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September 25, 2025

Christopher Ioan
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Subject: *Second Quarter 2025 Well Performance Report, PG&E Topock Compressor Station, Needles, California (PGE20180115A)*

Dear Christopher Ioan:

Enclosed is the Second Quarter 2025 Well Performance Report for the Pacific Gas and Electric Company Topock Compressor Station located in Needles, California. In December 2021, startup began for Phase 1 of the groundwater remedy system including the start of National Trails Highway In Situ Reactive Zone system operation, maintenance, and monitoring to address hexavalent chromium in groundwater. Operation of the In Situ Reactive Zone injection and extraction wells continued in Second Quarter 2025.

In accordance with the reporting requirements outlined in the Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, this well performance report presents an overview of the groundwater remedy and well maintenance objectives; a summary of Second Quarter 2025 well operations, maintenance, and performance monitoring activities; and recommendations and planned activities for the next reporting period.

Please contact me at (925) 302-3659 if you have any questions about the well performance report.

Sincerely,

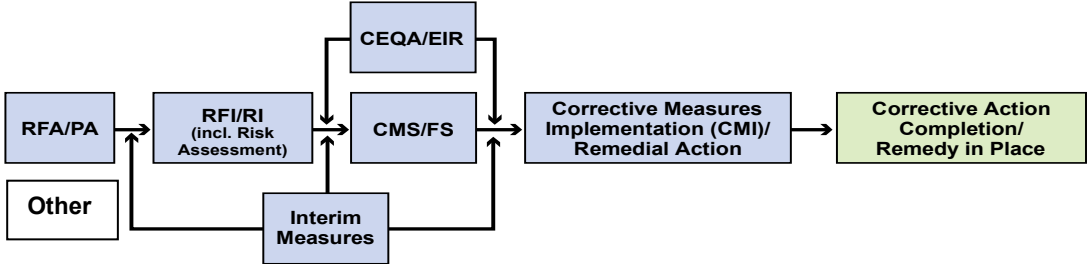
A handwritten signature in black ink, appearing to read "Veen Chee Foong", is located below the "Sincerely," text.

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Cc: Chris Guerre/DTSC
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John Glass/PG&E

Topock Project Executive Abstract

Document Title:	Second Quarter 2025 Well Performance Report, PG&E Topock Compressor Station, Needles CA
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Action Required:	☒ Information Only ☐ Review & Comment Return to: _____ By Date: _____ ☐ Other / Explain:
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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 system operation, maintenance, and monitoring to address hexavalent chromium in groundwater. Operation of the In Situ Reactive Zone injection and extraction wells continued in Second Quarter 2025. In accordance with the reporting requirements outlined in the Basis of Design Report/Final (100%) Design Submittal, this well performance report presents an overview of the groundwater remedy and well maintenance objectives; a summary of Second Quarter 2025 well operations, maintenance, and performance monitoring activities; and recommendations and planned activities for the next reporting period. Written by: PG&E

Recommendations:	None.
How is this information related to the Final Remedy or Regulatory Requirements?:	This report is required by DTSC and DOI as part of the Basis of Design Report/Final (100%) Design Submittal 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).  <pre> graph LR RFA[RFA/PA] --> RFI[RFI/RI (incl. Risk Assessment)] Other[Other] --> RFI RFI --> CEQA[CEQA/EIR] RFI --> CMS[CMS/FS] CEQA --> CMS CMS --> CMI[Corrective Measures Implementation (CMI)/ Remedial Action] Interim[Interim Measures] --> CMS CMI --> CAP[Corrective Action Completion/ Remedy in Place] </pre> 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

Version 9

Pacific Gas and Electric Company

Second Quarter 2025 Well Performance Report

**Topock Compressor Station
Needles, California**

September 25, 2025

Second Quarter 2025 Well Performance Report

Topock Compressor Station

Needles, California

September 25, 2025

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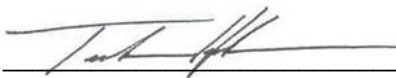
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Acronyms and Abbreviations

CH2M Hill	CH2M Hill, Inc.
Cr6	hexavalent chromium
DOI	U.S. Department of the Interior
DTSC	California Department of Toxic Substances Control
Final BOD	Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy
gpm	gallon per minute
IRZ	In Situ Reactive Zone
mg/L	milligram per liter
NTH	National Trails Highway
NTU	nephelometric turbidity unit
O&M	operation and maintenance
PG&E	Pacific Gas and Electric Company
Site	Pacific Gas and Electric Company Topock Compressor Station, located in eastern San Bernardino County, 15 miles southeast of the City of Needles, California
TOC	total organic carbon

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 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 Topock Compressor Station in conformance with the requirements of the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act. The U.S. Department of the Interior (DOI) and the California Department of Toxic Substances Control (DTSC) executed a Memorandum of Understanding on November 22, 2011, which established coordination guidelines for overseeing implementation of a groundwater response action at the Site (DTSC and DOI 2011). In a coordinated effort, DOI and DTSC selected the final groundwater remedy to address Cr6 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 for the Final Groundwater Remedy (Final BOD), which presents the 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 in the Construction/Remedial Action Work Plan (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 sufficiently in December 2021 for initial system startup. Design modifications were incorporated during construction to accommodate actual conditions encountered, including a plume footprint smaller than that documented in the Final BOD (CH2M Hill 2015a). As a result, the National Trails Highway (NTH) In Situ Reactive Zone (IRZ) system was installed with 10 fewer wells than planned in the Final BOD, with these 10 wells being deferred from Phase 1 of construction.

The NTH IRZ is a recirculation system in which water is extracted from up to five NTH IRZ extraction wells, amended with carbon substrate, and injected into up to 25 NTH IRZ injection intervals. In triple-screened wells (IRZ-25 and IRZ-27), two of the three well screens are combined into a single interval using a packer. The NTH IRZ extraction wells include IRZ-9, IRZ-13S, IRZ-13D, IRZ-23, and pilot test well PTI-1D.

Injection well intervals include IRZ-15 (upper), IRZ-15 (lower), IRZ-16 (upper), IRZ-16 (lower), IRZ-17 (upper), IRZ-17 (lower), IRZ-18 (upper), IRZ-18 (lower), IRZ-20 (upper), IRZ-20 (lower), IRZ-21 (upper), IRZ-21 (lower), IRZ-25 (upper/upper middle), IRZ-25 (lower), IRZ-27 (upper)¹, IRZ-27 (middle/lower), IRZ-29 (upper), IRZ-29 (lower), IRZ-31 (upper), IRZ-31 (lower), IRZ-33 (upper), IRZ-33 (lower), IRZ-35, IRZ-37, and IRZ-39.

A site layout, including locations of the extraction wells, the remedy-produced water conditioning system, and the carbon amendment system, is shown on Figure 1.1.

¹ Injection well IRZ-27 is a triple-screened well and is separated into two injection intervals using a packer. The packer was historically installed between the upper screen and the middle screen, subdividing the well into an upper screen interval and a middle/lower screen interval. The packer was reinstalled to subdivide the well into an upper/middle interval and a lower interval on January 30, 2025, to prioritize Cr6 treatment in the lowest interval. Following the packer relocation, less than 1 gallon per minute of flow was able to be injected into the lower interval, and the packer was subsequently reinstalled between the upper screen and middle screen during the March 2025 rehabilitation event at IRZ-27.

Second Quarter 2025 Well Performance Report

In December 2021, startup began for Phase 1 of the groundwater remedy system including operation, maintenance, and monitoring of the NTH IRZ system. O&M is being performed in accordance with the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a). This report documents well maintenance and well performance from April 1 to June 30, 2025 (Second Quarter 2025), in accordance with the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a). The remainder of this report is organized into the following sections:

- Section 2 provides an overview of the well maintenance program.
- Section 3 summarizes the well performance and maintenance of the NTH IRZ remediation wells.
- Section 4 summarizes the well performance and maintenance of the monitoring wells.
- Section 5 provides recommendations for modifications to the well maintenance program and planned activities for the next quarterly reporting period.
- Section 6 provides the references for the documents cited throughout this report.

2 NTH IRZ Well Maintenance Program

The well maintenance program consists of routine maintenance and performance tracking, including tracking well performance over time, collecting analytical data, and inspecting wells to evaluate well integrity over time. This section summarizes these activities.

2.1 Routine Maintenance

Well maintenance is incorporated into the routine operations of the NTH IRZ. Exhibit 2.1 in this section summarizes estimated maintenance activity frequencies for the NTH IRZ wells as presented in the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a). Injection wells are prone to fouling as the injection of organic carbon stimulates the growth of bacteria, generation of gases such as carbon dioxide, and formation of mineral precipitates. To mitigate fouling resulting from these processes, the routine maintenance plan includes backwashing and mechanical and chemical rehabilitation. Injection wells are backwashed by extracting groundwater for a short period using a downhole pump to loosen and remove sediments and deposits present on the well screen or in the filter pack. Backwashing of injection wells was initially anticipated to occur weekly during operations (Exhibit 2.1). Mechanical rehabilitation of wells involves physical agitation and subsequent removal of dislodged and detached deposits. Chemical rehabilitation uses additives to remove deposits (for example, by increasing solubility). Mechanical and chemical rehabilitation were planned to occur after periods of extended injection well operation and before planned extended downtime (approximately every 6 months to 1.5 years; see Exhibit 2.1). However, as discussed in the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a), the frequency and manner of injection well rehabilitation are subject to change in response to well performance monitoring data, which are detailed in Section 2.2. Currently, maintenance is performed more frequently than what was planned in the initial schedule that was presented in the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a), as summarized in Exhibit 2.1.

Extraction wells are less prone to fouling and, as such, the frequency of routine rehabilitation for extraction wells is significantly lower than that for the injection wells. The O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a) recommended mechanical rehabilitation (i.e., pumping and surging) for as-needed maintenance of the extraction wells. Chemical rehabilitation may be warranted in some cases.

Exhibit 2.1 Routine Maintenance Matrix for Injection and Extraction Wells

	Injection Well Backwashing Frequency	Injection Well Chemical/Mechanical Rehabilitation Frequency	Extraction Well Mechanical Rehabilitation Frequency
Initial frequency	Weekly	6 months to 1.5 years	As needed
Current frequency	Three times per week	3 to 5 months	As needed

2.2 Long-Term Performance Tracking

Well performance is tracked to establish well performance trends, identify potential performance declines within the NTH IRZ system, and inform the frequency and methods used for routine well maintenance (see Section 2.1). Long-term performance tracking consists of specific capacity monitoring, water quality monitoring, and wellhead inspection. Exhibit 2.2 in this section presents the minimum planned frequency of these activities, and specific capacity and water quality monitoring are detailed in the following subsections.

Exhibit 2.2 Performance Monitoring Frequencies

Performance Monitoring Activity	Injection Wells	Extraction Wells
Specific capacity evaluation	Monthly	Monthly
Water quality monitoring	Baseline, then as needed	Baseline as well as the following: Monthly TOC, manganese, iron, and field parameter screening in 2022 and First and Second Quarters 2023, then quarterly for the remainder of 2023, then annually or as needed thereafter. Annual or as-needed biological and geochemical sampling. Annual or as-needed biological activity tests, sand content tests, and modified fouling index tests.
Wellhead inspection	Quarterly	Quarterly

Notes:

1. Field parameters include temperature, pH, specific conductance, turbidity, dissolved oxygen, and oxidation–reduction potential.
2. Biological and geochemical sampling parameters for extraction wells include TOC, total dissolved solids, iron and manganese (total and dissolved), cations (calcium, potassium, magnesium, and sodium; total), anions (chloride, fluoride, bromide, nitrate, nitrite, and sulfate), alkalinity (total, carbonate, and bicarbonate), and hardness as calcium carbonate. Parameters measured only at baseline include Title 22 metals (total and dissolved), sulfide, phosphate, total phosphorus, silica, ammonia as nitrogen, total Kjeldahl nitrogen, and biochemical oxygen demand.
3. Baseline sampling included parameters listed in Notes 1 and 2.
TOC = total organic carbon

2.2.1 Specific Capacity Monitoring

One measure that is used to assess well performance is a specific capacity evaluation. The specific capacity for each extraction or injection well is determined by the rate of extraction or injection per unit of drawdown or draw-up in the well. Mathematically, this is calculated using the following equation.

$$\text{Specific Capacity} \left(\frac{\text{gpm}}{\text{ft}} \right) = \frac{\text{discharge rate (gpm)}}{\text{operating water level (ft)} - \text{static water level (ft)}}$$

where:

ft = foot/feet

gpm = gallon per minute

As discussed in the First Quarter 2022 Well Performance Report (Arcadis 2022a), baseline specific capacities are determined for each extraction and injection well once the wells are operating consistently and the flowrates and water levels stabilize. Baseline capacities were established in Second Quarter 2022 for wells that operated continuously for most of the quarter including IRZ-13S, IRZ-13D, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-23, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-37 (Arcadis 2022b, 2022c). Baseline capacities were modified in Third Quarter 2022 for extraction wells IRZ-13S, IRZ-13D, and IRZ-23 as explained in the Third Quarter 2022 Well Performance Report (Arcadis 2022d). Baseline capacities were established for IRZ-15 (upper), IRZ-15 (lower), and IRZ-39 in Second Quarter 2023, Third Quarter 2023, and First Quarter 2025, respectively, following continuous injection into these intervals at their target flowrates for an extended period of time. Extraction well PTI-1D began operation in Fourth Quarter 2023, and a baseline capacity was established in December 2023 following approximately 2 months of operation. Extraction well IRZ-9 and injection wells IRZ-21 and IRZ-25 have not operated continuously since NTH IRZ operations began; therefore, sufficient data are not available to establish baseline specific capacities for these wells. Baseline specific capacities for extraction well IRZ-9 and injection wells IRZ-21 and IRZ-25 will be established once these wells are operating continuously and conditions have stabilized.

Static water levels were collected for each injection and extraction well during well development. Static water levels vary naturally depending on the time of year. To account for this natural variation and to use the most conservative static water level, the static water levels collected before system operation were all adjusted to be representative of a low river stage condition (i.e., conditions in January) at the Site. This was done by reviewing historical water-level data and calculating an adjustment factor based on that historical data. Specific capacity values may be affected by planned operational changes to the NTH IRZ wells such as the setting of a new target flowrate. When this occurs, baseline specific capacity values may be adjusted.

