (ARCUS02)

ASSET LABORATORIES - LAS VEGAS

QC Batch Number: R160854
ASSET # N049836

Instrument ID: IC-08
Analyst: RBA
Date Analyzed: 3/15/2022

Method:

[X] EPA 300.0
[ ] EPA 7199

[ ] EPA 218.6/EPA 218.7
[ ] EPA 218.6/EPA 218.7 LL
[ ] Others _____

Initial Calibration and Initial Calibration Verification	1st Level Review			2nd Level Review		
	Y	N	N/A	Y	N	N/A
1. ICAL before initial sample analysis and is not more than 4 weeks old.	X			X		
2. Does correlation coefficient,r, meet criteria ?(r = 0.995, r =0.999 (Cr6+))	X			X		
3. ICV within ± 10% of expected value.	X			X		
Continuing Calibration						
4. CCV after every 10 injections and at the end of analysis sequence.	X			X		
5. CCV within ± 10% of expected value. (± 5% for EPA 218.6)	X			X		
6. Calibration blanks run after ICV and CCV?	X			X		
7. Is the buffer less than MDL? If not, discontinue analysis. (Cr6+ only)			X			X
8. Do all calibration blanks (ICB and CCBs) meet criteria? (<1/2PQL for 300, <0.02 for Cr6+)	X			X		
9. Is low level check at PQL within ± 20% for 218.6/218.7/7199? ± 30% for 218.6/218.7LL?			X			X
Sample Information						
10. All samples are within linear range.	X			X		
11. All samples pH within 9.3-9.7 when analyzed?			X			X
12. Duplicate sample injections for every sample. (7199 only)			X			X
13. For Topock, matrix spike protocol performed on all samples? (Cr6+ only)			X			X
14. For Hinkley DOM samples, matrix spike protocol performed on all samples ? (Cr6+ only)			X			X
15. For samples < 4 ppb, does the Cr result differs with Cr6+ by no more than 0.7 ppb?			X			X
16. For samples > 4 ppb, does the Cr result differs with Cr6+ by no more than 20%?			X			X
17. For samples that failed Cr vs Cr6+ criteria, is matrix spike protocol performed ?			X			X
18. For dilution and MS spike protocol, spike recovery within 90-110%? (Cr6+ only)			X			X
19. EPA 3060A digestion performed on solid samples (7199 only)			X			X
20. Are all peaks within RT window, ± 0.2 min?	X			X		
21. Are all samples analyzed within hold time?	X			X		
22. For Hinkley projects (DOM & ATU only), are samples with result ≤ 0.2 ug/L analyzed by low level method? (Cr6+ only)			X			X
QC Items						
23. Method blank values meets criteria. (<1/2 PQL for 300, <0.02 for Cr6+)	X			X		
24. LCS compounds are within control limits.	X			X		
25. MS/MSD, RPD's are within control limits.	X			X		
26. Soluble and Insoluble matrix spike within control limits (7199 solids only)			X			X
Raw Data and Miscellaneous Information						
27. Runlog complete and included in package.	X			X		
28. Extraction log complete and included in package (if applicable)			X			X
29. All manual integrations initialed, date and reasons included.	X			X		
30. Before and after manual integration chromatogram included in the package	X			X		
31. All samples and QC raw data present in package.	X			X		
Preliminary Report						
32. Does the raw data match the preliminary report?	X			X		
33. Are analytical results correct?(Ex. dilutions, calculations.etc.)	X			X		
34 Is the QC summary report present and complete?	X			X		

Comments:

SECOND LEVEL REVIEW:

	Y	N	N/A
1. All assigned sample(s) analyzed	X		
2. Matrix / units correct	X		
3. Is QC present and complete?	X		
4. Are analytical results correct? (dilutions,calculations)	X		
5. Is first level review correct and complete?	X		

1st Level Reviewer RBA Date: —

2nd Level Reviewer JRB 3/16/2022 Date: _____

SAMPLE CALCULATION

Sample Calculation

METHOD: EPA 300
TEST NAME: INORGANIC ANIONS BY IC
MATRIX: GROUNDWATER

FORMULA:

Calculate the Nitrate concentration, in mg/L, in the orignal sample as follows:

Nitrate, mg/L = A * DF

where:

A = mg/L, IC calculated concentration
DF = dilution factor

For **N049836-001B** concentration in mg/L is calculated as follows:

Nitrate, mg/L = 0.3864 * 10

= 3.864

Reporting result in two significant values,

Nitrate, mg/L = 3.9

reviewed by:

3/24/2022

ANALYSIS RUN LOG

Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 73
Created: 3/8/2022 8:44:20 AM by IC-05
Last Update: 3/8/2022 4:36:16 PM by IC-05

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	BLANK	Unknown	2	1000.0	Anions Default	EPA 300_0_220308	Finished
2	BLANK	Unknown	3	1000.0	Anions Default	EPA 300_0_220308	Finished
3	Std - 0	Standard	4	1000.0	Anions Default	EPA 300_0_220308	Finished
4	Std - 1	Standard	3	1000.0	Anions Default	EPA 300_0_220308	Finished
5	Std - 2	Standard	4	1000.0	Anions Default	EPA 300_0_220308	Finished
6	Std - 3	Standard	5	1000.0	Anions Default	EPA 300_0_220308	Finished
7	Std - 4	Standard	6	1000.0	Anions Default	EPA 300_0_220308	Finished
8	Std - 5	Standard	7	1000.0	Anions Default	EPA 300_0_220308	Finished
9	ICV,ICV,1	Unknown	19	1000.0	Anions Default	EPA 300_0_220308	Finished
10	ICB,ICB,1	Unknown	15	1000.0	Anions Default	EPA 300_0_220308	Finished
11	MB-H2O,MBLK,1	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
12	LCS-H2O,LCS,1	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
13	LCS-H2O,LCS,1	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
14	N049724-001C,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
15	N049724-002C,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
16	N049724-003C,SAMP,10	Unknown	14	1000.0	Anions Default	EPA 300_0_220308	Finished
17	N049724-004C,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
18	N049724-005C,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
19	N049724-006C,SAMP,5	Unknown	18	1000.0	Anions Default	EPA 300_0_220308	Finished
20	N049724-007C,SAMP,5	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
21	CCV-1,CCV,1	Unknown	14	1000.0	Anions Default	EPA 300_0_220308	Finished
22	CCB-1,CCB,1	Unknown	15	1000.0	Anions Default	EPA 300_0_220308	Finished
23	N049724-008C,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
24	N049725-001B,SAMP,5	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
25	N049725-002B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
26	N049725-003B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
27	N049725-004B,SAMP,10	Unknown	19	1000.0	Anions Default	EPA 300_0_220308	Finished
28	N049724-001CMS,MS,10	Unknown	20	1000.0	Anions Default	EPA 300_0_220308	Finished
29	N049724-001CMSD,MSD,10	Unknown	20	1000.0	Anions Default	EPA 300_0_220308	Finished
30	N049724-006CDUP,DUP,5	Unknown	21	1000.0	Anions Default	EPA 300_0_220308	Finished
31	N049724-006CMS,MS,5	Unknown	22	1000.0	Anions Default	EPA 300_0_220308	Finished
32	N049724-003C,SAMP,100	Unknown	23	1000.0	Anions Default	EPA 300_0_220308	Finished
33	CCV-2,CCV,1	Unknown	21	1000.0	Anions Default	EPA 300_0_220308	Finished
34	CCB-2,CCB,1	Unknown	22	1000.0	Anions Default	EPA 300_0_220308	Finished
35	N049724-003CMS,MS,100	Unknown	21	1000.0	Anions Default	EPA 300_0_220308	Finished
36	N049724-003CMSD,MSD,100	Unknown	22	1000.0	Anions Default	EPA 300_0_220308	Finished
37	N049724-007C,SAMP,20	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
38	N049724-007CDUP,DUP,20	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
39	N049724-007CMS,MS,20	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
40	N049724-001C,SAMP,100	Unknown	28	1000.0	Anions Default	EPA 300_0_220308	Finished
41	N049724-002C,SAMP,100	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished

reviewed by:

3/15/2022

Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 73
Created: 3/8/2022 8:44:20 AM by IC-05
Last Update: 3/8/2022 4:36:16 PM by IC-05

No.	Name	Inj. Date/Time	Comment
1	BLANK	3/8/2022 9:20:15 AM	BLANK
2	BLANK	3/8/2022 9:35:33 AM	BLANK
3	Std - 0	3/8/2022 9:50:52 AM	IBLANK
4	Std - 1	3/8/2022 10:06:10 AM	STD-LOW
5	Std - 2	3/8/2022 10:21:28 AM	STD
6	Std - 3	3/8/2022 10:36:46 AM	STD
7	Std - 4	3/8/2022 10:52:05 AM	STD
8	Std - 5	3/8/2022 11:07:23 AM	STD-HIGH
9	ICV,ICV,1	3/8/2022 11:43:18 AM	ICV
10	ICB,ICB,1	3/8/2022 11:58:37 AM	ICB
11	MB-H2O,MBLK,1	3/8/2022 12:13:56 PM	MB
12	LCS-H2O,LCS,1	3/8/2022 12:29:13 PM	LCS
13	LCS-H2O,LCS,1	3/8/2022 12:47:11 PM	LCS
14	N049724-001C,SAMP,10	3/8/2022 1:02:29 PM	SAMP,1>10mL
15	N049724-002C,SAMP,10	3/8/2022 1:17:47 PM	SAMP,1>10mL
16	N049724-003C,SAMP,10	3/8/2022 1:33:05 PM	SAMP,1>10mL
17	N049724-004C,SAMP,10	3/8/2022 1:48:22 PM	SAMP,1>10mL
18	N049724-005C,SAMP,10	3/8/2022 2:03:41 PM	SAMP,1>10mL
19	N049724-006C,SAMP,5	3/8/2022 2:18:59 PM	SAMP,2>10mL
20	N049724-007C,SAMP,5	3/8/2022 2:34:17 PM	SAMP,2>10mL
21	CCV-1,CCV,1	3/8/2022 3:05:24 PM	CCV
22	CCB-1,CCB,1	3/8/2022 3:20:42 PM	CCB
23	N049724-008C,SAMP,10	3/8/2022 3:36:01 PM	SAMP,1>10mL
24	N049725-001B,SAMP,5	3/8/2022 3:51:19 PM	SAMP,2>10mL
25	N049725-002B,SAMP,10	3/8/2022 4:06:37 PM	SAMP,1>10mL
26	N049725-003B,SAMP,10	3/8/2022 4:21:56 PM	SAMP,1>10mL
27	N049725-004B,SAMP,10	3/8/2022 4:37:14 PM	SAMP,1>10mL
28	N049724-001CMS,MS,10	3/8/2022 4:52:33 PM	MS,1>10mL
29	N049724-001CMSD,MSD,10	3/8/2022 5:07:51 PM	MSD,1>10mL
30	N049724-006CDUP,DUP,5	3/8/2022 5:23:09 PM	DUP,2>10mL
31	N049724-006CMS,MS,5	3/8/2022 5:38:28 PM	MS,2>10mL
32	N049724-003C,SAMP,100	3/8/2022 5:53:45 PM	SAMP,0.1>10mL
33	CCV-2,CCV,1	3/8/2022 6:09:03 PM	CCV
34	CCB-2,CCB,1	3/8/2022 6:24:21 PM	CCB
35	N049724-003CMS,MS,100	3/8/2022 6:39:39 PM	MS,0.1>10mL
36	N049724-003CMSD,MSD,100	3/8/2022 6:54:57 PM	MSD,0.1>10mL
37	N049724-007C,SAMP,20	3/8/2022 7:10:15 PM	SAMP,0.5>10mL
38	N049724-007CDUP,DUP,20	3/8/2022 7:25:33 PM	DUP,0.5>10mL
39	N049724-007CMS,MS,20	3/8/2022 7:40:51 PM	MS,0.5>10mL
40	N049724-001C,SAMP,100	3/8/2022 7:56:09 PM	SAMP,0.1>10mL
41	N049724-002C,SAMP,100	3/8/2022 8:11:27 PM	SAMP,0.1>10mL

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Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 73
Created: 3/8/2022 8:44:20 AM by IC-05
Last Update: 3/8/2022 4:36:16 PM by IC-05

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
42	N049724-004C,SAMP,100	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
43	N049724-005C,SAMP,100	Unknown	28	1000.0	Anions Default	EPA 300_0_220308	Finished
44	N049724-006C,SAMP,20	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
45	CCV-3,CCV,1	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
46	CCB-3,CCB,1	Unknown	28	1000.0	Anions Default	EPA 300_0_220308	Finished
47	N049724-008C,SAMP,100	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
48	N049708-002B,SAMP,5	Unknown	30	1000.0	Anions Default	EPA 300_0_220308	Finished
49	N049708-002BMS,MS,5	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
50	N049708-002BMSD,MSD,5	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
51	N049709-001B,SAMP,5	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
52	N049709-001BDUP,DUP,5	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
53	N049708-001B,SAMP,5	Unknown	34	1000.0	Anions Default	EPA 300_0_220308	Finished
54	N049708-003B,SAMP,5	Unknown	35	1000.0	Anions Default	EPA 300_0_220308	Finished
55	N049708-004B,SAMP,5	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
56	N049709-003B,SAMP,5	Unknown	30	1000.0	Anions Default	EPA 300_0_220308	Finished
57	CCV-4,CCV,1	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
58	CCB-4,CCB,1	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
59	N049708-003B,SAMP,100	Unknown	31	1000.0	Anions Default	EPA 300_0_220308	Finished
60	N049708-003BMS,MS,100	Unknown	30	1000.0	Anions Default	EPA 300_0_220308	Finished
61	N049708-003BMSD,MSD,100	Unknown	31	1000.0	Anions Default	EPA 300_0_220308	Finished
62	N049709-003B,SAMP,100	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
63	N049709-003BDUP,DUP,100	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
64	N049708-001B,SAMP,200	Unknown	35	1000.0	Anions Default	EPA 300_0_220308	Finished
65	N049708-002B,SAMP,200	Unknown	36	1000.0	Anions Default	EPA 300_0_220308	Finished
66	N049708-004B,SAMP,100	Unknown	37	1000.0	Anions Default	EPA 300_0_220308	Finished
67	N049709-001B,SAMP,20	Unknown	30	1000.0	Anions Default	EPA 300_0_220308	Finished
68	N049709-001B,SAMP,100	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
69	CCV-5,CCV,1	Unknown	31	1000.0	Anions Default	EPA 300_0_220308	Finished
70	CCB-5,CCB,1	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
71	N049709-003B,SAMP,200	Unknown	34	1000.0	Anions Default	EPA 300_0_220308	Finished
72	CCV-6,CCV,1	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
73	CCB-6,CCB,1	Unknown	34	1000.0	Anions Default	EPA 300_0_220308	Finished

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Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 73
Created: 3/8/2022 8:44:20 AM by IC-05
Last Update: 3/8/2022 4:36:16 PM by IC-05

No.	Name	Inj. Date/Time	Comment
42	N049724-004C,SAMP,100	3/8/2022 8:26:45 PM	SAMP,0.1>10mL
43	N049724-005C,SAMP,100	3/8/2022 8:42:03 PM	SAMP,0.1>10mL
44	N049724-006C,SAMP,20	3/8/2022 8:57:22 PM	SAMP,0.5>10mL
45	CCV-3,CCV,1	3/8/2022 9:12:40 PM	CCV
46	CCB-3,CCB,1	3/8/2022 9:27:58 PM	CCB
47	N049724-008C,SAMP,100	3/8/2022 9:43:16 PM	SAMP,0.1>10mL
48	N049708-002B,SAMP,5	3/8/2022 9:58:34 PM	SAMP,2>10mL 9056
49	N049708-002BMS,MS,5	3/8/2022 10:13:52 PM	MS,2>10mL 9056
50	N049708-002BMSD,MSD,5	3/8/2022 10:29:10 PM	MSD,2>10mL 9056
51	N049709-001B,SAMP,5	3/8/2022 10:44:28 PM	SAMP,2>10mL 9056
52	N049709-001BDUP,DUP,5	3/8/2022 10:59:46 PM	DUP,2>10mL 9056
53	N049708-001B,SAMP,5	3/8/2022 11:15:04 PM	SAMP,2>10mL 9056
54	N049708-003B,SAMP,5	3/8/2022 11:30:23 PM	SAMP,2>10mL 9056
55	N049708-004B,SAMP,5	3/8/2022 11:45:42 PM	SAMP,2>10mL 9056
56	N049709-003B,SAMP,5	3/9/2022 12:00:59 AM	SAMP,2>10mL 9056
57	CCV-4,CCV,1	3/9/2022 12:16:17 AM	CCV
58	CCB-4,CCB,1	3/9/2022 12:31:35 AM	CCB
59	N049708-003B,SAMP,100	3/9/2022 12:46:53 AM	SAMP,0.1>10mL 9056
60	N049708-003BMS,MS,100	3/9/2022 1:02:12 AM	MS,0.1>10mL 9056
61	N049708-003BMSD,MSD,100	3/9/2022 1:17:30 AM	MSD,0.1>10mL 9056
62	N049709-003B,SAMP,100	3/9/2022 1:32:47 AM	SAMP,0.1>10mL 9056
63	N049709-003BDUP,DUP,100	3/9/2022 1:48:05 AM	DUP,0.1>10mL 9056
64	N049708-001B,SAMP,200	3/9/2022 2:03:23 AM	SAMP,0.05>10mL 9056
65	N049708-002B,SAMP,200	3/9/2022 2:18:41 AM	SAMP,0.05>10mL 9056
66	N049708-004B,SAMP,100	3/9/2022 2:33:59 AM	SAMP,0.1>10mL 9056
67	N049709-001B,SAMP,20	3/9/2022 2:49:17 AM	SAMP,0.5>10mL 9056
68	N049709-001B,SAMP,100	3/9/2022 3:04:35 AM	SAMP,0.1>10mL 9056
69	CCV-5,CCV,1	3/9/2022 3:19:53 AM	CCV
70	CCB-5,CCB,1	3/9/2022 3:35:11 AM	CCB
71	N049709-003B,SAMP,200	3/9/2022 3:50:30 AM	SAMP,0.05>10mL 9056
72	CCV-6,CCV,1	3/9/2022 4:05:48 AM	CCV
73	CCB-6,CCB,1	3/9/2022 4:21:06 AM	CCB

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Sequence: IC-08_220315A
Operator: IC-05
Printed: 3/16/2022 3:13:01 PM

Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 63
Created: 3/14/2022 2:21:32 PM by IC-05
Last Update: 3/16/2022 8:32:45 AM by IC-05

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
1	BLANK	Unknown	2	1000.0	Anions Default	EPA 300_0_220308	Finished
2	BLANK	Unknown	3	1000.0	Anions Default	EPA 300_0_220308	Finished
3	Std - 0	Standard	4	1000.0	Anions Default	EPA 300_0_220308	Finished
4	Std - 1	Standard	3	1000.0	Anions Default	EPA 300_0_220308	Finished
5	Std - 2	Standard	4	1000.0	Anions Default	EPA 300_0_220308	Finished
6	Std - 3	Standard	5	1000.0	Anions Default	EPA 300_0_220308	Finished
7	Std - 4	Standard	6	1000.0	Anions Default	EPA 300_0_220308	Finished
8	Std - 5	Standard	7	1000.0	Anions Default	EPA 300_0_220308	Finished
9	BLANK	Unknown	19	1000.0	Anions Default	EPA 300_0_220308	Finished
10	CCV-1,CCV,1	Unknown	15	1000.0	Anions Default	EPA 300_0_220308	Finished
11	CCB-1,CCB,1	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
12	MB-H2O,MBLK,1	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
13	LCS-H2O,LCS,1	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
14	N049836-001B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
15	N049836-002B,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
16	N049836-004B,SAMP,10	Unknown	14	1000.0	Anions Default	EPA 300_0_220308	Finished
17	N049836-005B,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
18	N049836-006B,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
19	N049836-007B,SAMP,10	Unknown	18	1000.0	Anions Default	EPA 300_0_220308	Finished
20	N049836-008B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
21	N049824-001F,SAMP,5	Unknown	18	1000.0	Anions Default	EPA 300_0_220308	Finished
22	CCV-2,CCV,1	Unknown	14	1000.0	Anions Default	EPA 300_0_220308	Finished
23	CCB-2,CCB,1	Unknown	15	1000.0	Anions Default	EPA 300_0_220308	Finished
24	N049823-001F,SAMP,2	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
25	N049836-011B,SAMP,10	Unknown	16	1000.0	Anions Default	EPA 300_0_220308	Finished
26	N049836-012B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
27	N049836-013B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
28	N049836-014B,SAMP,10	Unknown	19	1000.0	Anions Default	EPA 300_0_220308	Finished
29	N049836-009B,SAMP,10	Unknown	18	1000.0	Anions Default	EPA 300_0_220308	Finished
30	N049836-010B,SAMP,10	Unknown	17	1000.0	Anions Default	EPA 300_0_220308	Finished
31	N049823-001FMS,MS,2	Unknown	21	1000.0	Anions Default	EPA 300_0_220308	Finished
32	N049823-001FMSD,MSD,2	Unknown	22	1000.0	Anions Default	EPA 300_0_220308	Finished
33	N049824-001FDUP,DUP,5	Unknown	23	1000.0	Anions Default	EPA 300_0_220308	Finished
34	CCV-3,CCV,1	Unknown	21	1000.0	Anions Default	EPA 300_0_220308	Finished
35	CCB-3,CCB,1	Unknown	22	1000.0	Anions Default	EPA 300_0_220308	Finished
36	N049836-002BMS,MS,10	Unknown	21	1000.0	Anions Default	EPA 300_0_220308	Finished
37	N049836-002BMSD,MSD,10	Unknown	22	1000.0	Anions Default	EPA 300_0_220308	Finished
38	N049836-014BMS,MS,10	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
39	N049836-011BDUP,DUP,10	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
40	N049836-009B,SAMP,100	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
41	N049836-009BMS,MS,100	Unknown	28	1000.0	Anions Default	EPA 300_0_220308	Finished

reviewed by:

Processed by:

Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 63
Created: 3/14/2022 2:21:32 PM by IC-05
Last Update: 3/16/2022 8:32:45 AM by IC-05

No.	Name	Inj. Date/Time	Comment
1	BLANK	3/8/2022 9:20:15 AM	BLANK
2	BLANK	3/8/2022 9:35:33 AM	BLANK
3	Std - 0	3/8/2022 9:50:52 AM	IBLANK
4	Std - 1	3/8/2022 10:06:10 AM	STD-LOW
5	Std - 2	3/8/2022 10:21:28 AM	STD
6	Std - 3	3/8/2022 10:36:46 AM	STD
7	Std - 4	3/8/2022 10:52:05 AM	STD
8	Std - 5	3/8/2022 11:07:23 AM	STD-HIGH
9	BLANK	3/15/2022 7:09:45 AM	BLANK
10	CCV-1,CCV,1	3/15/2022 7:25:03 AM	CCV
11	CCB-1,CCB,1	3/15/2022 7:40:21 AM	CCB
12	MB-H2O,MBLK,1	3/15/2022 7:55:39 AM	MB
13	LCS-H2O,LCS,1	3/15/2022 8:10:58 AM	LCS
14	N049836-001B,SAMP,10	3/15/2022 8:38:16 AM	SAMP,1>10mL
15	N049836-002B,SAMP,10	3/15/2022 8:53:34 AM	SAMP,1>10mL
16	N049836-004B,SAMP,10	3/15/2022 9:08:51 AM	SAMP,1>10mL
17	N049836-005B,SAMP,10	3/15/2022 9:24:10 AM	SAMP,1>10mL
18	N049836-006B,SAMP,10	3/15/2022 9:39:28 AM	SAMP,1>10mL
19	N049836-007B,SAMP,10	3/15/2022 9:54:46 AM	SAMP,1>10mL
20	N049836-008B,SAMP,10	3/15/2022 10:10:04 AM	SAMP,1>10mL
21	N049824-001F,SAMP,5	3/15/2022 10:50:31 AM	SAMP,2>10mL
22	CCV-2,CCV,1	3/15/2022 11:05:49 AM	CCV
23	CCB-2,CCB,1	3/15/2022 11:21:07 AM	CCB
24	N049823-001F,SAMP,2	3/15/2022 11:36:26 AM	SAMP,5>10mL
25	N049836-011B,SAMP,10	3/15/2022 11:51:44 AM	SAMP,1>10mL
26	N049836-012B,SAMP,10	3/15/2022 12:07:03 PM	SAMP,1>10mL
27	N049836-013B,SAMP,10	3/15/2022 12:22:21 PM	SAMP,1>10mL
28	N049836-014B,SAMP,10	3/15/2022 12:37:39 PM	SAMP,1>10mL
29	N049836-009B,SAMP,10	3/15/2022 12:52:57 PM	SAMP,1>10mL
30	N049836-010B,SAMP,10	3/15/2022 1:08:15 PM	SAMP,1>10mL
31	N049823-001FMS,MS,2	3/15/2022 1:23:33 PM	MS,5>10mL
32	N049823-001FMSD,MSD,2	3/15/2022 1:38:52 PM	MSD,5>10mL
33	N049824-001FDUP,DUP,5	3/15/2022 1:54:10 PM	DUP,2>10mL
34	CCV-3,CCV,1	3/15/2022 2:09:27 PM	CCV
35	CCB-3,CCB,1	3/15/2022 2:24:45 PM	CCB
36	N049836-002BMS,MS,10	3/15/2022 2:40:03 PM	MS,1>10mL
37	N049836-002BMSD,MSD,10	3/15/2022 2:55:21 PM	MSD,1>10mL
38	N049836-014BMS,MS,10	3/15/2022 3:10:39 PM	MS,1>10mL
39	N049836-011BDUP,DUP,10	3/15/2022 3:25:57 PM	DUP,1>10mL
40	N049836-009B,SAMP,100	3/15/2022 3:41:15 PM	SAMP,0.1>10mL
41	N049836-009BMS,MS,100	3/15/2022 3:56:33 PM	MS,0.1>10mL

Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 63
Created: 3/14/2022 2:21:32 PM by IC-05
Last Update: 3/16/2022 8:32:45 AM by IC-05

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status
42	N049836-009BMSD,MSD,100	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
43	N049836-001B,SAMP,200	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
44	N049836-001BDUP,DUP,200	Unknown	28	1000.0	Anions Default	EPA 300_0_220308	Finished
45	N049836-001BMS,MS,200	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
46	CCV-4,CCV,1	Unknown	27	1000.0	Anions Default	EPA 300_0_220308	Finished
47	CCB-4,CCB,1	Unknown	28	1000.0	Anions Default	EPA 300_0_220308	Finished
48	N049836-002B,SAMP,200	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
49	N049836-004B,SAMP,100	Unknown	30	1000.0	Anions Default	EPA 300_0_220308	Finished
50	N049836-005B,SAMP,50	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
51	N049836-006B,SAMP,50	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
52	N049836-007B,SAMP,50	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
53	N049836-008B,SAMP,50	Unknown	33	1000.0	Anions Default	EPA 300_0_220308	Finished
54	N049836-010B,SAMP,100	Unknown	34	1000.0	Anions Default	EPA 300_0_220308	Finished
55	N049836-011B,SAMP,50	Unknown	35	1000.0	Anions Default	EPA 300_0_220308	Finished
56	N049836-012B,SAMP,50	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
57	N049836-013B,SAMP,50	Unknown	30	1000.0	Anions Default	EPA 300_0_220308	Finished
58	CCV-5,CCV,1	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
59	CCB-5,CCB,1	Unknown	29	1000.0	Anions Default	EPA 300_0_220308	Finished
60	N049836-014B,SAMP,50	Unknown	31	1000.0	Anions Default	EPA 300_0_220308	Finished
61	CCV-6,CCV,1	Unknown	31	1000.0	Anions Default	EPA 300_0_220308	Finished
62	CCB-6,CCB,1	Unknown	32	1000.0	Anions Default	EPA 300_0_220308	Finished
63	BLANK	Unknown	35	1000.0	Anions Default	EPA 300_0_220308	Finished

Title:
Datasource: D1NZHKQ1_local
Location: IC-08_ANIONS\2_Data\2018_Anions
Timebase: IC-08_ANIONS
#Samples: 63
Created: 3/14/2022 2:21:32 PM by IC-05
Last Update: 3/16/2022 8:32:45 AM by IC-05

No.	Name	Inj. Date/Time	Comment
42	N049836-009BMSD,MSD,100	3/15/2022 4:11:51 PM	MSD,0.1>10mL
43	N049836-001B,SAMP,200	3/15/2022 4:27:09 PM	SAMP,0.05>10mL
44	N049836-001BDUP,DUP,200	3/15/2022 4:42:27 PM	DUP,0.05>10mL
45	N049836-001BMS,MS,200	3/15/2022 4:57:45 PM	MS,0.05>10mL
46	CCV-4,CCV,1	3/15/2022 5:13:03 PM	CCV
47	CCB-4,CCB,1	3/15/2022 5:28:21 PM	CCB
48	N049836-002B,SAMP,200	3/15/2022 5:43:38 PM	SAMP,0.05>10mL
49	N049836-004B,SAMP,100	3/15/2022 6:12:24 PM	SAMP,0.1>10mL
50	N049836-005B,SAMP,50	3/15/2022 6:27:43 PM	SAMP,0.2>10mL
51	N049836-006B,SAMP,50	3/15/2022 6:43:02 PM	SAMP,0.2>10mL
52	N049836-007B,SAMP,50	3/15/2022 6:58:20 PM	SAMP,0.2>10mL
53	N049836-008B,SAMP,50	3/15/2022 7:13:38 PM	SAMP,0.2>10mL
54	N049836-010B,SAMP,100	3/15/2022 7:28:56 PM	SAMP,0.1>10mL
55	N049836-011B,SAMP,50	3/15/2022 7:44:14 PM	SAMP,0.2>10mL
56	N049836-012B,SAMP,50	3/15/2022 7:59:32 PM	SAMP,0.2>10mL
57	N049836-013B,SAMP,50	3/15/2022 8:14:50 PM	SAMP,0.2>10mL
58	CCV-5,CCV,1	3/15/2022 8:30:08 PM	CCV
59	CCB-5,CCB,1	3/15/2022 8:45:26 PM	CCB
60	N049836-014B,SAMP,50	3/15/2022 9:00:44 PM	SAMP,0.2>10mL
61	CCV-6,CCV,1	3/15/2022 9:16:02 PM	CCV
62	CCB-6,CCB,1	3/15/2022 9:31:20 PM	CCB
63	BLANK	3/15/2022 9:46:37 PM	BLANK

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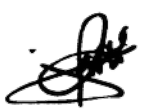


INITIAL CALIBRATION DATA SUMMARY

(EPA 300) - INITIAL CALIBRATION

Instrument ID: IC-08
Date Calibrated: 3/8/2022

Initial Calibration:

Nitrate	STD0	STD1	STD2	STD3	STD4	STD5	
COMPOUND, in ug/L	0	0.05	0.25	0.5	1.25	2.5	R^2
Area,mAU*min	0.0000	0.0216	0.0960	0.1988	0.5082	1.0348	1.000

	Stock
Standard Concentration:	1000000 PPB
Standard ID:	ISST210520C

Calibration Acceptance Criteria: > 0.995 Correlation

* Please note that the instrument printout for Area were represented in three decimal places. The exact values are represented in the ICAL summary for calculation purposes.

(EPA 300) - INITIAL CALIBRATION

Instrument ID: IC-08
Date Calibrated: 3/8/2022

Initial Calibration:

Sulfate	STD0	STD1	STD2	STD3	STD4	STD5	
COMPOUND, in ug/L	0	0.5	2	4	10	20	R^2
Area,mAU*min	0.0000	0.0540	0.2307	0.4654	1.2201	2.5470	0.999

	Stock
Standard Concentration:	1000000 PPB
Standard ID:	ISST211112A

Calibration Acceptance Criteria: > 0.995 Correlation

* Please note that the instrument printout for Area were represented in three decimal places. The exact values are represented in the ICAL summary for calculation purposes.

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **ICV**	SampType: **ICV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ICV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4565846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.972	0.50	4.000	0	99.3	90	110				

Sample ID: **CCV-1**	SampType: **CCV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565848**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	4.021	0.50	4.000	0	101	90	110				

Sample ID: **CCV-2**	SampType: **CCV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.939	0.50	4.000	0	98.5	90	110				

Sample ID: **CCV-3**	SampType: **CCV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.968	0.50	4.000	0	99.2	90	110				

Sample ID: **CCV-4**	SampType: **CCV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565862**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.956	0.50	4.000	0	98.9	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **CCV-5**	SampType: **CCV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.985	0.50	4.000	0	99.6	90	110				

Sample ID: **CCV-6**	SampType: **CCV**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.912	0.50	4.000	0	97.8	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **ICV** SampType: **ICV** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160854**
Client ID: **ICV** Batch ID: **R160854** TestNo: **EPA 300.0** Analysis Date: **3/8/2022** SeqNo: **4565809**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.255	0.050	1.250	0	100	90	110				

Sample ID: **CCV-1** SampType: **CCV** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160854**
Client ID: **CCV** Batch ID: **R160854** TestNo: **EPA 300.0** Analysis Date: **3/15/2022** SeqNo: **4565811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.204	0.050	1.250	0	96.3	90	110				

Sample ID: **CCV-2** SampType: **CCV** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160854**
Client ID: **CCV** Batch ID: **R160854** TestNo: **EPA 300.0** Analysis Date: **3/15/2022** SeqNo: **4565822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.210	0.050	1.250	0	96.8	90	110				

Sample ID: **CCV-3** SampType: **CCV** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160854**
Client ID: **CCV** Batch ID: **R160854** TestNo: **EPA 300.0** Analysis Date: **3/15/2022** SeqNo: **4565830**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.248	0.050	1.250	0	99.8	90	110				

Sample ID: **CCV-4** SampType: **CCV** TestCode: **300WLLNO3P** Units: **mg/L** Prep Date: RunNo: **160854**
Client ID: **CCV** Batch ID: **R160854** TestNo: **EPA 300.0** Analysis Date: **3/15/2022** SeqNo: **4565836**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.209	0.050	1.250	0	96.7	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **CCV-5**	SampType: **CCV**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565838**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.208	0.050	1.250	0	96.6	90	110				

Sample ID: **CCV-6**	SampType: **CCV**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCV**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565840**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	1.265	0.050	1.250	0	101	90	110				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

SUMMARY OF INSTRUMENT BLANKS

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **ICB**	SampType: **ICB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ICB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4565847**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **CCB-1**	SampType: **CCB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **CCB-2**	SampType: **CCB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **CCB-3**	SampType: **CCB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **CCB-4**	SampType: **CCB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565863**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300_W_SO4PGE

Sample ID: **CCB-5**	SampType: **CCB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565875**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Sample ID: **CCB-6**	SampType: **CCB**	TestCode: **300_W_SO4P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **ICB**	SampType: **ICB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **ICB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/8/2022**	SeqNo: **4565810**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **CCB-1**	SampType: **CCB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565812**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	0.019	0.050									

Sample ID: **CCB-2**	SampType: **CCB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565823**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **CCB-3**	SampType: **CCB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565831**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **CCB-4**	SampType: **CCB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565837**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 300WLLNO3PGE

Sample ID: **CCB-5**	SampType: **CCB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565839**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Sample ID: **CCB-6**	SampType: **CCB**	TestCode: **300WLLNO3P**	Units: **mg/L**	Prep Date:	RunNo: **160854**
Client ID: **CCB**	Batch ID: **R160854**	TestNo: **EPA 300.0**		Analysis Date: **3/15/2022**	SeqNo: **4565841**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.050									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

RETENTION TIME SUMMARY

RETENTION TIME (RT) SUMMARY

Instrument ID: IC-08

Analytical Sequence

Date Analyzed: 3/15/2022

Sample Name		Retention Time	Evaluation
ICV	Nitrate	6.807	
CCV-1	Nitrate	6.773	
CCV-2	Nitrate	6.767	
CCV-3	Nitrate	6.770	
CCV-4	Nitrate	6.770	
CCV-5	Nitrate	6.773	
CCV-6	Nitrate	6.770	
	Average	6.771	
	Applied RT Window	6.571 - 6.971	
MB-R160854_NO3	Nitrate	N.A.	N.A.
LCS-R160854_NO3	Nitrate	6.770	PASS
N049836-001B	Nitrate	6.770	PASS
N049836-002B	Nitrate	6.770	PASS
N049836-004B	Nitrate	6.717	PASS
N049836-005B	Nitrate	6.773	PASS
N049836-006B	Nitrate	6.770	PASS
N049836-007B	Nitrate	6.773	PASS
N049836-008B	Nitrate	6.773	PASS
N049836-011B	Nitrate	6.770	PASS
N049836-012B	Nitrate	6.770	PASS
N049836-013B	Nitrate	6.770	PASS
N049836-014B	Nitrate	6.770	PASS
N049836-009B	Nitrate	6.763	PASS
N049836-010B	Nitrate	6.767	PASS
N049836-002BMS	Nitrate	6.767	PASS
N049836-002BMSD	Nitrate	6.767	PASS
N049836-014BMS	Nitrate	6.770	PASS
N049836-011BDUP	Nitrate	6.774	PASS

reviewed by:

3/24/2022

RETENTION TIME (RT) SUMMARY

Instrument ID: IC-08

Analytical Sequence

Date Analyzed: 3/15/2022

Sample Name		Retention Time	Evaluation
ICV	Sulfate	10.370	
CCV-1	Sulfate	10.293	
CCV-2	Sulfate	10.297	
CCV-3	Sulfate	10.307	
CCV-4	Sulfate	10.314	
CCV-5	Sulfate	10.320	
CCV-6	Sulfate	10.323	
	Average	10.309	
	Applied RT Window	10.109 - 10.509	
MB-R160854_SO4	Sulfate	N.A.	N.A.
LCS-R160854_SO4	Sulfate	10.284	PASS
N049836-009B	Sulfate	10.310	PASS
N049836-009BMS	Sulfate	10.310	PASS
N049836-009BMSD	Sulfate	10.313	PASS
N049836-001B	Sulfate	10.313	PASS
N049836-001BDUP	Sulfate	10.307	PASS
N049836-001BMS	Sulfate	10.317	PASS
N049836-002B	Sulfate	10.317	PASS
N049836-004B	Sulfate	10.324	PASS
N049836-005B	Sulfate	10.320	PASS
N049836-006B	Sulfate	10.320	PASS
N049836-007B	Sulfate	10.320	PASS
N049836-008B	Sulfate	10.317	PASS
N049836-010B	Sulfate	10.320	PASS
N049836-011B	Sulfate	10.320	PASS
N049836-012B	Sulfate	10.324	PASS
N049836-013B	Sulfate	10.327	PASS
N049836-014B	Sulfate	10.330	PASS

reviewed by:

3/24/2022

MDL STUDY

METHOD DETECTION LIMIT 2020

Method Name: **INORGANIC IONS by Ion Chromatography**
Method Number: EPA 300.0
Analysis Date(s): 10/7/2020,10/10/2020,10/13/202(
Analyst/Technician: Ria Abes

Matrix: **WATER**
Unit: mg/L

Instrument Name: **IC-08**

Acceptance Criteria: MDL < PQL

Datafile	201007A #36	201007A #37	201007A #38	201010A #60	201010A #61	201013A #55	201013A #56					
Analyte	**#1**	**#2**	**#3**	**#4**	**#5**	**#6**	**#7**	**Spike Conc., mg/L**	**SD**	**MDL**	**LOD**	**PQL**
Fluoride	0.049	0.041	0.042	0.037	0.046	0.042	0.042	0.020	0.0040	**0.0127**	0.020	0.10
Chloride	0.195	0.198	0.197	0.196	0.201	0.251	0.194	0.050	0.0207	**0.0652**	0.020	0.50
Nitrite	0.034	0.033	0.033	0.034	0.034	0.035	0.032	0.020	0.0009	**0.0029**	0.010	0.05
Bromide	0.050	0.037	0.031	0.028	0.036	0.041	0.041	0.040	0.0073	**0.0228**	0.040	0.50
Nitrate	0.037	0.035	0.039	0.044	0.036	0.041	0.038	0.020	0.0030	**0.0095**	0.010	0.05
Phosphate	0.085	0.076	0.067	0.062	0.000	0.067	0.088	0.040	0.0297	**0.0933**	0.030	0.10
Sulfate	0.331	0.332	0.326	0.379	0.326	0.343	0.325	0.100	0.0193	**0.0608**	0.050	0.50

Note: All 7 method blanks analyzed together with the MDL samples have 0 ppm concentrations

MDL/LOD & PQL Verification 2021

Method Name: **Inorganic Ions by Ion Chromatography for PG&E**
Method Number: EPA Method 300.0
Analysis Date(s): 6/8/2021
Analyst: Ria B. Abes

Matrix: **WATER**
Unit: mg/L

Instrument Name: **IC-08**

Compound	MDL	LOD Spike Conc., mg/L	LOD Actual Conc., mg/L	PQL Spike Conc., mg/L	PQL Actual Conc., mg/L	%Recovery
Fluoride	**0.0127**	0.020	0.0440	0.10	0.1152	**115**
Chloride	**0.0652**	0.100	0.2250	0.50	0.5841	**117**
Nitrite	**0.0029**	0.010	0.0270	0.50	0.4972	**99**
Bromide	**0.0228**	0.040	0.0630	0.50	0.5133	**103**
Nitrate	**0.0095**	0.010	0.0270	0.50	0.4958	**99**
Phosphate	**0.0933**	0.090	0.1050	0.10	0.1087	**109**
Sulfate	**0.0608**	0.100	0.3210	0.50	0.7085	**142**

SM 5310C

Wet Chemistry Technical Batch Review Checklist (ARCUS02)

ASSET LABORATORIES - LAS VEGAS

FIRST LEVEL REVIEW:

QC Batch Number: R160896 **Analyst:** CEI

ASSET #: N049836 **Date Analyzed:** 3/16/2022

Method: SM 5310C

Initial Calibration	Ist Level Review			2nd Level Review		
	Y	N	N/A	Y	N	N/A
1. ICAL before initial sample analysis or every 24 hrs.	X			X		
2. Does correlation coefficient,r, meet criteria ?(r = 0.995)	X			X		
3. ICV within ± 15% of expected value.	X			X		
Continuing Calibration						
4. CCV after every 10 samples and at the end of analysis sequence.	X			X		
5. CCV within ± 15% of expected value.	X			X		
6. Calibration blanks run after ICV and CCV?	X			X		
7. Do all calibration blanks (ICB and CCBs) meet criteria? (< PQL)	X			X		
Sample Information						
8. All samples are within linear range.	X			X		
9. Are all samples analyzed within hold time.	X			X		
QC Items						
10. Method blank values are below 1/2 the reporting limit.	X			X		
11. LCS compounds within control limits.	X			X		
12. MS/MSD, RPD's are within control limits	X			X		
Raw Data and Miscellaneous Information						
13. Are Non-Conformances documented			X			X
14. Runlog complete and included in package.	X			X		
15. Spectrophotometer tape included (Spec work only)			X			X
16. Digestion log complete and included in package (if applicable)			X			X
Preliminary Report						
17. Does the raw data match the preliminary report?	X			X		
18. Are analytical results correct?	X			X		
19. Is the QC summary report present and complete?	X			X		

Comments:

%Rec of TOC in N049836-001D-MS/MSD @1X and 5X failed, low bias. However, dilution @20X passed criteria.

SECOND LEVEL REVIEW:

	Yes	No	N/A
1. All assigned sample(s) analyzed	X		
2. Matrix / units correct	X		
3. Does batch meet QC requirements?	X		
4. Are analytical results correct? (Ex. dilutions, calculations.etc.)	X		
5. Is first level review correct and complete?	X		

RBA

1st Level Reviewer _____ Date: _____

2nd Level Reviewer JRB 3/16/2022 Date: _____

SAMPLE CALCULATION

Sample Calculation

METHOD: SM5310C
TEST NAME: TOTAL ORGANIC CARBON
MATRIX: Groundwater

FORMULA:

Calculate the total organic carbon concentration in mg/L, in the original sample as follows:

$$\mathbf{TOC = [\ A\ -\ B\ ]\ *\ DF}$$

where:

A = mg/L, instrument calculated concentration
DF = dilution factor
B = mg/L, TOC concentration in the calibration blank

For: **N049836-002D**

The concentration in mg/L is calculated as follows:

TOC = [0.7047 **-** 0.1351 **]** * 1

TOC = 0.5696

Since reporting limit is 1.0 mg/L,

TOC = ND

Reviewed by:

JRB 3/24/2022

ANALYSIS RUN LOG

INJECTION LOG: 211209A

Instrument ID: TOC-02

Sample No	Sample ID	Type	DF	Injection Date/Time	Comments
(Clean)	CLEAN	CLEAN	1	12/9/2021 9:15	Not Reported
(Blank)	REAGENT/ACID BLANK		1	12/9/2021 9:34	Reported
C	[TOC] 10PPM C KHP 12_9A [0.500 PPM]		1	12/9/2021 10:04	Reported
C	[TOC] 10PPM C KHP 12_9A [1.000 PPM]		1	12/9/2021 10:20	Reported
C	[TOC] 10PPM C KHP 12_9A [2.500 PPM]		1	12/9/2021 10:35	Reported
C	[TOC] 10PPM C KHP 12_9A [5.000 PPM]		1	12/9/2021 10:50	Reported
C	[TOC] 10PPM C KHP 12_9A [10.00 PPM]		1	12/9/2021 11:05	Reported
61	BLANK	BLANK	1	12/9/2021 11:20	Reported
62	ICV	ICV	1	12/9/2021 11:36	Reported
63	ICB	ICB	1	12/9/2021 11:51	Reported

INJECTION LOG: 220316A

Instrument ID: TOC-02

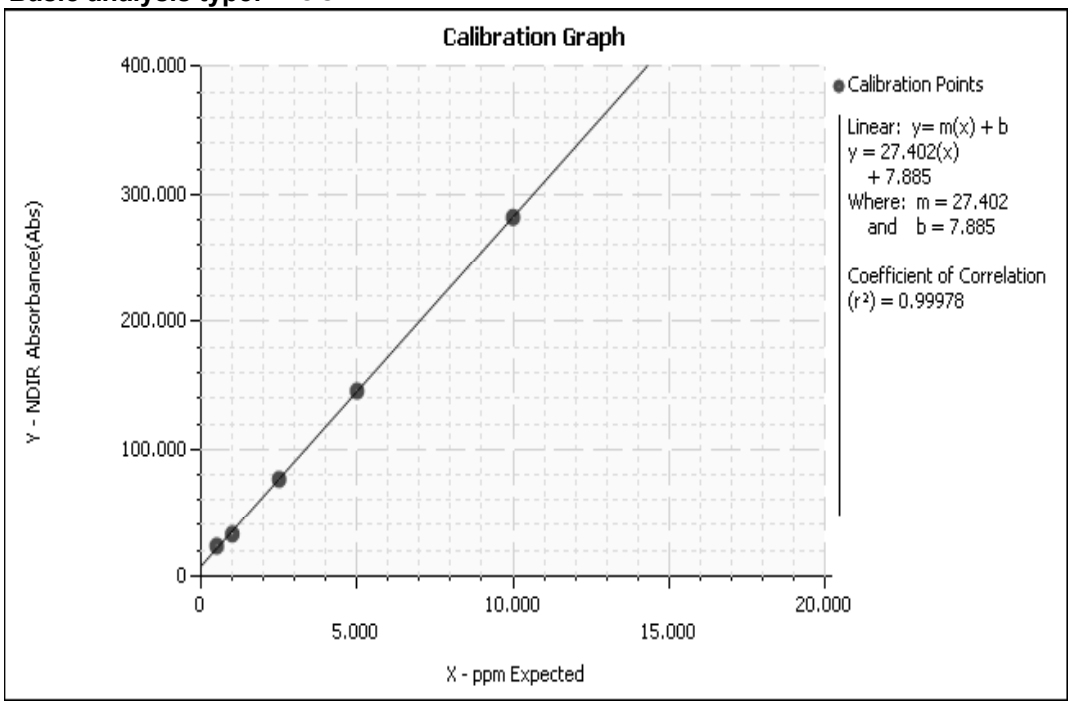
Sample No	Sample ID	Type	DF	Injection Date/Time	Comments
(Clean)	CLEAN	CLEAN	1	3/16/2022 8:22	Not Reported
1	IBLANK	ICB	1	3/16/2022 8:41	Reported
2	CCV-1	CCV	1	3/16/2022 8:58	Reported
3	CCB-1	CCB	1	3/16/2022 9:13	Reported
4	MB-R160896	MBLK	1	3/16/2022 9:29	Reported
5	LCS-R160896	LCS	1	3/16/2022 9:44	Reported
6	N049836-001D	SAMP	1	3/16/2022 10:00	Not Reported
7	N049836-001D-MS	MS	1	3/16/2022 10:16	Not Reported
8	N049836-001DMSD	MSD	1	3/16/2022 10:31	Not Reported
9	N049836-001D	SAMP	5	3/16/2022 10:47	Not Reported
10	N049836-001D-MS	MS	5	3/16/2022 11:02	Not Reported
11	N049836-001D-MSD	MSD	5	3/16/2022 11:18	Not Reported
12	N049836-001D	SAMP	20	3/16/2022 11:33	Reported
13	N049836-001D-MS	MS	20	3/16/2022 11:49	Reported
14	CCV-2	CCV	1	3/16/2022 12:04	Reported
15	CCB-2	CCB	1	3/16/2022 12:20	Reported
16	N049836-001D-MSD	MSD	20	3/16/2022 12:36	Reported
17	N049836-002D	SAMP	1	3/16/2022 12:51	Reported
18	N049836-004D	SAMP	1	3/16/2022 13:07	Reported
19	N049836-005D	SAMP	1	3/16/2022 13:22	Reported
20	N049836-006D	SAMP	1	3/16/2022 13:38	Reported
21	N049836-007D	SAMP	1	3/16/2022 13:54	Reported
22	N049836-008D	SAMP	1	3/16/2022 14:09	Reported
23	N049836-009D	SAMP	1	3/16/2022 14:25	Reported
24	N049836-010D	SAMP	1	3/16/2022 14:40	Reported
25	N049836-011D	SAMP	1	3/16/2022 14:56	Reported
26	CCV-3	CCV	1	3/16/2022 15:12	Reported
27	CCB-3	CCB	1	3/16/2022 15:27	Reported
28	N049836-012D	SAMP	1	3/16/2022 15:43	Reported
29	N049836-013D	SAMP	1	3/16/2022 15:58	Reported
30	N049836-014D	SAMP	1	3/16/2022 16:14	Reported
31	CCV-4	CCV	1	3/16/2022 16:30	Reported
32	CCB-4	CCB	1	3/16/2022 16:45	Reported

INITIAL CALIBRATION DATA SUMMARY

Name: 211209A_TOC2_ICAL

Analysis Type: TOC
Version: 2
Instrument: TOC 02
Last Saved by: TOC Fusion (Fusion)
Last Saved on: 2021/12/09 11:20 - Thursday

Basic analysis type: TOC



Data Points

Sample ID	Y Raw Value	X Expected	Message	End Time
0.500 ppm	23.6263	0.5000		2021/12/09 10:11
1.000 ppm	32.9190	1.0000		2021/12/09 10:26
2.500 ppm	76.3523	2.5000		2021/12/09 10:41
5.000 ppm	145.3350	5.0000		2021/12/09 10:56
10.00 ppm	281.8273	10.0000		2021/12/09 11:11

CALIBRATION SUMMARY

Instrument ID: TOC-02
Date Calibrated: 12/9/2021

Organic Carbon	STD1	STD2	STD3	STD4	STD5	
COMPOUND, in mg/L	0.500	1.000	2.500	5.000	10.00	R^2
Absorbance	23.6263	32.9190	76.3523	145.3350	281.8273	0.9998

	Primary STD	Secondary STD
Standard Concentration:	1000 ppm	1000ppm
Total Organic Carbon	ISST-211018A	ISST-210120A

Calibration Acceptance Criteria: > 0.995 Correlation

% RSD SUMMARY

RSD SUMMARY: 220316A

Instrument ID: TOC-02

Sample Name	Type	DF	Reported Conc	RSD	Criteria	Comment
IBLANK	ICB	1	0.14	9.4	10	PASS
CCV-1	CCV	1	5.12	0.68	10	PASS
CCB-1	CCB	1	0.1	15.38	10	<PQL
MB-R160896	MBLK	1	0.08	20.54	10	<PQL
LCS-R160896	LCS	1	5.14	0.77	10	PASS
N049836-001D	SAMP	1	0.65	6.03	10	PASS
N049836-001D-MS	MS	1	1.51	2.55	10	PASS
N049836-001DMSD	MSD	1	1.6	2.43	10	PASS
N049836-001D	SAMP	5	0.39	2.08	10	PASS
N049836-001D-MS	MS	5	3.23	2.26	10	PASS
N049836-001D-MSD	MSD	5	3.26	2.58	10	PASS
N049836-001D	SAMP	20	0.26	4.82	10	PASS
N049836-001D-MS	MS	20	4.59	3	10	PASS
CCV-2	CCV	1	5.38	1.04	10	PASS
CCB-2	CCB	1	0.12	15.74	10	<PQL
N049836-001D-MSD	MSD	20	4.64	2.37	10	PASS
N049836-002D	SAMP	1	0.7	1.4	10	PASS
N049836-004D	SAMP	1	0.21	4.01	10	PASS
N049836-005D	SAMP	1	0.16	20.7	10	<PQL
N049836-006D	SAMP	1	0.13	5.01	10	PASS
N049836-007D	SAMP	1	0.14	9.78	10	PASS
N049836-008D	SAMP	1	0.24	1.07	10	PASS
N049836-009D	SAMP	1	0.13	11.24	10	<PQL
N049836-010D	SAMP	1	0.14	5.71	10	PASS
N049836-011D	SAMP	1	0.27	3.3	10	PASS
CCV-3	CCV	1	5.51	0.44	10	PASS
CCB-3	CCB	1	0.16	13.35	10	<PQL
N049836-012D	SAMP	1	0.28	2.16	10	PASS
N049836-013D	SAMP	1	0.1	14.77	10	<PQL
N049836-014D	SAMP	1	0.11	15.36	10	<PQL
CCV-4	CCV	1	5.42	1.13	10	PASS
CCB-4	CCB	1	0.15	11.62	10	<PQL

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID **CCV-1**	SampType: **CCV**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **CCV**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566951**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.989	1.0	5.000	0	99.8	85	115				

Sample ID **CCV-2**	SampType: **CCV**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **CCV**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566963**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.249	1.0	5.000	0	105	85	115				

Sample ID **CCV-3**	SampType: **CCV**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **CCV**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566975**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.376	1.0	5.000	0	108	85	115				

Sample ID **CCV-4**	SampType: **CCV**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID: **CCV**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566980**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	5.290	1.0	5.000	0	106	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

SUMMARY OF INSTRUMENT BLANKS

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID	**IBLANK**	SampType: **ICB**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID:	**ICB**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566950**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID	**CCB-1**	SampType: **CCB**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID:	**CCB**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566952**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID	**CCB-2**	SampType: **CCB**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID:	**CCB**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566964**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID	**CCB-3**	SampType: **CCB**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID:	**CCB**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566976**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID	**CCB-4**	SampType: **CCB**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **160896**
Client ID:	**CCB**	Batch ID: **R160896**	TestNo: **SM 5310C**		Analysis Date: **3/16/2022**	SeqNo: **4566981**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

SAMPLE PREPARATION LOG

SM 5310C Prep Batch Report

Standard/Sample ID	Vol of Sample	Sample Type	Spike Code	Spike Added	Spike Conc	DF	Prepared By	Date
IBLANK	40 mL VOA	ICB	----	----	----	1	CEI	3/16/2022
CCV-1	40 mL VOA	CCV	ISST-211018A /IWST210623A	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
CCB-1	40 mL VOA	CCB	----	----	----	1	CEI	3/16/2022
MB-R160896	40 mL VOA	MBLK	----	----	----	1	CEI	3/16/2022
LCS-R160896	40 mL VOA	LCS	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
N049836-001D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-001D-MS	40 mL VOA	MS	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
N049836-001DMSD	40 mL VOA	MSD	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
N049836-001D	40 mL VOA	SAMP	----	----	----	5	CEI	3/16/2022
N049836-001D-MS	40 mL VOA	MS	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	5	CEI	3/16/2022
N049836-001D-MSD	40 mL VOA	MSD	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	5	CEI	3/16/2022
N049836-001D	40 mL VOA	SAMP	----	----	----	20	CEI	3/16/2022
N049836-001D-MS	40 mL VOA	MS	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	20	CEI	3/16/2022
CCV-2	40 mL VOA	CCV	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
CCB-2	40 mL VOA	CCB	----	----	----	1	CEI	3/16/2022
N049836-001D-MSD	40 mL VOA	MSD	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	20	CEI	3/16/2022
N049836-002D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-004D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-005D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-006D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-007D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-008D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-009D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-010D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-011D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
CCV-3	40 mL VOA	CCV	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
CCB-3	40 mL VOA	CCB	----	----	----	1	CEI	3/16/2022
N049836-012D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-013D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
N049836-014D	40 mL VOA	SAMP	----	----	----	1	CEI	3/16/2022
CCV-4	40 mL VOA	CCV	ISST-210120A /IWST210623B	0.2 / 1.0 mL	1000 / 1000 ppm	1	CEI	3/16/2022
CCB-4	40 mL VOA	CCB	----	----	----	1	CEI	3/16/2022

MDL STUDY

METHOD DETECTION LIMIT 2020

Method Name: **Total Organic Carbon**
Method Number: **EPA 415.2/SM 5310C**
Date of Analysis: ***10/05/2020;10/06/2020;10/07/2020***
Analyst: **Julia Bundalian**

Instrument Name: **TOC-02**

Matrix: Water
Spike Concentration: 1 mg/L
Blank Correction: Auto Correction Mode

Compound	#1	#2	#3	#4	#5	#6	#7	SD	MDL
TOC, mg/L	0.9470	0.9556	0.9362	0.9838	0.9605	1.0049	1.0005	0.027	0.0842

Compound	#1	#2	#3	#4	#5	#6	#7	Mean	SD	MDL
TOC, mg/L MDL-BLANK	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	**0.0000**

Reporting Detection Limit: 1.0 mg/L **MDL:** 0.0842 mg/L

METHOD DETECTION LIMIT 2020 (MBLK)											
Method Name:	**Total Organic Carbon**									Matrix:	**WATER**
Method Number:	**EPA 415.2/SM 5310C**										
Analysis Date(s):	***10/05/2020;10/06/2020;10/07/2020***										
Instrument Name:	**Julia Bundalian**										
ANALYTE	MDL	PQL									
TOC	0.0831	1									
*Note: MDL value from Method Blank (MB) results pooled from January 1, 2020 to June 30, 2020.											
The MDLb is the highest method blank result.											

LOD & PQL VERIFICATION 2021

Analytical Method:	**SM 5310C**	**Matrix:**	**Water**
Date of Analysis:	**7/12/2021**	**Units:**	**mg/L**
Instrument Name:	**TOC2 FUSION**		
Analyst:	**Julia Bundalian**		

Compound	MDL	LOD		PQL		
		Spike	Recovered	Spike	Recovered	% Recovery
Total Organic Carbon, mg/L	0.0842	0.2	0.1731	1.0	0.9857	98.57

EPA 6010B
Dissolved

Metals Technical Batch Review Checklist (ARCUS02)

ASSET LABORATORIES - LAS VEGAS

FIRST LEVEL REVIEW:

QC Batch Number: 91906
ASSET #: N049836

Instrument ID: ICP-02
Analyst: DBJ
Date Analyzed: 3/16/2022

Method:

[X] EPA 6010B / 200.7
[ ] EPA 6020 / 200.8
[ ] EPA 7470A / 7471A/245.1
[ ] Other _____

Initial Calibration and Initial Calibration Verification	1st Level Review			2nd Level Review		
	Y	N	N/A	Y	N	N/A
1. Does correlation coefficient,r, meet criteria ?(r = 0.995)	X			X		
2. For ICV, all analytes within ± 10% of expected value? (±5% for EPA 200.7)	X			X		
3. Does the ICP/MS meet tune criteria? (ICP/MS only)			X			X
4. % RSD calculated from 3 injections?	X			X		
5. Is low level check at PQL within ± 20% of expected value? (ICP/ICPMS only)	X			X		
Interference Check						
6. ICS A and AB at the start and end of sequence or twice during an 8-hr period.	X			X		
7. Are ICSA and AB within ± 20% of expected value?	X			X		
Continuing Calibration						
8. CCV after every 10 samples and end of analysis sequence.	X			X		
9. For CCV, all analytes within ± 10% of expected value?	X			X		
10. Calibration blank after ICVand CCV analysis.	X			X		
11. Do all calibration blanks (ICB and CCBs) meet criteria? (< 1/2 PQL)	X			X		
12 Is low level check twice during 8 hr period or at end within ± 30% of expected value? (ICP/ICPMS only)	X			X		
Sample Information						
13. All samples are within linear dynamic range.	X			X		
14. All hits above PQL have %RSD of less than or equal to 15%? (ICP/ICPMS only)	X			X		
15. Are all samples analyzed/digested within hold time.	X			X		
16. Dilution test performed and within ± 10% of undiluted sample.	X			X		
17. When dilution test fails, post digestion spike recovery within 80-120% of expected value.			X			X
18. For samples < 4 ppb, does the Cr result differs with Cr6+ by no more than 0.7 ppb?			X			X
19 For samples > 4 ppb, does the Cr result differs with Cr6+ by no more than 20%?			X			X
20. For samples that failed Cr6 vs CrT criteria, are samples reanalyzed for confirmation?			X			X
21. For samples with Total and Dissolved analysis, is Total concentration higher or equal to Dissolved concentration?			X			X
QC Items						
22. IS are within control limits (70-125% for ICPMS).	X			X		
23. Method blank values are below 1/2 the reporting limit.	X			X		
24. LCS compounds within control limits.	X			X		
25. MS/MSD, RPD's are within control limits	X			X		
Raw Data and Miscellaneous Information						
26. Are Non-Conformances documented			X			X
27. Runlog complete and included in package.	X			X		
28. Digestion log complete and included in package (if applicable)	X			X		
29. All sample raw data present in package.	X			X		
Preliminary Report						
30. Does the raw data match the preliminary report?	X			X		
31. Are analytical results correct?(Ex. dilutions, calculations.etc.)	X			X		
32. Are special instructions met?	X			X		

Comments:

Dilution was necessary for some samples since plasma was extinguished when samples were analyzed at lower dilution.

	Yes	No	N/A
1. All assigned sample(s) analyzed	x		
2. Matrix / units correct	x		
3. Does batch meet QC requirements?	x		
4. Are analytical results correct? (Ex. dilutions, calculations.etc.)	x		
5. Is first level review correct and complete?	x		

1st Level Reviewer DBJ Date: —

2nd Level Reviewer LG 3/16/2022 Date:

SAMPLE CALCULATION

SAMPLE CALCULATION

METHOD: EPA 6010B
TEST NAME: Heavy Metals by ICP
MATRIX: Groundwater

FORMULA:

Calculate the Iron concentration, in ug/L , in the original sample as follows:

Iron , ug/L = A * DF * PF *CF

where:

A = mg/L, calculated concentration
DF = Dilution Factor
PF = Final Volume of Digestate, mL / Amount of Sample, mL
CF= Conversion Factor from mg/L to ug/L, 1000

For Sample **N049836-001C** , the concentration ir ug/L is calculated as follows:

Iron , ug/L = 0.13496 * 1 * (25/25) * 1000

Iron , ug/L = 134.96

Reporting results in two significant figures,

Iron , ug/L = 130

Reviewed by:

JRB 3/24/2022

% RSD SUMMARY

RSD SUMMARY: 220316B

Instrument ID: ICP-02

Sample Name	Type	DF	Analyte	Reported Conc	RSD	Criteria	Comment
CalBlk	IBLK	1	Fe	0	0.69	15	PASS
Standard1	ICAL	1	Fe	0.02	8.29	15	PASS
Standard2	ICAL	1	Fe	0.05	2.7	15	PASS
Standard3	ICAL	1	Fe	2	0.02	15	PASS
Standard4	ICAL	1	Fe	5	0.22	15	PASS
Standard5	ICAL	1	Fe	7.5	0.1	15	PASS
Standard6	ICAL	1	Fe	10	0.05	15	PASS
Standard7	ICAL	1	Fe	20	0.09	15	PASS
ICV	ICV	1	Fe	10.05	0.13	15	PASS
ICB	ICB	1	Fe	0	167.34	15	<PQL
LLICV	CCV1	1	Fe	0.02	2.4	20	PASS
ICSA1	ICSA	1	Fe	195.87	0.26	15	PASS
ICSAB1	ICSAB	1	Fe	196.27	0.41	15	PASS
RINSE	RINSE	1	Fe	0.01	19.33	15	<PQL
RINSE	RINSE	1	Fe	0.01	15.7	15	<PQL
MB-91906	MBLK	1	Fe	0	3476.38	15	<PQL
LCS-91906	LCS	1	Fe	0.1	0.59	15	PASS
N049836-001C	SAMP	1	Fe	0.13	0.69	15	PASS
N049836-002C	SAMP	1	Fe	0.13	0.52	15	PASS
N049836-004C	SAMP	1	Fe	0.04	0.95	15	PASS
N049836-005C	SAMP	1	Fe	0.03	1.47	15	PASS
N049836-006C	SAMP	1	Fe	0	26.27	15	<PQL
N049836-007C	SAMP	1	Fe	0	13.71	15	PASS
CCV1	CCV	1	Fe	10.22	0.17	15	PASS
CCB1	CCB	1	Fe	0	22.63	15	<PQL
N049836-008C	SAMP	1	Fe	0.08	0.76	15	PASS
N049836-009C	SAMP	1	Fe	0.07	1.38	15	PASS
N049836-010C	SAMP	1	Fe	0.07	0.98	15	PASS
N049836-011C	SAMP	1	Fe	0.02	3.6	15	PASS
N049836-012C	SAMP	1	Fe	0.02	6.23	15	PASS
N049836-002C	SAMP	5	Fe	0.03	1.45	15	PASS
CCV2	CCV	1	Fe	10.59	0.02	15	PASS
CCB2	CCB	1	Fe	0.01	37.94	15	<PQL
N049836-013C	SAMP	5	Fe	0.01	3.66	15	PASS
N049836-014C	SAMP	5	Fe	0.01	5.95	15	PASS
N049836-002C	SAMP	25	Fe	0.01	5.76	15	PASS
N049836-002C-PS	PS	5	Fe	0.05	1.14	15	PASS
N049836-002C-MS	MS	5	Fe	0.05	2.36	15	PASS
N049836-002C-MSD	MSD	5	Fe	0.05	1.5	15	PASS
CCV3	CCV	1	Fe	10.53	0.17	15	PASS
CCB3	CCB	1	Fe	0	14.74	15	PASS
ICSA2	ICSA	1	Fe	199.2	0.3	15	PASS

RSD SUMMARY: 220316B

Instrument ID: ICP-02

Sample Name	Type	DF	Analyte	Reported Conc	RSD	Criteria	Comment
ICSAB2	ICSAB	1	Fe	198.56	0.15	15	PASS

ANALYSIS RUN LOG

INJECTION LOG: 220316B

Instrument ID: ICP-02

STANDARD CODE	
Standard1	MWST-211126A,0.5<50mL
Standard2	MWST-220116H,1<50mL
Standard3	MWST-220116I,5<50mL
Standard4	MWST-2201161,12.5<50mL
Standard5	MWST-220116I,15<40mL
Standard6	MWST-220116I,25<50mL
Standard7	MWST-220116I
ICV	MWST-220116V
CCV	MWST-220116I,25<50mL
ICSA/ICSAB	MWST-220116O / MWST-211922K
Int. Std. (Y)	MWST-210922B
PS Spike	MWST-220116P/Q/R

A/S Loc	Sample Name	Type	DF	Acq Date	Acq Time
1	CalBlk	IBLK	1	03/16/2022	10:37:36 AM
2	Standard1	ICAL	1	03/16/2022	10:41:41 AM
3	Standard2	ICAL	1	03/16/2022	10:45:45 AM
4	Standard3	ICAL	1	03/16/2022	10:49:51 AM
5	Standard4	ICAL	1	03/16/2022	10:53:58 AM
6	Standard5	ICAL	1	03/16/2022	10:58:04 AM
7	Standard6	ICAL	1	03/16/2022	11:02:11 AM
8	Standard7	ICAL	1	03/16/2022	11:06:18 AM
250	ICV	ICV	1	03/16/2022	11:11:15 AM
1	ICB	ICB	1	03/16/2022	11:15:25 AM
2	LLICV	CCV1	1	03/16/2022	11:24:41 AM
9	ICSA1	ICSA	1	03/16/2022	12:27:12 PM
10	ICSAB1	ICSAB	1	03/16/2022	12:32:57 PM
70	RINSE	RINSE	1	03/16/2022	12:38:42 PM
70	RINSE	RINSE	1	03/16/2022	12:42:48 PM
11	MB-91906	MBLK	1	03/16/2022	12:46:55 PM
12	LCS-91906	LCS	1	03/16/2022	12:50:57 PM
13	N049836-001C	SAMP	1	03/16/2022	12:55:01 PM
14	N049836-002C	SAMP	1	03/16/2022	01:01:07 PM
15	N049836-004C	SAMP	1	03/16/2022	01:07:12 PM
16	N049836-005C	SAMP	1	03/16/2022	01:13:17 PM
17	N049836-006C	SAMP	1	03/16/2022	01:19:22 PM
18	N049836-007C	SAMP	1	03/16/2022	01:25:30 PM
7	CCV1	CCV	1	03/16/2022	01:31:37 PM
1	CCB1	CCB	1	03/16/2022	01:35:44 PM
19	N049836-008C	SAMP	1	03/16/2022	01:39:47 PM
20	N049836-009C	SAMP	1	03/16/2022	01:45:55 PM
21	N049836-010C	SAMP	1	03/16/2022	01:52:01 PM

A/S Loc	Sample Name	Type	DF	Acq Date	Acq Time
22	N049836-011C	SAMP	1	03/16/2022	01:58:07 PM
23	N049836-012C	SAMP	1	03/16/2022	02:04:15 PM
26	N049836-002C	SAMP	5	03/16/2022	02:16:10 PM
7	CCV2	CCV	1	03/16/2022	02:35:45 PM
1	CCB2	CCB	1	03/16/2022	02:39:53 PM
30	N049836-013C	SAMP	5	03/16/2022	02:50:32 PM
31	N049836-014C	SAMP	5	03/16/2022	02:54:38 PM
32	N049836-002C	SAMP	25	03/16/2022	02:58:45 PM
33	N049836-002C-PS	PS	5	03/16/2022	03:02:51 PM
34	N049836-002C-MS	MS	5	03/16/2022	03:06:59 PM
35	N049836-002C-MSD	MSD	5	03/16/2022	03:11:06 PM
7	CCV3	CCV	1	03/16/2022	03:15:10 PM
1	CCB3	CCB	1	03/16/2022	03:19:18 PM
9	ICSA2	ICSA	1	03/16/2022	03:23:22 PM
10	ICSAB2	ICSAB	1	03/16/2022	03:29:07 PM