Starting in Third Quarter 2022, specific capacities for each well have been calculated and compared to the baseline values to assess well performance decline over time. In accordance with the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a), well performance has previously been classified as “good” (specific capacity greater than or equal to 90 percent of baseline), “fair” (specific capacity between 80 and 90 percent of baseline), or “poor” (specific capacity less than 80 percent of baseline) based on the monthly average specific capacity. This initial classification system is oversimplified and no longer practical for identifying and prioritizing NTH IRZ wells for maintenance. Since startup of the NTH IRZ system in December 2021, the frequencies of routine injection well maintenance activities have been increased (see Exhibit 2.1) and well rehabilitation procedures have been enhanced (e.g., increased surging time, added jetting) for the injection wells.

Starting in Fourth Quarter 2024, the “good,” “fair,” and “poor” designations are no longer presented as a metric for evaluating performance of the NTH IRZ wells or effectiveness of the well maintenance procedures at each well. Instead, specific capacities are reviewed in tandem with well flowrate and water-level trends over time with the overarching goal of maintaining overall NTH IRZ injection system performance.

2.2.2 Water Quality Monitoring

Water quality monitoring, including field parameter screening and sample collection for laboratory analysis, provides data to help diagnose well clogging issues and determine corrective measures. Baseline water quality sampling included biological, geochemical, and field parameters as specified in Exhibits 4.1-1 and 4.1-2 of the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a). Extraction wells are sampled annually or as needed, as summarized in Exhibit 2.2 and in alignment with the O&M Manual (Appendix L, Volumes 1 and 2 of the Final BOD; CH2M Hill 2015a), for extraction of constituents associated with the in situ injections including TOC and dissolved metals. Samples were collected during Second Quarter 2025 and analyzed for select parameters according to standard operating procedures presented in Appendix B of the Groundwater Remedy Phase 1 Interim Monitoring Plan (Arcadis 2021) and the Final PG&E Program Quality Assurance Project Plan and addendum (CH2M Hill 2014; Critigen 2020). Sample results are discussed in Section 3.2.3 of this report.

3 NTH IRZ Well Performance

This section summarizes NTH IRZ system operational changes, well specific capacities, and water quality monitoring that occurred during Second Quarter 2025.

3.1 System Operation Summary

In Second Quarter 2025, routine operation of the NTH IRZ system continued with extraction wells IRZ-23, IRZ-13S, and IRZ-13D; pilot test well PTI-1D; and injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39. Starting in June 2025, routine operation of the IRZ system was adjusted to accommodate implementation of an extended aquifer test using IRZ-9 as the test well in accordance with the IRZ-9 and IRZ-13S Extended Aquifer Test Work Plan (Arcadis 2025b). Results of the extended aquifer test are documented in the IRZ-9 Extended Aquifer Test Summary Report (Arcadis 2025c). System run time, ethanol and recirculated groundwater injection volumes, and average flowrates are summarized in Table 3.1. An NTH IRZ system operations and non-routine maintenance log is presented in Table 3.2.

Routine operation during Second Quarter 2025 prioritized maintaining target extraction rates at IRZ-23 and PTI-1D, followed by IRZ-13D, to enhance plume control, and NTH IRZ injection wells were operated at their target flowrates, when possible, to accommodate the extracted water². Total recirculation flowrate varied because maintenance requiring operational downtime was performed at select NTH IRZ injection wells. This maintenance consisted of full chemical and mechanical well rehabilitation (1 to 2 weeks of downtime per well). In accordance with the PTI-1D Floodplain Extraction Test Workplan (Arcadis 2023a), IRZ-23 and PTI-1D were operated at a target combined extraction rate of 95 gpm. During Second Quarter 2025, the average extraction rate at PTI-1D was 23 gpm due to variations in forcemain backpressure as flow varied over time to operating injection wells. Injection flowrates were increased, when possible, to alleviate backpressure and increase the PTI-1D extraction rate. Extraction well IRZ-13D operated intermittently in Second Quarter 2025 and generally when only one injection well was down for rehabilitation at a time and when the total extraction rate at IRZ-23 and PTI-1D exceeded 105 gpm³ (Table 3.2). IRZ-13S was not operated in Second Quarter 2025 so that operation of IRZ-13D could be prioritized.

Implementation of the IRZ-9 extended aquifer test was initiated on June 16, 2025, with the commencement of the background monitoring period. During this period, the extraction rate at IRZ-23 was reduced to approximately 30 gpm and all other extraction wells were turned off. Flow from IRZ-23 was reinjected into select southern NTH IRZ injection wells (IRZ-27, IRZ-33, IRZ-35, and IRZ-37). Starting on June 25, 2025, IRZ-9 was brought online at a target extraction rate of approximately 80 gpm, while IRZ-23 was operated at a flowrate ranging between 10 and 30 gpm depending on the available injection capacity of the NTH IRZ system.

During Second Quarter 2025, the northern and southern NTH IRZ injection wells continued to be dosed with ethanol biweekly and once weekly, respectively. The amount of ethanol dosed per week into the northern and southern NTH IRZ wells was at a time-weighted target average concentration of 26 milligrams per liter (mg/L)

² In Second Quarter 2025, target flowrates for the northern NTH IRZ injection wells were based on the nominal design flowrates specified in the Final BOD (CH2M Hill 2015a). Target flowrates for the southern NTH IRZ injection wells were based on 150 percent of the nominal design flowrates specified in the Final BOD.

³ The optimal extraction rate for IRZ-13D is 10 gpm or higher; therefore, when the total injection capacity was at least 10 gpm higher than the target combined flowrate of 95 gpm for IRZ-23 and PTI-1D, extraction well IRZ-13D was turned on.

TOC, which is approximately 30 percent of the nominal design dosing specified in the Final BOD (CH2M Hill 2015a). A total of 525 gallons of ethanol were injected in Second Quarter 2025. System run time, ethanol and recirculated groundwater injection volumes, and average flowrates are summarized in Table 3.1. An NTH IRZ system operations and non-routine maintenance log is presented in Table 3.2.

Chemical and mechanical well rehabilitation occurred at the following NTH IRZ injection wells in Second Quarter 2025: IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-37, and IRZ-39. Average systemwide uptime was 83 percent in Second Quarter 2025⁴. The following notable events occurred in Second Quarter 2025:

- From April 13 through April 24, 2025, the system was offline for approximately 259 hours due to power loss at the Topock Compressor Station that shut off power to the IRZ system. Initial efforts to re-energize the IRZ system were unsuccessful, and further troubleshooting was carried out until April 24, 2025, when the system was successfully brought back online.
- From May 16 through May 17, 2025, the system was offline for 8.1 hours due to a leak detection alarm in the IRZ-33 vault. The alarm was triggered by water from the transducer cable port that had leaked out because the well casing was overfilled. The injection flowrates at IRZ-33 were reduced to prevent overfilling.
- From May 31 through June 1, 2025, the system was offline for 24.7 hours due to a leak detection alarm in the IRZ-27 metering vault. The leak was caused by a faulty sump check valve, leading to water backfeeding through the sump pump. The check valve is scheduled for replacement with a brass valve in Third Quarter 2025.
- From June 9 through June 10, 2025, the system was offline for approximately 30 hours to implement electrical upgrades (i.e., installation of a manual transfer switch) at Node 3.
- Rain infiltration during storm events caused systemwide shutdowns on the following dates:
 - May 4 through 5 (12.3 hours);
 - May 6 through 7 (10.3 hours);
 - June 2 (2.7 hours); and
 - June 3 through 4 (12.3 hours).

3.2 NTH IRZ Extraction Well Performance

Extraction wells operated as part of Phase 1 of the groundwater remedy include IRZ-9, IRZ-13S, IRZ-13D, IRZ-23, and pilot test well PTI-1D. Extraction well run time, volume of extracted groundwater, and average extraction well flowrate (per month) are documented in Table 3.1. A discussion of observed extraction well performance in Second Quarter 2025 is provided in the following subsections.

3.2.1 Extraction Well O&M and Specific Capacity Summary

As described in Section 2.2.1 of this report, average specific capacities from July 2022 were established as the baseline specific capacities for extraction wells IRZ-23, IRZ-13S, and IRZ-13D. A baseline specific capacity was established for PTI-1D in Fourth Quarter 2023. A baseline specific capacity has not yet been established for

⁴ Systemwide uptime is calculated using total run time hours (run time in hours is calculated from extraction well operating hours) divided by total possible run time hours in Second Quarter 2025.

extraction well IRZ-9 due to limited and inconsistent operation of this well since NTH IRZ system operations began.

Graphs of average daily specific capacity over time for extraction wells IRZ-13S, IRZ-13D, IRZ-23, and pilot test well PTI-1D are presented on Figure 3.1 (Third Quarter 2022 through Second Quarter 2025). Average daily specific capacities are presented as percentages of the baseline specific capacities for each well. To date, changes in extraction well specific capacity have been a function of variations in target flow and river stage, as detailed below, rather than an indicator of well fouling:

- **IRZ-23** operated throughout Second Quarter 2025 with a monthly average flowrate of 41 to 70 gpm. The relatively low average flowrate of 41 gpm in June 2025 was due to flow balancing for the IRZ-9 extended aquifer test that was initiated on June 16, 2025 (see Section 3.1); for the remainder of the quarter, IRZ-23 operated at a target flowrate of 60 gpm or higher. The decline in specific capacity observed at IRZ-23 over Second Quarter 2025 is attributed to increasing river stage as well as decreased extraction at this well to accommodate the IRZ-9 extended aquifer test.
- **IRZ-13S** did not operate in Second Quarter 2025, except during monthly sampling in May 2025, due to reduced injection capacity (i.e., as injection wells were taken offline for rehabilitation) and the prioritization of extraction from IRZ-23, PTI-1D, and IRZ-13D.
- **IRZ-13D** operated intermittently in Second Quarter 2025, with average flowrates between 10 and 11 gpm. The specific capacity exceeded 100 percent of baseline for a portion of the quarter. Specific capacities less than 100 percent of baseline occurred when IRZ-13D operated at lower target flowrates.
- **PTI-1D** operated at greater than 100 percent of the baseline specific capacity throughout Second Quarter 2025, with monthly average flowrates of 23 to 24 gpm.

In accordance with the Final BOD (CH2M Hill 2015a), routine maintenance of extraction wells could include pump-and-surge redevelopment as needed. No routine maintenance was performed on the extraction wells in Second Quarter 2025.

3.2.2 Extraction Well Inspections

Extraction wells are inspected quarterly (at a minimum) for visible leaks and damage. Any notable damage or equipment needing replacement is identified in Table 3.2. Leak detection switches within the vaults are also used to identify maintenance needs in a timely manner. There was no notable damage to extraction wells and no non-routine maintenance was performed on these wells during Second Quarter 2025. The filters at PTI-1D were generally replaced once weekly while PTI-1D was operating. In Second Quarter 2025, 9 spent bag filters were generated from PTI-1D.

3.2.3 Extraction Well Water Quality

The potential for increased well fouling, resulting from the extraction of groundwater with residual carbon substrate and/or reduced metals from the nearby carbon injection activity, is monitored during system operations. This monitoring includes measuring TOC and metal byproduct concentrations at the extraction wells. The Second Quarter 2025 Quarterly Progress Report (Arcadis 2025d) provides the extraction well monitoring analytical results; however, the results are also summarized and discussed herein.

Baseline analytical data for extraction wells are provided in Table 3.4 of the First Quarter 2022 Well Performance Report (Arcadis 2022a) and in Exhibit 3.1 in this section (key indicator parameters only). Baseline analytical data

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were collected during December 2021, January 2022, March 2022, and November 2023, when extraction wells were brought online (Exhibit 3.1).

Exhibit 3.1 in this section presents the Second Quarter 2025 analytical results from extraction wells IRZ-9, IRZ-23, IRZ-13S, IRZ-13D, and PTI-1D. Extraction wells IRZ-9, IRZ-23, IRZ-13S, and IRZ-13D were sampled in May 2025 (quarterly), and PTI-1D was sampled in April, May, and June 2025 (monthly). In Second Quarter 2025, extraction well IRZ-9 was only operated for routine sampling conducted in May and at the end of June (starting on June 25, 2025) for the extended aquifer test. IRZ-13S was not operated in Second Quarter 2025, except during quarterly sampling in May.

At the extraction wells, total iron, dissolved iron, and dissolved manganese concentrations were generally lower than the reporting limits or baseline concentrations, except for low concentrations of dissolved manganese at IRZ-13S. These results are not indicative of fouling because IRZ-13S did not operate in Second Quarter 2025 prior to the sampling event. Although baseline TOC concentrations are not available for the extraction wells, TOC concentrations remained at non-detect values in Second Quarter 2025. Overall, the periodic detections do not reflect trends that may be indicative of well fouling. Therefore, no adjustments to operations of the extraction wells were needed in Second Quarter 2025 based on the water quality results. The iron and manganese results for PTI-1D are further discussed in Section 3.2.4.

Exhibit 3.1 Second Quarter 2025 NTH IRZ Extraction Well Analytical Results

Extraction Well	Sample Date	Active Time Operating (percent)	TOC: Method 5310B (mg/L)	Total Iron (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)
IRZ-9	Baseline: January 2022	9	--	Less than 0.02	Less than 0.02	0.0027
IRZ-9	May 2025	0.46	Less than 1	Less than 0.02	Less than 0.02	Less than 0.0005
IRZ-23	Baseline: December 2021	8	--	0.69	0.091 J	Less than 0.0005
IRZ-23	May 2025	94	Less than 1	0.065 J	0.039	Less than 0.0005
IRZ-13S	Baseline: March 2022	53	--	0.060	Less than 0.02 J	Less than 0.0005
IRZ-13S	May 2025	0.43	Less than 1	Less than 0.02	Less than 0.02	0.0022 J
IRZ-13D	Baseline: March 2022	53	--	Less than 0.02	0.059 J	0.062
IRZ-13D	May 2025	12	Less than 1	Less than 0.02	Less than 0.02	0.0025 J
PTI-1D	Baseline: November 2023	94	--	1.3	1.1	4.2 J
PTI-1D	April 2025	64	--	0.15	0.10	0.55
PTI-1D	May 2025	93	--	0.086	0.083	0.68 J
PTI-1D	June 2025	43	--	0.093	0.095	0.63

Notes:

-- = not analyzed

J = estimated concentration

Table 3.3 includes field parameter data (temperature, pH, specific conductance, turbidity, dissolved oxygen, and redox potential) for extraction wells IRZ-13S, IRZ-13D, IRZ-23, and PTI-1D collected during Second Quarter 2025.

3.2.4 PTI-1D Operations

Starting on November 2, 2023, PG&E began extracting groundwater from pilot test extraction well PTI-1D, in accordance with the PTI-1D Floodplain Extraction Test Workplan (Arcadis 2023a), to improve hydraulic control of the Cr6 plume. On September 20, 2024, PG&E requested continuation of the PTI-1D extraction test (PG&E 2024). The DTSC and DOI conditionally approved a 1-year extension of the PTI-1D extraction test (DTSC 2024; DOI 2024). The conditions included in the DTSC's September 25, 2023 conditional approval letter (DTSC 2023) remain in effect.

The PTI-1D Floodplain Extraction Test Workplan (Arcadis 2023a) outlines the metrics that are used to evaluate PTI-1D performance and provides indicators that help determine if operational changes are needed and/or when the PTI-1D test is complete. In Second Quarter 2025, extraction from IRZ-23 and PTI-1D at the target combined flowrate of approximately 95 gpm continued through June 16, 2025, at which time PTI-1D was shut off and the flow from IRZ-23 was decreased to accommodate the planned IRZ-9 extended aquifer test (see Section 3.1). Hydrogeologic and analytical data continued to be collected through Second Quarter 2025 and were evaluated against the metrics, as described in the Second Quarter 2025 Quarterly Progress Report (Arcadis 2025d). Results relevant to PTI-1D well operations, maintenance, and performance are described in the text that follows.

Sustainable extraction at PTI-1D is evaluated based on maintaining the specific capacity of the extraction well and low extracted iron and manganese concentrations. PTI-1D began operation in November 2023, and baseline specific capacity for this well was established using December 2023 data once water levels had stabilized following 2 months of sustained operation. In Second Quarter 2025, the average extraction rate at PTI-1D was 23 gpm due to variations in forcemain backpressure as flow varied over time to operating injection wells. Injection flowrates at select injection wells were increased when possible to alleviate backpressure in the main to increase the PTI-1D extraction rate. Specific capacity at PTI-1D was maintained throughout Second Quarter 2025 while this well was operational as presented on Figure 3.1. PTI-1D was sampled for dissolved manganese and dissolved iron in April, May, and June 2025 to evaluate concentrations during active extraction at this well. Dissolved manganese and dissolved iron concentrations in PTI-1D decreased from November 2023 to December 2023 and remained consistently low through Second Quarter 2025, with dissolved manganese concentrations ranging from 0.55 to 0.68 J mg/L and dissolved iron concentrations ranging from 0.083 to 0.1 mg/L (Exhibit 3.1). In Second Quarter 2025, PTI-1D bag filters were checked and generally replaced once weekly while PTI-1D was operational to monitor for microbial growth. Bag filter replacements are noted in Table 3.2. The specific capacity results, analytical results, and bag filter observations indicate that operation of PTI-1D is sustainable.

3.3 NTH IRZ Injection Well Performance

Phase 1 of the groundwater remedy includes NTH IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-21, IRZ-25, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39. Injection well run time, including

average flowrates, is documented in Table 3.1. A discussion of observed injection well performance in Second Quarter 2025 is provided in the following subsections.

3.3.1 Well Maintenance Procedures

In the Fourth Quarter 2023 Well Performance Report (Arcadis 2024a), the following adjustments to the well rehabilitation program were planned:

- Complete quarterly mechanical and chemical rehabilitation at injection wells IRZ-18, IRZ-27, IRZ-31, and IRZ-37 using the updated rehabilitation procedure described in Section 3.3.1.1.
- Complete mechanical and chemical rehabilitation approximately every 4 to 5 months at injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-20, IRZ-29, IRZ-33, and IRZ-35 using the updated rehabilitation procedure described in Section 3.3.1.1.
- Implement routine wellhead chemical application (wellhead dosing) using an updated method at injection wells to prolong well performance between rehabilitation events.

The injection well rehabilitation frequency schedule outlined in the Fourth Quarter 2023 Well Performance Report (Arcadis 2024a) is reviewed each quarter and adjusted as needed based on observed well performance and/or treatment objectives. In the Second Quarter 2024 Well Performance Report (Arcadis 2024b), the well rehabilitation program was updated to include IRZ-29 in the quarterly mechanical and chemical rehabilitation schedule. In the Third Quarter 2024 Well Performance Report (Arcadis 2024c), the well rehabilitation program was updated to include IRZ-33 in the quarterly mechanical and chemical rehabilitation schedule and to remove IRZ-37 from the quarterly mechanical and chemical rehabilitation schedule based on overall well performance. Instead of quarterly rehabilitation, IRZ-37 is now rehabilitated approximately every 4 to 5 months. In the Fourth Quarter 2024 Well Performance Report (Arcadis 2025a), the well rehabilitation program was updated to include IRZ-17 in the quarterly mechanical and chemical rehabilitation schedule. In that same report, it was also noted that wellhead dosing would not be implemented from First Quarter 2025 onward due to its limited effectiveness at improving well performance over a sustained period. No notable rehabilitation schedule adjustments occurred in Second Quarter 2025. However, due to scheduling constraints, some wells were rehabilitated at frequencies different from their planned frequency.

As discussed in the Fourth Quarter 2024 Well Performance Report (Arcadis 2025a), the rehabilitation procedure was updated in First Quarter 2025 because a subset of injection wells was unable to sustain target flowrates for a prolonged period of time following rehabilitation. Camera surveys indicated that the previous rehabilitation procedure continued to be effective in removing fouling from within the well screens. Thus, the decline in the performance of certain wells is likely due to fouling in the filter packs and/or surrounding formation, which is not visible via a camera survey. The updated rehabilitation procedure included the addition of new chemicals, as described in Section 3.3.1.1, and a new jetting tool with nozzle inserts that allow for jetting at velocities of 208 and 324 feet per second.

3.3.1.1 Well Rehabilitation Procedure

Rehabilitation for each well involves the following process.

- Confirm the injection well is offline and confirm the affiliated well water and electrical lines have been locked out and tagged out by appropriate personnel.
- Open the well vault and begin continuous air monitoring.

- Remove the downhole equipment, including the packer (if applicable), drop pipe, and pump(s), from injection well. During its removal, inspect the equipment for corrosion, damage, deposits, and/or odor. Brush, clean, and/or pressure-wash the equipment if needed.
- Mechanically clean the well casing and screen section(s) using a double-surge block.
- Jet the mixed well chemical solution down the well using a jetting tool, first into the lower well screen, then the upper screen, and surge the screen intervals.
- Following jetting, install a dual-swab block brush and swab the screen intervals.
- If using a packer, reinstall the packer following jetting and swabbing of the chemicals in all screens.
- Allow the chemicals to sit in the well overnight. The following day, check the pH of the screen intervals.
- Once the pH is greater than 3, remove the packer (if applicable) and conduct mechanical rehabilitation. Add fresh water as needed to adjust the pH.
- Pump the purge water into backwash piping.
- Reinstall the downhole well equipment and restart the well.

The well chemical solution used for each injection well through Fourth Quarter 2024 included fresh water, NuWell phosphoric acid, and a NuWell biodispersant. Starting in First Quarter 2025, a NuWell surfactant was added to that well chemical solution due to its ability to lower surface tension and, thereby, more effectively address biofouling. Jetting was added to the well rehabilitation procedure starting in Third Quarter 2023 to distribute the chemical solution further into the filter pack and reduce fouling in the filter pack.

In First Quarter 2025, a NuWell hydrochloric acid was used instead of the NuWell phosphoric acid at select injection wells that were identified as unable to sustain target flowrates for an extended period after rehabilitation (IRZ-17, IRZ-18, and IRZ-31). Results regarding the relative effectiveness of the hydrochloric acid have been mixed. Future use of hydrochloric acid for chemical rehabilitation will be limited to cases where wells are heavily fouled and unable to maintain target flowrates post-rehabilitation.

3.3.2 Injection Well O&M and Specific Capacity Summary

Injection wells operating during Second Quarter 2025 included IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39. Injection wells were taken offline as needed throughout the quarter for well rehabilitation. Injection wells IRZ-21 and IRZ-25 remained offline throughout the quarter to avoid fouling of the adjacent IRZ-23 extraction well.

Routine injection well maintenance during Second Quarter 2025 included backwashing of injection wells during system operation as detailed in Table 3.2. Each operating injection well was backwashed to remove solids that may have accumulated in the well screen and gravel pack during injections. Backwashing occurred three times weekly when time allowed, an increase from the estimated once weekly backwash described in Section 2.1, to proactively manage well health and water levels at injection wells. The backwashing frequency was less during extended system downtime and when other operational activities were prioritized, such as the shutdown of Nodes 2, 3, and 4 for electrical upgrades and the IRZ-9 extended aquifer test.

Routine operation for injection wells includes daily monitoring of injection flowrates and water levels. Graphs of average daily specific capacity over time for operating injection wells with an established baseline specific capacity are plotted on Figures 3.2 through 3.4 (Third Quarter 2022 through Second Quarter 2025). Average daily specific capacities are plotted as percentages of the baseline specific capacities established in 2022, 2023, and

2025. Specific capacity data for injection wells IRZ-29 (upper) and IRZ-29 (lower) were not calculated from April 24 through May 28 and from May 2 through June 6, 2025, respectively, due to unreliable pressure transducer readings. IRZ-29 (upper and lower) operated during these timeframes with brief periods of downtime, and the engineering team investigated the instrument inaccuracies the week of May 20, 2025. Although no definitive cause for the inaccuracies was found, the pressure transducers for IRZ-29 (upper) and IRZ-29 (lower) were proactively replaced on May 28 and June 6, 2025, respectively.

Injection wells rehabilitated in Second Quarter 2025 included IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-37, and IRZ-39. The procedures used for well rehabilitation are provided in Section 3.3.1.1. Rehabilitation resulted in increased injection well specific capacities in Second Quarter 2025, as shown on Figures 3.2 through 3.4 and described below:

- Specific capacities for injection wells IRZ-15 (upper), IRZ-16 (upper), IRZ-18 (upper), IRZ-37, and IRZ-39 returned to greater than 80 percent of baseline following rehabilitation, although, for a majority of these wells, specific capacities then declined over time with continued operation.
- Specific capacities for injection wells IRZ-17 (upper) and IRZ-27 (middle/lower) increased following rehabilitation (and flowrates also increased compared to pre-rehabilitation rates); however, specific capacities did not return to greater than 80 percent of baseline.
- Specific capacities for injection wells IRZ-15 (lower), IRZ-16 (lower), IRZ-17 (lower), IRZ-18 (lower), IRZ-20 (upper and lower), and IRZ-27 (upper), did not significantly improve following rehabilitation in Second Quarter 2025.

Specific capacities decreased for IRZ-17 (lower) and IRZ-27 (upper) following rehabilitation as shown on Figures 3.2 and 3.3, respectively. Prior to rehabilitation of IRZ-17, it was suspected that water was leaking from the deep interval to the shallow interval, resulting in the appearance of higher injection flowrates into IRZ-17 (lower) and lower injection flowrates into IRZ-17 (upper) over time at the same water levels. The leak was addressed during the March/April 2025 rehabilitation event, which resulted in an increase in flowrates into the upper interval and a corresponding decrease in flowrates into the lower interval when IRZ-17 was brought back online. The combined flowrate into the upper and lower intervals improved following rehabilitation. The decrease in specific capacity at IRZ-27 (upper) was due to relocation of the packer from between the middle screen and lower screen to between the upper screen and middle screen, as described in Section 1. The combined flowrate into the upper and middle/lower intervals at IRZ-27 improved following rehabilitation.

During Second Quarter 2025, multiple well intervals failed to demonstrate significant improvement in specific capacity following rehabilitation efforts. This may be attributed to the seasonal rise in river stage from April through June, which is associated with decreased specific capacity at consistent flowrates, as well as prolonged operation of the injection wells. Enhancements to the rehabilitation methodologies continue to be evaluated, and diagnostic sampling of select injection wells is anticipated to be conducted in Third Quarter 2025.

3.3.3 Injection Well Inspections

Injection wells are inspected quarterly (at a minimum) for visible leaks and damage. Any notable damage or equipment needing replacement is identified in Table 3.2. Leak detection switches within the vaults are also used to identify maintenance needs in a timely manner.

Notable non-routine maintenance performed on the injection wells during Second Quarter 2025 included the following:

- During the March/April 2025 rehabilitation event, the packer at IRZ-27 was relocated from between the middle and lower screens to between the upper and middle screens due to limited injection capacity into the lower interval at this well.
- On April 1, 2025, the pressure transducer at IRZ-35 was replaced due to inaccurate water-level data. Manual water-level measurements taken after the replacement was installed confirmed that the new pressure transducer was taking accurate readings.
- On April 10, 2025, the pressure transducers at IRZ-21 (lower) and IRZ-25 (lower) were replaced due to inaccurate water-level data. Manual water-level measurements taken after the replacements were installed confirmed that the new pressure transducers were taking accurate readings.
- On May 28, 2025, the pressure transducer at IRZ-29 (upper) was replaced due to inaccurate water-level data. Manual water-level measurements taken after the replacement was installed confirmed that the new pressure transducer was taking accurate readings.
- On June 6, 2025, the pressure transducers at IRZ-29 (lower) and IRZ-33 (lower) were replaced due to inaccurate water-level data. Manual water-level measurements taken after the replacements were installed confirmed that the new pressure transducers were taking accurate readings.

3.3.4 Injection Well Water Quality

Injection well water quality monitoring includes the collection of baseline data followed by as-needed sampling for biological, geochemical, and/or field parameters. Baseline analytical results for each injection well are provided in the First Quarter 2022 Well Performance Report (Arcadis 2022a). Baseline analytical data were collected during December 2021 and January 2022. Future analytical results will be collected as needed for fouling troubleshooting purposes.