SAMPLE PREPARATION LOG

ASSET Laboratories

PREP BATCH REPORT

Prep Start Date: **3/15/2022 10:21:34**
Prep End Date: **3/15/2022 3:00:00 P**

Reviewed/ Date: JRB for 3/24/2022

Initials/ Date: _____

Prep Batch **91906** Prep Code: **3010_W_DISS** Technician: **Claire Ignacio**

Prep Factor Units
mL / mL

Sample ID	Matrix	pH	SampAmt	3 Replicates	Fin Vol	factor	Clean Up Code	TURB Check
LCS-91906	Aqueous		25	☐	25	1.000		
MB-91906	Aqueous		25	☐	25	1.000		
N049836-001C	Groundwater	<2	25	☐	25	1.000		
N049836-002C	Groundwater	<2	25	☐	25	1.000		
N049836-002C-MS	Groundwater	<2	25	☐	25	1.000		
N049836-002C-MS	Groundwater	<2	25	☐	25	1.000		
N049836-004C	Groundwater	<2	25	☐	25	1.000		
N049836-005C	Groundwater	<2	25	☐	25	1.000		
N049836-006C	Groundwater	<2	25	☐	25	1.000		
N049836-007C	Groundwater	<2	25	☐	25	1.000		
N049836-008C	Groundwater	<2	25	☐	25	1.000		
N049836-009C	Groundwater	<2	25	☐	25	1.000		
N049836-010C	Groundwater	<2	25	☐	25	1.000		
N049836-011C	Groundwater	<2	25	☐	25	1.000		

Clean Up Code: A = ACID; F = FLORISIL; S = SILICA GEL; M = MERCURY; G = GPC

Number	Reagent Name
13361	NITRIC ACID
13370	HYDROCHLORIC ACID

Spk ID	Spike Name	SampType	AmtAdd
MWST-220116P	ICP Solution A	LCS,MS,MSD	0.5
MWST-220116Q	ICP Solution B	LCS,MS,MSD	0.5
MWST-220116R	ICP Solution C	LCS,MS,MSD	0.5

ASSET Laboratories

PREP BATCH REPORT

Prep Start Date: **3/15/2022 10:21:34**
Prep End Date: **3/15/2022 3:00:00 P**

Reviewed/ Date: JRB for 3/24/2022

Initials/ Date: _____

Prep Batch **91906** Prep Code: **3010_W_DISS** Technician: **Claire Ignacio**

Prep Factor Units
mL / mL

Sample ID	Matrix	pH	SampAmt	3 Replicates	Fin Vol	factor	Clean Up Code	TURB Check
N049836-012C	Groundwater	<2	25	☐	25	1.000		
N049836-013C	Groundwater	<2	25	☐	25	1.000		
N049836-014C	Groundwater	<2	25	☐	25	1.000		

Clean Up Code: A = ACID; F = FLORISIL; S = SILICA GEL; M = MERCURY; G = GPC

Number	Reagent Name
13361	NITRIC ACID
13370	HYDROCHLORIC ACID

Spk ID	Spike Name	SampType	AmtAdd
MWST-220116P	ICP Solution A	LCS,MS,MSD	0.5
MWST-220116Q	ICP Solution B	LCS,MS,MSD	0.5
MWST-220116R	ICP Solution C	LCS,MS,MSD	0.5

INITIAL CALIBRATION DATA SUMMARY

INITIAL CALIBRATION SUMMARY: 220316B

Instrument ID: ICP-02

Sample ID	Date	Time	Elem	Wavelength	Corrected Intensity	Concentration	Units	R
Iron								
CalBlk	03/16/2022	10:37:36 AM	Fe	273.953	-121	0.00	mg/L	
Standard1	03/16/2022	10:41:41 AM	Fe	273.953	347	0.0200	mg/L	
Standard2	03/16/2022	10:45:45 AM	Fe	273.953	853	0.050	mg/L	
Standard3	03/16/2022	10:49:51 AM	Fe	273.953	26709	2.000	mg/L	
Standard4	03/16/2022	10:53:58 AM	Fe	273.953	66617	5.000	mg/L	
Standard5	03/16/2022	10:58:04 AM	Fe	273.953	99924	7.500	mg/L	
Standard6	03/16/2022	11:02:11 AM	Fe	273.953	133065	10.000	mg/L	
Standard7	03/16/2022	11:06:18 AM	Fe	273.953	264055	20.000	mg/L	1.0000

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **ICV** SampType: **ICV** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ICV** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566493**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	10045.045	20	10000	0	100	90	110				

Sample ID: **LLICV** SampType: **CCV1** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ZZZZZZ** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	22.626	20	20.00	0	113	80	120				

Sample ID: **CCV1** SampType: **CCV** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **CCV** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	10219.626	20	10000	0	102	90	110				

Sample ID: **CCV2** SampType: **CCV** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **CCV** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566514**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	10588.584	20	10000	0	106	90	110				

Sample ID: **CCV3** SampType: **CCV** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **CCV** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566522**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	10525.513	20	10000	0	105	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

SUMMARY OF INSTRUMENT BLANKS

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **ICB**	SampType: **ICB**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date:	RunNo: **160886**
Client ID: **ICB**	Batch ID: **R160886**	TestNo: **EPA 6010B**		Analysis Date: **3/16/2022**	SeqNo: **4566494**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.655	20									

Sample ID: **CCB1**	SampType: **CCB**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date:	RunNo: **160886**
Client ID: **CCB**	Batch ID: **R160886**	TestNo: **EPA 6010B**		Analysis Date: **3/16/2022**	SeqNo: **4566507**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	2.955	20									

Sample ID: **CCB2**	SampType: **CCB**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date:	RunNo: **160886**
Client ID: **CCB**	Batch ID: **R160886**	TestNo: **EPA 6010B**		Analysis Date: **3/16/2022**	SeqNo: **4566515**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	5.176	20									

Sample ID: **CCB3**	SampType: **CCB**	TestCode: **6010_WDPGE**	Units: **µg/L**	Prep Date:	RunNo: **160886**
Client ID: **CCB**	Batch ID: **R160886**	TestNo: **EPA 6010B**		Analysis Date: **3/16/2022**	SeqNo: **4566523**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	3.337	20									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

SUMMARY OF INSTRUMENT CHECK (ICSA & ICSAB)

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **ICSA1** SampType: **ICSA** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ICSA** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	551497.281	50	500000	0	110	80	120				
Calcium	578590.924	500	500000	0	116	80	120				
Iron	195866.858	20	200000	0	97.9	80	120				
Magnesium	584548.407	100	500000	0	117	80	120				

Sample ID: **ICSAB1** SampType: **ICSAB** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ICSAB** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566497**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	553402.595	50	500000	0	111	80	120				
Calcium	576944.424	500	500000	0	115	80	120				
Iron	196266.257	20	200000	0	98.1	80	120				
Magnesium	585918.788	100	500000	0	117	80	120				

Sample ID: **ICSA2** SampType: **ICSA** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ICSA** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566524**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	549468.342	50	500000	0	110	80	120				
Calcium	565153.607	500	500000	0	113	80	120				
Iron	199198.620	20	200000	0	99.6	80	120				
Magnesium	594114.044	100	500000	0	119	80	120				

Sample ID: **ICSAB2** SampType: **ICSAB** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ICSAB** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566525**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	546638.312	50	500000	0	109	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **ICSAB2** SampType: **ICSAB** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ICSAB** Batch ID: **R160886** TestNo: **EPA 6010B** Analysis Date: **3/16/2022** SeqNo: **4566525**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	563640.390	500	500000	0	113	80	120				
Iron	198563.829	20	200000	0	99.3	80	120				
Magnesium	592365.054	100	500000	0	118	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

INTERNAL STANDARD SUMMARY

INTERNAL STANDARD: 220316B

Instrument ID: ICP-02

Sample Name	Type	DF	Yttrium, 1.0 mg/L			
			Reported Conc	%REC	Criteria	Comment
CalBlk	IBLK	1	1	100	65-125	PASS
Standard1	ICAL	1	1	99.97	65-125	PASS
Standard2	ICAL	1	1.04	103.55	65-125	PASS
Standard3	ICAL	1	1	100.2	65-125	PASS
Standard4	ICAL	1	1	100.02	65-125	PASS
Standard5	ICAL	1	0.99	99.48	65-125	PASS
Standard6	ICAL	1	0.99	99.07	65-125	PASS
Standard7	ICAL	1	0.99	98.97	65-125	PASS
ICV	ICV	1	1	99.78	65-125	PASS
ICB	ICB	1	1.01	100.52	65-125	PASS
LLICV	CCV1	1	1.02	101.83	65-125	PASS
ICSA1	ICSA	1	0.9	89.82	65-125	PASS
ICSAB1	ICSAB	1	0.89	89.36	65-125	PASS
RINSE	RINSE	1	1.01	100.8	65-125	PASS
RINSE	RINSE	1	1.01	100.58	65-125	PASS
MB-91906	MBLK	1	1	100.17	65-125	PASS
LCS-91906	LCS	1	0.95	95.18	65-125	PASS
N049836-001C	SAMP	1	0.75	74.99	65-125	PASS
N049836-002C	SAMP	1	0.76	76.28	65-125	PASS
N049836-004C	SAMP	1	0.72	71.77	65-125	PASS
N049836-005C	SAMP	1	0.87	86.64	65-125	PASS
N049836-006C	SAMP	1	0.77	77.36	65-125	PASS
N049836-007C	SAMP	1	0.89	89.02	65-125	PASS
CCV1	CCV	1	1.02	102.07	65-125	PASS
CCB1	CCB	1	1.02	102.08	65-125	PASS
N049836-008C	SAMP	1	0.97	97.38	65-125	PASS
N049836-009C	SAMP	1	0.88	87.59	65-125	PASS
N049836-010C	SAMP	1	0.87	87.17	65-125	PASS
N049836-011C	SAMP	1	0.97	96.59	65-125	PASS
N049836-012C	SAMP	1	0.95	95.14	65-125	PASS
N049836-002C	SAMP	5	0.94	93.73	65-125	PASS
CCV2	CCV	1	1	100.23	65-125	PASS
CCB2	CCB	1	1.01	100.51	65-125	PASS
N049836-013C	SAMP	5	0.97	96.64	65-125	PASS
N049836-014C	SAMP	5	0.97	96.87	65-125	PASS
N049836-002C	SAMP	25	1.02	102.54	65-125	PASS
N049836-002C-PS	PS	5	0.95	95.43	65-125	PASS
N049836-002C-MS	MS	5	0.97	96.62	65-125	PASS
N049836-002C-MSD	MSD	5	0.97	97.13	65-125	PASS
CCV3	CCV	1	1.06	105.63	65-125	PASS
CCB3	CCB	1	1.06	106.12	65-125	PASS

INTERNAL STANDARD: 220316B

Instrument ID: ICP-02

Sample Name	Type	DF	Yttrium, 1.0 mg/L			
			Reported Conc	%REC	Criteria	Comment
ICSA2	ICSA	1	0.94	93.64	65-125	PASS
ICSAB2	ICSAB	1	0.94	93.81	65-125	PASS

SERIAL DILUTION/
POST DIGESTION SPIKE

ASSET Laboratories

ICP-Metals in Water

Dilution Test Summary

Work Order No.: 91906
Test Method: EPA 6010B
Analysis Date: 3/16/2022

Matrix: Groundwater
Batch No.: 91906

Instrument ID: ICP-02
Instrument Description: Perkin Elmer Optima 7300DV

Comments:

Analyzed By: Diane Jetajobe

Dilution test is not applicable to Fe. The calculated concentration is <25RL.

Sample ID	Analyte	Symbol	Units	Calc Val	Oqual	SAMPRefVal	%DIFF	%DIFFlimit
N049836-002C DT 25x	Iron	Fe	µg/L	0	NA	155.9405	100.00%	10

Reviewed by:

JRB 3/24/2022

Note: NA - Not Applicable

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_WDPGEPPB

Sample ID: **N049836-002C-PS** SampType: **PS** TestCode: **6010_WDPGE** Units: **µg/L** Prep Date: RunNo: **160886**
Client ID: **ZZZZZZ** Batch ID: **91906** TestNo: **EPA 6010B** **EPA 3010A** Analysis Date: **3/16/2022** SeqNo: **4566519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	242.928	100	100.0	155.9	87.0	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

MDL STUDY

Method Detection Limit

Method Name: **Metals by ICP**
Method Number **EPA 6010B / 200.7**
Analysis Date: 9/14-10/20/20
Instrument Name: ICP-02
Analyst/Technician: MEI/DJ

Analyte	MDLs	MDLb	MDL
Beryllium	0.00015	0.00017	0.00017
Boron	0.03512	0.01726	0.03512
Magnesium	0.01676	0.00844	0.01676
Silicon	0.01615	0.00393	0.01615
Chromium	0.00138	0.00027	0.00138
Manganese	0.00267	0.00038	0.00267
Iron	0.01271	0.00241	0.01271
Cobalt	0.00077	0.00066	0.00077
Nickel	0.00430	0.00185	0.00430
Copper	0.00123	0.00129	0.00129
Zinc	0.00818	0.00113	0.00818
Arsenic	0.00799	0.00899	0.00899
Selenium	0.00935	0.00839	0.00935
Molybdenum	0.00324	0.00168	0.00324
Silver	0.00098	0.00117	0.00117
Cadmium	0.00046	0.00030	0.00046
Tin	0.00933	0.00433	0.00933
Antimony	0.00740	0.00842	0.00842
Barium	0.00050	0.00067	0.00067
Thallium	0.00843	0.00635	0.00843
Lead	0.00190	0.00105	0.00190
Calcium	0.18093	0.14705	0.18093
Vanadium	0.00027	0.00053	0.00053
Aluminum	0.02034	0.01114	0.02034
Titanium	0.00192	0.00025	0.00192
Potassium	0.07902	0.13882	0.13882
Sodium	0.06553	0.34000	0.34000
Strontium	0.00306	-0.00043	0.00306

Method Name: **Metals by ICP** **Matrix:** **WATER**
Method Number **EPA 6010B / 200.7** Unit: mg/L
Analysis Date: 9/14-10/20/20
Instrument Name: ICP-02
Analyst/Technician: MEI/DJ

Analyte	1	2	3	4	5	6	7	SD	MDLs	AMT SPIKED(ppm)	PQL
Beryllium	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011	0.0010	0.00005	0.00015	0.0010	0.0010
Boron	0.1341	0.1177	0.1120	0.1196	0.1101	0.1179	0.0972	0.01119	0.03512	0.1000	0.1000
Magnesium	0.1003	0.1017	0.1022	0.1030	0.1022	0.1147	0.0982	0.00534	0.01676	0.1000	0.1000
Silicon	0.0165	0.0162	0.0212	0.0143	0.0145	0.0083	0.0061	0.00514	0.01615	0.0200	0.0200
Chromium	0.0012	0.0011	0.0011	0.0006	0.0009	0.0016	0.0019	0.00044	0.00138	0.0010	0.0010
Manganese	0.0114	0.0114	0.0119	0.0104	0.0132	0.0115	0.0112	0.00085	0.00267	0.0100	0.0100
Iron	0.0257	0.0250	0.0279	0.0234	0.0224	0.0346	0.0254	0.00405	0.01271	0.0200	0.0200
Cobalt	0.0025	0.0023	0.0023	0.0028	0.0024	0.0029	0.0027	0.00024	0.00077	0.0025	0.0025
Nickel	0.0062	0.0062	0.0060	0.0065	0.0061	0.0071	0.0099	0.00137	0.00430	0.0050	0.0050
Copper	0.0055	0.0049	0.0049	0.0054	0.0053	0.0055	0.0060	0.00039	0.00123	0.0050	0.0050
Zinc	0.0118	0.0115	0.0118	0.0111	0.0178	0.0103	0.0102	0.00261	0.00818	0.0100	0.0100
Arsenic	0.0172	0.0132	0.0120	0.0136	0.0145	0.0118	0.0089	0.00254	0.00799	0.0100	0.0100
Selenium	0.0070	0.0076	0.0074	0.0114	0.0074	0.0138	0.0131	0.00298	0.00935	0.0100	0.0100
Molybdenum	0.0064	0.0054	0.0043	0.0070	0.0055	0.0073	0.0057	0.00103	0.00324	0.0050	0.0050
Silver	0.0022	0.0024	0.0023	0.0019	0.0018	0.0027	0.0025	0.00031	0.00098	0.0025	0.0025
Cadmium	0.0030	0.0030	0.0030	0.0028	0.0027	0.0028	0.0027	0.00015	0.00046	0.0025	0.0025
Tin	0.0117	0.0114	0.0120	0.0103	0.0168	0.0076	0.0085	0.00297	0.00933	0.0100	0.0100
Antimony	0.0098	0.0115	0.0098	0.0142	0.0121	0.0163	0.0115	0.00236	0.00740	0.0100	0.0100
Barium	0.0031	0.0030	0.0030	0.0033	0.0030	0.0032	0.0034	0.00016	0.00050	0.0025	0.0025
Thallium	0.0134	0.0103	0.0095	0.0149	0.0153	0.0159	0.0159	0.00268	0.00843	0.0150	0.0150
Lead	0.0046	0.0055	0.0055	0.0058	0.0061	0.0063	0.0050	0.00061	0.00190	0.0050	0.0050
Calcium	0.2701	0.2125	0.2303	0.2106	0.1214	0.1336	0.1343	0.05762	0.18093	0.2000	0.2000
Vanadium	0.0025	0.0024	0.0024	0.0025	0.0026	0.0026	0.0026	0.00009	0.00027	0.0025	0.0025
Aluminum	0.0627	0.0613	0.0653	0.0533	0.0535	0.0698	0.0544	0.00648	0.02034	0.0500	0.0500
Titanium	0.0097	0.0097	0.0096	0.0096	0.0094	0.0108	0.0108	0.00061	0.00192	0.0100	0.0100

BLANK

Analyte	1	2	3	4	5	6	7	SD	MDLb	AMT SPIKED(ppm)	PQL
Beryllium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00003	0.00017	0.0000	0.001
Boron	0.004	0.002	-0.002	-0.008	-0.003	0.008	0.003	0.00530	0.01726	0.0020	0.100
Magnesium	0.003	0.002	0.001	0.002	-0.002	0.003	0.004	0.00203	0.00844	0.0020	0.100
Silicon	-0.006	-0.006	-0.006	-0.002	-0.007	-0.011	-0.013	0.00358	0.00393	0.0004	0.020
Chromium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00013	0.00027	0.0000	0.001
Manganese	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00010	0.00038	0.0002	0.010
Iron	0.001	0.000	-0.001	0.001	0.000	0.000	-0.001	0.00072	0.00241	0.0004	0.020
Cobalt	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00023	0.00066	0.0001	0.003
Nickel	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.00038	0.00185	0.0001	0.005
Copper	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.00029	0.00129	0.0001	0.005
Zinc	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.00032	0.00113	0.0002	0.010
Arsenic	0.004	0.004	0.004	0.001	0.001	-0.002	0.000	0.00229	0.00899	0.0002	0.010
Selenium	-0.005	-0.005	-0.005	-0.001	-0.001	0.001	0.003	0.00325	0.00839	0.0002	0.010
Molybdenum	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.00045	0.00168	0.0001	0.005
Silver	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.00038	0.00117	0.0001	0.003
Cadmium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00008	0.00030	0.0001	0.003
Tin	0.000	0.001	0.001	-0.001	-0.001	-0.003	-0.003	0.00160	0.00433	0.0002	0.010
Antimony	-0.004	0.000	0.000	0.004	-0.001	0.002	0.001	0.00260	0.00842	0.0002	0.010
Barium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00013	0.00067	0.0001	0.003
Thallium	-0.004	-0.003	-0.005	-0.002	0.000	0.001	0.001	0.00259	0.00635	0.0003	0.015
Lead	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	0.00030	0.00105	0.0001	0.005
Calcium	0.080	0.004	0.031	0.008	-0.065	0.002	-0.031	0.04553	0.14705	0.0040	0.200
Vanadium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00016	0.00053	0.0001	0.003
Aluminum	0.004	0.005	0.002	0.000	-0.004	-0.002	-0.003	0.00353	0.01114	0.0010	0.050
Titanium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00006	0.00025	0.0002	0.010

EPA 6020
Dissolved

Metals Technical Batch Review Checklist (ARCUS02)

ASSET LABORATORIES - LAS VEGAS

FIRST LEVEL REVIEW:

QC Batch Number: 91905
ASSET #: N049836
Instrument ID: ICPMS-03
Analyst: CEI
Date Analyzed: 3/15/2022

Method:

[ ] EPA 6010B / 200.7
[X] EPA 6020 / 200.8
[ ] EPA 7470A / 7471A/245.1
[ ] Other _____

Initial Calibration and Initial Calibration Verification	1st Level Review			2nd Level Review		
	Y	N	N/A	Y	N	N/A
1. Does correlation coefficient,r, meet criteria ?(r = 0.995)	X			X		
2. For ICV, all analytes within ± 10% of expected value? (±5% for EPA 200.7)	X			X		
3. Does the ICP/MS meet tune criteria? (ICP/MS only)	X			X		
4. % RSD calculated from 3 injections?	X			X		
5. Is low level check at PQL within ± 20% of expected value? (ICP/ICPMS only)	X			X		
Interference Check						
6. ICS A and AB at the start and end of sequence or twice during an 8-hr period.	X			X		
7. Are ICSA and AB within ± 20% of expected value?	X			X		
Continuing Calibration						
8. CCV after every 10 samples and end of analysis sequence.	X			X		
9. For CCV, all analytes within ± 10% of expected value?		X			X	
10. Calibration blank after ICVand CCV analysis.	X			X		
11. Do all calibration blanks (ICB and CCBs) meet criteria? (< 1/2 PQL)		X			X	
12 Is low level check twice during 8 hr period or at end within ± 30% of expected value? (ICP/ICPMS only)	X			X		
Sample Information						
13. All samples are within linear dynamic range.		X			X	
14. All hits above PQL have %RSD of less than or equal to 15%? (ICP/ICPMS only)		X			X	
15. Are all samples analyzed/digested within hold time.	X			X		
16. Dilution test performed and within ± 10% of undiluted sample.	X			X		
17. When dilution test fails, post digestion spike recovery within 80-120% of expected value.			X			X
18. For samples < 4 ppb, does the Cr result differs with Cr6+ by no more than 0.7 ppb?	X		X	X		X
19 For samples > 4 ppb, does the Cr result differs with Cr6+ by no more than 20%?		X	X		X	X
20. For samples that failed Cr6 vs CrT criteria, are samples reanalyzed for confirmation?	X		X	X		X
21. For samples with Total and Dissolved analysis, is Total concentration higher or equal to Dissolved concentration?			X			X
QC Items						
22. IS are within control limits (70-125% for ICPMS).		X			X	
23. Method blank values are below 1/2 the reporting limit.	X			X		
24. LCS compounds within control limits.	X			X		
25. MS/MSD, RPD's are within control limits	X			X		
Raw Data and Miscellaneous Information						
26. Are Non-Conformances documented			X			X
27. Runlog complete and included in package.	X			X		
28. Digestion log complete and included in package (if applicable)	X			X		
29. All sample raw data present in package.	X			X		
Preliminary Report						
30. Does the raw data match the preliminary report?	X			X		
31. Are analytical results correct?(Ex. dilutions, calculations.etc.)	X			X		
32. Are special instructions met?	X			X		

Comments: Sample 1 and 2 reanalyzed for Cr confirmation.

Detection of Cr in CCB9 / CCB10 / ICSA5 is greater than PQL. For rerun.
Detection of As in CCB7 / CCB8 is greater than 1/2 PQL. For rerun.
Detection of Ba in CCB7 is greater than 1/2 PQL. For rerun.
Detection of Se in CCB8 / ICSA5 is greater than 1/2 PQL. For rerun.
% Rec of As, Ba and Se in several IQCs failed, high bias. For rerun.
IS of Ba in N049836-013C / 0014C failed. For rerun.
% RSD of As in N049836-008C failed. For rerun.
% RSD of Mn in N049836-006C failed. For rerun.
Cr is OLR in N049836-006C / 007C / 008C / 009C / 010C / 011C / 012C / 013C / 014C. For dilution.

	Yes	No	N/A
1. All assigned sample(s) analyzed	X		
2. Matrix / units correct	X		
3. Does batch meet QC requirements?	X		
4. Are analytical results correct? (Ex. dilutions, calculations.etc.)	X		
5. Is first level review correct and complete?	X		

1st Level Reviewer CEI Date: —
2nd Level Reviewer LG 3/20/2022 Date:

Metals Technical Batch Review Checklist (ARCUS02)

ASSET LABORATORIES - LAS VEGAS

FIRST LEVEL REVIEW:

QC Batch Number: 91905
ASSET #: N049836
Instrument ID: ICPMS-03
Analyst: CEI
Date Analyzed: 3/16/2022

Method:

[ ] EPA 6010B / 200.7
[X] EPA 6020 / 200.8
[ ] EPA 7470A / 7471A/245.1
[ ] Other _____

Initial Calibration and Initial Calibration Verification	1st Level Review			2nd Level Review		
	Y	N	N/A	Y	N	N/A
1. Does correlation coefficient,r, meet criteria ?(r = 0.995)	X			X		
2. For ICV, all analytes within ± 10% of expected value? (±5% for EPA 200.7)	X			X		
3. Does the ICP/MS meet tune criteria? (ICP/MS only)	X			X		
4. % RSD calculated from 3 injections?	X			X		
5. Is low level check at PQL within ± 20% of expected value? (ICP/ICPMS only)	X			X		
Interference Check						
6. ICS A and AB at the start and end of sequence or twice during an 8-hr period.	X			X		
7. Are ICSA and AB within ± 20% of expected value?	X			X		
Continuing Calibration						
8. CCV after every 10 samples and end of analysis sequence.	X			X		
9. For CCV, all analytes within ± 10% of expected value?	X			X		
10. Calibration blank after ICVand CCV analysis.	X			X		
11. Do all calibration blanks (ICB and CCBs) meet criteria? (< 1/2 PQL)	X			X		
12 Is low level check twice during 8 hr period or at end within ± 30% of expected value? (ICP/ICPMS only)	X			X		
Sample Information						
13. All samples are within linear dynamic range.	X			X		
14. All hits above PQL have %RSD of less than or equal to 15%? (ICP/ICPMS only)	X			X		
15. Are all samples analyzed/digested within hold time.	X			X		
16. Dilution test performed and within ± 10% of undiluted sample.	X			X		
17. When dilution test fails, post digestion spike recovery within 80-120% of expected value.	X			X		
18. For samples < 4 ppb, does the Cr result differs with Cr6+ by no more than 0.7 ppb?			X			X
19 For samples > 4 ppb, does the Cr result differs with Cr6+ by no more than 20%?	X		X	X		X
20. For samples that failed Cr6 vs CrT criteria, are samples reanalyzed for confirmation?			X			X
21. For samples with Total and Dissolved analysis, is Total concentration higher or equal to Dissolved concentration?			X			X
QC Items						
22. IS are within control limits (70-125% for ICPMS).	X			X		
23. Method blank values are below 1/2 the reporting limit.	X			X		
24. LCS compounds within control limits.	X			X		
25. MS/MSD, RPD's are within control limits		X			X	
Raw Data and Miscellaneous Information						
26. Are Non-Conformances documented			X			X
27. Runlog complete and included in package.	X			X		
28. Digestion log complete and included in package (if applicable)	X			X		
29. All sample raw data present in package.	X			X		
Preliminary Report						
30. Does the raw data match the preliminary report?	X			X		
31. Are analytical results correct?(Ex. dilutions, calculations.etc.)	X			X		
32. Are special instructions met?	X			X		

Comments: Mn
As, Ba, Cr and Se rerun.
Mn rerun for N049836-006C.
% Rec of As in N049836-001C-MS/MSD failed, low bias. However, LCS passed criteria.
Dilution test for As failed. However, PS passed criteria.

	Yes	No	N/A
1. All assigned sample(s) analyzed	X		
2. Matrix / units correct	X		
3. Does batch meet QC requirements?	X		
4. Are analytical results correct? (Ex. dilutions, calculations.etc.)	X		
5. Is first level review correct and complete?	X		

1st Level Reviewer CEI Date: —
2nd Level Reviewer LG 3/20/2022 Date:

SAMPLE CALCULATION

SAMPLE CALCULATION

METHOD: EPA 6020
TEST NAME: Heavy Metals by ICP-MS
MATRIX: Groundwater

FORMULA:

Calculate the Selenium concentration, in ug/L in the original sample as follows:

Selenium , ug/L = A * DF * PF

where:

A = ug/L, calculated concentration
DF = Dilution Factor
PF = Final Volume of Digestate, mL / Amount of Sample, mL

For Sample **N049836-001C** , the concentration in ug/L is calculated as follows:

Selenium , ug/L = 75.5317 * 1 *(25 / 25)

Selenium , ug/L = 75.5317

Reporting results in two significant figures,

Selenium , ug/L = 76

Reviewed by:

JRB 3/24/2022

% RSD SUMMARY

PERCENT RSD SUMMARY: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	137 Ba [3]				52 Cr [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
Cal Blk	IBLK	1	0	N/A	15	<PQL	0	N/A	15	<PQL
Std1-0.1/1 ppb	ICAL	1	0.16	13.748	15	PASS	0.11	7.025	15	PASS
Std2-0.5/5 ppb	ICAL	1	0.61	4.927	15	PASS	0.56	1.571	15	PASS
Std3-5/50 ppb	ICAL	1	5.21	2.138	15	PASS	5.39	0.643	15	PASS
Std4-10/100 ppb	ICAL	1	10.29	0.632	15	PASS	10.53	1.672	15	PASS
Std5-20/200 ppb	ICAL	1	20.33	1.308	15	PASS	21.36	1.098	15	PASS
Std6-40/400 ppb	ICAL	1	39.74	1.989	15	PASS	42.18	0.961	15	PASS
Std7-100/1000 ppb	ICAL	1	97.88	0.703	15	PASS	103.73	0.668	15	PASS
Std8-200/2000 ppb	ICAL	1	188.99	0.651	15	PASS	197.53	1.871	15	PASS
ICV	ICV	1	9.29	0.924	15	PASS	10.28	0.895	15	PASS
ICB	ICB	1	0	4116.37	15	<PQL	0	94.645	15	<PQL
LLICV	CCV1	1	1.01	9.971	20	PASS	1.06	2.488	20	PASS
ICSA1	ICSA	1	0.25	6.38	15	PASS	0.07	18.02	15	<PQL
ICSAB1	ICSAB	1	19.66	0.881	15	PASS	21.18	0.538	15	PASS
CCV1	CCV	1	20.1	1.114	15	PASS	21.8	1.285	15	PASS
CCB1	CCB	1	0.01	104.596	15	<PQL	<0.000	N/A	15	<PQL
CCV2	CCV	1	20.82	0.743	15	PASS	21.85	0.311	15	PASS
CCB2	CCB	1	0.02	34.032	15	<PQL	0	986.895	15	<PQL
ICSA2	ICSA	1	0.26	10.372	15	PASS	0.07	20.876	15	<PQL
ICSAB2	ICSAB	1	20.84	0.723	15	PASS	21.17	1.086	15	PASS
CCV3	CCV	1	21.7	0.523	15	PASS	21.09	0.639	15	PASS
CCB3	CCB	1	0.01	109.623	15	<PQL	<0.000	N/A	15	<PQL
CCV4	CCV	1	21.87	1.293	15	PASS	21	1.133	15	PASS
CCB4	CCB	1	0	117.722	15	<PQL	<0.000	N/A	15	<PQL
ICSA3	ICSA	1	0.26	4.827	15	PASS	0.04	11.341	15	PASS
ICSAB3	ICSAB	1	21.3	1.455	15	PASS	20.66	0.765	15	PASS
CCV5	CCV	1	21.86	1.149	15	PASS	20.74	1.232	15	PASS
CCB5	CCB	1	0	160.233	15	<PQL	<0.000	N/A	15	<PQL
CCV6	CCV	1	21.62	2.017	15	PASS	21.11	0.503	15	PASS
CCB6	CCB	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSA4	ICSA	1	0.25	6.137	15	PASS	0.04	3.679	15	PASS
ICSAB4	ICSAB	1	21.66	1.64	15	PASS	20.82	0.831	15	PASS
MB-91905	MBLK	1	0.01	164.589	15	<PQL	<0.000	N/A	15	<PQL
LCS-91905	LCS	1	9.8	1.073	15	PASS	10.21	1.325	15	PASS
N049836-001C	SAMP	1	34.55	2.522	15	PASS	5.85	0.994	15	PASS
N049836-001C	SAMP	5	7.04	2.087	15	PASS	1.21	3.743	15	PASS
N049836-001C	SAMP	25	1.32	3.88	15	PASS	0.21	7.36	15	PASS
N049836-001C-PS	PS	1	44.86	2.385	15	PASS	15.51	0.772	15	PASS
N049836-001C-PS	PS	5	9.21	4.368	15	PASS	3.18	1.852	15	PASS
N049836-001C-MS	MS	1	45.03	0.701	15	PASS	15.18	1.6	15	PASS
N049836-001C-MS	MS	5	8.95	2.143	15	PASS	3.07	1.702	15	PASS

PERCENT RSD SUMMARY: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	137 Ba [3]				52 Cr [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
CCV7	CCV	1	21.77	1.812	15	PASS	21.18	1.748	15	PASS
CCB7	CCB	1	0.01	218.294	15	<PQL	<0.000	N/A	15	<PQL
N049836-001C-MSD	MSD	1	44.65	2.194	15	PASS	15.37	1.797	15	PASS
N049836-001C-MSD	MSD	5	8.95	4.458	15	PASS	3.18	1.744	15	PASS
N049836-002C	SAMP	1	35.57	1.371	15	PASS	5.78	2.208	15	PASS
N049836-002C	SAMP	5	7.44	3.387	15	PASS	1.19	4.124	15	PASS
N049836-004C	SAMP	1	48.07	0.874	15	PASS	0.54	4.629	15	PASS
N049836-004C	SAMP	5	9.48	5.404	15	PASS	0.1	24.897	15	<PQL
N049836-005C	SAMP	1	55.58	1.776	15	PASS	645.08	2.036	15	PASS
N049836-005C	SAMP	5	11.8	3.939	15	PASS	131.63	0.713	15	PASS
N049836-006C	SAMP	1	44.84	2.031	15	PASS	2057.82	1.461	15	PASS
N049836-006C	SAMP	5	8.83	7.016	15	PASS	406.63	1.102	15	PASS
CCV8	CCV	1	22.96	2.759	15	PASS	20.84	0.404	15	PASS
CCB8	CCB	1	<0.000	N/A	15	<PQL	0.2	7.014	15	PASS
N049836-007C	SAMP	1	43.76	2.255	15	PASS	2074.86	1.339	15	PASS
N049836-007C	SAMP	5	8.65	5.947	15	PASS	416.78	0.137	15	PASS
N049836-008C	SAMP	1	84.76	0.325	15	PASS	2755.35	0.686	15	PASS
N049836-008C	SAMP	5	17.33	2.942	15	PASS	552.22	1.195	15	PASS
N049836-009C	SAMP	1	39.82	2.303	15	PASS	3290.11	0.582	15	PASS
N049836-009C	SAMP	5	8.62	1.45	15	PASS	656.38	0.973	15	PASS
N049836-010C	SAMP	1	40.63	3.534	15	PASS	3237.96	2.254	15	PASS
N049836-010C	SAMP	5	7.94	3.755	15	PASS	660.73	1.139	15	PASS
N049836-011C	SAMP	1	46.1	1.007	15	PASS	1467.08	0.947	15	PASS
N049836-011C	SAMP	5	9.51	1.128	15	PASS	291.38	1.254	15	PASS
CCV9	CCV	1	22.44	0.553	15	PASS	21.87	1.781	15	PASS
CCB9	CCB	1	0	4321.74	15	<PQL	1.28	3.253	15	PASS
N049836-012C	SAMP	1	46.3	2.686	15	PASS	1450.47	0.158	15	PASS
N049836-012C	SAMP	5	9.3	2.425	15	PASS	290.6	0.943	15	PASS
N049836-013C	SAMP	1	38.75	2.077	15	PASS	2062.36	1.866	15	PASS
N049836-013C	SAMP	5	7.67	7.836	15	PASS	427.41	2.778	15	PASS
N049836-014C	SAMP	1	36.86	2.857	15	PASS	2041.63	1.491	15	PASS
N049836-014C	SAMP	5	7.6	8.707	15	PASS	413.98	1.234	15	PASS
CCV10	CCV	1	22.15	1.36	15	PASS	21.71	0.586	15	PASS
CCB10	CCB	1	<0.000	N/A	15	<PQL	1.23	6.404	15	PASS
ICSA5	ICSA	1	0.32	10.156	15	PASS	1.66	2.024	15	PASS
ICSAB5	ICSAB	1	22.25	1.53	15	PASS	22.05	0.686	15	PASS

PERCENT RSD SUMMARY: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	55 Mn [2]				75 As [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
Cal Blk	IBLK	1	0	N/A	15	<PQL	0	N/A	15	<PQL
Std1-0.1/1 ppb	ICAL	1	0.16	7.689	15	PASS	0.1	10.957	15	PASS
Std2-0.5/5 ppb	ICAL	1	0.57	5.043	15	PASS	0.56	3.089	15	PASS
Std3-5/50 ppb	ICAL	1	5.33	1.627	15	PASS	5.39	3.43	15	PASS
Std4-10/100 ppb	ICAL	1	10.38	1.544	15	PASS	10.43	1.002	15	PASS
Std5-20/200 ppb	ICAL	1	21.49	1.49	15	PASS	20.77	0.948	15	PASS
Std6-40/400 ppb	ICAL	1	41.35	1.061	15	PASS	40.82	0.772	15	PASS
Std7-100/1000 ppb	ICAL	1	102.37	0.984	15	PASS	101.77	1.149	15	PASS
Std8-200/2000 ppb	ICAL	1	198.37	1.746	15	PASS	198.84	0.733	15	PASS
ICV	ICV	1	99.55	0.27	15	PASS	10.08	1.304	15	PASS
ICB	ICB	1	<0.000	N/A	15	<PQL	0.03	38.381	15	<PQL
LLICV	CCV1	1	0.53	3.309	20	PASS	0.11	18.634	20	PASS
ICSA1	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB1	ICSAB	1	20.61	0.694	15	PASS	20.59	1.46	15	PASS
CCV1	CCV	1	21.48	1.986	15	PASS	21.01	1.297	15	PASS
CCB1	CCB	1	0.01	121.58	15	<PQL	0.03	115.045	15	<PQL
CCV2	CCV	1	21.73	1.614	15	PASS	20.89	0.63	15	PASS
CCB2	CCB	1	0.01	45.558	15	<PQL	0.02	32.694	15	<PQL
ICSA2	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB2	ICSAB	1	20.72	0.825	15	PASS	20.89	0.844	15	PASS
CCV3	CCV	1	21.34	0.134	15	PASS	20.88	1.191	15	PASS
CCB3	CCB	1	<0.000	N/A	15	<PQL	0.02	102.174	15	<PQL
CCV4	CCV	1	20.69	0.501	15	PASS	20.97	1.242	15	PASS
CCB4	CCB	1	<0.000	N/A	15	<PQL	0.01	240.032	15	<PQL
ICSA3	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB3	ICSAB	1	20.31	0.937	15	PASS	21.13	1.452	15	PASS
CCV5	CCV	1	20.6	0.948	15	PASS	20.45	1.501	15	PASS
CCB5	CCB	1	<0.000	N/A	15	<PQL	0.02	26.552	15	<PQL
CCV6	CCV	1	21.26	1.508	15	PASS	20.93	0.506	15	PASS
CCB6	CCB	1	<0.000	N/A	15	<PQL	0.05	69.716	15	<PQL
ICSA4	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB4	ICSAB	1	20.65	0.342	15	PASS	21.03	0.08	15	PASS
MB-91905	MBLK	1	0.01	38.378	15	<PQL	0.01	199.631	15	<PQL
LCS-91905	LCS	1	100.06	0.702	15	PASS	9.97	1.479	15	PASS
N049836-001C	SAMP	1	28.02	1.204	15	PASS	11.17	1.037	15	PASS
N049836-001C	SAMP	5	5.85	2.25	15	PASS	2.32	3.881	15	PASS
N049836-001C	SAMP	25	1.21	3.938	15	PASS	0.48	4.634	15	PASS
N049836-001C-PS	PS	1	118.98	1.169	15	PASS	24.56	2.5	15	PASS
N049836-001C-PS	PS	5	24.37	0.958	15	PASS	4.89	1.434	15	PASS
N049836-001C-MS	MS	1	118.76	1.378	15	PASS	25.16	0.702	15	PASS
N049836-001C-MS	MS	5	23.91	0.062	15	PASS	4.82	6.093	15	PASS

PERCENT RSD SUMMARY: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	55 Mn [2]				75 As [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
CCV7	CCV	1	20.89	2.105	15	PASS	23.93	2.259	15	PASS
CCB7	CCB	1	<0.000	N/A	15	<PQL	0.05	29.347	15	<PQL
N049836-001C-MSD	MSD	1	119.13	1.484	15	PASS	26.84	1.155	15	PASS
N049836-001C-MSD	MSD	5	24.43	0.844	15	PASS	5.59	4.905	15	PASS
N049836-002C	SAMP	1	28.94	1.353	15	PASS	13.81	3.885	15	PASS
N049836-002C	SAMP	5	5.7	0.503	15	PASS	2.58	5.089	15	PASS
N049836-004C	SAMP	1	20.28	1.493	15	PASS	<0.000	N/A	15	<PQL
N049836-004C	SAMP	5	4.23	3.19	15	PASS	<0.000	N/A	15	<PQL
N049836-005C	SAMP	1	4.13	1.49	15	PASS	2.35	11.873	15	PASS
N049836-005C	SAMP	5	0.86	8.559	15	PASS	0.55	6.309	15	PASS
N049836-006C	SAMP	1	0.97	34.617	15	NR!	2.68	1.943	15	PASS
N049836-006C	SAMP	5	0.15	32.888	15	<PQL	0.65	5.525	15	PASS
CCV8	CCV	1	20.31	0.727	15	PASS	25.83	3.58	15	PASS
CCB8	CCB	1	<0.000	N/A	15	<PQL	0.07	16.043	15	<PQL
N049836-007C	SAMP	1	0.89	2.485	15	PASS	2.84	2.866	15	PASS
N049836-007C	SAMP	5	0.17	12.36	15	PASS	0.52	12.674	15	PASS
N049836-008C	SAMP	1	2.15	3.521	15	PASS	0.85	17.521	15	NR!
N049836-008C	SAMP	5	0.45	9.15	15	PASS	0.2	15.88	15	NR!
N049836-009C	SAMP	1	4.22	2.369	15	PASS	3.55	7.404	15	PASS
N049836-009C	SAMP	5	0.76	5.43	15	PASS	0.64	12.375	15	PASS
N049836-010C	SAMP	1	4.06	4.624	15	PASS	3.36	3.472	15	PASS
N049836-010C	SAMP	5	0.83	4.546	15	PASS	0.75	25.049	15	NR!
N049836-011C	SAMP	1	618.27	0.813	15	PASS	1.6	6.738	15	PASS
N049836-011C	SAMP	5	124.21	1.798	15	PASS	0.36	6.651	15	PASS
CCV9	CCV	1	20.07	1.354	15	PASS	27.4	0.626	15	PASS
CCB9	CCB	1	0.04	19.245	15	<PQL	0.04	71.02	15	<PQL
N049836-012C	SAMP	1	627.25	0.672	15	PASS	1.75	10.173	15	PASS
N049836-012C	SAMP	5	127.22	1.459	15	PASS	0.43	15.887	15	NR!
N049836-013C	SAMP	1	5.8	2.422	15	PASS	2.56	6.191	15	PASS
N049836-013C	SAMP	5	1.26	4.115	15	PASS	0.5	19.489	15	NR!
N049836-014C	SAMP	1	6.09	3.051	15	PASS	2.32	6.768	15	PASS
N049836-014C	SAMP	5	1.29	6.849	15	PASS	0.35	32.224	15	NR!
CCV10	CCV	1	20.23	0.688	15	PASS	27.11	0.515	15	PASS
CCB10	CCB	1	0.01	55.596	15	<PQL	0.04	68.024	15	<PQL
ICSA5	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB5	ICSAB	1	20.12	0.278	15	PASS	26.42	0.595	15	PASS

PERCENT RSD SUMMARY: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	78 Se [1]				95 Mo [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
Cal Blk	IBLK	1	0	N/A	15	<PQL	0	N/A	15	<PQL
Std1-0.1/1 ppb	ICAL	1	0.11	6.563	15	PASS	0.1	6.955	15	PASS
Std2-0.5/5 ppb	ICAL	1	0.56	6.65	15	PASS	0.51	4.566	15	PASS
Std3-5/50 ppb	ICAL	1	5.04	6.181	15	PASS	5.01	1.296	15	PASS
Std4-10/100 ppb	ICAL	1	10.57	3.026	15	PASS	9.93	1.328	15	PASS
Std5-20/200 ppb	ICAL	1	20.72	1.451	15	PASS	20.16	0.13	15	PASS
Std6-40/400 ppb	ICAL	1	41.14	0.221	15	PASS	40.21	1.337	15	PASS
Std7-100/1000 ppb	ICAL	1	102.77	1.308	15	PASS	101.48	0.655	15	PASS
Std8-200/2000 ppb	ICAL	1	198.29	1.664	15	PASS	199.21	0.922	15	PASS
ICV	ICV	1	10.01	4.917	15	PASS	10.44	1.978	15	PASS
ICB	ICB	1	0.06	44.516	15	<PQL	0.1	4.282	15	PASS
LLICV	CCV1	1	0.55	17.828	20	PASS	0.54	6.633	20	PASS
ICSA1	ICSA	1	0.04	36.007	15	<PQL	0.13	6.045	15	PASS
ICSAB1	ICSAB	1	20.3	1.374	15	PASS	21.77	0.617	15	PASS
CCV1	CCV	1	20.63	0.556	15	PASS	20.05	0.416	15	PASS
CCB1	CCB	1	0.06	29.331	15	<PQL	0.06	6.027	15	PASS
CCV2	CCV	1	20.32	3.253	15	PASS	19.93	0.744	15	PASS
CCB2	CCB	1	0.02	59.256	15	<PQL	0.07	10.405	15	PASS
ICSA2	ICSA	1	0.04	16.22	15	<PQL	0.12	5.044	15	PASS
ICSAB2	ICSAB	1	19.89	1.553	15	PASS	21.83	1.243	15	PASS
CCV3	CCV	1	20.27	1.532	15	PASS	20.02	0.149	15	PASS
CCB3	CCB	1	0.05	17.401	15	<PQL	0.07	21.063	15	<PQL
CCV4	CCV	1	20.46	2.452	15	PASS	20.07	1.002	15	PASS
CCB4	CCB	1	0.06	39.472	15	<PQL	0.07	5.552	15	PASS
ICSA3	ICSA	1	0.03	25.796	15	<PQL	0.12	7.434	15	PASS
ICSAB3	ICSAB	1	19.65	0.111	15	PASS	21.87	0.835	15	PASS
CCV5	CCV	1	20.98	3.094	15	PASS	20.12	0.883	15	PASS
CCB5	CCB	1	0.03	44.083	15	<PQL	0.07	17.042	15	<PQL
CCV6	CCV	1	21.1	2.449	15	PASS	20.05	0.705	15	PASS
CCB6	CCB	1	0.05	64.838	15	<PQL	0.07	6.221	15	PASS
ICSA4	ICSA	1	0.04	16.893	15	<PQL	0.1	3.651	15	PASS
ICSAB4	ICSAB	1	20.57	0.842	15	PASS	21.61	0.983	15	PASS
MB-91905	MBLK	1	0.02	59.37	15	<PQL	0.02	8.992	15	PASS
LCS-91905	LCS	1	10.18	5.082	15	PASS	9.68	1.005	15	PASS
N049836-001C	SAMP	1	77.87	2.307	15	PASS	28.23	0.436	15	PASS
N049836-001C	SAMP	5	15.3	2.055	15	PASS	5.67	3.524	15	PASS
N049836-001C	SAMP	25	2.9	8.564	15	PASS	1.13	3.659	15	PASS
N049836-001C-PS	PS	1	88.41	1.465	15	PASS	39.13	0.424	15	PASS
N049836-001C-PS	PS	5	17.02	2.644	15	PASS	7.74	0.501	15	PASS
N049836-001C-MS	MS	1	87.61	1.155	15	PASS	38.64	0.15	15	PASS
N049836-001C-MS	MS	5	17.04	5.27	15	PASS	7.54	1.014	15	PASS

PERCENT RSD SUMMARY: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	78 Se [1]				95 Mo [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
CCV7	CCV	1	21.05	0.647	15	PASS	19.91	1.172	15	PASS
CCB7	CCB	1	0.07	46.739	15	<PQL	0.08	6.831	15	PASS
N049836-001C-MSD	MSD	1	92.27	1.29	15	PASS	38.49	1.001	15	PASS
N049836-001C-MSD	MSD	5	17.53	4.441	15	PASS	7.63	0.172	15	PASS
N049836-002C	SAMP	1	81.3	0.55	15	PASS	28.25	1.353	15	PASS
N049836-002C	SAMP	5	14.92	4.908	15	PASS	5.55	2.82	15	PASS
N049836-004C	SAMP	1	0.31	10.837	15	PASS	12.84	0.82	15	PASS
N049836-004C	SAMP	5	0.06	36.401	15	<PQL	2.5	0.175	15	PASS
N049836-005C	SAMP	1	28.02	1.447	15	PASS	45.52	0.372	15	PASS
N049836-005C	SAMP	5	5.33	7.918	15	PASS	8.9	2.733	15	PASS
N049836-006C	SAMP	1	13.87	4.911	15	PASS	19.41	2.547	15	PASS
N049836-006C	SAMP	5	2.44	2.07	15	PASS	3.81	3.964	15	PASS
CCV8	CCV	1	21.34	1.804	15	PASS	20.23	0.664	15	PASS
CCB8	CCB	1	0.03	101.81	15	<PQL	0.08	10.55	15	PASS
N049836-007C	SAMP	1	13.39	3.2	15	PASS	19.23	0.972	15	PASS
N049836-007C	SAMP	5	2.61	10.852	15	PASS	3.69	0.79	15	PASS
N049836-008C	SAMP	1	9.34	2.676	15	PASS	8.63	1.306	15	PASS
N049836-008C	SAMP	5	1.72	5.798	15	PASS	1.69	3.576	15	PASS
N049836-009C	SAMP	1	74.94	1.846	15	PASS	28.97	1.769	15	PASS
N049836-009C	SAMP	5	14.38	2.243	15	PASS	5.51	0.819	15	PASS
N049836-010C	SAMP	1	76.32	1.494	15	PASS	28.62	1.011	15	PASS
N049836-010C	SAMP	5	14.45	2.233	15	PASS	5.75	0.733	15	PASS
N049836-011C	SAMP	1	9.21	5.596	15	PASS	12.92	1.56	15	PASS
N049836-011C	SAMP	5	2.01	13.601	15	PASS	2.55	2.156	15	PASS
CCV9	CCV	1	22.62	1.77	15	PASS	20.2	1.283	15	PASS
CCB9	CCB	1	0.09	22.403	15	<PQL	0.07	16.324	15	<PQL
N049836-012C	SAMP	1	10.19	6.603	15	PASS	13.03	1.206	15	PASS
N049836-012C	SAMP	5	2.04	5.952	15	PASS	2.69	2.53	15	PASS
N049836-013C	SAMP	1	20.58	4.659	15	PASS	49.86	0.802	15	PASS
N049836-013C	SAMP	5	3.86	1.755	15	PASS	9.74	1.524	15	PASS
N049836-014C	SAMP	1	19.97	4.753	15	PASS	48.92	1.184	15	PASS
N049836-014C	SAMP	5	3.97	0.101	15	PASS	9.63	1.793	15	PASS
CCV10	CCV	1	21.75	2.071	15	PASS	20.1	1.623	15	PASS
CCB10	CCB	1	0.04	48.186	15	<PQL	0.08	13.435	15	PASS
ICSA5	ICSA	1	0.06	12.211	15	PASS	0.12	10.099	15	PASS
ICSAB5	ICSAB	1	21.26	4.281	15	PASS	21.37	0.54	15	PASS

PERCENT RSD SUMMARY: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	137 Ba [3]				52 Cr [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
Cal Blk	IBLK	1	0	N/A	15	<PQL	0	N/A	15	<PQL
Std1-0.1/1 ppb	ICAL	1	0.13	14.751	15	PASS	0.09	13.154	15	PASS
Std2-0.5/5 ppb	ICAL	1	0.53	4.437	15	PASS	0.49	1.459	15	PASS
Std3-5/50 ppb	ICAL	1	5.12	3.769	15	PASS	5.04	1.345	15	PASS
Std4-10/100 ppb	ICAL	1	10.21	1.276	15	PASS	10.16	1.01	15	PASS
Std5-20/200 ppb	ICAL	1	20.27	1.276	15	PASS	20.41	0.295	15	PASS
Std6-40/400 ppb	ICAL	1	41.01	0.81	15	PASS	41.01	0.924	15	PASS
Std7-100/1000 ppb	ICAL	1	99.52	0.381	15	PASS	101.36	0.943	15	PASS
Std8-200/2000 ppb	ICAL	1	193.64	2.601	15	PASS	199.07	0.777	15	PASS
ICV	ICV	1	10.26	1.537	15	PASS	10.37	1.467	15	PASS
ICV	ICV	1	10.28	1.685	15	PASS	10.55	1.921	15	PASS
ICB	ICB	1	0	235.928	15	<PQL	<0.000	N/A	15	<PQL
LLICV	CCV1	1	1.12	1.409	20	PASS	1	1.941	20	PASS
ICSA1	ICSA	1	0.24	4.951	15	PASS	<0.000	N/A	15	<PQL
ICSAB1	ICSAB	1	22.39	1.141	15	PASS	21.23	0.543	15	PASS
LLICV	CCV1	1	1.1	0.778	20	PASS	1	1.828	20	PASS
CCV1	CCV	1	20.56	1.91	15	PASS	20.39	0.457	15	PASS
CCB1	CCB	1	0	139.525	15	<PQL	<0.000	N/A	15	<PQL
CCV2	CCV	1	20.41	1.955	15	PASS	20.6	1.112	15	PASS
CCB2	CCB	1	0	3882.304	15	<PQL	<0.000	N/A	15	<PQL
ICSA2	ICSA	1	0.25	14.31	15	PASS	<0.000	N/A	15	<PQL
ICSAB2	ICSAB	1	22.84	0.191	15	PASS	20.76	0.405	15	PASS
MB-91905	MBLK	1	0	614.608	15	<PQL	<0.000	N/A	15	<PQL
LCS-91905	LCS	1	10.34	1.147	15	PASS	9.97	0.737	15	PASS
N049836-001C	SAMP	1	35.01	1.308	15	PASS	5.61	0.463	15	PASS
N049836-001C	SAMP	5	7.11	4.234	15	PASS	1.15	0.766	15	PASS
N049836-001C-PS	PS	1	44.98	1.058	15	PASS	15.02	0.764	15	PASS
N049836-001C-MS	MS	1	44.22	0.386	15	PASS	14.82	0.478	15	PASS
CCV3	CCV	1	21.08	1.403	15	PASS	20.53	0.733	15	PASS
CCB3	CCB	1	0	319.235	15	<PQL	<0.000	N/A	15	<PQL
N049836-001C-MSD	MSD	1	44.45	1.156	15	PASS	15.14	0.876	15	PASS
N049836-002C	SAMP	1	36.05	1.786	15	PASS	5.71	1.15	15	PASS
N049836-004C	SAMP	1	46.68	0.494	15	PASS	0.49	9.269	15	PASS
N049836-005C	SAMP	1	52.97	1.116	15	PASS	678.74	0.598	15	PASS
N049836-005C	SAMP	5	11.11	1.849	15	PASS	136.41	1.91	15	PASS
N049836-006C	SAMP	1	42.3	0.817	15	PASS	2091.63	0.533	15	PASS
N049836-006C	SAMP	25	1.91	4.55	15	PASS	90.66	0.56	15	PASS
CCV4	CCV	1	20.97	1.13	15	PASS	20.66	0.07	15	PASS
CCB4	CCB	1	0.01	156.407	15	<PQL	<0.000	N/A	15	<PQL
ICSA3	ICSA	1	0.26	16.294	15	<PQL	0.01	50.716	15	<PQL
ICSAB3	ICSAB	1	22.64	2.527	15	PASS	21.96	1.499	15	PASS

PERCENT RSD SUMMARY: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	137 Ba [3]				52 Cr [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
N049836-007C	SAMP	1	43.21	1.913	15	PASS	2121.31	0.706	15	PASS
N049836-007C	SAMP	25	1.86	3.12	15	PASS	90.71	1.13	15	PASS
N049836-008C	SAMP	1	84.06	0.291	15	PASS	2841.19	1.365	15	PASS
N049836-008C	SAMP	25	3.56	4.033	15	PASS	118.51	1.179	15	PASS
N049836-009C	SAMP	1	38.2	1.74	15	PASS	3425.39	1.302	15	PASS
N049836-009C	SAMP	25	1.49	6.143	15	PASS	141.6	0.522	15	PASS
N049836-010C	SAMP	1	38.12	0.509	15	PASS	3368.92	0.409	15	PASS
N049836-010C	SAMP	25	1.65	8.518	15	PASS	145.58	1.061	15	PASS
N049836-011C	SAMP	1	44.77	0.917	15	PASS	1509.33	0.347	15	PASS
N049836-011C	SAMP	25	1.78	1.662	15	PASS	63.66	1.013	15	PASS
CCV5	CCV	1	21.01	0.569	15	PASS	20.8	0.533	15	PASS
CCB5	CCB	1	0.01	29.075	15	<PQL	0.09	8.227	15	PASS
N049836-012C	SAMP	1	44.02	0.32	15	PASS	1528.43	1.091	15	PASS
N049836-012C	SAMP	25	1.99	2.366	15	PASS	64.93	1.458	15	PASS
N049836-013C	SAMP	1	37.13	0.615	15	PASS	2137.05	0.7	15	PASS
N049836-013C	SAMP	25	1.57	5.243	15	PASS	94.27	0.912	15	PASS
N049836-014C	SAMP	1	37.66	1.292	15	PASS	2099.18	0.3	15	PASS
N049836-014C	SAMP	25	1.65	4.845	15	PASS	91.68	1.176	15	PASS
N049836-006C	SAMP	1	43.54	1.138	15	PASS	2097.31	1.157	15	PASS
N049836-007C	SAMP	1	43.72	0.292	15	PASS	2114.6	0.773	15	PASS
CCV6	CCV	1	21.36	1.356	15	PASS	20.37	0.954	15	PASS
CCB6	CCB	1	0.01	40.987	15	<PQL	0.09	13.67	15	PASS
N049836-006C	SAMP	1	42.54	1.654	15	PASS	2138.31	0.88	15	PASS
N049836-007C	SAMP	1	41.49	0.26	15	PASS	2169.46	0.796	15	PASS
N049836-007C	SAMP	5	8.68	2.058	15	PASS	442.11	0.79	15	PASS
N049836-006C	SAMP	1	42.03	1.818	15	PASS	2125.3	1.157	15	PASS
N049836-006C	SAMP	5	8.75	1.19	15	PASS	430.42	0.713	15	PASS
N049836-007C	SAMP	1	43.03	1.354	15	PASS	2152.33	0.233	15	PASS
CCV7	CCV	1	20.4	2.432	15	PASS	20.68	1.354	15	PASS
CCB7	CCB	1	0.01	80.034	15	<PQL	0.25	15.462	15	<PQL
ICSA4	ICSA	1	0.25	14.056	15	PASS	0.44	5.734	15	PASS
ICSAB4	ICSAB	1	22.61	0.495	15	PASS	22.22	1.318	15	PASS
CCV8	CCV	1	19.84	0.951	15	PASS	20.68	0.43	15	PASS
CCB8	CCB	1	0	265.858	15	<PQL	0.07	18.486	15	<PQL
ICSA5	ICSA	1	0.25	13.428	15	PASS	0.23	13.856	15	PASS
ICSAB5	ICSAB	1	21.87	1.649	15	PASS	21.92	1.413	15	PASS

PERCENT RSD SUMMARY: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	55 Mn [2]				75 As [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
Cal Blk	IBLK	1	0	N/A	15	<PQL	0	N/A	15	<PQL
Std1-0.1/1 ppb	ICAL	1	0.12	8.011	15	PASS	0.11	3.778	15	PASS
Std2-0.5/5 ppb	ICAL	1	0.51	2.037	15	PASS	0.51	4.203	15	PASS
Std3-5/50 ppb	ICAL	1	5.15	0.855	15	PASS	5.04	3.004	15	PASS
Std4-10/100 ppb	ICAL	1	10.34	0.797	15	PASS	9.87	0.897	15	PASS
Std5-20/200 ppb	ICAL	1	20.56	0.263	15	PASS	20.01	1.197	15	PASS
Std6-40/400 ppb	ICAL	1	40.69	0.316	15	PASS	40.02	0.678	15	PASS
Std7-100/1000 ppb	ICAL	1	102.37	0.621	15	PASS	101.03	0.578	15	PASS
Std8-200/2000 ppb	ICAL	1	198.6	0.916	15	PASS	201.33	2.299	15	PASS
ICV	ICV	1	103.32	1.399	15	PASS	10.46	0.508	15	PASS
ICV	ICV	1	103.88	1.054	15	PASS	10.35	1.383	15	PASS
ICB	ICB	1	0.01	81.155	15	<PQL	0.03	72.135	15	<PQL
LLICV	CCV1	1	0.58	2.293	20	PASS	0.12	23.368	20	FAIL
ICSA1	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB1	ICSAB	1	17.8	1.176	15	PASS	21.57	1.039	15	PASS
LLICV	CCV1	1	0.57	1.098	20	PASS	0.11	4.221	20	PASS
CCV1	CCV	1	20.67	0.511	15	PASS	19.81	1.064	15	PASS
CCB1	CCB	1	<0.000	N/A	15	<PQL	0.03	26.3	15	<PQL
CCV2	CCV	1	20.51	0.85	15	PASS	19.71	0.882	15	PASS
CCB2	CCB	1	<0.000	N/A	15	<PQL	0.04	41.58	15	<PQL
ICSA2	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB2	ICSAB	1	18.03	0.394	15	PASS	21.32	1.395	15	PASS
MB-91905	MBLK	1	<0.000	N/A	15	<PQL	0.02	52.71	15	<PQL
LCS-91905	LCS	1	101.2	1.076	15	PASS	10.13	1.719	15	PASS
N049836-001C	SAMP	1	29.16	1.231	15	PASS	14.31	1.407	15	PASS
N049836-001C	SAMP	5	6.17	2.056	15	PASS	1.8	7.978	15	PASS
N049836-001C-PS	PS	1	121.38	0.392	15	PASS	24.22	1.14	15	PASS
N049836-001C-MS	MS	1	120.27	0.265	15	PASS	20.86	13.729	15	PASS
CCV3	CCV	1	20.51	0.365	15	PASS	19.71	0.515	15	PASS
CCB3	CCB	1	<0.000	N/A	15	<PQL	0.01	38.414	15	<PQL
N049836-001C-MSD	MSD	1	122.69	0.697	15	PASS	19.16	0.752	15	PASS
N049836-002C	SAMP	1	29.44	0.388	15	PASS	9.01	2.363	15	PASS
N049836-004C	SAMP	1	20.62	1.549	15	PASS	<0.000	N/A	15	<PQL
N049836-005C	SAMP	1	4.32	1.488	15	PASS	1.03	10.682	15	PASS
N049836-005C	SAMP	5	0.86	3.072	15	PASS	0.21	14.698	15	PASS
N049836-006C	SAMP	1	0.78	2.204	15	PASS	0.41	36.622	15	NR!
N049836-006C	SAMP	25	0.1	8.152	15	PASS	0.02	162.108	15	<PQL
CCV4	CCV	1	20.33	1.201	15	PASS	19.54	1.15	15	PASS
CCB4	CCB	1	<0.000	N/A	15	<PQL	0.01	53.897	15	<PQL
ICSA3	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB3	ICSAB	1	17.95	0.668	15	PASS	21.45	0.614	15	PASS

PERCENT RSD SUMMARY: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	55 Mn [2]				75 As [2]			
			Conc. [ppb]	RSD	Criteria	Comment	Conc. [ppb]	RSD	Criteria	Comment
N049836-007C	SAMP	1	0.87	1.706	15	PASS	0.14	116.561	15	NR!
N049836-007C	SAMP	25	0.1	19.145	15	<PQL	0.02	158.092	15	<PQL
N049836-008C	SAMP	1	2.18	0.907	15	PASS	0.34	9.509	15	PASS
N049836-008C	SAMP	25	0.11	5.067	15	PASS	0.02	43.022	15	<PQL
N049836-009C	SAMP	1	4.34	0.967	15	PASS	0.78	14.893	15	PASS
N049836-009C	SAMP	25	0.21	3.901	15	PASS	0.01	107.028	15	<PQL
N049836-010C	SAMP	1	4.39	1.55	15	PASS	0.75	9.508	15	PASS
N049836-010C	SAMP	25	0.22	6.966	15	PASS	0.04	40.215	15	<PQL
N049836-011C	SAMP	1	647.38	0.4	15	PASS	0.82	4.344	15	PASS
N049836-011C	SAMP	25	27.56	1.151	15	PASS	0.03	21.043	15	<PQL
CCV5	CCV	1	20.42	0.518	15	PASS	19.88	0.416	15	PASS
CCB5	CCB	1	<0.000	N/A	15	<PQL	0.01	101.316	15	<PQL
N049836-012C	SAMP	1	670.45	1.996	15	PASS	0.75	6.361	15	PASS
N049836-012C	SAMP	25	28.84	1.082	15	PASS	0.03	64.357	15	<PQL
N049836-013C	SAMP	1	6.1	1.767	15	PASS	<0.000	N/A	15	<PQL
N049836-013C	SAMP	25	0.3	5.165	15	PASS	<0.000	N/A	15	<PQL
N049836-014C	SAMP	1	6.47	0.826	15	PASS	<0.000	N/A	15	<PQL
N049836-014C	SAMP	25	0.35	4.715	15	PASS	<0.000	N/A	15	<PQL
N049836-006C	SAMP	1	0.83	3.63	15	PASS	0.26	34.633	15	NR!
N049836-007C	SAMP	1	0.89	2.17	15	PASS	0.2	53.213	15	NR!
CCV6	CCV	1	20.13	1.268	15	PASS	19.27	1.829	15	PASS
CCB6	CCB	1	<0.000	N/A	15	<PQL	0	271.081	15	<PQL
N049836-006C	SAMP	1	0.83	4.725	15	PASS	0.51	24.694	15	NR!
N049836-007C	SAMP	1	1.02	3.355	15	PASS	0.44	33.689	15	NR!
N049836-007C	SAMP	5	0.33	1.657	15	PASS	0.03	182.899	15	<PQL
N049836-006C	SAMP	1	0.83	0.763	15	PASS	0.22	9.545	15	PASS
N049836-006C	SAMP	5	0.37	1.812	15	PASS	0.1	19.621	15	<PQL
N049836-007C	SAMP	1	1.03	0.337	15	PASS	0.31	9.799	15	PASS
CCV7	CCV	1	20.22	0.844	15	PASS	19.09	1.464	15	PASS
CCB7	CCB	1	<0.000	N/A	15	<PQL	0.01	89.532	15	<PQL
ICSA4	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB4	ICSAB	1	18.01	2.236	15	PASS	20.85	0.421	15	PASS
CCV8	CCV	1	20.52	0.548	15	PASS	19.39	2.126	15	PASS
CCB8	CCB	1	0	102.163	15	<PQL	0.02	65.372	15	<PQL
ICSA5	ICSA	1	<0.000	N/A	15	<PQL	<0.000	N/A	15	<PQL
ICSAB5	ICSAB	1	17.74	0.297	15	PASS	21.09	1.203	15	PASS

PERCENT RSD SUMMARY: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	78 Se [1]			
			Conc. [ppb]	RSD	Criteria	Comment
Cal Blk	IBLK	1	0	N/A	15	<PQL
Std1-0.1/1 ppb	ICAL	1	0.12	26.421	15	<PQL
Std2-0.5/5 ppb	ICAL	1	0.49	3.694	15	PASS
Std3-5/50 ppb	ICAL	1	4.96	2.026	15	PASS
Std4-10/100 ppb	ICAL	1	9.78	2.239	15	PASS
Std5-20/200 ppb	ICAL	1	20.13	2.341	15	PASS
Std6-40/400 ppb	ICAL	1	39.99	0.355	15	PASS
Std7-100/1000 ppb	ICAL	1	99.64	0.398	15	PASS
Std8-200/2000 ppb	ICAL	1	200.18	0.795	15	PASS
ICV	ICV	1	10.06	3.512	15	PASS
ICV	ICV	1	10.39	1.064	15	PASS
ICB	ICB	1	0.04	28.615	15	<PQL
LLICV	CCV1	1	0.58	5.496	20	PASS
ICSA1	ICSA	1	0.03	48.319	15	<PQL
ICSAB1	ICSAB	1	20.13	1.973	15	PASS
LLICV	CCV1	1	0.59	16.483	20	PASS
CCV1	CCV	1	20.21	1.333	15	PASS
CCB1	CCB	1	0.03	10.272	15	PASS
CCV2	CCV	1	19.93	1.551	15	PASS
CCB2	CCB	1	0.04	45.757	15	<PQL
ICSA2	ICSA	1	0.03	19.674	15	<PQL
ICSAB2	ICSAB	1	19.82	1.225	15	PASS
MB-91905	MBLK	1	0.02	75.183	15	<PQL
LCS-91905	LCS	1	9.66	3.75	15	PASS
N049836-001C	SAMP	1	75.53	0.625	15	PASS
N049836-001C	SAMP	5	14.88	1.358	15	PASS
N049836-001C-PS	PS	1	85.99	0.498	15	PASS
N049836-001C-MS	MS	1	84.92	1.377	15	PASS
CCV3	CCV	1	19.76	1.799	15	PASS
CCB3	CCB	1	0.04	60.491	15	<PQL
N049836-001C-MSD	MSD	1	84.58	0.389	15	PASS
N049836-002C	SAMP	1	77.55	0.733	15	PASS
N049836-004C	SAMP	1	0.31	25.865	15	<PQL
N049836-005C	SAMP	1	25.98	0.507	15	PASS
N049836-005C	SAMP	5	5.14	1.118	15	PASS
N049836-006C	SAMP	1	11.68	3.692	15	PASS
N049836-006C	SAMP	25	0.54	21.416	15	NR!
CCV4	CCV	1	20.33	3.129	15	PASS
CCB4	CCB	1	0.05	19.834	15	<PQL
ICSA3	ICSA	1	0.04	33.438	15	<PQL
ICSAB3	ICSAB	1	20.63	0.846	15	PASS