4 Monitoring Well Performance

Monitoring wells are inspected to determine whether monitoring well maintenance, such as wellhead repair or well screen redevelopment, is needed. Monitoring well inspections include the following:

- Wellhead condition is assessed to determine if well protection features, including the well seal, well vault/protective casing, and concrete pad, are in place and functioning as designed.
- Turbidity is measured as an indicator of whether the monitoring well screen and filter pack are intact and functioning.
- Depth to bottom of the well is measured as an indicator of infill (siltation).
- Specific capacity is evaluated to confirm consistency with sampling standard operating procedures.

This section provides a summary of each of these parameters.

4.1 Wellhead Condition

Wellheads are inspected routinely during sampling, and observations are documented. The inspection results for Second Quarter 2025 are presented in Table 4.1. Overall, the wellheads were in good condition in Second Quarter 2025.

4.2 Turbidity

In accordance with Section 4.2.4 of the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a), wells that consistently yield turbidity greater than the range of 20 to 30 nephelometric turbidity units (NTU) undergo additional evaluation to determine if redevelopment is warranted. The additional evaluation can include evaluation of previous purge data, specific capacity, and longer-term pressure transducer data. Turbidity data collected from monitoring wells in Second Quarter 2025 are included in Table 3.3. A summary of the monitoring wells that exhibited turbidity greater than 30 NTU during consecutive monitoring events is provided in the text that follows.

Monitoring wells MW-69-195 and MW-89-273 yielded turbidity readings greater than 30 NTU for consecutive sampling events, as noted in Table 4.2. These wells are not recommended for redevelopment at this time because the wellhead condition, depth to well bottom, and specific capacity assessments for these wells indicate that well integrity is intact and siltation is not sufficient to warrant redevelopment.

4.3 Depth to Well Bottom

Depth to well bottom is measured manually during sampling using a water-level meter and compared to the as-constructed well depth and bottom of the screened interval to assess siltation, integrity of the well screen, and integrity of the well casing. Monitoring well depth-to-bottom data are presented in Table 4.2. If the measured well depths for consecutive sampling events suggest that at least 20 percent of the screened interval is silted in, the well will be flagged for further evaluation to determine if redevelopment is necessary.

Monitoring wells MW-27-020, MW-30-050, MW-32-020, MW-39-040, MW-48, MW-54-195, MW-77-046, MW-81-098, and PT5D met this well depth criterion in Second Quarter 2025 but are not recommended for

redevelopment. Monitoring wells MW-27-020, MW-30-050, MW-32-020, and MW-54-195 are not recommended for redevelopment because they are screened in fluvial sediments, and redevelopment in these sediments would increase the potential for sediment infiltration. MW-39-040 is not recommended for redevelopment because previous redevelopment of this well did not improve performance, as discussed in the Third Quarter 2023 Well Performance Report (Arcadis 2023b). Monitoring well MW-77-046 was redeveloped following the October 2024 sampling event (Arcadis 2025a). The specific capacities and turbidity readings measured at MW-77-046 during the Second Quarter 2025 sampling events indicate good yield and low suspended solids. Therefore, additional redevelopment or maintenance of MW-77-046 is not recommended at this time. MW-48 is not recommended for redevelopment given it is a bedrock well and the specific capacity indicates good yield. MW-81-098 and PT5D are screened in alluvial sediments but are not recommended for redevelopment at this time based on their low (less than 20 NTU) turbidity measurements during sampling and minimal drawdown during purging. These wells will be monitored for increasing trends in downwell sediment buildup, turbidity measurements, and drawdown observed during sampling, and redevelopment will be considered if increasing trends are observed.

4.4 Specific Capacity

Monitoring well purging is generally conducted at rates between 100 and 500 milliliters per minute, and drawdown at these rates typically ranges from a few hundredths to a few tenths of a foot. Wells with casing diameters greater than 4 inches may be purged at rates higher than 500 milliliters per minute because a larger submersible pump is used in these cases. If drawdown of greater than 1 foot is observed for a fluvial or alluvial well during purging, the well will be flagged for further evaluation to determine if it needs rehabilitation. Bedrock wells are excluded from this evaluation method due to the potential for larger drawdown during purging. Purging data, including purge rate, drawdown, and calculated specific capacity, are presented in Table 4.2. Specific capacity is calculated using the equation provided in Section 2.2.1.

Greater than 1 foot of drawdown was measured during purging of non-bedrock monitoring well MW-26 in Second Quarter 2025 (Table 4.2). The water level dropped approximately 8 feet during the first 5 minutes of purging, then stabilized between 54.36 and 54.37 feet below the top of casing for the remainder of purging, indicating the well has sufficient yield. Therefore, redevelopment of MW-26 is not recommended at this time.

4.5 Response to Monitoring Well Performance Evaluation

The locations of the monitoring wells inspected are shown on Figure 4.1.

Based on experience redeveloping MW-28-025, MW-30-030, and MW-39-040 and as discussed in the Third Quarter 2023 Well Performance Report (Arcadis 2023b), the following adjustments have been implemented since Third Quarter 2023:

- Wells are redeveloped using a smaller-diameter surge block to reduce the risk of the surge block being lodged between sediment and the well casing.
- Wells located in fluvial sediments (see Well Screen Lithology column in Table 4.2), where sediment infiltration is likely given the screen slot size and/or filter pack combination, are not redeveloped. Redevelopment of

these wells is expected to have a detrimental effect on well performance due to increased potential for sediment infiltration.

- Wells in which significant sediment infiltration occurs during redevelopment are not considered for future redevelopment.

Monitoring well redevelopment did not occur in Second Quarter 2025.

5 Recommendations and Planned Activities for Next Reporting Period

Phase 1 groundwater remedy operations and the Phase 1 monitoring program will continue in Third Quarter 2025 (July through September 2025) in accordance with the O&M Manual (Appendix L, Volume 1 of the Final BOD; CH2M Hill 2015a) and Groundwater Remedy Phase 1 Interim Monitoring Plan (Arcadis 2021). It is recommended that adjustments to the well maintenance program discussed in the Fourth Quarter 2023 Well Performance Report (Arcadis 2024a) continue to be implemented with the following modifications:

- Quarterly mechanical and chemical rehabilitation will be completed at injection wells IRZ-17, IRZ-18, IRZ-27, IRZ-29, IRZ-31, and IRZ-33 when these wells are operating.
- Mechanical and chemical rehabilitation will be completed approximately every 4 to 5 months at injection wells IRZ-15, IRZ-16, IRZ-20, IRZ-35, and IRZ-37 when these wells are operating.

In addition to routine groundwater remedy operations and monitoring, the following activities related to well performance are planned for Third Quarter 2025:

- Continue operating target NTH IRZ extraction and injection wells with the following modifications:
 - Extraction at PTI-1D and IRZ-23 will be transitioned to extraction at IRZ-23 only (with an initial target extraction rate of 60 gpm) in Third Quarter 2025, following the conclusion of extended aquifer testing at IRZ-9. Hydrogeologic and analytical data will continue to be collected and evaluated in accordance with the PTI-1D Floodplain Extraction Test Workplan (Arcadis 2023a) to determine if operational changes are required.
 - Once operation of PTI-1D and IRZ-23 has been modified as described above, select southern NTH IRZ injection wells (IRZ-29, IRZ-31, IRZ-33, and IRZ-35) will be cycled off because they will not be needed to manage groundwater extracted by the NTH IRZ system and prolonged treatment has been observed in the area of these wells. This will allow for a rest period, in accordance with the Final BOD (CH2M Hill 2015a), during which residual reducing capacity can continue to treat Cr6 in groundwater. The associated dose-response wells will continue to be sampled monthly; and, if the data indicate that reducing conditions are dissipating, then carbon injections into these wells will resume.
- Continue monitoring the NTH IRZ extraction and injection wells for potential well fouling.
- Continue backwashing operating injection wells three times weekly during operation.
- Monitor average specific capacities for NTH IRZ extraction/injection wells and monitoring wells to determine if additional maintenance is needed.
- Continue inspections of monitoring wells as part of scheduled routine sampling.

Well performance monitoring and well maintenance activities will be reported in the Third Quarter 2025 Well Performance Report. The Third Quarter 2025 Quarterly Progress Report will also be submitted to document

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operations and monitoring results in accordance with the O&M Manual (Appendix L, Volume 2 of the Final BOD; CH2M Hill 2015a).

6 References

- Arcadis. 2021. Groundwater Remedy Phase 1 Interim Monitoring Plan. Topock Compressor Station, Needles, California. October 1.
- Arcadis. 2022a. First Quarter 2022 Well Performance Report. PG&E Topock Compressor Station, Needles, California. June 30.
- Arcadis. 2022b. Second Quarter 2022 Quarterly Progress Report. PG&E Topock Compressor Station, Needles, California. September 2.
- Arcadis. 2022c. Second Quarter 2022 Well Performance Report. PG&E Topock Compressor Station, Needles, California. September 28.
- Arcadis. 2022d. Third Quarter 2022 Well Performance Report. PG&E Topock Compressor Station, Needles, California. December 14.
- Arcadis. 2023a. PTI-1D Floodplain Extraction Test Workplan. Topock Compressor Station, Needles, California. July 25.
- Arcadis. 2023b. Third Quarter 2023 Well Performance Report. PG&E Topock Compressor Station, Needles, California. December 14.
- Arcadis 2024a. Fourth Quarter 2023 Well Performance Report. PG&E Topock Compressor Station, Needles, California. March 27.
- Arcadis. 2024b. Second Quarter 2024 Well Performance Report. PG&E Topock Compressor Station, Needles, California. September 30.
- Arcadis. 2024c. Third Quarter 2024 Well Performance Report. PG&E Topock Compressor Station, Needles, California. December 6.
- Arcadis. 2025a. Fourth Quarter 2024 Well Performance Report. PG&E Topock Compressor Station, Needles, California. March 12.
- Arcadis. 2025b. IRZ-9 and IRS-13S Extended Aquifer Test Work Plan. PG&E Topock Compressor Station, Needles, California. May 2.
- Arcadis. 2025c. IRZ-9 Extended Aquifer Test Summary Report. PG&E Topock Compressor Station, Needles, California. August 29.
- Arcadis. 2025d. Second Quarter 2025 Quarterly Progress Report. PG&E Topock Compressor Station, Needles, California. September 18.
- CH2M Hill. 2014. Final PG&E Program Quality Assurance Project Plan. November.
- CH2M Hill. 2015a. Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California. November.
- CH2M Hill. 2015b. Construction/Remedial Action Work Plan for the Final Groundwater Remedy. PG&E Topock Compressor Station, Needles, California. November.
- Critigen. 2020. Addendum to the PG&E Program Quality Assurance Project Plan for Groundwater and Surface Water Sampling at the Topock Chromium Site. April.

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DOI. 2010. Groundwater Record of Decision, Pacific Gas and Electric Company, Topock Compressor Station, Needles, San Bernardino County, California. ROD cover date is December 2010; signed/approved by DOI on January 20, 2011.

DOI. 2024. Email from V. Dickerson (DOI) to C. Ioan (DTSC) and J. Glass (PG&E). RE: PG&E Topock PTI-1D Extension Request. October 17.

DTSC. 2023. Email from A. Yue (DTSC) to I. Baker (PG&E). Conditional Approval of the PTI-1D Extraction Test at Pacific Gas and Electric Company (PG&E) Topock Compressor Station, Needles, California (EPA ID CAT080011729). September 25.

DTSC. 2024. Email from C. Ioan (DTSC) to J. Glass (PG&E). RE: PG&E Topock: PTI-1D Extension Request. October 1.

DTSC and DOI. 2011. Memorandum of Understanding (MOU) concerning the coordination in overseeing the implementation of groundwater response action at Topock Compressor Station. November 22.

PG&E. 2024. Letter from J. Glass (PG&E) to C. Ioan (DTSC) and V. Dickerson (DOI). Final PTI-1D Floodplain Extraction Test Workplan: Extension Request. September 20.