PERCENT RSD SUMMARY: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	78 Se [1]			
			Conc. [ppb]	RSD	Criteria	Comment
N049836-007C	SAMP	1	11.65	3.227	15	PASS
N049836-007C	SAMP	25	0.49	22.514	15	<PQL
N049836-008C	SAMP	1	8.79	5.763	15	PASS
N049836-008C	SAMP	25	0.38	17.412	15	<PQL
N049836-009C	SAMP	1	64.55	1.874	15	PASS
N049836-009C	SAMP	25	2.56	2.295	15	PASS
N049836-010C	SAMP	1	64.36	1.265	15	PASS
N049836-010C	SAMP	25	2.8	9.193	15	PASS
N049836-011C	SAMP	1	8.55	3.26	15	PASS
N049836-011C	SAMP	25	0.36	10.049	15	PASS
CCV5	CCV	1	20.4	2.018	15	PASS
CCB5	CCB	1	0.02	116.314	15	<PQL
N049836-012C	SAMP	1	8.54	4.503	15	PASS
N049836-012C	SAMP	25	0.39	7.281	15	PASS
N049836-013C	SAMP	1	17.18	4.071	15	PASS
N049836-013C	SAMP	25	0.74	14.973	15	PASS
N049836-014C	SAMP	1	16.8	2.953	15	PASS
N049836-014C	SAMP	25	0.7	12.76	15	PASS
N049836-006C	SAMP	1	11.51	1.908	15	PASS
N049836-007C	SAMP	1	11.84	3.239	15	PASS
CCV6	CCV	1	20.08	3.639	15	PASS
CCB6	CCB	1	0.05	52.095	15	<PQL
N049836-006C	SAMP	1	12.18	4.91	15	PASS
N049836-007C	SAMP	1	12.14	1.627	15	PASS
N049836-007C	SAMP	5	2.24	6.671	15	PASS
N049836-006C	SAMP	1	11.46	4.28	15	PASS
N049836-006C	SAMP	5	2.42	4.147	15	PASS
N049836-007C	SAMP	1	11.8	3.263	15	PASS
CCV7	CCV	1	20.46	2.559	15	PASS
CCB7	CCB	1	0.02	94.477	15	<PQL
ICSA4	ICSA	1	0.03	15.001	15	<PQL
ICSAB4	ICSAB	1	21.46	1.953	15	PASS
CCV8	CCV	1	20.43	1.244	15	PASS
CCB8	CCB	1	0.02	2.018	15	PASS
ICSA5	ICSA	1	0.02	57.76	15	<PQL
ICSAB5	ICSAB	1	21.14	3.578	15	PASS

ANALYSIS RUN LOG

INJECTION LOG: 220315A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0315001.d	RINSE	ICAL	1	03/15/22 8:39 AM
A0315002.d	RINSE	ICAL	1	03/15/22 8:45 AM
A0315003.d	Cal Blk	IBLK	1	03/15/22 8:51 AM
A0315004.d	Std1-0.1/1 ppb	ICAL	1	03/15/22 8:57 AM
A0315005.d	Std2-0.5/5 ppb	ICAL	1	03/15/22 9:03 AM
A0315006.d	Std3-5/50 ppb	ICAL	1	03/15/22 9:09 AM
A0315007.d	Std4-10/100 ppb	ICAL	1	03/15/22 9:15 AM
A0315008.d	Std5-20/200 ppb	ICAL	1	03/15/22 9:21 AM
A0315009.d	Std6-40/400 ppb	ICAL	1	03/15/22 9:28 AM
A0315010.d	Std7-100/1000 ppb	ICAL	1	03/15/22 9:34 AM
A0315011.d	Std8-200/2000 ppb	ICAL	1	03/15/22 9:40 AM
A0315012.d	ICV	ICV	1	03/15/22 9:46 AM
A0315013.d	ICB	ICB	1	03/15/22 9:54 AM
A0315014.d	LLICV	CCV1	1	03/15/22 10:00 AM
A0315015.d	ICSA1	ICSA	1	03/15/22 10:06 AM
A0315016.d	ICSAB1	ICSAB	1	03/15/22 10:12 AM
A0315017.d	MB-91895	MBLK	1	03/15/22 10:26 AM
A0315018.d	LCS-91895	LCS	1	03/15/22 10:32 AM
A0315019.d	N049751-001A	SAMP	1	03/15/22 10:44 AM
A0315020.d	N049751-001A	SAMP	5	03/15/22 10:50 AM
A0315021.d	N049751-001A-PS	PS	1	03/15/22 10:55 AM
A0315022.d	N049751-001A-MS	MS	1	03/15/22 11:01 AM
A0315023.d	N049751-001A-MSD	MSD	1	03/15/22 11:07 AM
A0315024.d	N049751-002A	SAMP	1	03/15/22 11:13 AM
A0315025.d	N049751-003A	SAMP	1	03/15/22 11:19 AM
A0315026.d	N049751-004A	SAMP	1	03/15/22 11:25 AM
A0315027.d	CCV1	CCV	1	03/15/22 11:31 AM
A0315028.d	CCB1	CCB	1	03/15/22 11:37 AM
A0315029.d	N049751-005A	SAMP	1	03/15/22 11:43 AM
A0315030.d	N049751-006A	SAMP	1	03/15/22 11:49 AM
A0315031.d	CCV2	CCV	1	03/15/22 11:55 AM
A0315032.d	CCB2	CCB	1	03/15/22 12:00 PM
A0315033.d	ICSA2	ICSA	1	03/15/22 12:06 PM
A0315034.d	ICSAB2	ICSAB	1	03/15/22 12:12 PM
A0315035.d	MB-91842	MBLK	1	03/15/22 12:21 PM
A0315036.d	LCS-91842	LCS	1	03/15/22 12:27 PM
A0315037.d	N049750-019C	SAMP	1	03/15/22 12:33 PM
A0315038.d	N049750-019C	SAMP	5	03/15/22 12:39 PM
A0315039.d	N049750-019C-PS	PS	1	03/15/22 12:45 PM
A0315040.d	RINSE	ICAL	1	03/15/22 12:51 PM
A0315041.d	N049750-019CMS	MS	1	03/15/22 12:57 PM
A0315042.d	RINSE	ICAL	1	03/15/22 1:03 PM

INJECTION LOG: 220315A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0315043.d	N049750-019CMSD	MSD	1	03/15/22 1:09 PM
A0315044.d	RINSE	ICAL	1	03/15/22 1:15 PM
A0315045.d	CCV3	CCV	1	03/15/22 1:39 PM
A0315046.d	CCB3	CCB	1	03/15/22 1:45 PM
A0315047.d	N049725-001C	SAMP	1	03/15/22 1:51 PM
A0315048.d	RINSE	ICAL	1	03/15/22 1:57 PM
A0315049.d	N049725-002C	SAMP	1	03/15/22 2:03 PM
A0315050.d	RINSE	ICAL	1	03/15/22 2:09 PM
A0315051.d	N049725-002C	SAMP	1	03/15/22 2:15 PM
A0315052.d	RINSE	ICAL	1	03/15/22 2:21 PM
A0315053.d	N049725-003C	SAMP	1	03/15/22 2:27 PM
A0315054.d	RINSE	ICAL	1	03/15/22 2:33 PM
A0315055.d	N049725-004C	SAMP	1	03/15/22 2:38 PM
A0315056.d	RINSE	ICAL	1	03/15/22 2:45 PM
A0315057.d	CCV4	CCV	1	03/15/22 2:50 PM
A0315058.d	CCB4	CCB	1	03/15/22 2:56 PM
A0315059.d	ICSA3	ICSA	1	03/15/22 3:02 PM
A0315060.d	ICSAB3	ICSAB	1	03/15/22 3:08 PM
A0315061.d	N049750-009C	SAMP	1	03/15/22 3:14 PM
A0315062.d	RINSE	ICAL	1	03/15/22 3:20 PM
A0315063.d	N049750-011C	SAMP	1	03/15/22 3:26 PM
A0315064.d	RINSE	ICAL	1	03/15/22 3:32 PM
A0315065.d	N049750-013C	SAMP	1	03/15/22 3:38 PM
A0315066.d	RINSE	ICAL	1	03/15/22 3:44 PM
A0315067.d	N049750-015C	SAMP	1	03/15/22 3:50 PM
A0315068.d	RINSE	ICAL	1	03/15/22 3:56 PM
A0315069.d	N049750-016C	SAMP	1	03/15/22 4:02 PM
A0315070.d	RINSE	ICAL	1	03/15/22 4:08 PM
A0315071.d	CCV5	CCV	1	03/15/22 4:13 PM
A0315072.d	CCB5	CCB	1	03/15/22 4:19 PM
A0315073.d	N049750-017C	SAMP	125	03/15/22 4:26 PM
A0315074.d	N049750-018C	SAMP	125	03/15/22 4:32 PM
A0315075.d	N049750-020C	SAMP	5	03/15/22 4:37 PM
A0315076.d	N049750-020C	SAMP	25	03/15/22 4:44 PM
A0315077.d	N049750-021C	SAMP	1	03/15/22 4:50 PM
A0315078.d	N049750-023C	SAMP	1	03/15/22 4:56 PM
A0315079.d	N049750-025C	SAMP	1	03/15/22 5:02 PM
A0315080.d	N049750-017C	SAMP	25	03/15/22 5:08 PM
A0315081.d	N049750-018C	SAMP	25	03/15/22 5:14 PM
A0315082.d	RINSE	ICAL	1	03/15/22 5:20 PM
A0315083.d	CCV6	CCV	1	03/15/22 5:26 PM
A0315084.d	CCB6	CCB	1	03/15/22 5:31 PM

INJECTION LOG: 220315A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0315085.d	ICSA4	ICSA	1	03/15/22 5:37 PM
A0315086.d	ICSAB4	ICSAB	1	03/15/22 5:43 PM
A0315087.d	MB-91905	MBLK	1	03/15/22 6:03 PM
A0315088.d	LCS-91905	LCS	1	03/15/22 6:09 PM
A0315089.d	N049836-001C	SAMP	1	03/15/22 6:16 PM
A0315090.d	N049836-001C	SAMP	5	03/15/22 6:22 PM
A0315091.d	N049836-001C	SAMP	25	03/15/22 6:28 PM
A0315092.d	N049836-001C-PS	PS	1	03/15/22 6:34 PM
A0315093.d	N049836-001C-PS	PS	5	03/15/22 6:40 PM
A0315094.d	N049836-001C-MS	MS	1	03/15/22 6:46 PM
A0315095.d	N049836-001C-MS	MS	5	03/15/22 6:52 PM
A0315096.d	RINSE	ICAL	1	03/15/22 6:58 PM
A0315097.d	CCV7	CCV	1	03/15/22 7:04 PM
A0315098.d	CCB7	CCB	1	03/15/22 7:09 PM
A0315099.d	N049836-001C-MSD	MSD	1	03/15/22 7:15 PM
A0315100.d	N049836-001C-MSD	MSD	5	03/15/22 7:21 PM
A0315101.d	N049836-002C	SAMP	1	03/15/22 7:27 PM
A0315102.d	N049836-002C	SAMP	5	03/15/22 7:33 PM
A0315103.d	N049836-004C	SAMP	1	03/15/22 7:39 PM
A0315104.d	N049836-004C	SAMP	5	03/15/22 7:45 PM
A0315105.d	N049836-005C	SAMP	1	03/15/22 7:51 PM
A0315106.d	N049836-005C	SAMP	5	03/15/22 7:57 PM
A0315107.d	N049836-006C	SAMP	1	03/15/22 8:03 PM
A0315108.d	N049836-006C	SAMP	5	03/15/22 8:09 PM
A0315109.d	CCV8	CCV	1	03/15/22 8:15 PM
A0315110.d	CCB8	CCB	1	03/15/22 8:21 PM
A0315111.d	N049836-007C	SAMP	1	03/15/22 8:27 PM
A0315112.d	N049836-007C	SAMP	5	03/15/22 8:32 PM
A0315113.d	N049836-008C	SAMP	1	03/15/22 8:38 PM
A0315114.d	N049836-008C	SAMP	5	03/15/22 8:44 PM
A0315115.d	N049836-009C	SAMP	1	03/15/22 8:50 PM
A0315116.d	N049836-009C	SAMP	5	03/15/22 8:56 PM
A0315117.d	N049836-010C	SAMP	1	03/15/22 9:02 PM
A0315118.d	N049836-010C	SAMP	5	03/15/22 9:08 PM
A0315119.d	N049836-011C	SAMP	1	03/15/22 9:14 PM
A0315120.d	N049836-011C	SAMP	5	03/15/22 9:20 PM
A0315121.d	CCV9	CCV	1	03/15/22 9:26 PM
A0315122.d	CCB9	CCB	1	03/15/22 9:32 PM
A0315123.d	N049836-012C	SAMP	1	03/15/22 9:38 PM
A0315124.d	N049836-012C	SAMP	5	03/15/22 9:44 PM
A0315125.d	N049836-013C	SAMP	1	03/15/22 9:49 PM
A0315126.d	N049836-013C	SAMP	5	03/15/22 9:55 PM

INJECTION LOG: 220315A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0315127.d	N049836-014C	SAMP	1	03/15/22 10:01 PM
A0315128.d	N049836-014C	SAMP	5	03/15/22 10:07 PM
A0315129.d	CCV10	CCV	1	03/15/22 10:13 PM
A0315130.d	CCB10	CCB	1	03/15/22 10:19 PM
A0315131.d	ICSA5	ICSA	1	03/15/22 10:25 PM
A0315132.d	ICSAB5	ICSAB	1	03/15/22 10:31 PM

INJECTION LOG: 220316A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0316001.d	RINSE	ICAL	1	03/16/22 10:17 AM
A0316002.d	RINSE	ICAL	1	03/16/22 10:23 AM
A0316003.d	Cal Blk	IBLK	1	03/16/22 10:29 AM
A0316004.d	Std1-0.1/1 ppb	ICAL	1	03/16/22 10:35 AM
A0316005.d	Std2-0.5/5 ppb	ICAL	1	03/16/22 10:41 AM
A0316006.d	Std3-5/50 ppb	ICAL	1	03/16/22 10:47 AM
A0316007.d	Std4-10/100 ppb	ICAL	1	03/16/22 10:53 AM
A0316008.d	Std5-20/200 ppb	ICAL	1	03/16/22 10:59 AM
A0316009.d	Std6-40/400 ppb	ICAL	1	03/16/22 11:05 AM
A0316010.d	Std7-100/1000 ppb	ICAL	1	03/16/22 11:11 AM
A0316011.d	Std8-200/2000 ppb	ICAL	1	03/16/22 11:17 AM
A0316012.d	ICV	ICV	1	03/16/22 11:25 AM
A0316013.d	ICV	ICV	1	03/16/22 11:31 AM
A0316014.d	ICB	ICB	1	03/16/22 11:37 AM
A0316015.d	LLICV	CCV1	1	03/16/22 11:43 AM
A0316016.d	ICSA1	ICSA	1	03/16/22 11:49 AM
A0316017.d	ICSAB1	ICSAB	1	03/16/22 11:55 AM
A0316018.d	LLICV	CCV1	1	03/16/22 12:06 PM
A0316019.d	MB-91925	MBLK	1	03/16/22 12:12 PM
A0316020.d	LCS-91925	LCS	1	03/16/22 12:18 PM
A0316021.d	N049843-001A	SAMP	1	03/16/22 12:24 PM
A0316022.d	N049843-001A-MS	MS	1	03/16/22 12:29 PM
A0316023.d	N049826-001A	SAMP	1	03/16/22 12:35 PM
A0316024.d	N049826-001A	SAMP	5	03/16/22 12:41 PM
A0316025.d	N049826-001A-PS	PS	1	03/16/22 12:47 PM
A0316026.d	N049826-001A-MS	MS	1	03/16/22 12:53 PM
A0316027.d	N049826-001A-MSD	MSD	1	03/16/22 12:59 PM
A0316028.d	N049827-001A	SAMP	1	03/16/22 1:05 PM
A0316029.d	CCV1	CCV	1	03/16/22 1:11 PM
A0316030.d	CCB1	CCB	1	03/16/22 1:17 PM
A0316031.d	N049828-001A	SAMP	1	03/16/22 1:23 PM
A0316032.d	N049829-001A	SAMP	1	03/16/22 1:29 PM
A0316033.d	N049830-001A	SAMP	1	03/16/22 1:35 PM
A0316034.d	N049831-001A	SAMP	1	03/16/22 1:41 PM
A0316035.d	N049832-001A	SAMP	1	03/16/22 1:47 PM
A0316036.d	N049833-001A	SAMP	1	03/16/22 1:53 PM
A0316037.d	N049844-001A	SAMP	1	03/16/22 1:58 PM
A0316038.d	N049845-001A	SAMP	1	03/16/22 2:04 PM
A0316039.d	N049846-001A	SAMP	1	03/16/22 2:10 PM
A0316040.d	CCV2	CCV	1	03/16/22 2:16 PM
A0316041.d	CCB2	CCB	1	03/16/22 2:22 PM
A0316042.d	ICSA2	ICSA	1	03/16/22 2:28 PM

INJECTION LOG: 220316A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0316043.d	ICSAB2	ICSAB	1	03/16/22 2:34 PM
A0316044.d	MB-91905	MBLK	1	03/16/22 2:46 PM
A0316045.d	LCS-91905	LCS	1	03/16/22 2:51 PM
A0316046.d	N049836-001C	SAMP	1	03/16/22 2:57 PM
A0316047.d	N049836-001C	SAMP	5	03/16/22 3:03 PM
A0316048.d	RINSE	ICAL	1	03/16/22 3:09 PM
A0316049.d	N049836-001C-PS	PS	1	03/16/22 3:15 PM
A0316050.d	RINSE	ICAL	1	03/16/22 3:21 PM
A0316051.d	N049836-001C-MS	MS	1	03/16/22 3:27 PM
A0316052.d	RINSE	ICAL	1	03/16/22 3:33 PM
A0316053.d	CCV3	CCV	1	03/16/22 3:39 PM
A0316054.d	CCB3	CCB	1	03/16/22 3:45 PM
A0316055.d	N049836-001C-MSD	MSD	1	03/16/22 3:51 PM
A0316056.d	RINSE	ICAL	1	03/16/22 3:57 PM
A0316057.d	N049836-002C	SAMP	1	03/16/22 4:02 PM
A0316058.d	RINSE	ICAL	1	03/16/22 4:08 PM
A0316059.d	N049836-004C	SAMP	1	03/16/22 4:14 PM
A0316060.d	RINSE	ICAL	1	03/16/22 4:20 PM
A0316061.d	N049836-005C	SAMP	1	03/16/22 4:26 PM
A0316062.d	N049836-005C	SAMP	5	03/16/22 4:32 PM
A0316063.d	N049836-006C	SAMP	1	03/16/22 4:38 PM
A0316064.d	N049836-006C	SAMP	25	03/16/22 4:44 PM
A0316065.d	CCV4	CCV	1	03/16/22 4:50 PM
A0316066.d	CCB4	CCB	1	03/16/22 4:56 PM
A0316067.d	ICSA3	ICSA	1	03/16/22 5:02 PM
A0316068.d	ICSAB3	ICSAB	1	03/16/22 5:08 PM
A0316069.d	N049836-007C	SAMP	1	03/16/22 5:14 PM
A0316070.d	N049836-007C	SAMP	25	03/16/22 5:20 PM
A0316071.d	N049836-008C	SAMP	1	03/16/22 5:26 PM
A0316072.d	N049836-008C	SAMP	25	03/16/22 5:32 PM
A0316073.d	N049836-009C	SAMP	1	03/16/22 5:37 PM
A0316074.d	N049836-009C	SAMP	25	03/16/22 5:43 PM
A0316075.d	N049836-010C	SAMP	1	03/16/22 5:49 PM
A0316076.d	N049836-010C	SAMP	25	03/16/22 5:55 PM
A0316077.d	N049836-011C	SAMP	1	03/16/22 6:01 PM
A0316078.d	N049836-011C	SAMP	25	03/16/22 6:07 PM
A0316079.d	CCV5	CCV	1	03/16/22 6:13 PM
A0316080.d	CCB5	CCB	1	03/16/22 6:19 PM
A0316081.d	N049836-012C	SAMP	1	03/16/22 6:25 PM
A0316082.d	N049836-012C	SAMP	25	03/16/22 6:31 PM
A0316083.d	N049836-013C	SAMP	1	03/16/22 6:37 PM
A0316084.d	N049836-013C	SAMP	25	03/16/22 6:43 PM

INJECTION LOG: 220316A

Instrument ID: ICPMS-03

Data File	Sample Name	Type	DF	Acq. Date-Time
A0316085.d	N049836-014C	SAMP	1	03/16/22 6:49 PM
A0316086.d	N049836-014C	SAMP	25	03/16/22 6:55 PM
A0316087.d	N049836-006C	SAMP	1	03/16/22 7:01 PM
A0316088.d	RINSE	ICAL	1	03/16/22 7:07 PM
A0316089.d	N049836-007C	SAMP	1	03/16/22 7:12 PM
A0316090.d	RINSE	ICAL	1	03/16/22 7:18 PM
A0316091.d	CCV6	CCV	1	03/16/22 7:24 PM
A0316092.d	CCB6	CCB	1	03/16/22 7:30 PM
A0316093.d	N049836-006C	SAMP	1	03/16/22 7:36 PM
A0316094.d	RINSE	ICAL	1	03/16/22 7:42 PM
A0316095.d	N049836-007C	SAMP	1	03/16/22 9:16 PM
A0316096.d	N049836-007C	SAMP	5	03/16/22 9:22 PM
A0316097.d	N049836-006C	SAMP	1	03/16/22 9:28 PM
A0316098.d	N049836-006C	SAMP	5	03/16/22 9:34 PM
A0316099.d	N049836-007C	SAMP	1	03/16/22 9:39 PM
A0316100.d	RINSE	ICAL	1	03/16/22 9:45 PM
A0316101.d	RINSE	ICAL	1	03/16/22 9:51 PM
A0316102.d	RINSE	ICAL	1	03/16/22 9:57 PM
A0316103.d	CCV7	CCV	1	03/16/22 10:03 PM
A0316104.d	CCB7	CCB	1	03/16/22 10:09 PM
A0316105.d	ICSA4	ICSA	1	03/16/22 10:15 PM
A0316106.d	ICSAB4	ICSAB	1	03/16/22 10:21 PM
A0316107.d	MB-91942	MBLK	1	03/16/22 10:27 PM
A0316108.d	LCS-91942	LCS	1	03/16/22 10:33 PM
A0316109.d	N049859-001A	SAMP	1	03/16/22 10:38 PM
A0316110.d	N049859-001A	SAMP	5	03/16/22 10:44 PM
A0316111.d	N049859-001A-PS	PS	1	03/16/22 10:50 PM
A0316112.d	N049859-001A	-MS	MS	03/16/22 10:56 PM
A0316113.d	N049859-001A	-MSD	MSD	03/16/22 11:02 PM
A0316114.d	RINSE	ICAL	1	03/16/22 11:08 PM
A0316115.d	CCV8	CCV	1	03/16/22 11:14 PM
A0316116.d	CCB8	CCB	1	03/16/22 11:20 PM
A0316117.d	ICSA5	ICSA	1	03/16/22 11:26 PM
A0316118.d	ICSAB5	ICSAB	1	03/16/22 11:32 PM

SAMPLE PREPARATION LOG

ASSET Laboratories

PREP BATCH REPORT

Prep Start Date: **3/15/2022 10:21:05**
Prep End Date: **3/15/2022 3:00:00 P**

Reviewed/ Date: JRB 3/24/2022

Initials/ Date: for

Prep Batch **91905** Prep Code: **3010_W_MSDI** Technician: **Claire Ignacio**

Prep Factor Units
mL / mL

Sample ID	Matrix	pH	SampAmt	3 Replicates	Fin Vol	factor	Clean Up Code	TURB Check
LCS-91905	Aqueous		25	☐	25	1.000		
MB-91905	Aqueous		25	☐	25	1.000		
N049836-001C	Groundwater	<2	25	☐	25	1.000		
N049836-001C-MS	Groundwater	<2	25	☐	25	1.000		
N049836-001C-MS	Groundwater	<2	25	☐	25	1.000		
N049836-002C	Groundwater	<2	25	☐	25	1.000		
N049836-004C	Groundwater	<2	25	☐	25	1.000		
N049836-005C	Groundwater	<2	25	☐	25	1.000		
N049836-006C	Groundwater	<2	25	☐	25	1.000		
N049836-007C	Groundwater	<2	25	☐	25	1.000		
N049836-008C	Groundwater	<2	25	☐	25	1.000		
N049836-009C	Groundwater	<2	25	☐	25	1.000		
N049836-010C	Groundwater	<2	25	☐	25	1.000		
N049836-011C	Groundwater	<2	25	☐	25	1.000		

Clean Up Code: A = ACID; F = FLORISIL; S = SILICA GEL; M = MERCURY; G = GPC

Number	Reagent Name
13736	NITRIC ACID
13737	HYDROCHLORIC ACID

Spk ID	Spike Name	SampType	AmtAdd
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution A		0.25
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution B		0.25
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution C		0.25
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution D		0.25

ASSET Laboratories

PREP BATCH REPORT

Prep Start Date: **3/15/2022 10:21:05**
Prep End Date: **3/15/2022 3:00:00 P**

Reviewed/ Date: JRB 3/24/2022

Initials/ Date: for

Prep Batch **91905** Prep Code: **3010_W_MSDI** Technician: **Claire Ignacio**

Prep Factor Units
mL / mL

Sample ID	Matrix	pH	SampAmt	3 Replicates	Fin Vol	factor	Clean Up Code	TURB Check
N049836-012C	Groundwater	<2	25	☐	25	1.000		
N049836-013C	Groundwater	<2	25	☐	25	1.000		
N049836-014C	Groundwater	<2	25	☐	25	1.000		

Clean Up Code: A = ACID; F = FLORISIL; S = SILICA GEL; M = MERCURY; G = GPC

Number	Reagent Name
13736	NITRIC ACID
13737	HYDROCHLORIC ACID

Spk ID	Spike Name	SampType	AmtAdd
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution A		0.25
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution B		0.25
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution C		0.25
2MWST-220310	ICV/MS/MSD/LCS/LCSD Solution D		0.25

INSTRUMENT TUNING CHECK

US EPA Tune Check Report

Operator Name	Admin
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\220315A.b
Acq. Date-Time	2022-03-15 08:18:46
Report Comment	---
Instrument Name	G8421A SG19193757

[No Gas]

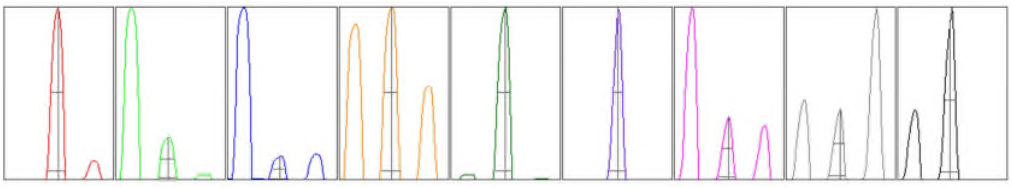
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9	10.00	9129	91289.16	500.00		2.420	5.000
24	10.00	156590	1565895.31	500.00		1.649	5.000
25	10.00	20314	203135.90	500.00		1.345	5.000
26	10.00	22396	223956.24	500.00		1.606	5.000
59	10.00	72927	729269.63	500.00		1.941	5.000
115	10.00	92904	929038.59	500.00		1.830	5.000
206	10.00	16095	160951.13	500.00		1.992	5.000
207	10.00	13512	135124.61	500.00		2.166	5.000
208	10.00	34671	346705.78	500.00		2.024	5.000

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
115	
206	
207	
208	

Integration Time [sec]	0.1
Oxide	156 / 140 1.800 %
Doubly Charged	70 / 140 1.294 %

Resolution/Axis



US EPA Tune Check Report

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	9003.41	9.00	8.90 - 9.10	
24	155013.42	23.95	23.90 - 24.10	
25	19954.89	24.95	24.90 - 25.10	
26	22132.03	25.95	25.90 - 26.10	
59	72475.70	59.00	58.90 - 59.10	
115	99946.29	115.05	114.90 - 115.10	
206	15571.35	206.00	205.90 - 206.10	
207	13788.94	207.00	206.90 - 207.10	
208	31075.80	207.95	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.35	0.485	0.900	
24	0.38	0.493	0.900	
25	0.38	0.489	0.900	
26	0.38	0.530	0.900	
59	0.35	0.485	0.900	
115	0.27	0.458	0.900	
206	0.30	0.479	0.900	
207	0.29	0.450	0.900	
208	0.32	0.493	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	47.0000000000001
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	Low Matrix	Nebulizer Gas	0.99 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.8 V	Deflect	13.2 V
Extract 2	-170.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-70 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	130	Axis Gain	0.9999	QP Bias	-3.0 V
Mass Offset	135	Axis Offset	-0.09		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	1.1 mm

US EPA Tune Check Report

EM

Discriminator	4.5 mV	Analog HV	2956 V	Pulse HV	1460 V

[H2]

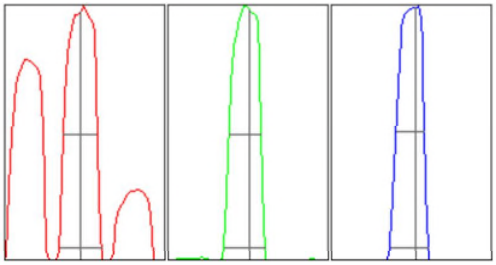
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
26		1180	11795.68			3.807	
59		5533	55333.13			3.834	
115		73374	733743.81			2.664	

Mass	RSD% (Flag)
26	
59	
115	

Integration Time [sec]	0.1
Oxide	156 / 140 1.319 %
Doubly Charged	70 / 140 0.325 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
26	1211.47	25.95	25.90 - 26.10	
59	5646.76	59.05	58.90 - 59.10	
115	76633.45	115.10	114.90 - 115.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
26	0.65	0.786	0.900	
59	0.61	0.776	0.900	
115	0.54	0.730	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	22.34
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	Low Matrix	Nebulizer Gas	0.99 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min

US EPA Tune Check Report

Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.8 V	Deflect	0.8 V
Extract 2	-170.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-70 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	5.7 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-15.0 V
Mass Offset	126	Axis Offset	0.01		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	1.1 mm		

EM

Discriminator	4.5 mV	Analog HV	2956 V	Pulse HV	1460 V

[He]

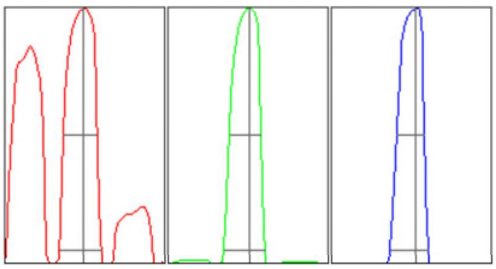
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
26		781	7806.59			3.815	
59		20717	207170.41			1.475	
115		23170	231703.04			2.138	

Mass	RSD% (Flag)
26	
59	
115	

Integration Time [sec]	0.1
Oxide	156 / 140 0.701 %
Doubly Charged	70 / 140 1.311 %

Resolution/Axis



US EPA Tune Check Report

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
26	803.21	26.00	25.90 - 26.10	
59	21005.33	59.05	58.90 - 59.10	
115	24073.98	115.10	114.90 - 115.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
26	0.64	0.783	0.900	
59	0.61	0.775	0.900	
115	0.53	0.724	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	22.34
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	Low Matrix	Nebulizer Gas	0.99 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.8 V	Deflect	2.0 V
Extract 2	-175.0 V	Cell Entrance	-40 V	Plate Bias	-55 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	129	Axis Gain	0.9995	QP Bias	-13.0 V
Mass Offset	126	Axis Offset	0.01		

Hardware Settings

Torch

Torch H	0.0 mm	Torch V	1.1 mm

EM

Discriminator	4.5 mV	Analog HV	2956 V	Pulse HV	1460 V

US EPA Tune Check Report

Operator Name	Admin
Acq/Data Batch	D:\Agilent\ICPMH\1\DATA\220316A.b
Acq. Date-Time	2022-03-16 10:02:52
Report Comment	---
Instrument Name	G8421A SG19193757

[No Gas]

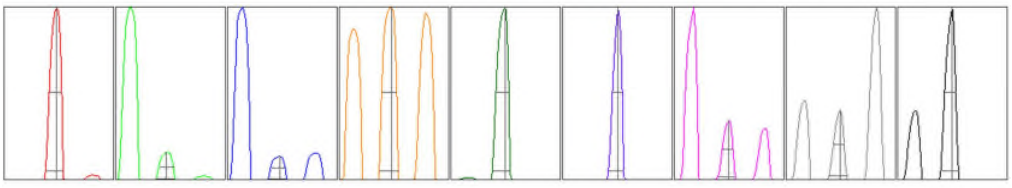
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9	10.00	14291	142905.59	500.00		2.234	5.000
24	10.00	54984	549843.14	500.00		1.881	5.000
25	10.00	7306	73062.85	500.00		2.087	5.000
26	10.00	8509	85088.51	500.00		2.461	5.000
59	10.00	78920	789203.88	500.00		1.756	5.000
115	10.00	82199	821989.30	500.00		2.137	5.000
206	10.00	14298	142982.82	500.00		2.364	5.000
207	10.00	12250	122500.98	500.00		2.562	5.000
208	10.00	31665	316647.25	500.00		2.524	5.000

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
115	
206	
207	
208	

Integration Time [sec]	0.1
Oxide	156 / 140 0.978 %
Doubly Charged	70 / 140 1.664 %

Resolution/Axis



US EPA Tune Check Report

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	14277.43	8.95	8.90 - 9.10	
24	57059.33	23.90	23.90 - 24.10	
25	7501.56	24.95	24.90 - 25.10	
26	8579.06	25.95	25.90 - 26.10	
59	77832.73	59.00	58.90 - 59.10	
115	84533.14	115.05	114.90 - 115.10	
206	13971.11	206.00	205.90 - 206.10	
207	12365.47	207.00	206.90 - 207.10	
208	31081.18	208.00	207.90 - 208.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.35	0.482	0.900	
24	0.40	0.496	0.900	
25	0.40	0.492	0.900	
26	0.42	0.534	0.900	
59	0.36	0.485	0.900	
115	0.28	0.424	0.900	
206	0.31	0.473	0.900	
207	0.30	0.485	0.900	
208	0.32	0.482	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	47.0000000000001
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	Low Matrix	Nebulizer Gas	0.99 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.8 V	Deflect	13.2 V
Extract 2	-170.0 V	Cell Entrance	-30 V	Plate Bias	-35 V
Omega Bias	-70 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	129	Axis Gain	1.0002	QP Bias	-3.0 V
Mass Offset	134	Axis Offset	-0.14		

Hardware Settings

Torch

Torch H	0.1 mm	Torch V	0.9 mm

US EPA Tune Check Report

EM

Discriminator	4.5 mV	Analog HV	2975 V	Pulse HV	1466 V

[H2]

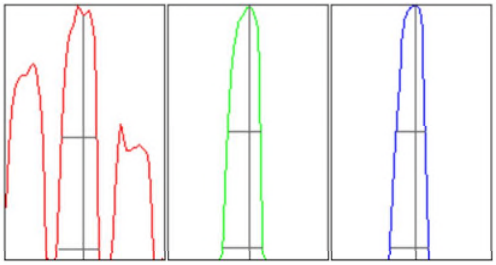
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
26		578	5781.38			4.437	
59		9005	90047.60			2.511	
115		84157	841567.07			2.593	

Mass	RSD% (Flag)
26	
59	
115	

Integration Time [sec]	0.1
Oxide	156 / 140 0.795 %
Doubly Charged	70 / 140 0.432 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
26	575.87	26.00	25.90 - 26.10	
59	9430.21	59.05	58.90 - 59.10	
115	88519.41	115.10	114.90 - 115.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
26	0.67	0.789	0.900	
59	0.62	0.744	0.900	
115	0.55	0.730	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	22.34
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	Low Matrix	Nebulizer Gas	0.99 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min

US EPA Tune Check Report

Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.8 V	Deflect	0.8 V
Extract 2	-170.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-70 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	0.0 mL/min	OctP Bias	-18.0 V		
H2 Flow	5.7 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	128	Axis Gain	0.9999	QP Bias	-15.0 V
Mass Offset	125	Axis Offset	-0.03		

Hardware Settings

Torch

Torch H	0.1 mm	Torch V	0.9 mm		

EM

Discriminator	4.5 mV	Analog HV	2975 V	Pulse HV	1466 V

[He]