Tables

Table 3.1
Summary of NTH IRZ Well Operations
Second Quarter 2025 Well Performance 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	Jul-24	242,046	14	691	93	5.8
IRZ-15	Upper	Injection	Aug-24	122,389	7.1	559	75	3.6
IRZ-15	Upper	Injection	Sep-24	189,024	12	469	65	6.7
IRZ-15	Upper	Injection	Oct-24	282,415	22	721	97	6.5
IRZ-15	Upper	Injection	Nov-24	261,058	18	681	95	6.4
IRZ-15	Upper	Injection	Dec-24	207,119	15	733	99	4.7
IRZ-15	Upper	Injection	Jan-25	191,582	11	547	74	5.8
IRZ-15	Upper	Injection	Feb-25	152,161	4.6	370	55	6.9
IRZ-15	Upper	Injection	Mar-25	297,478	9.0	702	94	7.1
IRZ-15	Upper	Injection	Apr-25	223,525	9.7	458	64	8.1
IRZ-15	Upper	Injection	May-25	74,268	0	167	22	7.4
IRZ-15	Upper	Injection	Jun-25	187,744	9.4	418	58	7.5
IRZ-15	Lower	Injection	Jul-24	581,523	43	722	97	13
IRZ-15	Lower	Injection	Aug-24	496,045	26	609	82	14
IRZ-15	Lower	Injection	Sep-24	502,939	29	473	66	18
IRZ-15	Lower	Injection	Oct-24	690,625	53	722	97	16
IRZ-15	Lower	Injection	Nov-24	609,219	41	684	95	15
IRZ-15	Lower	Injection	Dec-24	612,129	44	734	99	14
IRZ-15	Lower	Injection	Jan-25	446,523	24	555	75	13
IRZ-15	Lower	Injection	Feb-25	217,502	6.0	370	55	10
IRZ-15	Lower	Injection	Mar-25	308,875	10	702	94	7.3
IRZ-15	Lower	Injection	Apr-25	197,393	8.7	458	64	7.2
IRZ-15	Lower	Injection	May-25	69,063	0	167	22	6.9
IRZ-15	Lower	Injection	Jun-25	217,188	11	418	58	8.7
IRZ-16	Upper	Injection	Jul-24	210,265	15	723	97	4.8
IRZ-16	Upper	Injection	Aug-24	213,487	13	725	97	4.9
IRZ-16	Upper	Injection	Sep-24	101,553	6.1	360	50	4.7
IRZ-16	Upper	Injection	Oct-24	220,664	17	724	97	5.1
IRZ-16	Upper	Injection	Nov-24	241,553	16	685	95	5.9
IRZ-16	Upper	Injection	Dec-24	232,129	17	736	99	5.3
IRZ-16	Upper	Injection	Jan-25	96,680	6.2	310	42	5.2
IRZ-16	Upper	Injection	Feb-25	280,012	13	641	95	7.3
IRZ-16	Upper	Injection	Mar-25	296,228	9.1	699	94	7.1
IRZ-16	Upper	Injection	Apr-25	200,010	8.5	458	64	7.3
IRZ-16	Upper	Injection	May-25	276,348	8.8	668	90	6.9
IRZ-16	Upper	Injection	Jun-25	53,818	4.4	137	19	6.5
IRZ-16	Lower	Injection	Jul-24	408,848	25	701	94	9.7
IRZ-16	Lower	Injection	Aug-24	428,887	25	725	97	9.9
IRZ-16	Lower	Injection	Sep-24	194,473	12	360	50	9.0
IRZ-16	Lower	Injection	Oct-24	447,217	35	723	97	10
IRZ-16	Lower	Injection	Nov-24	405,293	26	684	95	9.9
IRZ-16	Lower	Injection	Dec-24	384,922	26	735	99	8.7
IRZ-16	Lower	Injection	Jan-25	154,639	10	330	44	7.8
IRZ-16	Lower	Injection	Feb-25	382,299	19	640	95	10
IRZ-16	Lower	Injection	Mar-25	409,752	13	698	94	9.8
IRZ-16	Lower	Injection	Apr-25	247,842	11	458	64	9.0
IRZ-16	Lower	Injection	May-25	318,008	9.1	668	90	7.9
IRZ-16	Lower	Injection	Jun-25	61,982	4.7	137	19	7.5
IRZ-17	Upper	Injection	Jul-24	112,979	10	479	64	3.9
IRZ-17	Upper	Injection	Aug-24	210,039	12	549	74	6.4
IRZ-17	Upper	Injection	Sep-24	223,760	14	655	91	5.7
IRZ-17	Upper	Injection	Oct-24	180,898	13	725	97	4.2
IRZ-17	Upper	Injection	Nov-24	104,561	7.9	356	49	4.9
IRZ-17	Upper	Injection	Dec-24	181,328	13	729	98	4.1
IRZ-17	Upper	Injection	Jan-25	100,459	5.3	691	93	2.4
IRZ-17	Upper	Injection	Feb-25	8,574	0.35	84	13	1.7
IRZ-17	Upper	Injection	Mar-25	--	--	--	--	--
IRZ-17	Upper	Injection	Apr-25	90,996	3.7	233	32	6.5
IRZ-17	Upper	Injection	May-25	252,813	7.3	696	94	6.1
IRZ-17	Upper	Injection	Jun-25	124,160	5.9	447	62	4.6
IRZ-17	Lower	Injection	Jul-24	182,314	10	532	72	5.7
IRZ-17	Lower	Injection	Aug-24	216,650	12	566	76	6.4
IRZ-17	Lower	Injection	Sep-24	171,768	11	638	89	4.5
IRZ-17	Lower	Injection	Oct-24	127,354	10	723	97	2.9
IRZ-17	Lower	Injection	Nov-24	64,043	4.0	359	50	3.0
IRZ-17	Lower	Injection	Dec-24	152,793	11	728	98	3.5
IRZ-17	Lower	Injection	Jan-25	258,613	14	732	98	5.9
IRZ-17	Lower	Injection	Feb-25	270,933	14	641	95	7.0
IRZ-17	Lower	Injection	Mar-25	204,370	4.6	549	74	6.2
IRZ-17	Lower	Injection	Apr-25	45,586	1.9	233	32	3.3
IRZ-17	Lower	Injection	May-25	109,482	3.3	687	92	2.7
IRZ-17	Lower	Injection	Jun-25	52,803	2.9	446	62	2.0
IRZ-18	Upper	Injection	Jul-24	235,089	17	721	97	5.4
IRZ-18	Upper	Injection	Aug-24	96,784	6.0	330	44	4.9
IRZ-18	Upper	Injection	Sep-24	59,218	3.9	280	39	3.5
IRZ-18	Upper	Injection	Oct-24	192,518	11	711	96	4.5
IRZ-18	Upper	Injection	Nov-24	143,670	7.6	359	50	6.7
IRZ-18	Upper	Injection	Dec-24	257,531	18	694	93	6.2
IRZ-18	Upper	Injection	Jan-25	99,097	5.3	697	94	2.4
IRZ-18	Upper	Injection	Feb-25	63,304	5.5	332	49	3.2
IRZ-18	Upper	Injection	Mar-25	275,457	8.8	697	94	6.6
IRZ-18	Upper	Injection	Apr-25	139,666	4.3	370	51	6.3
IRZ-18	Upper	Injection	May-25	182,818	8.7	438	59	7.0
IRZ-18	Upper	Injection	Jun-25	110,778	4.7	440	61	4.2
IRZ-18	Lower	Injection	Jul-24	168,344	12	722	97	3.9
IRZ-18	Lower	Injection	Aug-24	119,667	6.9	330	44	6.0
IRZ-18	Lower	Injection	Sep-24	273,527	18	443	62	10
IRZ-18	Lower	Injection	Oct-24	117,294	6.1	712	96	2.7
IRZ-18	Lower	Injection	Nov-24	68,737	3.7	342	48	3.3
IRZ-18	Lower	Injection	Dec-24	135,562	9.9	726	98	3.1
IRZ-18	Lower	Injection	Jan-25	111,349	6.2	727	98	2.6
IRZ-18	Lower	Injection	Feb-25	54,786	4.2	333	50	2.7
IRZ-18	Lower	Injection	Mar-25	129,244	3.8	693	93	3.1
IRZ-18	Lower	Injection	Apr-25	66,021	1.8	370	51	3.0
IRZ-18	Lower	Injection	May-25	80,605	3.7	443	60	3.0
IRZ-18	Lower	Injection	Jun-25	73,428	3.7	445	62	2.8
IRZ-20	Upper	Injection	Jul-24	156,543	11	570	77	4.6
IRZ-20	Upper	Injection	Aug-24	148,685	10	452	61	5.5
IRZ-20	Upper	Injection	Sep-24	132,479	11	383	53	5.8

Table 3.1
Summary of NTH IRZ Well Operations
Second Quarter 2025 Well Performance 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	Oct-24	228,113	13	716	96	5.3
IRZ-20	Upper	Injection	Nov-24	211,406	14	683	95	5.2
IRZ-20	Upper	Injection	Dec-24	125,092	10	407	55	5.1
IRZ-20	Upper	Injection	Jan-25	243,427	14	731	98	5.6
IRZ-20	Upper	Injection	Feb-25	268,898	13	640	95	7.0
IRZ-20	Upper	Injection	Mar-25	306,874	9.4	696	94	7.3
IRZ-20	Upper	Injection	Apr-25	154,611	7.7	368	51	7.0
IRZ-20	Upper	Injection	May-25	287,702	8.6	695	93	6.9
IRZ-20	Upper	Injection	Jun-25	173,184	7.8	441	61	6.5
IRZ-20	Lower	Injection	Jul-24	326,680	23	590	79	9.2
IRZ-20	Lower	Injection	Aug-24	264,658	19	451	61	9.8
IRZ-20	Lower	Injection	Sep-24	183,867	16	366	51	8.4
IRZ-20	Lower	Injection	Oct-24	306,230	18	715	96	7.1
IRZ-20	Lower	Injection	Nov-24	289,131	20	683	95	7.1
IRZ-20	Lower	Injection	Dec-24	210,713	15	407	55	8.6
IRZ-20	Lower	Injection	Jan-25	249,893	14	730	98	5.7
IRZ-20	Lower	Injection	Feb-25	197,738	10	639	95	5.2
IRZ-20	Lower	Injection	Mar-25	202,741	6.3	695	93	4.9
IRZ-20	Lower	Injection	Apr-25	111,387	6.2	368	51	5.0
IRZ-20	Lower	Injection	May-25	196,572	5.5	695	93	4.7
IRZ-20	Lower	Injection	Jun-25	114,463	5.1	443	62	4.3
IRZ-21	Upper	Injection	Jul-24	--	--	--	--	--
IRZ-21	Upper	Injection	Aug-24	--	--	--	--	--
IRZ-21	Upper	Injection	Sep-24	--	--	--	--	--
IRZ-21	Upper	Injection	Oct-24	--	--	--	--	--
IRZ-21	Upper	Injection	Nov-24	--	--	--	--	--
IRZ-21	Upper	Injection	Dec-24	--	--	--	--	--
IRZ-21	Upper	Injection	Jan-25	--	--	--	--	--
IRZ-21	Upper	Injection	Feb-25	--	--	--	--	--
IRZ-21	Upper	Injection	Mar-25	--	--	--	--	--
IRZ-21	Upper	Injection	Apr-25	--	--	--	--	--
IRZ-21	Upper	Injection	May-25	--	--	--	--	--
IRZ-21	Upper	Injection	Jun-25	--	--	--	--	--
IRZ-21	Lower	Injection	Jul-24	--	--	--	--	--
IRZ-21	Lower	Injection	Aug-24	--	--	--	--	--
IRZ-21	Lower	Injection	Sep-24	--	--	--	--	--
IRZ-21	Lower	Injection	Oct-24	--	--	--	--	--
IRZ-21	Lower	Injection	Nov-24	--	--	--	--	--
IRZ-21	Lower	Injection	Dec-24	--	--	--	--	--
IRZ-21	Lower	Injection	Jan-25	--	--	--	--	--
IRZ-21	Lower	Injection	Feb-25	--	--	--	--	--
IRZ-21	Lower	Injection	Mar-25	--	--	--	--	--
IRZ-21	Lower	Injection	Apr-25	--	--	--	--	--
IRZ-21	Lower	Injection	May-25	--	--	--	--	--
IRZ-21	Lower	Injection	Jun-25	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Jul-24	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Aug-24	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Sep-24	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Oct-24	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Nov-24	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Dec-24	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Jan-25	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Feb-25	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Mar-25	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Apr-25	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	May-25	--	--	--	--	--
IRZ-25	Upper/Upper Middle	Injection	Jun-25	--	--	--	--	--
IRZ-25	Lower	Injection	Jul-24	--	--	--	--	--
IRZ-25	Lower	Injection	Aug-24	--	--	--	--	--
IRZ-25	Lower	Injection	Sep-24	--	--	--	--	--
IRZ-25	Lower	Injection	Oct-24	--	--	--	--	--
IRZ-25	Lower	Injection	Nov-24	--	--	--	--	--
IRZ-25	Lower	Injection	Dec-24	--	--	--	--	--
IRZ-25	Lower	Injection	Jan-25	--	--	--	--	--
IRZ-25	Lower	Injection	Feb-25	--	--	--	--	--
IRZ-25	Lower	Injection	Mar-25	--	--	--	--	--
IRZ-25	Lower	Injection	Apr-25	--	--	--	--	--
IRZ-25	Lower	Injection	May-25	--	--	--	--	--
IRZ-25	Lower	Injection	Jun-25	--	--	--	--	--
IRZ-27	Upper/Upper Middle	Injection	Jul-24	176,092	13	723	97	4.1
IRZ-27	Upper/Upper Middle	Injection	Aug-24	82,460	1.7	390	52	3.5
IRZ-27	Upper/Upper Middle	Injection	Sep-24	156,523	11	638	89	4.1
IRZ-27	Upper/Upper Middle	Injection	Oct-24	128,365	9.9	705	95	3.0
IRZ-27	Upper/Upper Middle	Injection	Nov-24	79,458	5.6	651	90	2.0
IRZ-27	Upper/Upper Middle	Injection	Dec-24	117,685	7.6	510	69	3.8
IRZ-27	Upper/Upper Middle	Injection	Jan-25	144,121	9.1	628	84	3.8
IRZ-27	Upper/Upper Middle	Injection	Feb-25	221,809	17	569	85	6.5
IRZ-27	Upper/Upper Middle	Injection	Mar-25	247,099	22	634	85	6.5
IRZ-27	Upper/Upper Middle	Injection	Apr-25	25,975	1.7	136	19	3.2
IRZ-27	Upper/Upper Middle	Injection	May-25	83,131	4.8	697	94	2.0
IRZ-27	Upper/Upper Middle	Injection	Jun-25	60,739	4.5	654	91	1.5
IRZ-27	Lower	Injection	Jul-24	386,727	24	701	94	9.2
IRZ-27	Lower	Injection	Aug-24	182,788	5.4	377	51	8.1
IRZ-27	Lower	Injection	Sep-24	329,401	22	649	90	8.5
IRZ-27	Lower	Injection	Oct-24	353,574	27	697	94	8.5
IRZ-27	Lower	Injection	Nov-24	297,676	22	684	95	7.3
IRZ-27	Lower	Injection	Dec-24	247,666	17	495	67	8.3
IRZ-27	Lower	Injection	Jan-25	361,367	24	669	90	9.0
IRZ-27	Lower	Injection	Feb-25	400	0.07	6.2	0.92	1.1
IRZ-27	Lower	Injection	Mar-25	--	--	--	--	--
IRZ-27	Lower	Injection	Apr-25	66,045	4.6	153	21	7.2
IRZ-27	Lower	Injection	May-25	306,641	21	635	85	8.0
IRZ-27	Lower	Injection	Jun-25	352,637	24	661	92	8.9
IRZ-29	Upper	Injection	Jul-24	87,295	8.0	415	56	3.5
IRZ-29	Upper	Injection	Aug-24	224,909	9.7	499	67	7.5
IRZ-29	Upper	Injection	Sep-24	301,034	20	627	87	8.0
IRZ-29	Upper	Injection	Oct-24	77,125	6.6	163	22	7.9
IRZ-29	Upper	Injection	Nov-24	292,205	21	673	93	7.2
IRZ-29	Upper	Injection	Dec-24	309,932	24	730	98	7.1