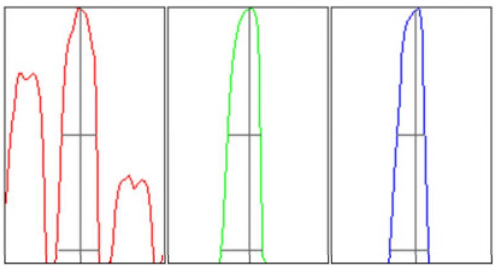
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
26		373	3734.01			4.732	
59		25489	254885.69			2.434	
115		26600	266001.92			2.287	

Mass	RSD% (Flag)
26	
59	
115	

Integration Time [sec]	0.1
Oxide	156 / 140 0.429 %
Doubly Charged	70 / 140 1.644 %

Resolution/Axis



US EPA Tune Check Report

Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
26	386.05	25.95	25.90 - 26.10	
59	25347.25	59.05	58.90 - 59.10	
115	27227.23	115.10	114.90 - 115.10	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
26	0.66	0.791	0.900	
59	0.62	0.774	0.900	
115	0.54	0.728	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	22.34
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	Low Matrix	Nebulizer Gas	0.99 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.8 V	Deflect	2.0 V
Extract 2	-175.0 V	Cell Entrance	-40 V	Plate Bias	-55 V
Omega Bias	-80 V	Cell Exit	-60 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	128	Axis Gain	0.9999	QP Bias	-13.0 V
Mass Offset	125	Axis Offset	-0.03		

Hardware Settings

Torch

Torch H	0.1 mm	Torch V	0.9 mm

EM

Discriminator	4.5 mV	Analog HV	2975 V	Pulse HV	1466 V

INITIAL CALIBRATION DATA SUMMARY

INITIAL CALIBRATION SUMMARY: 220315A

Instrument ID: ICPMS-03

Analyte	Data File	A0315003.d	A0315004.d	A0315005.d	A0315006.d	A0315007.d	A0315008.d	A0315009.d	A0315010.d	A0315011.d	
	Acq. Date-Time	03/15/2022 08:51 AM	03/15/2022 08:57 AM	03/15/2022 09:03 AM	03/15/2022 09:09 AM	03/15/2022 09:15 AM	03/15/2022 09:21 AM	03/15/2022 09:28 AM	03/15/2022 09:34 AM	03/15/2022 09:40 AM	
	Type	CalBlk	CalStd	CalStd	CalStd	CalStd	CalStd	CalStd	CalStd	CalStd	
	Level	1	2	3	4	5	6	7	8	9	
	Sample Name	Cal Blk	Std1-0.1/1 ppb	Std2-0.5/5 ppb	Std3-5/50 ppb	Std4-10/100 ppb	Std5-20/200 ppb	Std6-40/400 ppb	Std7-100/1000 ppb	Std8-200/2000 ppb	
	Concentration	0.00	0.1/1 ug/L	0.5/5 ug/L	5/50 ug/L	10/100 ug/L	20/200 ug/L	40/400 ug/L	100/1000 ug/L	200/2000 ug/L	R
45 Sc (ISTD) [2]	CPS	128487.5		131945.1	132200.9	127101.5	130636.5	128982.1	123588.7	125047.2	
55 Mn [2]	CPS	137.4		2748.5	24472.2	45749.8	97199.8	184515.8	437517.9	857558.8	0.9999
52 Cr [2]	CPS	1116.7		5245.3	40671.8	75372	155972.1	303121.7	712636.6	1371774.9	0.9997
72 Ge (ISTD) [1]	CPS	128141.6		128446.4	123393.5	121627.1	130074.4	127104.8	118588.1	118507.4	
78 Se [1]	CPS	1.1		230	1969	4065	8522.3	16538.4	38546.6	74319.6	0.9998
72 Ge (ISTD) [2]	CPS	72743	76627.1	75150.3	74276.6	71118.1	73558.9	73382.4	69784.6	70842.3	
75 As [2]	CPS	47.5	154.2	614.2	5410.6	9989.3	20517.8	40173.8	95186.6	188770.4	0.9999
103 Rh (ISTD) [2]	CPS	1446616.7		1525778.1	1520133	1443767.5	1494834	1470213.7	1389043	1416505.9	
95 Mo [2]	CPS	20		2201.3	21423.2	40302.6	84678.2	166040.7	395920.1	792526.6	1.0000
159 Tb (ISTD) [3]	CPS	2190536.9		2237665.5	2157215.5	2122053.2	2214524.8	2219380.1	2148429.6	2183587.4	
137 Ba [3]	CPS	50		2436.9	19629.2	38096.9	78517.3	153787.1	366639.4	719494.9	0.9999

Standard Code
ICAL: 2MSST-211018B
ICAL: 2MSST-211018C
ICAL: 2MWST-211201B
IS Mix: 2MWST-211201A

Calibration Acceptance Criteria: > 0.995 Correlation

INITIAL CALIBRATION SUMMARY: 220316A

Instrument ID: ICPMS-03

Analyte	Data File	A0316003.d	A0316004.d	A0316005.d	A0316006.d	A0316007.d	A0316008.d	A0316009.d	A0316010.d	A0316011.d	
	Acq. Date-Time	03/16/2022 10:29 AM	03/16/2022 10:35 AM	03/16/2022 10:41 AM	03/16/2022 10:47 AM	03/16/2022 10:53 AM	03/16/2022 10:59 AM	03/16/2022 11:05 AM	03/16/2022 11:11 AM	03/16/2022 11:17 AM	
	Type	CalBlk	CalStd	CalStd	CalStd	CalStd	CalStd	CalStd	CalStd	CalStd	
	Level	1	2	3	4	5	6	7	8	9	
	Sample Name	Cal Blk	Std1-0.1/1 ppb	Std2-0.5/5 ppb	Std3-5/50 ppb	Std4-10/100 ppb	Std5-20/200 ppb	Std6-40/400 ppb	Std7-100/1000 ppb	Std8-200/2000 ppb	
	Concentration	0.00	0.1/1 ug/L	0.5/5 ug/L	5/50 ug/L	10/100 ug/L	20/200 ug/L	40/400 ug/L	100/1000 ug/L	200/2000 ug/L	R
45 Sc (ISTD) [2]	CPS	194424.5		192050.5	186620.3	188503.3	189064.3	189387.5	189120.1	187197.7	
55 Mn [2]	CPS	90		3401.3	32354.9	65516.8	130519.7	258641.4	649712.8	1247419	0.9999
52 Cr [2]	CPS	2652.4		7886.4	54844.5	108999.1	217104.2	434310.4	1067896.2	2073704.5	1.0000
72 Ge (ISTD) [1]	CPS	186853.1		184061.8	180383.8	181066.7	179909	182051.8	179915.2	171974.1	
78 Se [1]	CPS	0		282.2	2826.9	5596.5	11446.3	23005.1	56649.1	108798.9	1.0000
72 Ge (ISTD) [2]	CPS	99035.2	97801.2	98715.5	94106.4	95453	96270.1	97059	95854.3	95006.3	
75 As [2]	CPS	41	182.1	706.6	6321	12524.4	25558.2	51493.9	128316.7	253265.9	1.0000
159 Tb (ISTD) [3]	CPS	2880641.8		2891835	2858091.5	2808636.8	2830714.5	2854506.9	2821996.9	2868699	
137 Ba [3]	CPS	56.7		2683.6	25284.2	49468.8	98926.3	201778.3	484051.1	957190.9	0.9999

Standard Code
ICAL: 2MSST-211018B
ICAL: 2MSST-211018C
ICAL: 2MWST-211201B
IS Mix: 2MWST-211201A

Calibration Acceptance Criteria: > 0.995 Correlation

INITIAL CALIBRATION AND CONTINUING CALIBRATION VERIFICATION SUMMARY

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICV**	SampType: **ICV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566526**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	99.549	0.50	100.0	0	99.5	90	110				
Molybdenum	10.439	0.50	10.00	0	104	90	110				

Sample ID **LLICV**	SampType: **CCV1**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ZZZZZZ**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566528**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.529	0.50	0.5000	0	106	80	120				
Molybdenum	0.542	0.50	0.5000	0	108	80	120				

Sample ID **CCV1**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566541**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	21.481	0.50	20.00	0	107	90	110				
Molybdenum	20.053	0.50	20.00	0	100	90	110				

Sample ID **CCV2**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566545**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	21.725	0.50	20.00	0	109	90	110				
Molybdenum	19.928	0.50	20.00	0	99.6	90	110				

Sample ID **CCV3**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566556**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCV3**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566556**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	21.341	0.50	20.00	0	107	90	110				
Molybdenum	20.022	0.50	20.00	0	100	90	110				

Sample ID **CCV4**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.690	0.50	20.00	0	103	90	110				
Molybdenum	20.066	0.50	20.00	0	100	90	110				

Sample ID **CCV5**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566572**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.597	0.50	20.00	0	103	90	110				
Molybdenum	20.120	0.50	20.00	0	101	90	110				

Sample ID **CCV6**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566583**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	21.257	0.50	20.00	0	106	90	110				
Molybdenum	20.050	0.50	20.00	0	100	90	110				

Sample ID **CCV7**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.893	0.50	20.00	0	104	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCV7**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566596**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	19.906	0.50	20.00	0	99.5	90	110				

Sample ID **CCV8**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566608**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.308	0.50	20.00	0	102	90	110				
Molybdenum	20.227	0.50	20.00	0	101	90	110				

Sample ID **CCV9**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566620**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.074	0.50	20.00	0	100	90	110				
Molybdenum	20.200	0.50	20.00	0	101	90	110				

Sample ID **CCV10**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCV**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566628**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.231	0.50	20.00	0	101	90	110				
Molybdenum	20.096	0.50	20.00	0	100	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICV**	SampType: **ICV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567293**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.347	0.10	10.00	0	103	90	110				
Barium	10.281	1.0	10.00	0	103	90	110				
Manganese	103.882	0.50	100.0	0	104	90	110				
Selenium	10.392	0.50	10.00	0	104	90	110				

Sample ID **LLICV**	SampType: **CCV1**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567298**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.112	0.10	0.1000	0	112	80	120				
Barium	1.097	1.0	1.000	0	110	80	120				
Manganese	0.567	0.50	0.5000	0	113	80	120				
Selenium	0.595	0.50	0.5000	0	119	80	120				

Sample ID **CCV1**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567309**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.811	0.10	20.00	0	99.1	90	110				
Barium	20.565	1.0	20.00	0	103	90	110				
Manganese	20.673	0.50	20.00	0	103	90	110				
Selenium	20.208	0.50	20.00	0	101	90	110				

Sample ID **CCV2**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.706	0.10	20.00	0	98.5	90	110				
Barium	20.414	1.0	20.00	0	102	90	110				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCV2**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.512	0.50	20.00	0	103	90	110				
Selenium	19.927	0.50	20.00	0	99.6	90	110				

Sample ID **CCV3**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567330**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.708	0.10	20.00	0	98.5	90	110				
Barium	21.075	1.0	20.00	0	105	90	110				
Manganese	20.511	0.50	20.00	0	103	90	110				
Selenium	19.758	0.50	20.00	0	98.8	90	110				

Sample ID **CCV4**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567339**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.544	0.10	20.00	0	97.7	90	110				
Barium	20.975	1.0	20.00	0	105	90	110				
Manganese	20.329	0.50	20.00	0	102	90	110				
Selenium	20.328	0.50	20.00	0	102	90	110				

Sample ID **CCV5**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567353**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.876	0.10	20.00	0	99.4	90	110				
Barium	21.014	1.0	20.00	0	105	90	110				
Manganese	20.417	0.50	20.00	0	102	90	110				
Selenium	20.399	0.50	20.00	0	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCV6**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567363**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.266	0.10	20.00	0	96.3	90	110				
Barium	21.364	1.0	20.00	0	107	90	110				
Manganese	20.130	0.50	20.00	0	101	90	110				
Selenium	20.075	0.50	20.00	0	100	90	110				

Sample ID **CCV7**	SampType: **CCV**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	19.089	0.10	20.00	0	95.4	90	110				
Barium	20.397	1.0	20.00	0	102	90	110				
Manganese	20.219	0.50	20.00	0	101	90	110				
Selenium	20.458	0.50	20.00	0	102	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID **ICV**	SampType: **ICV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567199**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.553	1.0	10.00	0	106	90	110				

Sample ID **LLICV**	SampType: **CCV1**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ZZZZZZ**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567204**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	1.004	1.0	1.000	0	100	80	120				

Sample ID **CCV1**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567215**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.389	1.0	20.00	0	102	90	110				

Sample ID **CCV2**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567226**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.597	1.0	20.00	0	103	90	110				

Sample ID **CCV3**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567236**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.527	1.0	20.00	0	103	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID **CCV4**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567245**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.664	1.0	20.00	0	103	90	110				

Sample ID **CCV5**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567259**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.795	1.0	20.00	0	104	90	110				

Sample ID **CCV6**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567269**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.368	1.0	20.00	0	102	90	110				

Sample ID **CCV7**	SampType: **CCV**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCV**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.678	1.0	20.00	0	103	90	110				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

SUMMARY OF INSTRUMENT BLANKS

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICB**	SampType: **ICB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566527**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB1**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB2**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566546**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB3**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB4**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566564**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCB4**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566564**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB5**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566573**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB6**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566584**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB7**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566597**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB8**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCB8**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566609**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	ND	0.50									

Sample ID **CCB9**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566621**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.035	0.50									
Molybdenum	ND	0.50									

Sample ID **CCB10**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **CCB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566629**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICB**	SampType: **ICB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567294**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **CCB1**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567310**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **CCB2**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567321**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **CCB3**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567331**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCB3**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567331**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **CCB4**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567340**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	0.051	0.50									

Sample ID **CCB5**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567354**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **CCB6**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567364**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	0.047	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **CCB7**	SampType: **CCB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567372**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	ND	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID **ICB**	SampType: **ICB**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567200**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID **CCB1**	SampType: **CCB**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567216**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID **CCB2**	SampType: **CCB**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567227**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID **CCB3**	SampType: **CCB**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567237**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID **CCB4**	SampType: **CCB**	TestCode: **6020DIS_CrP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **CCB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID	CCB5	SampType:	CCB	TestCode:	6020DIS_CrP	Units:	µg/L	Prep Date:		RunNo:	160902
Client ID:	CCB	Batch ID:	R160902	TestNo:	EPA 6020			Analysis Date:	3/16/2022	SeqNo:	4567260

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.093	1.0									

Sample ID	CCB6	SampType:	CCB	TestCode:	6020DIS_CrP	Units:	µg/L	Prep Date:		RunNo:	160902
Client ID:	CCB	Batch ID:	R160902	TestNo:	EPA 6020			Analysis Date:	3/16/2022	SeqNo:	4567270

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.087	1.0									

Sample ID	CCB7	SampType:	CCB	TestCode:	6020DIS_CrP	Units:	µg/L	Prep Date:		RunNo:	160902
Client ID:	CCB	Batch ID:	R160902	TestNo:	EPA 6020			Analysis Date:	3/16/2022	SeqNo:	4567278

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.249	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

SUMMARY OF INSTRUMENT CHECK (ICSA & ICSAB)

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	ICSA1	SampType:	ICSA	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160883
Client ID:	ICSA	Batch ID:	R160883	TestNo:	EPA 6020			Analysis Date:	3/15/2022	SeqNo:	4566529

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	0.131	0.50									

Sample ID	ICSAB1	SampType:	ICSAB	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160883
Client ID:	ICSAB	Batch ID:	R160883	TestNo:	EPA 6020			Analysis Date:	3/15/2022	SeqNo:	4566530

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.612	0.50	20.00	0	103	80	120				
Molybdenum	21.772	0.50	20.00	0	109	80	120				

Sample ID	ICSA2	SampType:	ICSA	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160883
Client ID:	ICSA	Batch ID:	R160883	TestNo:	EPA 6020			Analysis Date:	3/15/2022	SeqNo:	4566547

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID	ICSAB2	SampType:	ICSAB	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160883
Client ID:	ICSAB	Batch ID:	R160883	TestNo:	EPA 6020			Analysis Date:	3/15/2022	SeqNo:	4566548

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.717	0.50	20.00	0	104	80	120				
Molybdenum	21.830	0.50	20.00	0	109	80	120				

Sample ID	ICSA3	SampType:	ICSA	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160883
Client ID:	ICSA	Batch ID:	R160883	TestNo:	EPA 6020			Analysis Date:	3/15/2022	SeqNo:	4566565

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICSA3**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSA**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566565**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **ICSAB3**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSAB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566566**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.308	0.50	20.00	0	102	80	120				
Molybdenum	21.871	0.50	20.00	0	109	80	120				

Sample ID **ICSA4**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSA**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566585**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									
Molybdenum	ND	0.50									

Sample ID **ICSAB4**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSAB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566586**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.655	0.50	20.00	0	103	80	120				
Molybdenum	21.608	0.50	20.00	0	108	80	120				

Sample ID **ICSA5**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSA**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICSA5**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSA**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.120	0.50									

Sample ID **ICSAB5**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160883**
Client ID: **ICSAB**	Batch ID: **R160883**	TestNo: **EPA 6020**		Analysis Date: **3/15/2022**	SeqNo: **4566631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	20.123	0.50	20.00	0	101	80	120				
Molybdenum	21.370	0.50	20.00	0	107	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICSA1**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSA**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567296**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	0.238	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **ICSAB1**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSAB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567297**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	21.574	0.10	20.00	0	108	80	120				
Barium	22.394	1.0	20.00	0	112	80	120				
Manganese	17.795	0.50	20.00	0	89.0	80	120				
Selenium	20.133	0.50	20.00	0	101	80	120				

Sample ID **ICSA2**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSA**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567322**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	0.255	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **ICSAB2**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSAB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567323**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	21.324	0.10	20.00	0	107	80	120				
Barium	22.844	1.0	20.00	0	114	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICSAB2**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSAB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567323**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	18.031	0.50	20.00	0	90.2	80	120				
Selenium	19.817	0.50	20.00	0	99.1	80	120				

Sample ID **ICSA3**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSA**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567341**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	0.256	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Sample ID **ICSAB3**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSAB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567342**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	21.446	0.10	20.00	0	107	80	120				
Barium	22.637	1.0	20.00	0	113	80	120				
Manganese	17.947	0.50	20.00	0	89.7	80	120				
Selenium	20.632	0.50	20.00	0	103	80	120				

Sample ID **ICSA4**	SampType: **ICSA**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSA**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567373**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Barium	0.253	1.0									
Manganese	ND	0.50									
Selenium	ND	0.50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID **ICSAB4**	SampType: **ICSAB**	TestCode: **6020_DIS_TP**	Units: **µg/L**	Prep Date:	RunNo: **160902**
Client ID: **ICSAB**	Batch ID: **R160902**	TestNo: **EPA 6020**		Analysis Date: **3/16/2022**	SeqNo: **4567374**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	20.855	0.10	20.00	0	104	80	120				
Barium	22.612	1.0	20.00	0	113	80	120				
Manganese	18.006	0.50	20.00	0	90.0	80	120				
Selenium	21.455	0.50	20.00	0	107	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID	**ICSA1**	SampType:	**ICSA**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSA**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567202**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID	**ICSAB1**	SampType:	**ICSAB**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSAB**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567203**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	21.232	1.0	20.00	0	106	80	120				

Sample ID	**ICSA2**	SampType:	**ICSA**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSA**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567228**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Sample ID	**ICSAB2**	SampType:	**ICSAB**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSAB**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567229**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	20.764	1.0	20.00	0	104	80	120				

Sample ID	**ICSA3**	SampType:	**ICSA**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSA**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567247**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID	**ICSAB3**	SampType:	**ICSAB**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSAB**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567248**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	21.960	1.0	20.00	0	110	80	120				

Sample ID	**ICSA4**	SampType:	**ICSA**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSA**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567279**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.439	1.0									

Sample ID	**ICSAB4**	SampType:	**ICSAB**	TestCode:	**6020DIS_CrP**	Units:	**µg/L**	Prep Date:		RunNo:	**160902**
Client ID:	**ICSAB**	Batch ID:	**R160902**	TestNo:	**EPA 6020**			Analysis Date:	**3/16/2022**	SeqNo:	**4567280**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	22.223	1.0	20.00	0	111	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

INTERNAL STANDARD SUMMARY

INTERNAL STANDARD: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	159 Tb (ISTD) [3]					45 Sc (ISTD) [2]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
Cal Blk	IBLK	1	2190536.9	2190536.9	100	PASS	30-150	128487.5	128487.5	100	PASS	30-150
Std1-0.1/1 ppb	ICAL	1	2301492.1	2190536.9	105.07	PASS	30-150	136663.9	128487.5	106.36	PASS	30-150
Std2-0.5/5 ppb	ICAL	1	2237665.5	2190536.9	102.15	PASS	30-150	131945.1	128487.5	102.69	PASS	30-150
Std3-5/50 ppb	ICAL	1	2157215.5	2190536.9	98.48	PASS	30-150	132200.9	128487.5	102.89	PASS	30-150
Std4-10/100 ppb	ICAL	1	2122053.2	2190536.9	96.87	PASS	30-150	127101.5	128487.5	98.92	PASS	30-150
Std5-20/200 ppb	ICAL	1	2214524.8	2190536.9	101.1	PASS	30-150	130636.5	128487.5	101.67	PASS	30-150
Std6-40/400 ppb	ICAL	1	2219380.1	2190536.9	101.32	PASS	30-150	128982.1	128487.5	100.38	PASS	30-150
Std7-100/1000 ppb	ICAL	1	2148429.6	2190536.9	98.08	PASS	30-150	123588.7	128487.5	96.19	PASS	30-150
Std8-200/2000 ppb	ICAL	1	2183587.4	2190536.9	99.68	PASS	30-150	125047.2	128487.5	97.32	PASS	30-150
ICV	ICV	1	2091666.6	2190536.9	95.49	PASS	30-150	115888.5	128487.5	90.19	PASS	30-150
ICB	ICB	1	2021646.2	2190536.9	92.29	PASS	30-150	110066.1	128487.5	85.66	PASS	30-150
LLICV	CCV1	1	2124697.8	2190536.9	96.99	PASS	30-150	115160.1	128487.5	89.63	PASS	30-150
ICSA1	ICSA	1	1959697.1	2190536.9	89.46	PASS	30-150	123226.2	128487.5	95.91	PASS	30-150
ICSAB1	ICSAB	1	1938345.4	2190536.9	88.49	PASS	30-150	130920.5	128487.5	101.89	PASS	30-150
CCV1	CCV	1	2245579	2190536.9	102.51	PASS	30-150	118441.8	128487.5	92.18	PASS	30-150
CCB1	CCB	1	2100195.2	2190536.9	95.88	PASS	30-150	106700.1	128487.5	83.04	PASS	30-150
CCV2	CCV	1	2473418.9	2190536.9	112.91	PASS	30-150	122802	128487.5	95.58	PASS	30-150
CCB2	CCB	1	2279271.4	2190536.9	104.05	PASS	30-150	107599.4	128487.5	83.74	PASS	30-150
ICSA2	ICSA	1	2185122.8	2190536.9	99.75	PASS	30-150	114245.4	128487.5	88.92	PASS	30-150
ICSAB2	ICSAB	1	2065606	2190536.9	94.3	PASS	30-150	117326.3	128487.5	91.31	PASS	30-150
CCV3	CCV	1	2448102.7	2190536.9	111.76	PASS	30-150	152038.9	128487.5	118.33	PASS	30-150
CCB3	CCB	1	2173060.4	2190536.9	99.2	PASS	30-150	126163.4	128487.5	98.19	PASS	30-150
CCV4	CCV	1	2164779.7	2190536.9	98.82	PASS	30-150	146015.6	128487.5	113.64	PASS	30-150
CCB4	CCB	1	1975890.7	2190536.9	90.2	PASS	30-150	118393.8	128487.5	92.14	PASS	30-150
ICSA3	ICSA	1	1943951.2	2190536.9	88.74	PASS	30-150	135866.5	128487.5	105.74	PASS	30-150
ICSAB3	ICSAB	1	1952314	2190536.9	89.12	PASS	30-150	132967.9	128487.5	103.49	PASS	30-150
CCV5	CCV	1	2351813.9	2190536.9	107.36	PASS	30-150	141035.1	128487.5	109.77	PASS	30-150
CCB5	CCB	1	2140228.1	2190536.9	97.7	PASS	30-150	117244.6	128487.5	91.25	PASS	30-150
CCV6	CCV	1	2133278.6	2190536.9	97.39	PASS	30-150	115837	128487.5	90.15	PASS	30-150
CCB6	CCB	1	1942229.8	2190536.9	88.66	PASS	30-150	102897.8	128487.5	80.08	PASS	30-150
ICSA4	ICSA	1	1897363	2190536.9	86.62	PASS	30-150	106876.1	128487.5	83.18	PASS	30-150
ICSAB4	ICSAB	1	1980314.4	2190536.9	90.4	PASS	30-150	118011	128487.5	91.85	PASS	30-150
MB-91905	MBLK	1	2099788	2190536.9	95.86	PASS	30-150	106153.3	128487.5	82.62	PASS	30-150
LCS-91905	LCS	1	2156621.1	2190536.9	98.45	PASS	30-150	100908.9	128487.5	78.54	PASS	30-150
N049836-001C	SAMP	1	1240449.9	2190536.9	56.63	PASS	30-150	72561.1	128487.5	56.47	PASS	30-150
N049836-001C	SAMP	5	1296044.7	2190536.9	59.17	PASS	30-150	78175.1	128487.5	60.84	PASS	30-150
N049836-001C	SAMP	25	1517132	2190536.9	69.26	PASS	30-150	86216.6	128487.5	67.1	PASS	30-150
N049836-001C-PS	PS	1	1110330.1	2190536.9	50.69	PASS	30-150	68730.8	128487.5	53.49	PASS	30-150
N049836-001C-PS	PS	5	1245816.7	2190536.9	56.87	PASS	30-150	80786.5	128487.5	62.87	PASS	30-150
N049836-001C-MS	MS	1	965110.5	2190536.9	44.06	PASS	30-150	63463.3	128487.5	49.39	PASS	30-150
N049836-001C-MS	MS	5	1116547.6	2190536.9	50.97	PASS	30-150	73148.1	128487.5	56.93	PASS	30-150

INTERNAL STANDARD: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	159 Tb (ISTD) [3]					45 Sc (ISTD) [2]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
CCV7	CCV	1	1538742.1	2190536.9	70.24	PASS	30-150	100665.7	128487.5	78.35	PASS	30-150
CCB7	CCB	1	1332565.2	2190536.9	60.83	PASS	30-150	87554.5	128487.5	68.14	PASS	30-150
N049836-001C-MSD	MSD	1	916606.8	2190536.9	41.84	PASS	30-150	68941.4	128487.5	53.66	PASS	30-150
N049836-001C-MSD	MSD	5	968940.8	2190536.9	44.23	PASS	30-150	74451.7	128487.5	57.94	PASS	30-150
N049836-002C	SAMP	1	815628.5	2190536.9	37.23	PASS	30-150	62915.7	128487.5	48.97	PASS	30-150
N049836-002C	SAMP	5	885174.3	2190536.9	40.41	PASS	30-150	64367.7	128487.5	50.1	PASS	30-150
N049836-004C	SAMP	1	672497.1	2190536.9	30.7	PASS	30-150	53597.9	128487.5	41.71	PASS	30-150
N049836-004C	SAMP	5	608497.2	2190536.9	27.78	NR!	30-150	50089.2	128487.5	38.98	PASS	30-150
N049836-005C	SAMP	1	784319.9	2190536.9	35.8	PASS	30-150	58158.6	128487.5	45.26	PASS	30-150
N049836-005C	SAMP	5	823885.1	2190536.9	37.61	PASS	30-150	63822.3	128487.5	49.67	PASS	30-150
N049836-006C	SAMP	1	691342	2190536.9	31.56	PASS	30-150	55267.7	128487.5	43.01	PASS	30-150
N049836-006C	SAMP	5	773402.3	2190536.9	35.31	PASS	30-150	58405	128487.5	45.46	PASS	30-150
CCV8	CCV	1	1170092.3	2190536.9	53.42	PASS	30-150	80537.3	128487.5	62.68	PASS	30-150
CCB8	CCB	1	1080748.2	2190536.9	49.34	PASS	30-150	71573.6	128487.5	55.7	PASS	30-150
N049836-007C	SAMP	1	774639.1	2190536.9	35.36	PASS	30-150	54584.4	128487.5	42.48	PASS	30-150
N049836-007C	SAMP	5	878246.4	2190536.9	40.09	PASS	30-150	64870.9	128487.5	50.49	PASS	30-150
N049836-008C	SAMP	1	1008685.7	2190536.9	46.05	PASS	30-150	69634.4	128487.5	54.2	PASS	30-150
N049836-008C	SAMP	5	996438.3	2190536.9	45.49	PASS	30-150	67820.2	128487.5	52.78	PASS	30-150
N049836-009C	SAMP	1	644991.6	2190536.9	29.44	NR!	30-150	47114.1	128487.5	36.67	PASS	30-150
N049836-009C	SAMP	5	724559.8	2190536.9	33.08	PASS	30-150	58968	128487.5	45.89	PASS	30-150
N049836-010C	SAMP	1	611400.8	2190536.9	27.91	NR!	30-150	48623.9	128487.5	37.84	PASS	30-150
N049836-010C	SAMP	5	702519.7	2190536.9	32.07	PASS	30-150	53931.2	128487.5	41.97	PASS	30-150
N049836-011C	SAMP	1	767268	2190536.9	35.03	PASS	30-150	56447.2	128487.5	43.93	PASS	30-150
N049836-011C	SAMP	5	816325.1	2190536.9	37.27	PASS	30-150	59239	128487.5	46.1	PASS	30-150
CCV9	CCV	1	963907.1	2190536.9	44	PASS	30-150	69449.3	128487.5	54.05	PASS	30-150
CCB9	CCB	1	867018.8	2190536.9	39.58	PASS	30-150	59408.5	128487.5	46.24	PASS	30-150
N049836-012C	SAMP	1	765786.3	2190536.9	34.96	PASS	30-150	51416.5	128487.5	40.02	PASS	30-150
N049836-012C	SAMP	5	812785.2	2190536.9	37.1	PASS	30-150	55971.1	128487.5	43.56	PASS	30-150
N049836-013C	SAMP	1	496471.3	2190536.9	22.66	NR!	30-150	38446.3	128487.5	29.92	NR!	30-150
N049836-013C	SAMP	5	630639.4	2190536.9	28.79	NR!	30-150	50306.6	128487.5	39.15	PASS	30-150
N049836-014C	SAMP	1	581109.5	2190536.9	26.53	NR!	30-150	43692.5	128487.5	34.01	PASS	30-150
N049836-014C	SAMP	5	578837.5	2190536.9	26.42	NR!	30-150	47239.8	128487.5	36.77	PASS	30-150
CCV10	CCV	1	1076840.7	2190536.9	49.16	PASS	30-150	73097.8	128487.5	56.89	PASS	30-150
CCB10	CCB	1	1020500.5	2190536.9	46.59	PASS	30-150	65886.9	128487.5	51.28	PASS	30-150
ICSA5	ICSA	1	1065640.4	2190536.9	48.65	PASS	30-150	72007.9	128487.5	56.04	PASS	30-150
ICSAB5	ICSAB	1	1066609.3	2190536.9	48.69	PASS	30-150	71274.5	128487.5	55.47	PASS	30-150

INTERNAL STANDARD: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	72 Ge (ISTD) [2]					72 Ge (ISTD) [1]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
Cal Blk	IBLK	1	72743	72743	100	PASS	30-150	128141.6	128141.6	100	PASS	30-150
Std1-0.1/1 ppb	ICAL	1	76627.1	72743	105.34	PASS	30-150	133662.2	128141.6	104.31	PASS	30-150
Std2-0.5/5 ppb	ICAL	1	75150.3	72743	103.31	PASS	30-150	128446.4	128141.6	100.24	PASS	30-150
Std3-5/50 ppb	ICAL	1	74276.6	72743	102.11	PASS	30-150	123393.5	128141.6	96.29	PASS	30-150
Std4-10/100 ppb	ICAL	1	71118.1	72743	97.77	PASS	30-150	121627.1	128141.6	94.92	PASS	30-150
Std5-20/200 ppb	ICAL	1	73558.9	72743	101.12	PASS	30-150	130074.4	128141.6	101.51	PASS	30-150
Std6-40/400 ppb	ICAL	1	73382.4	72743	100.88	PASS	30-150	127104.8	128141.6	99.19	PASS	30-150
Std7-100/1000 ppb	ICAL	1	69784.6	72743	95.93	PASS	30-150	118588.1	128141.6	92.54	PASS	30-150
Std8-200/2000 ppb	ICAL	1	70842.3	72743	97.39	PASS	30-150	118507.4	128141.6	92.48	PASS	30-150
ICV	ICV	1	66650.5	72743	91.62	PASS	30-150	113730.8	128141.6	88.75	PASS	30-150
ICB	ICB	1	62999.5	72743	86.61	PASS	30-150	109977.5	128141.6	85.82	PASS	30-150
LLICV	CCV1	1	65575.1	72743	90.15	PASS	30-150	112184.6	128141.6	87.55	PASS	30-150
ICSA1	ICSA	1	68628.6	72743	94.34	PASS	30-150	108249.5	128141.6	84.48	PASS	30-150
ICSAB1	ICSAB	1	73259.6	72743	100.71	PASS	30-150	117122.2	128141.6	91.4	PASS	30-150
CCV1	CCV	1	68886.3	72743	94.7	PASS	30-150	121509.3	128141.6	94.82	PASS	30-150
CCB1	CCB	1	61930.9	72743	85.14	PASS	30-150	106415.4	128141.6	83.05	PASS	30-150
CCV2	CCV	1	71228.5	72743	97.92	PASS	30-150	122883	128141.6	95.9	PASS	30-150
CCB2	CCB	1	62758.6	72743	86.27	PASS	30-150	110517.9	128141.6	86.25	PASS	30-150
ICSA2	ICSA	1	64979.5	72743	89.33	PASS	30-150	102787.8	128141.6	80.21	PASS	30-150
ICSAB2	ICSAB	1	66321.4	72743	91.17	PASS	30-150	108643.2	128141.6	84.78	PASS	30-150
CCV3	CCV	1	84469.8	72743	116.12	PASS	30-150	136277.8	128141.6	106.35	PASS	30-150
CCB3	CCB	1	70410.6	72743	96.79	PASS	30-150	121631.6	128141.6	94.92	PASS	30-150
CCV4	CCV	1	79705.1	72743	109.57	PASS	30-150	137221.3	128141.6	107.09	PASS	30-150
CCB4	CCB	1	65833.9	72743	90.5	PASS	30-150	119136.9	128141.6	92.97	PASS	30-150
ICSA3	ICSA	1	73833.3	72743	101.5	PASS	30-150	119332.3	128141.6	93.13	PASS	30-150
ICSAB3	ICSAB	1	72013	72743	99	PASS	30-150	123233.4	128141.6	96.17	PASS	30-150
CCV5	CCV	1	76857	72743	105.66	PASS	30-150	136604.9	128141.6	106.6	PASS	30-150
CCB5	CCB	1	65959.9	72743	90.68	PASS	30-150	116982.7	128141.6	91.29	PASS	30-150
CCV6	CCV	1	65188	72743	89.61	PASS	30-150	115444.9	128141.6	90.09	PASS	30-150
CCB6	CCB	1	58327.8	72743	80.18	PASS	30-150	104914.7	128141.6	81.87	PASS	30-150
ICSA4	ICSA	1	59224.4	72743	81.42	PASS	30-150	102318.4	128141.6	79.85	PASS	30-150
ICSAB4	ICSAB	1	64642.5	72743	88.86	PASS	30-150	108415.1	128141.6	84.61	PASS	30-150
MB-91905	MBLK	1	59301.3	72743	81.52	PASS	30-150	108958.7	128141.6	85.03	PASS	30-150
LCS-91905	LCS	1	57919.8	72743	79.62	PASS	30-150	104062.6	128141.6	81.21	PASS	30-150
N049836-001C	SAMP	1	39321.6	72743	54.06	PASS	30-150	66748.7	128141.6	52.09	PASS	30-150
N049836-001C	SAMP	5	43424.1	72743	59.7	PASS	30-150	77049.1	128141.6	60.13	PASS	30-150
N049836-001C	SAMP	25	49133.4	72743	67.54	PASS	30-150	88456.3	128141.6	69.03	PASS	30-150
N049836-001C-PS	PS	1	38763.7	72743	53.29	PASS	30-150	65027.4	128141.6	50.75	PASS	30-150
N049836-001C-PS	PS	5	44814.5	72743	61.61	PASS	30-150	80624	128141.6	62.92	PASS	30-150
N049836-001C-MS	MS	1	36218.9	72743	49.79	PASS	30-150	61819.4	128141.6	48.24	PASS	30-150
N049836-001C-MS	MS	5	42047.2	72743	57.8	PASS	30-150	76345.9	128141.6	59.58	PASS	30-150