Table 3.1
Summary of NTH IRZ Well Operations
Second Quarter 2025 Well Performance 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	Jan-25	312,885	19	731	98	7.1
IRZ-29	Upper	Injection	Feb-25	333,651	22	639	95	8.7
IRZ-29	Upper	Injection	Mar-25	342,225	27	698	94	8.2
IRZ-29	Upper	Injection	Apr-25	209,570	13	454	63	7.7
IRZ-29	Upper	Injection	May-25	280,186	17	673	90	6.9
IRZ-29	Upper	Injection	Jun-25	149,512	13	447	62	5.6
IRZ-29	Lower	Injection	Jul-24	63,021	5.4	409	55	2.6
IRZ-29	Lower	Injection	Aug-24	176,012	6.1	503	68	5.8
IRZ-29	Lower	Injection	Sep-24	35,685	2.9	194	27	3.1
IRZ-29	Lower	Injection	Oct-24	52,371	3.4	234	31	3.7
IRZ-29	Lower	Injection	Nov-24	132,920	11	668	93	3.3
IRZ-29	Lower	Injection	Dec-24	128,385	10	729	98	2.9
IRZ-29	Lower	Injection	Jan-25	132,830	8.4	730	98	3.0
IRZ-29	Lower	Injection	Feb-25	151,389	10	638	95	4.0
IRZ-29	Lower	Injection	Mar-25	240,994	19	698	94	5.8
IRZ-29	Lower	Injection	Apr-25	164,891	11	454	63	6.1
IRZ-29	Lower	Injection	May-25	138,311	8.2	665	89	3.5
IRZ-29	Lower	Injection	Jun-25	68,027	6.5	438	61	2.6
IRZ-31	Upper	Injection	Jul-24	181,767	13	424	57	7.1
IRZ-31	Upper	Injection	Aug-24	393,514	23	722	97	9.1
IRZ-31	Upper	Injection	Sep-24	309,452	22	555	77	9.3
IRZ-31	Upper	Injection	Oct-24	266,020	18	484	65	9.2
IRZ-31	Upper	Injection	Nov-24	327,419	23	594	83	9.2
IRZ-31	Upper	Injection	Dec-24	399,950	30	731	98	9.1
IRZ-31	Upper	Injection	Jan-25	382,513	24	721	97	8.8
IRZ-31	Upper	Injection	Feb-25	289,395	17	551	82	8.8
IRZ-31	Upper	Injection	Mar-25	234,629	12	446	60	8.8
IRZ-31	Upper	Injection	Apr-25	248,135	17	458	64	9.0
IRZ-31	Upper	Injection	May-25	376,348	23	698	94	9.0
IRZ-31	Upper	Injection	Jun-25	213,613	19	448	62	7.9
IRZ-31	Lower	Injection	Jul-24	174,951	13	424	57	6.9
IRZ-31	Lower	Injection	Aug-24	341,854	19	722	97	7.9
IRZ-31	Lower	Injection	Sep-24	131,038	9.2	554	77	3.9
IRZ-31	Lower	Injection	Oct-24	71,950	6.5	462	62	2.6
IRZ-31	Lower	Injection	Nov-24	237,522	16	579	80	6.8
IRZ-31	Lower	Injection	Dec-24	179,875	13	725	97	4.1
IRZ-31	Lower	Injection	Jan-25	176,772	10	714	96	4.1
IRZ-31	Lower	Injection	Feb-25	102,310	6.2	547	81	3.1
IRZ-31	Lower	Injection	Mar-25	169,565	11	439	59	6.4
IRZ-31	Lower	Injection	Apr-25	140,797	9.5	457	63	5.1
IRZ-31	Lower	Injection	May-25	169,183	10	697	94	4.0
IRZ-31	Lower	Injection	Jun-25	94,219	8.4	445	62	3.5
IRZ-33	Upper	Injection	Jul-24	268,842	20	737	99	6.1
IRZ-33	Upper	Injection	Aug-24	283,286	16	721	97	6.5
IRZ-33	Upper	Injection	Sep-24	79,117	4.0	212	29	6.2
IRZ-33	Upper	Injection	Oct-24	278,782	20	722	97	6.4
IRZ-33	Upper	Injection	Nov-24	280,333	20	671	93	7.0
IRZ-33	Upper	Injection	Dec-24	251,706	17	641	86	6.5
IRZ-33	Upper	Injection	Jan-25	280,243	12	706	95	6.6
IRZ-33	Upper	Injection	Feb-25	102,507	5.0	218	32	7.8
IRZ-33	Upper	Injection	Mar-25	268,815	21	698	94	6.4
IRZ-33	Upper	Injection	Apr-25	196,522	13	458	64	7.2
IRZ-33	Upper	Injection	May-25	283,686	17	700	94	6.8
IRZ-33	Upper	Injection	Jun-25	245,703	18	635	88	6.4
IRZ-33	Lower	Injection	Jul-24	173,619	13	698	94	4.1
IRZ-33	Lower	Injection	Aug-24	148,615	8.4	722	97	3.4
IRZ-33	Lower	Injection	Sep-24	23,603	2.0	131	18	3.0
IRZ-33	Lower	Injection	Oct-24	113,091	7.9	675	91	2.8
IRZ-33	Lower	Injection	Nov-24	130,047	8.0	593	82	3.7
IRZ-33	Lower	Injection	Dec-24	106,364	8.0	593	80	3.0
IRZ-33	Lower	Injection	Jan-25	108,976	5.2	702	94	2.6
IRZ-33	Lower	Injection	Feb-25	32,057	1.7	206	31	2.6
IRZ-33	Lower	Injection	Mar-25	93,315	8.6	683	92	2.3
IRZ-33	Lower	Injection	Apr-25	53,082	3.7	441	61	2.0
IRZ-33	Lower	Injection	May-25	71,189	4.9	664	89	1.8
IRZ-33	Lower	Injection	Jun-25	56,896	4.3	600	83	1.6
IRZ-35	Upper	Injection	Jul-24	325,728	25	724	97	7.5
IRZ-35	Upper	Injection	Aug-24	339,671	19	724	97	7.8
IRZ-35	Upper	Injection	Sep-24	285,438	19	647	90	7.4
IRZ-35	Upper	Injection	Oct-24	257,843	21	550	74	7.8
IRZ-35	Upper	Injection	Nov-24	315,568	18	678	94	7.8
IRZ-35	Upper	Injection	Dec-24	342,244	26	734	99	7.8
IRZ-35	Upper	Injection	Jan-25	303,390	18	702	94	7.2
IRZ-35	Upper	Injection	Feb-25	283,775	19	639	95	7.4
IRZ-35	Upper	Injection	Mar-25	147,143	4.8	342	46	7.2
IRZ-35	Upper	Injection	Apr-25	210,645	14	458	64	7.7
IRZ-35	Upper	Injection	May-25	316,309	20	699	94	7.5
IRZ-35	Upper	Injection	Jun-25	245,420	18	630	88	6.5
IRZ-37	Upper	Injection	Jul-24	202,798	15	723	97	4.7
IRZ-37	Upper	Injection	Aug-24	218,954	13	722	97	5.1
IRZ-37	Upper	Injection	Sep-24	116,444	8.8	467	65	4.2
IRZ-37	Upper	Injection	Oct-24	156,725	11	562	76	4.6
IRZ-37	Upper	Injection	Nov-24	181,647	11	622	86	4.9
IRZ-37	Upper	Injection	Dec-24	173,539	14	667	90	4.3
IRZ-37	Upper	Injection	Jan-25	60,199	1.8	287	39	3.5
IRZ-37	Upper	Injection	Feb-25	284,906	18	640	95	7.4
IRZ-37	Upper	Injection	Mar-25	189,107	16	697	94	4.5
IRZ-37	Upper	Injection	Apr-25	67,356	4.9	458	64	2.5
IRZ-37	Upper	Injection	May-25	47,126	3.9	570	77	1.4
IRZ-37	Upper	Injection	Jun-25	112,500	6.5	419	58	4.5
IRZ-39	Upper	Injection	Jul-24	--	--	--	--	--
IRZ-39	Upper	Injection	Aug-24	--	--	--	--	--
IRZ-39	Upper	Injection	Sep-24	--	--	--	--	--
IRZ-39	Upper	Injection	Oct-24	--	--	--	--	--
IRZ-39	Upper	Injection	Nov-24	--	--	--	--	--
IRZ-39	Upper	Injection	Dec-24	5,743	0.56	98	13	1.0
IRZ-39	Upper	Injection	Jan-25	49,555	2.7	648	87	1.3
IRZ-39	Upper	Injection	Feb-25	56,943	4.0	593	88	1.6
IRZ-39	Upper	Injection	Mar-25	37,096	3.9	610	82	1.0

Table 3.1
Summary of NTH IRZ Well Operations
Second Quarter 2025 Well Performance 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	Apr-25	10,120	0.95	247	34	0.68
IRZ-39	Upper	Injection	May-25	16,076	0.92	593	80	0.45
IRZ-39	Upper	Injection	Jun-25	8,268	0.58	203	28	0.68
IRZ-9	Upper	Extraction	Jul-24	2,542	--	2.2	0.29	20
IRZ-9	Upper	Extraction	Aug-24	--	--	--	--	--
IRZ-9	Upper	Extraction	Sep-24	--	--	--	--	--
IRZ-9	Upper	Extraction	Oct-24	--	--	--	--	--
IRZ-9	Upper	Extraction	Nov-24	1,992	--	5.8	0.80	5.8
IRZ-9	Upper	Extraction	Dec-24	--	--	--	--	--
IRZ-9	Upper	Extraction	Jan-25	--	--	--	--	--
IRZ-9	Upper	Extraction	Feb-25	4,334	--	2.2	0.33	33
IRZ-9	Upper	Extraction	Mar-25	--	--	--	--	--
IRZ-9	Upper	Extraction	Apr-25	--	--	--	--	--
IRZ-9	Upper	Extraction	May-25	6,977	--	3.4	0.46	34
IRZ-9	Upper	Extraction	Jun-25	660,865	--	137	19	80
IRZ-13D	Lower	Extraction	Jul-24	406,621	--	574	77	12
IRZ-13D	Lower	Extraction	Aug-24	341,514	--	508	68	11
IRZ-13D	Lower	Extraction	Sep-24	165,371	--	246	34	11
IRZ-13D	Lower	Extraction	Oct-24	387,900	--	542	73	12
IRZ-13D	Lower	Extraction	Nov-24	482,110	--	581	81	14
IRZ-13D	Lower	Extraction	Dec-24	466,875	--	620	83	13
IRZ-13D	Lower	Extraction	Jan-25	48,135	--	58	7.8	14
IRZ-13D	Lower	Extraction	Feb-25	37,002	--	44	6.5	14
IRZ-13D	Lower	Extraction	Mar-25	193,604	--	245	33	13
IRZ-13D	Lower	Extraction	Apr-25	219,365	--	355	49	10
IRZ-13D	Lower	Extraction	May-25	58,594	--	92	12	11
IRZ-13D	Lower	Extraction	Jun-25	--	--	--	--	--
IRZ-13S	Upper	Extraction	Jul-24	136,689	--	151	20	15
IRZ-13S	Upper	Extraction	Aug-24	172,822	--	280	38	10
IRZ-13S	Upper	Extraction	Sep-24	52,969	--	85	12	10
IRZ-13S	Upper	Extraction	Oct-24	381	--	0.75	0.10	8.5
IRZ-13S	Upper	Extraction	Nov-24	249,512	--	306	43	14
IRZ-13S	Upper	Extraction	Dec-24	129,434	--	199	27	11
IRZ-13S	Upper	Extraction	Jan-25	24,551	--	32	4.2	13
IRZ-13S	Upper	Extraction	Feb-25	1,592	--	1.8	0.27	15
IRZ-13S	Upper	Extraction	Mar-25	26,152	--	41	5.6	11
IRZ-13S	Upper	Extraction	Apr-25	--	--	--	--	--
IRZ-13S	Upper	Extraction	May-25	3,018	--	3.2	0.43	16
IRZ-13S	Upper	Extraction	Jun-25	--	--	--	--	--
IRZ-23	Lower	Extraction	Jul-24	3,113,367	--	723	97	72
IRZ-23	Lower	Extraction	Aug-24	2,833,943	--	723	97	65
IRZ-23	Lower	Extraction	Sep-24	2,474,602	--	646	90	64
IRZ-23	Lower	Extraction	Oct-24	2,850,554	--	726	98	65
IRZ-23	Lower	Extraction	Nov-24	2,677,695	--	679	94	66
IRZ-23	Lower	Extraction	Dec-24	2,871,965	--	739	99	65
IRZ-23	Lower	Extraction	Jan-25	3,579,117	--	733	99	81
IRZ-23	Lower	Extraction	Feb-25	2,748,931	--	638	95	72
IRZ-23	Lower	Extraction	Mar-25	3,081,034	--	700	94	73
IRZ-23	Lower	Extraction	Apr-25	1,912,914	--	458	64	70
IRZ-23	Lower	Extraction	May-25	2,740,355	--	696	94	66
IRZ-23	Lower	Extraction	Jun-25	1,634,113	--	662	92	41
PTI-1D	Lower	Extraction	Jul-24	867,158	--	548	74	26
PTI-1D	Lower	Extraction	Aug-24	1,167,071	--	721	97	27
PTI-1D	Lower	Extraction	Sep-24	982,480	--	641	89	26
PTI-1D	Lower	Extraction	Oct-24	1,165,830	--	725	97	27
PTI-1D	Lower	Extraction	Nov-24	1,064,531	--	685	95	26
PTI-1D	Lower	Extraction	Dec-24	1,154,600	--	739	99	26
PTI-1D	Lower	Extraction	Jan-25	446,816	--	350	47	21
PTI-1D	Lower	Extraction	Feb-25	808,436	--	641	95	21
PTI-1D	Lower	Extraction	Mar-25	901,867	--	700	94	21
PTI-1D	Lower	Extraction	Apr-25	620,898	--	458	64	23
PTI-1D	Lower	Extraction	May-25	977,617	--	693	93	24
PTI-1D	Lower	Extraction	Jun-25	446,211	--	309	43	24

Note:
1. Results collected during the reporting period are bolded.