INTERNAL STANDARD: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	72 Ge (ISTD) [2]					72 Ge (ISTD) [1]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
CCV7	CCV	1	57499.4	72743	79.05	PASS	30-150	103003.9	128141.6	80.38	PASS	30-150
CCB7	CCB	1	49855.7	72743	68.54	PASS	30-150	90936.4	128141.6	70.97	PASS	30-150
N049836-001C-MSD	MSD	1	40543.4	72743	55.74	PASS	30-150	62349.3	128141.6	48.66	PASS	30-150
N049836-001C-MSD	MSD	5	44176.1	72743	60.73	PASS	30-150	74700.6	128141.6	58.3	PASS	30-150
N049836-002C	SAMP	1	36162.1	72743	49.71	PASS	30-150	62080.4	128141.6	48.45	PASS	30-150
N049836-002C	SAMP	5	37547.4	72743	51.62	PASS	30-150	71061.2	128141.6	55.46	PASS	30-150
N049836-004C	SAMP	1	30242.4	72743	41.57	PASS	30-150	53741.2	128141.6	41.94	PASS	30-150
N049836-004C	SAMP	5	29465.4	72743	40.51	PASS	30-150	50953.5	128141.6	39.76	PASS	30-150
N049836-005C	SAMP	1	33731.4	72743	46.37	PASS	30-150	59717.4	128141.6	46.6	PASS	30-150
N049836-005C	SAMP	5	38166.6	72743	52.47	PASS	30-150	69687.5	128141.6	54.38	PASS	30-150
N049836-006C	SAMP	1	32326.4	72743	44.44	PASS	30-150	55240.7	128141.6	43.11	PASS	30-150
N049836-006C	SAMP	5	33906.1	72743	46.61	PASS	30-150	63812.6	128141.6	49.8	PASS	30-150
CCV8	CCV	1	46388.8	72743	63.77	PASS	30-150	87780.6	128141.6	68.5	PASS	30-150
CCB8	CCB	1	41874.4	72743	57.56	PASS	30-150	78183.4	128141.6	61.01	PASS	30-150
N049836-007C	SAMP	1	32416.5	72743	44.56	PASS	30-150	55086.7	128141.6	42.99	PASS	30-150
N049836-007C	SAMP	5	37986.3	72743	52.22	PASS	30-150	66971.8	128141.6	52.26	PASS	30-150
N049836-008C	SAMP	1	40827.5	72743	56.13	PASS	30-150	68713.4	128141.6	53.62	PASS	30-150
N049836-008C	SAMP	5	40132.4	72743	55.17	PASS	30-150	72694.9	128141.6	56.73	PASS	30-150
N049836-009C	SAMP	1	27987.3	72743	38.47	PASS	30-150	53074.5	128141.6	41.42	PASS	30-150
N049836-009C	SAMP	5	35426	72743	48.7	PASS	30-150	62752.9	128141.6	48.97	PASS	30-150
N049836-010C	SAMP	1	28927.8	72743	39.77	PASS	30-150	53438	128141.6	41.7	PASS	30-150
N049836-010C	SAMP	5	32225	72743	44.3	PASS	30-150	61588.8	128141.6	48.06	PASS	30-150
N049836-011C	SAMP	1	34126.7	72743	46.91	PASS	30-150	59744	128141.6	46.62	PASS	30-150
N049836-011C	SAMP	5	35538.6	72743	48.86	PASS	30-150	63894.1	128141.6	49.86	PASS	30-150
CCV9	CCV	1	40884.3	72743	56.2	PASS	30-150	74773	128141.6	58.35	PASS	30-150
CCB9	CCB	1	35761.2	72743	49.16	PASS	30-150	66684.1	128141.6	52.04	PASS	30-150
N049836-012C	SAMP	1	30870.2	72743	42.44	PASS	30-150	56214.9	128141.6	43.87	PASS	30-150
N049836-012C	SAMP	5	33495.3	72743	46.05	PASS	30-150	63305.2	128141.6	49.4	PASS	30-150
N049836-013C	SAMP	1	23035.1	72743	31.67	PASS	30-150	42431.5	128141.6	33.11	PASS	30-150
N049836-013C	SAMP	5	30249	72743	41.58	PASS	30-150	55400	128141.6	43.23	PASS	30-150
N049836-014C	SAMP	1	25663.4	72743	35.28	PASS	30-150	46109.2	128141.6	35.98	PASS	30-150
N049836-014C	SAMP	5	27970.6	72743	38.45	PASS	30-150	53279.8	128141.6	41.58	PASS	30-150
CCV10	CCV	1	42277.7	72743	58.12	PASS	30-150	79946.2	128141.6	62.39	PASS	30-150
CCB10	CCB	1	38481.8	72743	52.9	PASS	30-150	74102.2	128141.6	57.83	PASS	30-150
ICSA5	ICSA	1	42759.1	72743	58.78	PASS	30-150	74187.1	128141.6	57.89	PASS	30-150
ICSAB5	ICSAB	1	41564.8	72743	57.14	PASS	30-150	77906.5	128141.6	60.8	PASS	30-150

INTERNAL STANDARD: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	103 Rh (ISTD) [2]				
			CPS	REF	%REC	Comment	Criteria
Cal Blk	IBLK	1	1446616.7	1446616.7	100	PASS	30-150
Std1-0.1/1 ppb	ICAL	1	1563202.7	1446616.7	108.06	PASS	30-150
Std2-0.5/5 ppb	ICAL	1	1525778.1	1446616.7	105.47	PASS	30-150
Std3-5/50 ppb	ICAL	1	1520133	1446616.7	105.08	PASS	30-150
Std4-10/100 ppb	ICAL	1	1443767.5	1446616.7	99.8	PASS	30-150
Std5-20/200 ppb	ICAL	1	1494834	1446616.7	103.33	PASS	30-150
Std6-40/400 ppb	ICAL	1	1470213.7	1446616.7	101.63	PASS	30-150
Std7-100/1000 ppb	ICAL	1	1389043	1446616.7	96.02	PASS	30-150
Std8-200/2000 ppb	ICAL	1	1416505.9	1446616.7	97.92	PASS	30-150
ICV	ICV	1	1342060.8	1446616.7	92.77	PASS	30-150
ICB	ICB	1	1293570.9	1446616.7	89.42	PASS	30-150
LLICV	CCV1	1	1372476	1446616.7	94.87	PASS	30-150
ICSA1	ICSA	1	1317125.8	1446616.7	91.05	PASS	30-150
ICSAB1	ICSAB	1	1392711.4	1446616.7	96.27	PASS	30-150
CCV1	CCV	1	1409413.3	1446616.7	97.43	PASS	30-150
CCB1	CCB	1	1292849.5	1446616.7	89.37	PASS	30-150
CCV2	CCV	1	1489432.4	1446616.7	102.96	PASS	30-150
CCB2	CCB	1	1323311.3	1446616.7	91.48	PASS	30-150
ICSA2	ICSA	1	1287930.1	1446616.7	89.03	PASS	30-150
ICSAB2	ICSAB	1	1256711	1446616.7	86.87	PASS	30-150
CCV3	CCV	1	1698567.2	1446616.7	117.42	PASS	30-150
CCB3	CCB	1	1411711.6	1446616.7	97.59	PASS	30-150
CCV4	CCV	1	1545639.8	1446616.7	106.85	PASS	30-150
CCB4	CCB	1	1288863.3	1446616.7	89.1	PASS	30-150
ICSA3	ICSA	1	1374958.5	1446616.7	95.05	PASS	30-150
ICSAB3	ICSAB	1	1326336.8	1446616.7	91.69	PASS	30-150
CCV5	CCV	1	1484836.8	1446616.7	102.64	PASS	30-150
CCB5	CCB	1	1295758.3	1446616.7	89.57	PASS	30-150
CCV6	CCV	1	1287436.5	1446616.7	89	PASS	30-150
CCB6	CCB	1	1191663.6	1446616.7	82.38	PASS	30-150
ICSA4	ICSA	1	1127736	1446616.7	77.96	PASS	30-150
ICSAB4	ICSAB	1	1245829	1446616.7	86.12	PASS	30-150
MB-91905	MBLK	1	1229397.4	1446616.7	84.98	PASS	30-150
LCS-91905	LCS	1	1216578.3	1446616.7	84.1	PASS	30-150
N049836-001C	SAMP	1	691920.3	1446616.7	47.83	PASS	30-150
N049836-001C	SAMP	5	777573.3	1446616.7	53.75	PASS	30-150
N049836-001C	SAMP	25	895764.4	1446616.7	61.92	PASS	30-150
N049836-001C-PS	PS	1	670272.9	1446616.7	46.33	PASS	30-150
N049836-001C-PS	PS	5	810744.4	1446616.7	56.04	PASS	30-150
N049836-001C-MS	MS	1	623406.2	1446616.7	43.09	PASS	30-150
N049836-001C-MS	MS	5	730860.7	1446616.7	50.52	PASS	30-150

INTERNAL STANDARD: 220315A

Instrument ID: ICPMS-03

Sample Name	Type	DF	103 Rh (ISTD) [2]				
			CPS	REF	%REC	Comment	Criteria
CCV7	CCV	1	1084581.7	1446616.7	74.97	PASS	30-150
CCB7	CCB	1	945005.2	1446616.7	65.33	PASS	30-150
N049836-001C-MSD	MSD	1	695873.4	1446616.7	48.1	PASS	30-150
N049836-001C-MSD	MSD	5	771525.3	1446616.7	53.33	PASS	30-150
N049836-002C	SAMP	1	613776.2	1446616.7	42.43	PASS	30-150
N049836-002C	SAMP	5	651563.9	1446616.7	45.04	PASS	30-150
N049836-004C	SAMP	1	517132.7	1446616.7	35.75	PASS	30-150
N049836-004C	SAMP	5	483214.5	1446616.7	33.4	PASS	30-150
N049836-005C	SAMP	1	555697.7	1446616.7	38.41	PASS	30-150
N049836-005C	SAMP	5	632638.2	1446616.7	43.73	PASS	30-150
N049836-006C	SAMP	1	531966.7	1446616.7	36.77	PASS	30-150
N049836-006C	SAMP	5	567815.5	1446616.7	39.25	PASS	30-150
CCV8	CCV	1	843866.6	1446616.7	58.33	PASS	30-150
CCB8	CCB	1	757996.6	1446616.7	52.4	PASS	30-150
N049836-007C	SAMP	1	547259	1446616.7	37.83	PASS	30-150
N049836-007C	SAMP	5	664366.9	1446616.7	45.93	PASS	30-150
N049836-008C	SAMP	1	719015.5	1446616.7	49.7	PASS	30-150
N049836-008C	SAMP	5	715515.1	1446616.7	49.46	PASS	30-150
N049836-009C	SAMP	1	465585.7	1446616.7	32.18	PASS	30-150
N049836-009C	SAMP	5	606101.4	1446616.7	41.9	PASS	30-150
N049836-010C	SAMP	1	472824.8	1446616.7	32.68	PASS	30-150
N049836-010C	SAMP	5	538942	1446616.7	37.26	PASS	30-150
N049836-011C	SAMP	1	575871.8	1446616.7	39.81	PASS	30-150
N049836-011C	SAMP	5	613026.6	1446616.7	42.38	PASS	30-150
CCV9	CCV	1	741437	1446616.7	51.25	PASS	30-150
CCB9	CCB	1	649762.1	1446616.7	44.92	PASS	30-150
N049836-012C	SAMP	1	525612.4	1446616.7	36.33	PASS	30-150
N049836-012C	SAMP	5	576664.1	1446616.7	39.86	PASS	30-150
N049836-013C	SAMP	1	367085.9	1446616.7	25.38	NR!	30-150
N049836-013C	SAMP	5	506973.9	1446616.7	35.05	PASS	30-150
N049836-014C	SAMP	1	421686.5	1446616.7	29.15	NR!	30-150
N049836-014C	SAMP	5	464891.5	1446616.7	32.14	PASS	30-150
CCV10	CCV	1	771965.5	1446616.7	53.36	PASS	30-150
CCB10	CCB	1	710544.5	1446616.7	49.12	PASS	30-150
ICSA5	ICSA	1	758018.1	1446616.7	52.4	PASS	30-150
ICSAB5	ICSAB	1	723962.8	1446616.7	50.05	PASS	30-150

INTERNAL STANDARD: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	159 Tb (ISTD) [3]					45 Sc (ISTD) [2]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
Cal Blk	IBLK	1	2880641.8	2880641.8	100	PASS	30-150	194424.5	194424.5	100	PASS	30-150
Std1-0.1/1 ppb	ICAL	1	2864933	2880641.8	99.45	PASS	30-150	192454.7	194424.5	98.99	PASS	30-150
Std2-0.5/5 ppb	ICAL	1	2891835	2880641.8	100.39	PASS	30-150	192050.5	194424.5	98.78	PASS	30-150
Std3-5/50 ppb	ICAL	1	2858091.5	2880641.8	99.22	PASS	30-150	186620.3	194424.5	95.99	PASS	30-150
Std4-10/100 ppb	ICAL	1	2808636.8	2880641.8	97.5	PASS	30-150	188503.3	194424.5	96.95	PASS	30-150
Std5-20/200 ppb	ICAL	1	2830714.5	2880641.8	98.27	PASS	30-150	189064.3	194424.5	97.24	PASS	30-150
Std6-40/400 ppb	ICAL	1	2854506.9	2880641.8	99.09	PASS	30-150	189387.5	194424.5	97.41	PASS	30-150
Std7-100/1000 ppb	ICAL	1	2821996.9	2880641.8	97.96	PASS	30-150	189120.1	194424.5	97.27	PASS	30-150
Std8-200/2000 ppb	ICAL	1	2868699	2880641.8	99.59	PASS	30-150	187197.7	194424.5	96.28	PASS	30-150
ICV	ICV	1	2819690.7	2880641.8	97.88	PASS	30-150	184371.2	194424.5	94.83	PASS	30-150
ICV	ICV	1	2792842.4	2880641.8	96.95	PASS	30-150	182950.1	194424.5	94.1	PASS	30-150
ICB	ICB	1	2787044.4	2880641.8	96.75	PASS	30-150	180759.5	194424.5	92.97	PASS	30-150
LLICV	CCV1	1	2623465.9	2880641.8	91.07	PASS	30-150	175048.7	194424.5	90.03	PASS	30-150
ICSA1	ICSA	1	2286224.9	2880641.8	79.37	PASS	30-150	203712	194424.5	104.78	PASS	30-150
ICSAB1	ICSAB	1	2261546.5	2880641.8	78.51	PASS	30-150	217084.3	194424.5	111.65	PASS	30-150
LLICV	CCV1	1	2605629.1	2880641.8	90.45	PASS	30-150	191934.4	194424.5	98.72	PASS	30-150
CCV1	CCV	1	3169815.5	2880641.8	110.04	PASS	30-150	216446	194424.5	111.33	PASS	30-150
CCB1	CCB	1	3115722	2880641.8	108.16	PASS	30-150	204257.1	194424.5	105.06	PASS	30-150
CCV2	CCV	1	3062716.6	2880641.8	106.32	PASS	30-150	191708.1	194424.5	98.6	PASS	30-150
CCB2	CCB	1	3000881.6	2880641.8	104.17	PASS	30-150	173597.3	194424.5	89.29	PASS	30-150
ICSA2	ICSA	1	2614198.9	2880641.8	90.75	PASS	30-150	201395.3	194424.5	103.59	PASS	30-150
ICSAB2	ICSAB	1	2444584.9	2880641.8	84.86	PASS	30-150	227764.7	194424.5	117.15	PASS	30-150
MB-91905	MBLK	1	2888757.6	2880641.8	100.28	PASS	30-150	222477.8	194424.5	114.43	PASS	30-150
LCS-91905	LCS	1	2821916.2	2880641.8	97.96	PASS	30-150	200533.6	194424.5	103.14	PASS	30-150
N049836-001C	SAMP	1	1932581.6	2880641.8	67.09	PASS	30-150	174872.8	194424.5	89.94	PASS	30-150
N049836-001C	SAMP	5	2619109.2	2880641.8	90.92	PASS	30-150	206198.6	194424.5	106.06	PASS	30-150
N049836-001C-PS	PS	1	1935498.3	2880641.8	67.19	PASS	30-150	176966.1	194424.5	91.02	PASS	30-150
N049836-001C-MS	MS	1	1952996.7	2880641.8	67.8	PASS	30-150	172149.7	194424.5	88.54	PASS	30-150
CCV3	CCV	1	3225385.6	2880641.8	111.97	PASS	30-150	214951.8	194424.5	110.56	PASS	30-150
CCB3	CCB	1	3173831.4	2880641.8	110.18	PASS	30-150	194141	194424.5	99.85	PASS	30-150
N049836-001C-MSD	MSD	1	2047485.7	2880641.8	71.08	PASS	30-150	159507.9	194424.5	82.04	PASS	30-150
N049836-002C	SAMP	1	1891364.4	2880641.8	65.66	PASS	30-150	152391.1	194424.5	78.38	PASS	30-150
N049836-004C	SAMP	1	1390889.9	2880641.8	48.28	PASS	30-150	119673.2	194424.5	61.55	PASS	30-150
N049836-005C	SAMP	1	2293933.8	2880641.8	79.63	PASS	30-150	172491.3	194424.5	88.72	PASS	30-150
N049836-005C	SAMP	5	2553738.6	2880641.8	88.65	PASS	30-150	181945.6	194424.5	93.58	PASS	30-150
N049836-006C	SAMP	1	1817146.1	2880641.8	63.08	PASS	30-150	142025.3	194424.5	73.05	PASS	30-150
N049836-006C	SAMP	25	2551429	2880641.8	88.57	PASS	30-150	177296.2	194424.5	91.19	PASS	30-150
CCV4	CCV	1	3239850.1	2880641.8	112.47	PASS	30-150	196037.3	194424.5	100.83	PASS	30-150
CCB4	CCB	1	3085618.4	2880641.8	107.12	PASS	30-150	176474.8	194424.5	90.77	PASS	30-150
ICSA3	ICSA	1	2825330.8	2880641.8	98.08	PASS	30-150	185767.8	194424.5	95.55	PASS	30-150
ICSAB3	ICSAB	1	2717707.7	2880641.8	94.34	PASS	30-150	191106.6	194424.5	98.29	PASS	30-150

INTERNAL STANDARD: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	159 Tb (ISTD) [3]					45 Sc (ISTD) [2]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
N049836-007C	SAMP	1	2132660	2880641.8	74.03	PASS	30-150	142531.8	194424.5	73.31	PASS	30-150
N049836-007C	SAMP	25	2834262.1	2880641.8	98.39	PASS	30-150	173429	194424.5	89.2	PASS	30-150
N049836-008C	SAMP	1	2681624.2	2880641.8	93.09	PASS	30-150	175750.2	194424.5	90.4	PASS	30-150
N049836-008C	SAMP	25	2824375.8	2880641.8	98.05	PASS	30-150	164766.9	194424.5	84.75	PASS	30-150
N049836-009C	SAMP	1	1988372	2880641.8	69.03	PASS	30-150	130376.2	194424.5	67.06	PASS	30-150
N049836-009C	SAMP	25	2546997.4	2880641.8	88.42	PASS	30-150	153221.1	194424.5	78.81	PASS	30-150
N049836-010C	SAMP	1	1943885.9	2880641.8	67.48	PASS	30-150	142246.3	194424.5	73.16	PASS	30-150
N049836-010C	SAMP	25	2602640.8	2880641.8	90.35	PASS	30-150	164869.3	194424.5	84.8	PASS	30-150
N049836-011C	SAMP	1	2443246.9	2880641.8	84.82	PASS	30-150	160759	194424.5	82.68	PASS	30-150
N049836-011C	SAMP	25	3234639	2880641.8	112.29	PASS	30-150	184012.3	194424.5	94.64	PASS	30-150
CCV5	CCV	1	3438020.2	2880641.8	119.35	PASS	30-150	180387.5	194424.5	92.78	PASS	30-150
CCB5	CCB	1	3275029.4	2880641.8	113.69	PASS	30-150	159602	194424.5	82.09	PASS	30-150
N049836-012C	SAMP	1	2939740.6	2880641.8	102.05	PASS	30-150	167652.5	194424.5	86.23	PASS	30-150
N049836-012C	SAMP	25	3221184.8	2880641.8	111.82	PASS	30-150	165234.7	194424.5	84.99	PASS	30-150
N049836-013C	SAMP	1	1975919.3	2880641.8	68.59	PASS	30-150	124372.7	194424.5	63.97	PASS	30-150
N049836-013C	SAMP	25	2886605.6	2880641.8	100.21	PASS	30-150	170698.9	194424.5	87.8	PASS	30-150
N049836-014C	SAMP	1	1871296.4	2880641.8	64.96	PASS	30-150	141906.2	194424.5	72.99	PASS	30-150
N049836-014C	SAMP	25	2981200.6	2880641.8	103.49	PASS	30-150	180361.4	194424.5	92.77	PASS	30-150
N049836-006C	SAMP	1	2115054.4	2880641.8	73.42	PASS	30-150	142748.8	194424.5	73.42	PASS	30-150
N049836-007C	SAMP	1	2266870.2	2880641.8	78.69	PASS	30-150	146485.3	194424.5	75.34	PASS	30-150
CCV6	CCV	1	3202143.8	2880641.8	111.16	PASS	30-150	179455.3	194424.5	92.3	PASS	30-150
CCB6	CCB	1	3190171.2	2880641.8	110.75	PASS	30-150	163180.7	194424.5	83.93	PASS	30-150
N049836-006C	SAMP	1	2354358	2880641.8	81.73	PASS	30-150	145567.3	194424.5	74.87	PASS	30-150
N049836-007C	SAMP	1	2420697.9	2880641.8	84.03	PASS	30-150	144498.3	194424.5	74.32	PASS	30-150
N049836-007C	SAMP	5	3058515	2880641.8	106.17	PASS	30-150	161712	194424.5	83.17	PASS	30-150
N049836-006C	SAMP	1	2346699	2880641.8	81.46	PASS	30-150	132966.2	194424.5	68.39	PASS	30-150
N049836-006C	SAMP	5	2989462.8	2880641.8	103.78	PASS	30-150	163849.7	194424.5	84.27	PASS	30-150
N049836-007C	SAMP	1	2360675.5	2880641.8	81.95	PASS	30-150	143576	194424.5	73.85	PASS	30-150
CCV7	CCV	1	3677098.9	2880641.8	127.65	PASS	30-150	165214.3	194424.5	84.98	PASS	30-150
CCB7	CCB	1	3623069.3	2880641.8	125.77	PASS	30-150	157123.1	194424.5	80.81	PASS	30-150
ICSA4	ICSA	1	3290769.3	2880641.8	114.24	PASS	30-150	158433	194424.5	81.49	PASS	30-150
ICSAB4	ICSAB	1	3378333.7	2880641.8	117.28	PASS	30-150	173134.6	194424.5	89.05	PASS	30-150
CCV8	CCV	1	4083805.6	2880641.8	141.77	PASS	30-150	157010.4	194424.5	80.76	PASS	30-150
CCB8	CCB	1	3895284.1	2880641.8	135.22	PASS	30-150	144495.7	194424.5	74.32	PASS	30-150
ICSA5	ICSA	1	3522211.2	2880641.8	122.27	PASS	30-150	156092.5	194424.5	80.28	PASS	30-150
ICSAB5	ICSAB	1	3590338.4	2880641.8	124.64	PASS	30-150	169760.3	194424.5	87.31	PASS	30-150

INTERNAL STANDARD: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	72 Ge (ISTD) [2]					72 Ge (ISTD) [1]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
Cal Blk	IBLK	1	99035.2	99035.2	100	PASS	30-150	186853.1	186853.1	100	PASS	30-150
Std1-0.1/1 ppb	ICAL	1	97801.2	99035.2	98.75	PASS	30-150	184245.2	186853.1	98.6	PASS	30-150
Std2-0.5/5 ppb	ICAL	1	98715.5	99035.2	99.68	PASS	30-150	184061.8	186853.1	98.51	PASS	30-150
Std3-5/50 ppb	ICAL	1	94106.4	99035.2	95.02	PASS	30-150	180383.8	186853.1	96.54	PASS	30-150
Std4-10/100 ppb	ICAL	1	95453	99035.2	96.38	PASS	30-150	181066.7	186853.1	96.9	PASS	30-150
Std5-20/200 ppb	ICAL	1	96270.1	99035.2	97.21	PASS	30-150	179909	186853.1	96.28	PASS	30-150
Std6-40/400 ppb	ICAL	1	97059	99035.2	98	PASS	30-150	182051.8	186853.1	97.43	PASS	30-150
Std7-100/1000 ppb	ICAL	1	95854.3	99035.2	96.79	PASS	30-150	179915.2	186853.1	96.29	PASS	30-150
Std8-200/2000 ppb	ICAL	1	95006.3	99035.2	95.93	PASS	30-150	171974.1	186853.1	92.04	PASS	30-150
ICV	ICV	1	94813.5	99035.2	95.74	PASS	30-150	177110.6	186853.1	94.79	PASS	30-150
ICV	ICV	1	94008.3	99035.2	94.92	PASS	30-150	172829.1	186853.1	92.49	PASS	30-150
ICB	ICB	1	92317.3	99035.2	93.22	PASS	30-150	176061.4	186853.1	94.22	PASS	30-150
LLICV	CCV1	1	89836.1	99035.2	90.71	PASS	30-150	171581.2	186853.1	91.83	PASS	30-150
ICSA1	ICSA	1	102026.7	99035.2	103.02	PASS	30-150	179935.5	186853.1	96.3	PASS	30-150
ICSAB1	ICSAB	1	107117.9	99035.2	108.16	PASS	30-150	192615.5	186853.1	103.08	PASS	30-150
LLICV	CCV1	1	97738.7	99035.2	98.69	PASS	30-150	188555.6	186853.1	100.91	PASS	30-150
CCV1	CCV	1	113273.3	99035.2	114.38	PASS	30-150	204624.6	186853.1	109.51	PASS	30-150
CCB1	CCB	1	106635.7	99035.2	107.67	PASS	30-150	196912.2	186853.1	105.38	PASS	30-150
CCV2	CCV	1	103675.3	99035.2	104.69	PASS	30-150	171886.1	186853.1	91.99	PASS	30-150
CCB2	CCB	1	92730.9	99035.2	93.63	PASS	30-150	160245.1	186853.1	85.76	PASS	30-150
ICSA2	ICSA	1	104511.3	99035.2	105.53	PASS	30-150	174245.7	186853.1	93.25	PASS	30-150
ICSAB2	ICSAB	1	116236.2	99035.2	117.37	PASS	30-150	202834	186853.1	108.55	PASS	30-150
MB-91905	MBLK	1	116243.9	99035.2	117.38	PASS	30-150	224397.2	186853.1	120.09	PASS	30-150
LCS-91905	LCS	1	104212.5	99035.2	105.23	PASS	30-150	197400.5	186853.1	105.64	PASS	30-150
N049836-001C	SAMP	1	84225.2	99035.2	85.05	PASS	30-150	143379.1	186853.1	76.73	PASS	30-150
N049836-001C	SAMP	5	106968.1	99035.2	108.01	PASS	30-150	182989.6	186853.1	97.93	PASS	30-150
N049836-001C-PS	PS	1	86418	99035.2	87.26	PASS	30-150	135214.5	186853.1	72.36	PASS	30-150
N049836-001C-MS	MS	1	83399	99035.2	84.21	PASS	30-150	131158.5	186853.1	70.19	PASS	30-150
CCV3	CCV	1	114744.7	99035.2	115.86	PASS	30-150	194950.4	186853.1	104.33	PASS	30-150
CCB3	CCB	1	104526.9	99035.2	105.55	PASS	30-150	171314.1	186853.1	91.68	PASS	30-150
N049836-001C-MSD	MSD	1	78995.2	99035.2	79.76	PASS	30-150	122199	186853.1	65.4	PASS	30-150
N049836-002C	SAMP	1	75669.5	99035.2	76.41	PASS	30-150	118776.3	186853.1	63.57	PASS	30-150
N049836-004C	SAMP	1	58313.4	99035.2	58.88	PASS	30-150	94545.4	186853.1	50.6	PASS	30-150
N049836-005C	SAMP	1	89163.5	99035.2	90.03	PASS	30-150	140407.9	186853.1	75.14	PASS	30-150
N049836-005C	SAMP	5	96321.7	99035.2	97.26	PASS	30-150	151735.7	186853.1	81.21	PASS	30-150
N049836-006C	SAMP	1	72128	99035.2	72.83	PASS	30-150	115234.7	186853.1	61.67	PASS	30-150
N049836-006C	SAMP	25	95130.4	99035.2	96.06	PASS	30-150	160283	186853.1	85.78	PASS	30-150
CCV4	CCV	1	104995.5	99035.2	106.02	PASS	30-150	179097.6	186853.1	95.85	PASS	30-150
CCB4	CCB	1	95813.2	99035.2	96.75	PASS	30-150	157679.3	186853.1	84.39	PASS	30-150
ICSA3	ICSA	1	99474.7	99035.2	100.44	PASS	30-150	155431.1	186853.1	83.18	PASS	30-150
ICSAB3	ICSAB	1	101559.4	99035.2	102.55	PASS	30-150	159200.3	186853.1	85.2	PASS	30-150

INTERNAL STANDARD: 220316A

Instrument ID: ICPMS-03

Sample Name	Type	DF	72 Ge (ISTD) [2]					72 Ge (ISTD) [1]				
			CPS	REF	%REC	Comment	Criteria	CPS	REF	%REC	Comment	Criteria
N049836-007C	SAMP	1	72292.1	99035.2	73	PASS	30-150	112422	186853.1	60.17	PASS	30-150
N049836-007C	SAMP	25	92648.2	99035.2	93.55	PASS	30-150	158038.3	186853.1	84.58	PASS	30-150
N049836-008C	SAMP	1	92001.5	99035.2	92.9	PASS	30-150	141907.7	186853.1	75.95	PASS	30-150
N049836-008C	SAMP	25	88848.6	99035.2	89.71	PASS	30-150	149417.1	186853.1	79.97	PASS	30-150
N049836-009C	SAMP	1	67101.6	99035.2	67.76	PASS	30-150	100629.4	186853.1	53.85	PASS	30-150
N049836-009C	SAMP	25	82553.7	99035.2	83.36	PASS	30-150	144690	186853.1	77.44	PASS	30-150
N049836-010C	SAMP	1	73012.4	99035.2	73.72	PASS	30-150	110571.8	186853.1	59.18	PASS	30-150
N049836-010C	SAMP	25	89551.3	99035.2	90.42	PASS	30-150	155109.5	186853.1	83.01	PASS	30-150
N049836-011C	SAMP	1	84051.3	99035.2	84.87	PASS	30-150	130737.9	186853.1	69.97	PASS	30-150
N049836-011C	SAMP	25	98155.6	99035.2	99.11	PASS	30-150	168078.1	186853.1	89.95	PASS	30-150
CCV5	CCV	1	96241	99035.2	97.18	PASS	30-150	162566.2	186853.1	87	PASS	30-150
CCB5	CCB	1	86724.8	99035.2	87.57	PASS	30-150	148610.8	186853.1	79.53	PASS	30-150
N049836-012C	SAMP	1	89312.2	99035.2	90.18	PASS	30-150	138583.9	186853.1	74.17	PASS	30-150
N049836-012C	SAMP	25	89976.7	99035.2	90.85	PASS	30-150	153292.5	186853.1	82.04	PASS	30-150
N049836-013C	SAMP	1	62461.9	99035.2	63.07	PASS	30-150	92121.9	186853.1	49.3	PASS	30-150
N049836-013C	SAMP	25	91180.1	99035.2	92.07	PASS	30-150	157723.2	186853.1	84.41	PASS	30-150
N049836-014C	SAMP	1	72240.8	99035.2	72.94	PASS	30-150	104882.3	186853.1	56.13	PASS	30-150
N049836-014C	SAMP	25	95410.5	99035.2	96.34	PASS	30-150	163882.5	186853.1	87.71	PASS	30-150
N049836-006C	SAMP	1	72757.6	99035.2	73.47	PASS	30-150	110295.4	186853.1	59.03	PASS	30-150
N049836-007C	SAMP	1	75000.8	99035.2	75.73	PASS	30-150	116321.2	186853.1	62.25	PASS	30-150
CCV6	CCV	1	95998.4	99035.2	96.93	PASS	30-150	166096.7	186853.1	88.89	PASS	30-150
CCB6	CCB	1	88408.3	99035.2	89.27	PASS	30-150	150316.1	186853.1	80.45	PASS	30-150
N049836-006C	SAMP	1	75921.6	99035.2	76.66	PASS	30-150	112361.4	186853.1	60.13	PASS	30-150
N049836-007C	SAMP	1	73539.9	99035.2	74.26	PASS	30-150	116543.7	186853.1	62.37	PASS	30-150
N049836-007C	SAMP	5	84415.2	99035.2	85.24	PASS	30-150	149732.6	186853.1	80.13	PASS	30-150
N049836-006C	SAMP	1	67880	99035.2	68.54	PASS	30-150	112661.4	186853.1	60.29	PASS	30-150
N049836-006C	SAMP	5	85257.5	99035.2	86.09	PASS	30-150	138861.9	186853.1	74.32	PASS	30-150
N049836-007C	SAMP	1	73169.3	99035.2	73.88	PASS	30-150	113259.8	186853.1	60.61	PASS	30-150
CCV7	CCV	1	88955.6	99035.2	89.82	PASS	30-150	151231	186853.1	80.94	PASS	30-150
CCB7	CCB	1	84163.9	99035.2	84.98	PASS	30-150	144955.1	186853.1	77.58	PASS	30-150
ICSA4	ICSA	1	84813.1	99035.2	85.64	PASS	30-150	132538.5	186853.1	70.93	PASS	30-150
ICSAB4	ICSAB	1	92905.1	99035.2	93.81	PASS	30-150	157675.4	186853.1	84.38	PASS	30-150
CCV8	CCV	1	84756.9	99035.2	85.58	PASS	30-150	146348.1	186853.1	78.32	PASS	30-150
CCB8	CCB	1	80358.2	99035.2	81.14	PASS	30-150	137472	186853.1	73.57	PASS	30-150
ICSA5	ICSA	1	83931.8	99035.2	84.75	PASS	30-150	129753.1	186853.1	69.44	PASS	30-150
ICSAB5	ICSAB	1	89029.2	99035.2	89.9	PASS	30-150	150343.2	186853.1	80.46	PASS	30-150

SERIAL DILUTION/
POST DIGESTION SPIKE

ASSET Laboratories

ICP-MS-Metals in Water

Dilution Test Summary

Work Order No.: N049836
Test Method: EPA 6020
Analysis Date: 03 / 15 & 16 / 2022

Matrix: Groundwater
Batch No.: 91905

Instrument ID: ICPMS-03
Instrument Description: Agilent 7800

Comments:

Analyzed By: Mary Claire Ignacio

Dilution test for As failed. However, PS passed criteria.
Dilution test is not applicable to Cr. The calculated concentration is <25RL.