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

Table 3.2
NTH IRZ System Operations and Non-Routine Maintenance Log
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Date	Approximate IRZ Systemwide Downtime (days)	Operations and Maintenance Log	Notes
4/1/2025	--	Ethanol dosing occurred in southern IRZ.	--
4/1/2025	--	Replaced transducer at IRZ-35.	Transducer recording inaccurate water level readings.
4/2/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-18, IRZ-20, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
4/2/2025 through 4/4/2025	--	Reinjected conditioned water into injection wells.	--
4/4/2025	--	PTI-1D filter replaced.	--
4/4/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-18, IRZ-20, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
4/4/2025 through 4/28/2025	--	IRZ-39 operating intermittently.	Unable to maintain continuous flow to this well due to the low flow rate combined with variations in system pressure. At the end of April, it was determined that IRZ-39 could cycle on and off to maximize injection into this well without disrupting flow balancing throughout the rest of the system.
4/7/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-18, IRZ-20, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
4/8/2025	--	Ethanol dosing occurred.	--
4/9/2025 through 4/10/2025	--	Reinjected conditioned water into injection wells.	--
4/9/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-18, IRZ-20, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-37.	--
4/10/2025	--	IRZ-17 resumed operation following rehabilitation.	--
4/10/2025	--	Collected manual water level readings at IRZ injection wells IRZ-21, IRZ-25, IRZ-29, and IRZ-39. Replaced transducers at IRZ-21 (lower) and IRZ-25 (lower).	IRZ-21 (lower) and IRZ-25 (lower) transducers recording inaccurate water level readings.
4/11/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
4/11/2025	--	PTI-1D filter replaced.	--
4/13/2025	--	Well rehabilitation completed at IRZ-27.	--
4/13/2025 through 4/24/2025	10.8	IRZ system offline.	System loss of power caused by common trip circuit breaker. Following troubleshooting and discussions with TCS staff, TCS staff agreed to operate P-5 diesel generator during closing of the breaker, and the breaker closed with no issues.
4/14/2025 through 4/27/2025	--	IRZ-20 offline for well rehabilitation.	--
4/18/2025	--	PTI-1D filter replaced.	--
4/25/2025	--	PTI-1D filter replaced.	--
4/25/2025	--	Collected manual water level readings at IRZ injection wells IRZ-29 and IRZ-33.	--
4/28/2025 through 5/11/2025	--	IRZ-18 offline for well rehabilitation.	--
4/28/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
4/29/2025	--	Ethanol dosing occurred.	--
4/30/2025 through 5/1/2025	--	Reinjected conditioned water into injection wells.	--
4/30/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
4/30/2025	--	Collected manual water level readings at IRZ injection well IRZ-29.	--
5/2/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/2/2025	--	PTI-1D filter replaced.	--
5/4/2025 through 5/5/2025	0.5	IRZ system offline.	Thunderstorm caused infiltration in vaults.
5/5/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/6/2025	--	Ethanol dosing occurred in southern IRZ.	--
5/6/2025	--	Collected manual water level readings at IRZ injection well IRZ-39.	--
5/6/2025 through 5/7/2025	0.4	IRZ system offline.	Leak detections caused by rain infiltration in multiple well vaults.
5/7/2025	--	Backwashed IRZ injection wells IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	Post-rainstorm maintenance cut backwash time short. Prioritized southern IRZ for backwash.
5/8/2025	--	Collected manual water level readings at IRZ injection wells IRZ-27 (lower) and IRZ-31 (lower).	--
5/8/2025 through 5/9/2025	--	Reinjected conditioned water into injection wells.	--
5/9/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/9/2025 through 5/11/2025	--	IRZ-27 (lower) offline.	High-high alarm due to instrumentation error shut off the flow control valve. Flow control valve reopened when alarm cleared.
5/9/2025	--	PTI-1D filter replaced.	--
5/10/2025 through 5/28/2025	--	IRZ-15 offline for well rehabilitation.	--
5/13/2025	--	Collected manual water level readings at IRZ injection well IRZ-29 (upper).	--

Table 3.2
NTH IRZ System Operations and Non-Routine Maintenance Log
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Date	Approximate IRZ Systemwide Downtime (days)	Operations and Maintenance Log	Notes
5/13/2025	--	Ethanol dosing occurred.	--
5/14/2025 through 5/16/2025	--	Reinjected conditioned water into injection wells.	--
5/14/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/16/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/16/2025 through 5/17/2025	0.3	IRZ system offline.	Leak detection alarm in IRZ-33 vault. Reduced flowrates to prevent IRZ-33 overfilling and leaking out of transducer cable port.
5/19/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/20/2025	--	Ethanol dosing occurred in southern IRZ.	--
5/21/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/21/2025 through 5/22/2025	--	Reinjected conditioned water into injection wells.	--
5/23/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
5/23/2025	--	PTI-1D filter replaced.	--
5/23/2025	--	Collected manual water level readings at IRZ injection well IRZ-31.	--
5/26/2025 through 5/27/2025	--	IRZ-29 (upper) offline for approximately 26.6 hours.	Leak detection alarm in IRZ-29 vault caused by level transducer fault at IRZ-29 (upper). Manual water level reading confirmed no leak risk. IRZ-29 (upper) transducer removed during ethanol dosing on 5/27/2025 to prevent false leak detection alarm..
5/27/2025	--	Ethanol dosing occurred.	--
5/28/2025	--	Backwashed IRZ injection wells IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-39.	--
5/28/2025	--	Replaced transducer at IRZ-29 (upper).	Transducer recording inaccurate water level readings.
5/28/2025 through 6/13/2025	--	IRZ-37 offline for well rehabilitation.	--
5/29/2025 through 5/30/2025	--	Reinjected conditioned water into injection wells.	--
5/30/2025	--	PTI-1D filter replaced.	--
5/30/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-39.	--
5/30/2025 through 6/15/2025	--	IRZ-16 offline for well rehabilitation.	--
5/31/2025 through 6/1/2025	1.0	IRZ system offline.	Leak detection alarm in IRZ-27 metering vault. Leak caused by faulty sump check valve leading to water backfeeding through the sump pump. Check valve to be replaced with a brass valve.
6/2/2025	0.1	IRZ system offline.	Rain infiltration at multiple well vaults.
6/2/2025	--	Collected manual water level readings at IRZ injection well IRZ-27.	Collected manual water level readings to confirm transducer readings after leak detection alarm on 5/31/2025. Offset adjustment at IRZ-27 (lower) only.
6/2/2025	--	Ethanol dosing occurred in southern IRZ.	--
6/2/2025 through 6/3/2025	--	IRZ-9, IRZ-13, and IRZ-15 offline.	Node 4 shut down for MTS panel installation.
6/3/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-39.	--
6/3/2025 through 6/4/2025	0.5	IRZ system offline.	Thunderstorm caused infiltration in vaults.
6/4/2025 through 6/5/2025	--	IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39 offline.	Node 2 shut down for MTS panel installation.
6/5/2025 through 6/6/2025	--	Reinjected conditioned water into injection wells.	--
6/6/2025	--	PTI-1D filter replaced.	--
6/6/2025	--	Collected manual water level readings at IRZ injection wells IRZ-29 (lower) and IRZ-33. Transducer replacement at IRZ-29 (lower) and IRZ-33 (lower).	IRZ-29 (lower) and IRZ-33 (lower) transducers recording inaccurate water level data. No action required at IRZ-33 (upper).
6/9/2025 through 6/10/2025	1.2	IRZ system offline.	Node 3 shut down for MTS panel installation.
6/11/2025 through 6/18/2025	--	IRZ-39 offline for well rehabilitation.	--
6/11/2025	--	Ethanol dosing occurred.	--
6/13/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, and IRZ-35.	--
6/16/2025 through 6/23/2025	--	IRZ-23 operating at 30 gpm. Southern IRZ injection wells IRZ-27, IRZ-33, IRZ-35, and IRZ-37 operating; remaining IRZ injection wells offline.	IRZ-9 pump test.
6/17/2025	--	Ethanol dosing occurred in southern IRZ.	--
6/17/2025 through 6/18/2025	--	Reinjected conditioned water into injection wells.	--
6/18/2025	--	Backwashed IRZ injection wells IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, and IRZ-37.	--
6/19/2025	--	Collected manual water level readings at IRZ injection well IRZ-20 (upper).	Collected manual water level readings to confirm transducer readings. Offset adjustment at IRZ-20 (upper).
6/25/2025 through 7/14/2025	--	IRZ-9 operating at 80 gpm. Remaining extraction flow from IRZ-23 (10 to 30 gpm).	IRZ-9 pump test.

Table 3.2
NTH IRZ System Operations and Non-Routine Maintenance Log
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Date	Approximate IRZ Systemwide Downtime (days)	Operations and Maintenance Log	Notes
6/25/2025	--	Ethanol dosing occurred.	--
6/26/2025	--	Collected manual water level readings at IRZ injection wells IRZ-27 and IRZ-35.	Collected readings to confirm transducer readings. Offset adjustment at IRZ-27 (upper and lower) and IRZ-35.
6/27/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--
6/30/2025	--	Backwashed IRZ injection wells IRZ-15, IRZ-16, IRZ-17, IRZ-18, IRZ-20, IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.	--

Note:
1. Injection wells in the northern IRZ include IRZ-15, IRZ-16, IRZ-17, IRZ-18, and IRZ-20. Injection wells in the southern IRZ include IRZ-27, IRZ-29, IRZ-31, IRZ-33, IRZ-35, IRZ-37, and IRZ-39.

Acronyms and Abbreviations:
-- = not applicable
gpm = gallon per minute
IRZ = In Situ Reactive Zone
MTS = Manual Transfer Switch
NTH = National Trails Highway
TCS = Topock Compressor Station

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
Extraction Wells										
IRZ-09-100	05/15/2025	nm	7.23	6,034	1.10	1.54	29.1	nm	nm	-2.3
IRZ-09-100	06/30/2025	nm	6.67	9,138	2.00	2.60	27.2	nm	nm	261.4
IRZ-13D-210	05/15/2025	nm	7.10	7,470	2.10	0.82	28.0	nm	nm	18.1
IRZ-13S-095	05/15/2025	nm	7.06	5,938	2.50	0.89	28.6	nm	nm	15.1
IRZ-23-143	05/15/2025	nm	6.63	5,455	6.02	2.51	26.6	nm	nm	225.0
PTI-1D	04/29/2025	nm	6.60	9,614	1.20	1.95	21.6	nm	nm	58.4
PTI-1D	05/15/2025	nm	6.97	5,854	3.00	0.72	25.6	nm	nm	12.5
PTI-1D	06/12/2025	nm	6.43	10,170	3.40	1.93	23.3	nm	nm	61.9
Monitoring Wells										
IRZ-21-065	05/15/2025	nm	7.06	5,678	1.80	1.07	29.7	nm	nm	18.3
IRZ-21-157	05/15/2025	nm	7.11	6,942	6.90	0.52	29.7	nm	nm	-36.4
IRZ-25-100	05/15/2025	nm	6.84	4,987	19.70	1.47	28.8	nm	nm	90.8
IRZ-25-166	05/15/2025	nm	6.67	5,716	12.10	0.98	29.2	nm	nm	19.8
MW-09	05/22/2025	80.4	7.54	3,824	12.00	1.32	32.8	1.72	2,172	83.5
MW-10	05/22/2025	74.77	7.57	3,489	12.00	3.54	31.5	1.59	2,002	83.3
MW-10D	05/22/2025	75.52	8.15	4,727	17.00	2.22	34.2	2.05	2,602	82.3
MW-11	05/22/2025	65.53	7.41	2,185	15.00	5.52	29.5	1.03	1,301	115.4
MW-11D	05/22/2025	66.55	7.51	7,881	12.00	2.52	32.1	3.74	4,481	113.3
MW-12	05/29/2025	27.33	8.20	10,909	8.00	3.46	29.3	5.64	6,552	76.1
MW-13	05/27/2025	30.3	7.53	4,155	12.00	3.55	30.1	1.91	2,445	144.9
MW-14	05/27/2025	114.68	7.64	5,108	27.00	3.34	31.8	2.71	3,310	37.5
MW-15	05/13/2025	185.62	7.72	2,362	4.00	4.05	26.6	1.20	1,520	67.8
MW-19	05/21/2025	43.7	7.71	2,542	16.00	0.93	27.2	1.24	1,573	124.1
MW-20-070	04/08/2025	44.31	7.29	3,018	23.00	5.25	28.8	1.56	1,960	82.0
MW-20-070	05/07/2025	43.69	7.13	3,870	10.00	6.07	27.5	2.04	2,510	45.8
MW-20-070	06/11/2025	43.7	7.21	2,998	6.00	5.62	32.1	1.54	1,950	27.8
MW-20-100	04/08/2025	44.63	7.24	4,538	7.00	1.59	30.3	2.40	2,950	75.1
MW-20-100	05/07/2025	43.92	7.01	4,868	9.00	3.32	28.1	2.61	3,170	42.3
MW-20-100	06/11/2025	43.99	7.16	4,836	7.00	1.80	33.1	2.57	3,150	23.4
MW-20-130	04/08/2025	45.06	7.19	8,844	16.00	0.46	30.1	4.89	5,740	64.0