Sample ID	Analyte	Symbol	Units	Calc Val	Oqual	SAMPRefVal	%DIFF	%DIFFlimit
N049836-001C DT 5x	Manganese	Mn	µg/L	29.24321	PASS	28.0157	4.38%	10
N049836-001C DT 5x	Molybdenum	Mo	µg/L	28.33065	PASS	28.22832	0.36%	10
N049836-001C DT 5x	Arsenic	As	µg/L	9.010997	FAIL	14.30774	37.02%	10
N049836-001C DT 5x	Barium	Ba	µg/L	35.52619	PASS	35.00692	1.48%	10
N049836-001C DT 5x	Selenium	Se	µg/L	74.41743	PASS	75.53173	1.48%	10
N049836-001C DT 5x	Chromium	Cr	µg/L	5.765823	NA	5.605326	2.86%	10

Reviewed by:

JRB 3/24/2022

Note: NA - Not Applicable

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_DIS_TPK

Sample ID	N049836-001C-PS	SampType:	PS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160883
Client ID:	ZZZZZZ	Batch ID:	91905	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/15/2022	SeqNo:	4566592

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	118.980	0.50	100.0	28.02	91.0	80	120				
Molybdenum	39.135	0.50	10.00	28.23	109	80	120				

Sample ID	N049836-001C-PS	SampType:	PS	TestCode:	6020_DIS_TP	Units:	µg/L	Prep Date:		RunNo:	160902
Client ID:	ZZZZZZ	Batch ID:	91905	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/16/2022	SeqNo:	4567328

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.223	0.10	10.00	14.31	99.2	80	120				
Barium	44.980	1.0	10.00	35.01	99.7	80	120				
Selenium	85.990	0.50	10.00	75.53	105	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049836
Project: PG&E Topock - PCM, 30121866.1Q22GW

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020DIS_CrPGE_TPK

Sample ID	N049836-001C-PS	SampType:	PS	TestCode:	6020DIS_CrP	Units:	µg/L	Prep Date:		RunNo:	160902
Client ID:	ZZZZZZ	Batch ID:	91905	TestNo:	EPA 6020	EPA 3010A		Analysis Date:	3/16/2022	SeqNo:	4567234

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	15.024	1.0	10.00	5.605	94.2	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

MDL STUDY

Method Detection Limit

Analytical Method: EPA 6020 / 200.8
Digestion Method: EPA 3010A
Date of Analysis: 9/13, 9/14, 9/15/20
Digestion Date: 9/13, 9/14, 9/15/20
Instrument Name: ICPMS2
Analysts: MEI

Matrix: Water
Units: ug/L

Analyte	MDLs	MDLb	MDL	LOD	PQL
ANTIMONY	0.0376	0.2164	0.2164	0.30	0.50
ARSENIC	0.0496	0.0181	0.0496	0.05	0.10
BARIUM	0.0831	0.0302	0.0831	0.30	1.00
BERYLLIUM	0.0305	0.0083	0.0305	0.10	0.50
CADMIUM	0.0450	0.0019	0.0450	0.10	0.50
CHROMIUM	0.0353	0.0008	0.0353	0.10	1.00
COBALT	0.0169	0.0000	0.0169	0.05	0.50
COPPER	0.0458	0.0082	0.0458	0.10	1.00
IRON	0.2260	0.0939	0.2260	0.75	10.00
LEAD	0.0178	0.0087	0.0178	0.07	1.00
MANGANESE	0.0263	0.0026	0.0263	0.10	0.50
MOLYBDENUM	0.0372	0.1197	0.1197	0.25	0.50
NICKEL	0.0343	0.0041	0.0343	0.10	1.00
SELENIUM	0.0366	0.0438	0.0438	0.10	0.50
SILVER	0.0280	0.0006	0.0280	0.10	0.50
THALLIUM	0.1154	0.0282	0.1154	0.25	0.50
URANIUM	0.0364	0.0005	0.0364	0.10	0.50
VANADIUM	0.0672	0.0000	0.0672	0.25	1.00
ZINC	0.2626	0.0216	0.2626	1.00	10.00
ALUMINUM	0.3533	0.0372	0.3533	1.00	10.00

LOD & PQL Verification 2020

Analytical Method: EPA 6020 / 200.8
Digestion Method: EPA 3010A
Date of Analysis: 9/17/2020
Digestion Date: 9/18/2020
Instrument Name: ICPMS2
Analysts: MEI

Matrix: Water
Units: ug/L

Analyte	MDLs	LOD	ACTUAL LOD	PQL	ACTUAL PQL	% RECOVERY
ANTIMONY	0.2164	0.30	0.157	0.50	0.586	117
ARSENIC	0.0496	0.05	0.028	0.10	0.111	111
BARIUM	0.0831	0.30	0.282	1.00	1.046	105
BERYLLIUM	0.0305	0.10	0.135	0.50	0.518	104
CADMIUM	0.0450	0.10	0.116	0.50	0.518	104
CHROMIUM	0.0353	0.10	0.276	1.00	1.008	101
COBALT	0.0169	0.05	0.129	0.50	0.515	103
COPPER	0.0458	0.10	0.271	1.00	1.020	102
IRON	0.2260	0.75	3.046	10.00	10.321	103
LEAD	0.0178	0.07	0.279	1.00	1.051	105
MANGANESE	0.0263	0.10	0.153	0.50	0.529	106
MOLYBDENUM	0.1197	0.25	0.123	0.50	0.518	104
NICKEL	0.0343	0.10	0.291	1.00	1.214	121
SELENIUM	0.0438	0.10	0.092	0.50	0.465	93
SILVER	0.0280	0.10	0.136	0.50	0.570	114
THALLIUM	0.1154	0.25	0.115	0.50	0.490	98
URANIUM	0.0364	0.10	0.137	0.50	0.551	110
VANADIUM	0.0672	0.25	0.264	1.00	1.018	102
ZINC	0.2626	1.00	3.066	10.00	10.362	104
ALUMINUM	0.3533	1.00	8.218	10.00	11.093	111

Method Detection Limit

Analytical Method: EPA 6020 / 200.8
Digestion Method: EPA 3010A
Date of Analysis: 9/13/20, 9/14/20, 9/15/20
Digestion Date: 9/13/20, 9/14/20, 9/15/20
Instrument Name: ICPMS2
Analysts: MEI

Matrix: Water
Amount of Sample: 25 mL
Units: ug/L

Analyte	AMT SPIKED, ppb	1	2	3	4	5	6	7	SD	MDL	LOD	ACTUAL LOD	PQL	ACTUAL PQL	% REC
ANTIMONY	0.50	0.560	0.559	0.537	0.553	0.577	0.562	0.560	0.0120	0.0376	0.100	0.157	0.50	0.586	117
ARSENIC	0.10	0.105	0.096	0.083	0.121	0.108	0.128	0.120	0.0158	0.0496	0.080	0.028	0.10	0.111	111
BARIUM	1.00	0.962	0.954	0.983	0.960	1.006	0.934	1.001	0.0265	0.0831	0.250	0.282	1.00	1.046	105
BERYLLIUM	0.50	0.487	0.472	0.468	0.477	0.480	0.488	0.496	0.0097	0.0305	0.100	0.135	0.50	0.518	104
CADMIUM	0.50	0.471	0.488	0.511	0.508	0.484	0.503	0.492	0.0143	0.0450	0.100	0.116	0.50	0.518	104
CHROMIUM	1.00	0.938	0.956	0.929	0.930	0.949	0.928	0.946	0.0112	0.0353	0.250	0.276	1.00	1.008	101
COBALT	0.50	0.476	0.482	0.486	0.480	0.469	0.479	0.477	0.0054	0.0169	0.100	0.129	0.50	0.515	103
COPPER	1.00	0.987	0.949	0.988	0.981	0.969	0.973	0.990	0.0146	0.0458	0.500	0.271	1.00	1.020	102
IRON	10.00	9.395	9.548	9.522	9.390	9.453	9.362	9.397	0.0720	0.2260	2.500	3.046	10.00	10.321	103
LEAD	1.00	0.967	0.972	0.968	0.966	0.964	0.976	0.979	0.0057	0.0178	0.250	0.279	1.00	1.051	105
MANGANESE	0.50	0.556	0.567	0.558	0.542	0.564	0.558	0.549	0.0084	0.0263	0.100	0.153	0.50	0.529	106
MOLYBDENUM	0.50	0.493	0.475	0.470	0.489	0.488	0.503	0.475	0.0118	0.0372	0.250	0.123	0.50	0.518	104
NICKEL	1.00	0.981	1.000	0.993	0.969	0.988	0.983	0.972	0.0109	0.0343	0.250	0.291	1.00	1.214	121
SELENIUM	0.50	0.479	0.475	0.492	0.466	0.478	0.471	0.455	0.0116	0.0366	0.400	0.092	0.50	0.465	93
SILVER	0.50	0.620	0.620	0.613	0.594	0.608	0.608	0.610	0.0089	0.0280	0.250	0.136	0.50	0.570	114
THALLIUM	0.50	0.478	0.405	0.406	0.477	0.407	0.478	0.419	0.0368	0.1154	0.250	0.115	0.50	0.490	98
URANIUM	0.50	0.594	0.591	0.607	0.579	0.574	0.602	0.593	0.0116	0.0364	0.100	0.137	0.50	0.551	110
VANADIUM	1.00	0.938	0.978	0.948	0.945	0.946	0.913	0.919	0.0214	0.0672	0.500	0.264	1.00	1.018	102
ZINC	10.00	9.701	9.527	9.642	9.695	9.497	9.696	9.644	0.0836	0.2626	2.500	3.066	10.00	10.362	104
ALUMINUM	10.00	9.415	9.220	9.282	9.234	9.507	9.303	9.203	0.1125	0.3533	0.100	8.218	10.00	11.093	111

MDL BLANK

Analyte		1	2	3	4	5	6	7	Mean	SD	MDL
ANTIMONY		0.133669	0.051403	0.03612	0.12283	0.04951	0.12493	0.05574	0.0820	0.0428	0.2164
ARSENIC		<0.000	<0.000	0.01035	0.00034	0.00312	<0.000	0.00102	0.0037	0.0046	0.0181
BARIUM		<0.000	<0.000	0.00085	0.01018	0.00756	0.01192	0.01865	0.0098	0.0065	0.0302
BERYLLIUM		0.002366	0.000513	<0.000	0.00421	0.0046	0.00405	0.00102	0.0028	0.0018	0.0083
CADMIUM		0.000699	0.000365	0.00076	<0.000	<0.000	0.00107	6.7E-06	0.0006	0.0004	0.0019
CHROMIUM		0	0	0.00059	0	0	0	0	0.0001	0.0002	0.0008
COBALT		0	0	0	0	0	0	0	0.0000	0.0000	0.0000
COPPER		0.002351	0.004587	0.00295	<0.000	0.00025	<0.000	<0.000	0.0025	0.0018	0.0082
IRON		0.051023	0.040696	0.03201	0.04658	0.02249	0.07272	0.03432	0.0428	0.0162	0.0939
LEAD		0.004641	0.001836	0.0013	0.00571	0.00403	0.00444	0.002	0.0034	0.0017	0.0087
MANGANESE		<0.000	0.001528	0.00193	<0.000	<0.000	<0.000	0.00197	0.0018	0.0002	0.0026
MOLYBDENUM		0.065007	0.029611	0.01408	0.0689	0.02847	0.07342	0.03014	0.0442	0.0240	0.1197
NICKEL		<0.000	0.00196	0.00283	0.00108	0.00111	<0.000	0.00104	0.0016	0.0008	0.0041
SELENIUM		0.027254	0.013201	0.00812	0.02313	0.02686	0.01549	<0.000	0.0190	0.0079	0.0438
SILVER		0.000595	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	0.0006	0.0000	0.0006
THALLIUM		0.020258	0.010021	0.00738	0.01683	0.01051	0.01646	0.00889	0.0129	0.0049	0.0282
URANIUM		0.000287	3.89E-05	0.00011	0.00012	0.00012	0.00031	<0.000	0.0002	0.0001	0.0005
VANADIUM		0	0	0	0	0	0	0	0.0000	0.0000	0.0000
ZINC		0.009084	<0.000	<0.000	<0.000	<0.000	0.011	0.00244	0.0075	0.0045	0.0216
ALUMINUM		0.034605	<0.000	<0.000	<0.000	<0.000	0.03586	0.03492	0.0351	0.0006	0.0372

April 05, 2022

Dan Bush
ARCADIS U.S., Inc. - California
1410 Rocky Ridge Dr #330
Roseville, CA 95661

TEL: (916) 786-3302
FAX:

Workorder No.: N049901

RE: PG&E Topock - OMM CAB, 30106892

Attention: Dan Bush

Enclosed are the results for sample(s) received on March 18, 2022 by ASSET Laboratories. The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Nancy Sibucao
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and ASSET Laboratories - Las Vegas.

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM CAB, 30106892
Lab Order: N049901

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Samples were analyzed within method holding time.

Analytical Comments for SM 5310C:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria in QC samples N049901-001A-MS and N049901-001A-MSD at several dilutions possibly due to matrix interference. QC samples were further diluted and recovery passed criteria. Thus sample reference N049901-001 and MS/MSD were reported at 50x dilution. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET Laboratories

Date: *05-Apr-22*

CLIENT: ARCADIS U.S., Inc. - California
Project: PG&E Topock - OMM CAB, 30106892
Lab Order: N049901
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N049901-001A	CAB_MIXER_606-031822	Groundwater	3/18/2022 9:30:00 AM	3/18/2022	4/5/2022
N049901-001B	CAB_MIXER_606-031822	Groundwater	3/18/2022 9:30:00 AM	3/18/2022	4/5/2022
N049901-002A	CAB_MIXER_607-031822	Groundwater	3/18/2022 9:30:00 AM	3/18/2022	4/5/2022
N049901-002B	CAB_MIXER_607-031822	Groundwater	3/18/2022 9:30:00 AM	3/18/2022	4/5/2022

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_606-031822
Lab Order:	N049901	**Collection Date:**	3/18/2022 9:30:00 AM
Project:	PG&E Topock - OMM CAB, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049901-001		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220322A**	QC Batch: **R161023**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	230	4.2	50		mg/L	50	3/22/2022 08:07 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	ARCADIS U.S., Inc. - California	**Client Sample ID:**	CAB_MIXER_607-031822
Lab Order:	N049901	**Collection Date:**	3/18/2022 9:30:00 AM
Project:	PG&E Topock - OMM CAB, 30106892	**Matrix:**	GROUNDWATER
Lab ID:	N049901-002		

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON							
			SM 5310C				
RunID: **TOC2_220403A**	QC Batch: **R161254**			PrepDate:			Analyst: **CEI**
Organic Carbon, Total	9.3	0.17	2.0		mg/L	2	4/3/2022 12:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049901
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R161023**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161023**
Client ID: **PBW**	Batch ID: **R161023**	TestNo: **SM 5310C**		Analysis Date: **3/22/2022**	SeqNo: **4573054**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R161023**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161023**
Client ID: **LCSW**	Batch ID: **R161023**	TestNo: **SM 5310C**		Analysis Date: **3/22/2022**	SeqNo: **4573055**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.778	1.0	5.000	0	95.6	85	115				

Sample ID: **N049901-001A-MS**	SampType: **MS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161023**
Client ID: **ZZZZZZ**	Batch ID: **R161023**	TestNo: **SM 5310C**		Analysis Date: **3/22/2022**	SeqNo: **4573087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	434.085	50	250.0	229.1	82.0	75	125				

Sample ID: **N049901-001A-MSD**	SampType: **MSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161023**
Client ID: **ZZZZZZ**	Batch ID: **R161023**	TestNo: **SM 5310C**		Analysis Date: **3/22/2022**	SeqNo: **4573090**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	423.880	50	250.0	229.1	77.9	75	125	434.1	2.38	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits

Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049901
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 5310C_W_T_PGE

Sample ID: **MB-R161254**	SampType: **MBLK**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161254**
Client ID: **PBW**	Batch ID: **R161254**	TestNo: **SM 5310C**		Analysis Date: **4/3/2022**	SeqNo: **4585796**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	ND	1.0									

Sample ID: **LCS-R161254**	SampType: **LCS**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161254**
Client ID: **LCSW**	Batch ID: **R161254**	TestNo: **SM 5310C**		Analysis Date: **4/3/2022**	SeqNo: **4585797**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.742	1.0	5.000	0	94.8	85	115				

Sample ID: **LCSD-R161254**	SampType: **LCSD**	TestCode: **5310C_W_T_**	Units: **mg/L**	Prep Date:	RunNo: **161254**
Client ID: **LCSS02**	Batch ID: **R161254**	TestNo: **SM 5310C**		Analysis Date: **4/3/2022**	SeqNo: **4585798**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	4.649	1.0	5.000	0	93.0	85	115	4.742	1.98	20	

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049901
Project: PG&E Topock - OMM CAB, 30106892
Lab ID: N049901-001

Client Sample ID: CAB_MIXER_606-031822
Collection Date: 3/18/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOA APPENDIX 9							
			EPA 8260B				
RunID: **NV00922-MS5_220322A**	QC Batch: **P22VW045**			PrepDate:			Analyst: **DJ**
Ethanol	1400000	210000	1000000		µg/L	10000	3/22/2022 06:42 PM
Surr: 1,2-Dichloroethane-d4	98.2	0	77-138		%REC	10000	3/22/2022 06:42 PM
Surr: 4-Bromofluorobenzene	103	0	80-120		%REC	10000	3/22/2022 06:42 PM
Surr: Dibromofluoromethane	99.4	0	80-132		%REC	10000	3/22/2022 06:42 PM
Surr: Toluene-d8	99.4	0	80-120		%REC	10000	3/22/2022 06:42 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: ARCADIS U.S., Inc. - California
Lab Order: N049901
Project: PG&E Topock - OMM CAB, 30106892
Lab ID: N049901-002

Client Sample ID: CAB_MIXER_607-031822
Collection Date: 3/18/2022 9:30:00 AM
Matrix: GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOA APPENDIX 9							
			EPA 8260B				
RunID: **NV00922-MS5_220322A**	QC Batch: **P22VW045**			PrepDate:			Analyst: **DJ**
Ethanol	1300000	210000	1000000		µg/L	10000	3/22/2022 07:09 PM
Surr: 1,2-Dichloroethane-d4	96.4	0	77-138		%REC	10000	3/22/2022 07:09 PM
Surr: 4-Bromofluorobenzene	98.4	0	80-120		%REC	10000	3/22/2022 07:09 PM
Surr: Dibromofluoromethane	96.1	0	80-132		%REC	10000	3/22/2022 07:09 PM
Surr: Toluene-d8	102	0	80-120		%REC	10000	3/22/2022 07:09 PM

Qualifiers:

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified
DO	Surrogate Diluted Out

CLIENT: ARCADIS U.S., Inc. - California
Work Order: N049901
Project: PG&E Topock - OMM CAB, 30106892

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260WPAPP9

Sample ID: **P220322LCS** SampType: **LCS** TestCode: **8260WPAPP9** Units: **µg/L** Prep Date: RunNo: **161018**
Client ID: **LCSW** Batch ID: **P22VW045** TestNo: **EPA 8260B** Analysis Date: **3/22/2022** SeqNo: **4572808**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethanol	431.210	100	400.0	0	108	70	130				
Surr: 1,2-Dichloroethane-d4	24.080		25.00		96.3	77	138				
Surr: 4-Bromofluorobenzene	25.130		25.00		101	80	120				
Surr: Dibromofluoromethane	24.860		25.00		99.4	80	132				
Surr: Toluene-d8	25.810		25.00		103	80	120				

Sample ID: **P220322LCSD** SampType: **LCSD** TestCode: **8260WPAPP9** Units: **µg/L** Prep Date: RunNo: **161018**
Client ID: **LCSS02** Batch ID: **P22VW045** TestNo: **EPA 8260B** Analysis Date: **3/22/2022** SeqNo: **4572809**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethanol	423.870	100	400.0	0	106	70	130	431.2	1.72	30	
Surr: 1,2-Dichloroethane-d4	24.130		25.00		96.5	77	138		0		
Surr: 4-Bromofluorobenzene	24.230		25.00		96.9	80	120		0		
Surr: Dibromofluoromethane	24.930		25.00		99.7	80	132		0		
Surr: Toluene-d8	25.660		25.00		103	80	120		0		

Sample ID: **P220322MB2** SampType: **MBLK** TestCode: **8260WPAPP9** Units: **µg/L** Prep Date: RunNo: **161018**
Client ID: **PBW** Batch ID: **P22VW045** TestNo: **EPA 8260B** Analysis Date: **3/22/2022** SeqNo: **4572811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethanol	ND	100									
Surr: 1,2-Dichloroethane-d4	24.700		25.00		98.8	77	138				
Surr: 4-Bromofluorobenzene	23.950		25.00		95.8	80	120				
Surr: Dibromofluoromethane	24.580		25.00		98.3	80	132				
Surr: Toluene-d8	25.870		25.00		103	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank
ND Not Detected at the Reporting Limit
DO Surrogate Diluted Out
E Value above quantitation range
R RPD outside accepted recovery limits
Calculations are based on raw values
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference

ARCUS02 C: 4/1/2022 12:00 AM
FOLDER R: 3/18/2022
N049901-003A 1 of 1

ASSET LABORATORIES

ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Client: Arcadis	Report to: Dan Bush	Bill to: Marty Bloes
Address: 101 Creekside Ridge Ct, Suite 200	Company: Arcadis	Address:
Address: Roseville, CA 95678	Email: den.bush@arcadis.com; daniel.moore@aritigen.com	Address:
Phone: 916-786-3302 Fax:	Address: 101 Creekside Ridge Ct, Suite 200 Roseville, CA 95678	Email to: mbloes@pivox.com P.O.# SWA-ASSET-C9817-051
Submitted By: Gary Smith	Phone: 916-786-3302 Fax:	Phone: 949-727-1400, ext 200 Fax:
Title:		
Signature: G. Smith Date: 3-18-22	Sampled By: Gary Smith	
I hereby authorize ASSET Labs to perform the tests indicated below.	*I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for*	
Project Name: PG&E Topock - OMM CAB	Signature: G. Smith Date: 3-18-22	
Project Number: 30106892		

Matrix		
Ground	x	Sediment
Potable		Soil
NPDES		Other Solid
Surface		

EDD Requirement		QA/QC	
Excel EDD		RTNE	
Geotracker		RWQCB	✓
Labspec		CalTrans	
Others	✓	LEVEL III	
Specify: RWQCB		LEVEL IV	
Global ID:		Regulatory	
		Specify State:	

Sample Receipt Condition	Y	N
1. Chilled	✓	
2. Headspace	✓	
3. Container Intact	✓	
4. Seal Present		✓
5. IR number	☑	
6. Method of Cooling: ICE		
Sample Temp: 1900		

Courier: ASSET
Tracking No.:

Item No.	Laboratory Work Order No.	Sample ID/Location	Sample Date	Sample Time	Others	Cr(VI) FF (E218.6) (NH4)2, SO4, NH4, OH; Filtered	Silica (EPA6010), HNO3; Filtered	Hardness SM 2340B), HNO3	Ammonia as Nitrogen (SM4500-NH3C); H2SO4	Total Kjeldahl Nitrogen (SM4500-Norg); H2SO4	Biochemical Oxygen Demand (SM5210Bg); None	Nitrate, Bromide, Nitrite, Sulfate, Fluoride, Chloride, Phosphate (EPA 300.0)	Total Dissolved Solids (SM92540)	Sulfide (SM2320B); ZnAc/NaOH	Alkalinity Total (2320B); None	Bicarbonate (SM 2320B); None	Biological Activity Test (HACH); None	Carbonate (SM 2320B); None	Modified Fouling Index (ASTM); None	Total Organic Carbon (SM5310C); H2SO4	Mercury Dissolved (EPA7470A) HNO3; Filtered	Dissolved metals Title 22 (SW 6020), HNO3; filtered	Calcium, Magnesium, Potassium, Sodium, Iron (SW6010B); HNO3	Mercury (SW 7470A); HNO3	Total metals Title 22 (SW 6020), HNO3	Total Phophorus(EPA365.3) H2SO4	Ethanol (8260), HCl	Turn Around Time	No. of Container	Container Type	PRESERVATION	Remarks
						250 mL poly	16 oz poly	16 oz poly	16 oz poly	16 oz poly	32 oz poly	1 liter poly	1 liter poly	16 oz poly	32 oz poly	32 oz poly	32 oz poly	32 oz poly	32 oz poly	3x40 mL poly	500 mL poly	500 mL poly	500 mL poly	500 mL poly	500 mL poly	8 oz poly	3x40 mL vos					
1	N049901-01	CAB_MIXER_606 [redacted] 031822	3-18-22	9:30am																X							x	E	6	PV	BNS	
2	-02	CAB_MIXER_607 [redacted] 031822	3-18-22	9:30am																X							x	E	6	PV	BNS	
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Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
G Smith Gary Smith	3-18-22 3:00pm	Craig Privie	3-18-22 300pm
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
Craig Privie	3/18/22 1621	RAB RONCO ALCANTARA	3/18/22 1621
Relinquished by (Signature and Printed Name):	Date/Time:	Received by (Signature and Printed Name):	Date/Time:
RAB RONCO ALCANTARA	3/18/22 1903	RAB RONCO ALCANTARA	3/18/22 1907

Turn Around Time (TAT)

- [ ] A = < 24 Hrs or Same Day TAT
- [ ] B = Next Workday
- [ ] C = 2 Workdays
- [ ] D = 3 Workdays
- [X] E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00PM.

Special Instruction:
Title 22 Metals Dissolved- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn, K, Na

Title 22 Metals TOTAL- Al, Sb, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, Se, Ag, Tl, V, Zn

Terms
1. All samples will be disposed in 45 days and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs =200% Next Day=100% 2 Workdays=50% 3 Workdays=35 % 4 Workdays=20%
3. Custom EDD formats will be an additional 3% of the total project price.
4. Add 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample
6. Asset Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:				Container Type:		
H=HCL	N=HNO_3	S=H_2SO_4	C=4°C	T=Tube	V=VOA	P=Pint
Z=$Zn(AC)_2$	O=NaOH	T=$Na_2S_2O_3$		J=Jar	B=Tedlar	G=Glass
Others/Specify:	B (NH4)2SO4/NH4OH			M=Metal	M=Metal	C=Can

White=Laboratory Copy
Yellow=Customer's Copy

ASSET Laboratories

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	3/18/2022	Workorder:	N049901
Rep sample Temp (Deg C):	2.9	IR Gun ID:	3
Temp Blank:	☑ Yes ☐ No		
Carrier name:	ASSET		
Last 4 digits of Tracking No.:	NA	Packing Material Used:	None
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
3. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4. Chain of custody present?	Yes ☑	No ☐	
5. Sampler's name present in COC?	Yes ☑	No ☐	
6. Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
7. Chain of custody agrees with sample labels?	Yes ☑	No ☐	
8. Samples in proper container/bottle?	Yes ☑	No ☐	
9. Sample containers intact?	Yes ☑	No ☐	
10. Sufficient sample volume for indicated test?	Yes ☑	No ☐	
11. All samples received within holding time?	Yes ☑	No ☐	
12. Temperature of rep sample or Temp Blank within acceptable limit?	Yes ☑	No ☐	NA ☐
13. Water - VOA vials have zero headspace?	Yes ☑	No ☐	NA ☐
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes ☐	No ☐	NA ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: YR YRJ 3/21/2022

Reviewed By: MBC 3/22/2022

Mary Ann Balilu

From: Jannette Joy Soria <jannette@assetlaboratories.com>
Sent: Monday, March 21, 2022 1:30 PM
To: Yoandra Rodriguez; maryann.balilu@assetlaboratoriesph.com; rustico.aquino@assetlaboratoriesph.com; rochelle@assetlaboratories.com; Fernando Rivera
Cc: 'Marlon Cartin'; Diane Jetajobe; 'Razoniel Bernardino'; rebecca.ariola@assetlaboratoriesph.com; sonny.lorenzo@assetlaboratoriesph.com; 'Nancy Sibucao'
Subject: Fwd: Ethanol (N049901)

Hi!

Please attach client correspondence on the COC reviewed file for WO **N049901**.

And use the regular testcode **8260WATERU** if unpreserved **or 8260WPAPP9** if preserved.

This is LV4 but we will report Ethanol down to PQL only.

Thanks,
Jannette

-------- Forwarded Message --------
Subject:RE: Ethanol
Date: Mon, 21 Mar 2022 12:10:25 -0700
From: Marlon Cartin <marlon@assetlaboratories.com>
To:'Prowd, Brian' <Brian.Prowd@arcadis.com>, 'Madsen, Laura' <Laura.Madsen@arcadis.com>
CC:nancy@assetlaboratories.com, 'Jannette Joy Soria' <jannette@assetlaboratories.com>, 'Diane Jetajobe' <diane@assetlaboratories.com>

Will do Brian.

Thanks,

Marlon Cartin
Sr. Project Manager
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | **P:** 562.219.7435 | **F:** 562.219.7436
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | **P:** 702.307.2659 Ext. 410 | **F:** 702.307.2691 | **M:** 702.439.0421
www.assetlaboratories.com

From: Prowd, Brian <Brian.Prowd@arcadis.com>
Sent: Monday, March 21, 2022 12:04 PM
To: marlon@assetlaboratories.com; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: nancy@assetlaboratories.com; 'Jannette Joy Soria' <jannette@assetlaboratories.com>; 'Diane Jetajobe' <diane@assetlaboratories.com>
Subject: RE: Ethanol

Please run without the MDL.

From: Marlon Cartin <marlon@assetlaboratories.com>
Sent: Monday, March 21, 2022 12:09 PM

To: Prowd, Brian <Brian.Prowd@arcadis.com>; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: nancy@assetlaboratories.com; 'Jannette Joy Soria' <jannette@assetlaboratories.com>; 'Diane Jetajobe' <diane@assetlaboratories.com>
Subject: RE: Ethanol

Our current MDL is 20.96 ppb. If you don't need a Level IV report for this, then we can run the sample without the MDL. Please advise.

Thanks,

Marlon Cartin
Sr. Project Manager
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 **I P:** 562.219.7435 **I F:** 562.219.7436
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 **I P:** 702.307.2659 Ext. 410 **I F:** 702.307.2691 **I M:** 702.439.0421
www.assetlaboratories.com

From: Prowd, Brian <Brian.Prowd@arcadis.com>
Sent: Monday, March 21, 2022 11:53 AM
To: marlon@assetlaboratories.com; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: nancy@assetlaboratories.com; 'Jannette Joy Soria' <jannette@assetlaboratories.com>; 'Diane Jetajobe' <diane@assetlaboratories.com>
Subject: RE: Ethanol

Marlon, I expect the ethanol sample to be in the 30-500 mg/L range. I do not need an MDL identified for this, as our goal is not for it to be ND. What is your typical MDLs for 8260?

Please call me if you have any questions.

Brian Prowd, P.E. | Principal Engineer | Brian.Prowd@arcadis-us.com

ARCADIS U.S., Inc. | 101 Creekside Ridge Court, Suite 200 | Roseville, CA, 95678
T. 916.786.3554 | M. 510.457.5391
www.arcadis-us.com

Professional Registration: PE-CA, #C76874

Please consider the environment before printing this email.

From: Marlon Cartin <marlon@assetlaboratories.com>
Sent: Monday, March 21, 2022 11:20 AM
To: Prowd, Brian <Brian.Prowd@arcadis.com>; Madsen, Laura <Laura.Madsen@arcadis.com>
Cc: nancy@assetlaboratories.com; 'Jannette Joy Soria' <jannette@assetlaboratories.com>; 'Diane Jetajobe' <diane@assetlaboratories.com>
Subject: Ethanol

Hi Brian and Laura,

For the OMM samples we received last Friday where Ethanol is requested. We can run it however, I didn't realized that we never did this to PG&E in the past, so the MDL we have is not updated. We will need to do an MDL study first on our instrument before we can actually run your samples. It may take up to a couple of weeks but we will do our be to analyze your samples within the method holding time period.
Attached is the COC for your reference.

Thanks,

Marlon Cartin
Sr. Project Manager
California: 11110 Artesia Blvd., Ste. B, Cerritos, CA 90703 | **P:** 562.219.7435 | **F:** 562.219.7436
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | **P:** 702.307.2659 Ext. 410 | **F:** 702.307.2691 | **M:** 702.439.0421
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WORK ORDER Summary

22-Mar-22

WorkOrder: N049901

Client ID: ARCUS02

Project: PG&E Topock - OMM CAB, 30106892 **QC Level:** Level IV **Date Received:** 3/18/2022

Comments: Ethanol - Report to PQL.

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N049901-001A	CAB_MIXER_606-031822	3/18/2022 9:30:00 AM	4/1/2022	Groundwater	SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049901-001B			4/1/2022		EPA 8260B	VOA appendix 9	☐	☐	☐	VW
N049901-002A	CAB_MIXER_607-031822		4/1/2022		SM 5310C	TOTAL ORGANIC CARBON	☐	☐	☐	VW
N049901-002B			4/1/2022		EPA 8260B	VOA appendix 9	☐	☐	☐	VW
N049901-003A	FOLDER	4/1/2022	4/1/2022		Folder	Folder	☐	☐	☐	LAB
			4/1/2022		Folder	Level IV Report	☐	☐	☐	LAB
			4/1/2022		Folder	Folder	☐	☐	☐	LAB

Appendix D

Referenced Documents

From: Gentile, Margaret
Sent: Friday, April 29, 2022 3:45 PM
To: Yue, Aaron@DTSC; Guerre, Christopher@DTSC; Innis, Pamela; Dickerson, Veronica L
Cc: gcr4; Iain Baker; Glass, John; KABY; Bush, Dan; Hohman, Treck; Schaffer, Alison; Tawney, Ilisa; Hong, Christina/LAC
Subject: Topock- First Quarter 2022 COPC Exceedance Notification for MW-90-031

Good Afternoon,

This e-mail notifies the California Department of Toxic Substances (DTSC) and U.S. Department of the Interior (DOI) of the March 2022 detection in a Perimeter Assessment Plan (PAP) monitoring well of the contaminant of potential concern (COPC) nitrate at concentrations exceeding the COPC PAP trigger level concentrations. Trigger levels were set forth in the Fourth Quarter 2021 Progress Report per the requirements of Appendix L of Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy (Final BOD) for the Topock Compressor Station Final Groundwater Remedy.

In First Quarter 2022 sampling, PAP monitoring well MW-90-031 yielded a nitrate concentration of 0.66 milligrams per liter as nitrogen (mg/L N), above the trigger level concentration of 0.22 mg/L N, calculated for the baseline data set analyzed as nitrate/nitrite. Validated sampling results were received on April 26, 2022. According to the PAP procedures, the next step is to conduct a resampling for verification, which is planned for the first week of May (within 45 days of validated results).

The nitrate exceedance of the trigger level at MW-90-031 is likely due to a change in the analytical method, rather than remedy operations. Prior to First Quarter 2022, EPA Method 353.2/SM 4500 for analyzing nitrate/nitrite combined was used to collect baseline data and to generate the COPC trigger level for nitrate. To monitor COPC nitrate specifically as part of remedy monitoring, the analytical method EPA Method 300.0 was used starting in First Quarter 2022. The difference in analytical techniques, Method 353.2/SM4500 is colorimetric whereas Method 300.0 uses ion chromatography, is the likely cause of the exceedance. To evaluate this potential cause of the exceedance, both nitrate/nitrite (Method 352.2) and nitrate (Method 300.0) will be analyzed in the May 2022 resample event. Once received, the results will be assessed and relayed to DTSC and DOI. If the sampling method is confirmed to explain the difference in results, all PAP monitoring wells will be sampled for both nitrate/nitrite and nitrate alone until there is sufficient data to generate trigger levels based on nitrate (Method 300.0).

Please let us know you have questions or concerns.

Thank you,
Margy

Margaret Gentile PE, PhD
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