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-20-130	05/07/2025	44.44	7.02	10,043	12.00	0.34	27.8	5.64	6,530	32.5
MW-20-130	06/11/2025	44.48	7.24	9,673	5.00	0.43	34.5	5.38	6,300	2.7
MW-21	04/10/2025	49.39	7.11	11,425	35.00	0.32	29.6	6.45	7,420	-76.6
MW-21	05/07/2025	48.91	7.24	13,470	13.00	0.48	28.8	7.73	8,760	-111.7
MW-21	06/12/2025	48.83	7.14	14,024	13.00	0.62	33.7	8.02	9,120	-103.2
MW-22	05/22/2025	5.97	8.40	23,390	9.00	0.90	28.1	14.23	11,820	-130.7
MW-23-060	05/20/2025	49.5	9.73	20,981	13.00	1.73	29.6	11.32	12,440	110.3
MW-23-080	05/20/2025	49	10.35	22,652	12.00	2.02	32.3	11.73	12,960	89.4
MW-24A	05/21/2025	111.14	8.95	2,334	23.00	0.86	30.7	1.19	1,170	-159.0
MW-24B	05/21/2025	109.81	8.49	17,999	33.00	1.70	34.7	10.38	8,920	-42.4
MW-24BR	05/22/2025	107.8	7.84	14,514	4.00	0.42	31.9	8.17	9,250	-54.4
MW-25	05/21/2025	86.85	7.54	3,053	5.00	4.35	32.3	1.38	1,745	126.1
MW-26	04/09/2025	46.37	6.63	9,959	8.00	0.81	27.7	5.27	6,131	155.6
MW-26	05/08/2025	45.48	7.45	10,005	16.00	0.53	27.5	5.35	6,223	100.9
MW-26	06/12/2025	45.24	7.34	9,978	16.00	1.23	29.2	5.16	6,024	93.2
MW-27-020	05/05/2025	3.81	6.98	1,152	4.00	0.09	18.8	0.58	740	2.5
MW-27-060	05/05/2025	4.59	7.01	4,359	6.00	1.01	19.7	2.32	2,820	-120.8
MW-27-085	05/05/2025	4.46	7.02	12,037	7.00	6.34	19.9	6.90	7,820	-64.7
MW-28-025	05/19/2025	9.7	7.59	1,354	9.00	0.58	24.3	0.70	700	27.5
MW-28-090	05/19/2025	10.8	8.17	7,280	9.00	0.10	22.4	4.01	3,640	-41.9
MW-29	05/28/2025	29.04	7.86	7,119	9.00	0.52	31.8	3.87	4,620	-99.5
MW-30-030R	05/06/2025	10.86	8.03	1,656	10.00	0.21	27.3	0.79	1,022	53.5
MW-30-050	05/06/2025	9.9	7.63	4,515	7.00	0.23	25.2	2.38	2,905	90.2
MW-31-060	04/09/2025	38.7	5.40	9,971	13.00	0.97	26.3	5.39	6,315	-80.9
MW-31-060	05/13/2025	37.76	6.24	9,335	10.00	0.34	27.2	4.94	5,763	-119.1
MW-31-060	06/09/2025	38.68	6.01	10,203	9.00	2.02	29.3	5.29	6,146	76.1
MW-31-135	04/09/2025	40.03	6.90	11,253	10.00	2.27	25.3	6.33	7,225	193.1
MW-31-135	05/07/2025	39.57	7.08	10,106	6.00	3.10	27.6	5.68	6,570	22.3
MW-31-135	06/09/2025	39.38	6.53	12,774	14.00	0.47	32.7	6.24	7,223	74.9
MW-32-020	05/22/2025	7.57	6.93	32,040	10.00	0.36	24.5	20.48	21,200	58.4
MW-32-035	05/22/2025	7.35	8.64	11,550	8.00	0.80	26.9	6.62	5,850	-209.4
MW-33-040	05/29/2025	30.9	7.81	9,634	8.00	1.59	31.7	5.34	6,240	65.7

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-33-090	05/29/2025	30.81	7.81	9,380	5.00	1.21	31.6	5.16	6,040	52.9
MW-33-150	05/29/2025	31.32	7.79	15,484	7.00	1.06	31.7	8.92	10,040	43.9
MW-33-210	05/29/2025	30.41	7.74	9,319	8.00	1.37	31.5	5.15	6,040	47.2
MW-34-055	05/14/2025	4.14	13.23	1,233	17.00	3.36	20.5	0.68	871	96.3
MW-34-080	05/14/2025	4.38	13.02	11,504	16.00	3.51	21.0	7.12	8,072	34.9
MW-34-100	04/09/2025	4.99	7.16	10,383	6.00	0.08	20.3	5.89	6,750	-85.9
MW-34-100	05/08/2025	5.45	6.94	11,423	8.00	0.13	20.0	6.53	7,430	-87.8
MW-34-100	06/12/2025	5.01	7.11	11,940	6.00	0.14	20.7	6.84	7,760	-25.5
MW-35-060	05/20/2025	35.9	8.02	7,622	10.00	1.52	27.3	3.99	4,712	132.9
MW-35-135	05/20/2025	24.9	6.92	12,060	10.00	0.15	28.3	6.37	5,620	-99.9
MW-36-020	05/07/2025	13.13	7.36	1,261	17.00	0.47	26.0	0.61	799	73.5
MW-36-040	05/07/2025	13.39	7.44	1,446	10.00	1.01	23.9	0.74	963	61.9
MW-36-050	05/07/2025	13.33	7.11	1,204	14.00	0.03	20.7	0.66	851	65.9
MW-36-070	05/07/2025	13.91	7.36	1,983	16.00	0.02	25.4	1.03	1,285	46.6
MW-36-090	05/07/2025	13.76	7.35	5,106	13.00	0.06	22.1	2.92	3,516	51.9
MW-36-100	04/08/2025	13.94	6.39	14,490	13.00	1.14	34.5	6.98	8,025	173.9
MW-36-100	05/07/2025	13.91	7.21	10,843	12.00	1.83	19.7	6.90	7,819	89.5
MW-36-100	06/10/2025	14	7.05	16,042	10.00	0.27	40.5	3.85	7,983	77.6
MW-37D	05/28/2025	30.5	7.97	13,003	12.00	1.95	38.1	5.77	6,762	85.1
MW-37S	05/28/2025	30.35	7.73	8,501	15.00	0.52	32.1	4.12	4,884	86.1
MW-38D	05/22/2025	70.43	10.63	27,165	9.00	0.51	35.3	13.56	14,750	20.2
MW-38S	05/22/2025	68.92	8.33	2,864	7.00	3.44	32.3	1.31	1,643	82.4
MW-39-040	05/06/2025	11.55	7.41	1,141	14.00	0.22	23.3	0.59	762	70.3
MW-39-050	05/06/2025	11.63	7.14	2,364	10.00	0.34	22.1	1.28	1,612	121.3
MW-39-060	05/06/2025	11.86	7.13	2,623	12.00	0.42	22.1	1.44	1,801	120.6
MW-39-070	04/08/2025	12.8	6.68	2,433	8.00	1.01	30.3	1.09	1,430	172.3
MW-39-070	05/06/2025	12.25	7.22	3,303	10.00	0.35	23.1	1.82	2,222	121.9
MW-39-070	06/10/2025	12.35	6.63	3,334	14.00	0.02	27.1	1.62	2,070	84.9
MW-39-080	04/08/2025	12.7	6.65	7,473	11.00	0.34	24.4	4.22	4,933	188.6
MW-39-080	05/06/2025	12.15	7.22	4,285	8.00	0.42	23.1	2.32	2,875	123.3
MW-39-080	06/10/2025	12.46	6.89	4,534	16.00	0.53	31.6	2.13	2,615	73.9
MW-39-100	04/08/2025	12.84	6.53	16,434	12.00	0.40	23.6	9.78	10,810	180.6

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-39-100	05/06/2025	12.34	6.91	18,135	18.00	1.02	22.0	11.32	12,351	139.5
MW-39-100	06/10/2025	12.56	6.21	13,774	10.00	0.61	25.0	7.84	8,890	73.1
MW-40D	06/11/2025	110.58	7.45	13,845	7.00	1.16	30.3	7.94	9,010	12.9
MW-40S	06/11/2025	109.93	7.63	2,922	9.00	3.40	30.5	1.34	1,700	43.1
MW-41D	05/29/2025	23.53	6.89	18,083	7.00	0.94	30.1	10.63	11,760	-89.8
MW-41M	05/29/2025	23.71	6.91	12,918	17.00	0.48	30.0	7.37	8,390	-92.9
MW-41S	05/29/2025	23.7	6.98	7,058	31.00	5.14	29.4	3.85	4,590	-59.8
MW-42-030	05/21/2025	9.47	9.05	1,125	9.00	1.16	24.4	0.56	570	-314.1
MW-42-055	05/21/2025	9.87	7.36	2,610	9.00	1.50	23.3	1.20	1,150	49.0
MW-42-065	05/21/2025	8.87	8.69	10,620	9.00	0.89	23.9	5.92	5,260	-244.6
MW-43-025	04/07/2025	5.97	7.22	2,285	10.00	1.02	22.2	1.17	1,480	-133.4
MW-43-075	04/07/2025	6.24	7.13	11,338	8.00	1.03	21.5	6.50	7,400	-107.9
MW-43-090	04/07/2025	6.5	7.09	16,092	11.00	4.20	21.5	9.44	10,460	-60.0
MW-44-070	05/09/2025	15.92	6.98	5,658	4.00	0.14	22.0	3.06	3,670	-132.1
MW-44-115	04/09/2025	16.29	7.23	13,612	12.00	0.08	25.1	7.85	8,850	34.3
MW-44-115	05/09/2025	16.6	7.02	14,995	11.00	0.15	21.4	8.75	9,750	6.2
MW-44-115	06/12/2025	16.5	7.08	14,698	4.00	0.11	27.6	8.51	9,550	-0.9
MW-44-125	04/09/2025	16.26	7.16	9,988	8.00	0.12	23.7	5.63	6,490	-112.6
MW-44-125	05/09/2025	16.31	7.00	10,375	6.00	0.13	22.0	5.88	6,750	-143.1
MW-44-125	06/12/2025	16.18	7.10	11,074	7.00	0.08	28.0	6.27	7,210	-123.1
MW-45-095A	05/22/2025	15.47	8.59	5,920	9.00	0.73	25.8	3.12	3,000	-189.5
MW-46-175	04/09/2025	27.05	7.17	16,511	14.00	0.32	23.6	9.69	10,730	63.6
MW-46-175	05/08/2025	27.26	7.08	18,612	7.00	0.17	23.5	11.04	12,100	27.6
MW-46-175	06/12/2025	26.99	7.20	18,612	9.00	3.23	28.0	11.00	12,110	0.3
MW-46-205	05/14/2025	27.29	7.83	20,931	5.00	1.76	27.9	12.37	13,550	11.6
MW-47-055	05/21/2025	27.81	7.74	6,188	5.00	1.74	32.5	2.84	3,493	111.2
MW-47-115	05/21/2025	28.25	7.61	16,855	15.00	0.44	31.7	8.61	9,712	101.9
MW-48	05/29/2025	32.5	7.53	23,558	13.00	0.56	33.4	12.05	13,250	67.9
MW-49-135	05/28/2025	28.51	7.93	13,854	8.00	0.80	28.6	7.96	8,990	31.6
MW-49-275	05/28/2025	29.24	7.85	22,771	4.00	1.34	27.6	13.71	14,810	46.9
MW-49-365	05/28/2025	30.72	7.87	35,268	4.00	1.33	28.6	22.12	22,900	36.9
MW-50-095	05/21/2025	40.4	7.72	6,071	17.00	0.67	29.1	2.92	3,630	102.5

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-50-200	05/21/2025	40.7	7.75	17,522	13.00	0.49	34.0	8.54	9,712	99.5
MW-51	04/09/2025	45.46	6.02	5,473	13.00	0.45	29.2	2.71	3,326	73.1
MW-51	05/08/2025	44.95	7.15	6,055	16.00	0.43	29.0	5.21	6,035	74.4
MW-51	06/12/2025	44.9	7.03	10,335	12.00	0.41	34.2	4.82	5,722	85.6
MW-52D	05/14/2025	16.02	6.48	23,104	8.00	1.05	23.6	14.28	15,310	-25.1
MW-52M	05/14/2025	11.53	6.32	17,123	8.00	1.53	21.2	10.93	11,960	11.4
MW-52S	05/14/2025	9.82	6.49	17,070	12.00	0.91	22.0	10.64	11,720	30.6
MW-53D	04/10/2025	13.89	7.27	22,511	4.00	0.09	24.8	13.56	14,630	-86.6
MW-53M	04/10/2025	13.22	7.30	17,649	29.00	0.11	21.5	10.43	11,470	-42.9
MW-53S	04/10/2025	13.11	7.30	1,590	8.00	0.16	20.7	0.81	1,030	-131.4
MW-54-085	05/20/2025	9.69	7.27	6,642	7.00	6.04	29.8	3.61	4,310	-17.9
MW-54-140	05/20/2025	9.81	7.94	13,840	9.00	0.24	28.8	7.94	6,910	-191.7
MW-54-195	05/20/2025	9.64	7.27	18,524	3.00	1.58	28.4	10.93	12,040	-162.2
MW-55-045	05/15/2025	9.22	7.84	1,455	11.00	1.01	24.2	0.72	943	90.9
MW-55-120	05/15/2025	9.26	8.17	6,543	12.00	0.83	25.1	3.55	4,233	93.1
MW-56D	05/14/2025	8.51	7.09	21,851	8.00	0.19	21.8	13.16	14,200	-78.5
MW-56M	05/14/2025	9.08	7.10	14,790	5.00	0.27	21.8	8.61	9,610	-131.6
MW-56S	05/14/2025	9.8	7.09	6,456	7.00	0.43	21.8	3.53	4,190	-157.7
MW-57-050	05/09/2025 ^a	nm	nm	nm	nm	nm	nm	nm	nm	nm
MW-57-070	05/09/2025	53.35	7.62	2,573	10.00	1.01	26.4	1.28	1,623	105.5
MW-57-185	05/09/2025	52.41	10.31	7,177	14.00	0.51	26.1	3.82	4,555	-37.9
MW-58-065	05/15/2025 ^a	nm	nm	nm	nm	nm	nm	nm	nm	nm
MW-58BR	05/15/2025	67.08	7.46	7,898	3.00	0.16	29.8	4.34	5,130	-24.0
MW-59-100	05/21/2025	82.45	7.38	20,682	12.00	3.01	35.5	9.95	11,220	103.1
MW-60-125	05/29/2025	99.1	7.94	11,475	17.00	2.94	28.3	6.05	6,994	116.1
MW-60BR-245	05/29/2025	98.85	7.14	17,460	10.00	1.83	30.4	10.22	11,350	-68.0
MW-61-110	05/29/2025	87.1	7.65	19,683	12.00	1.61	29.1	10.62	11,760	104.9
MW-62-065	05/09/2025	47.92	7.56	7,833	12.00	1.95	26.7	4.17	4,922	132.6
MW-62-110	05/28/2025	nm	7.85	14,115	4.00	0.49	29.8	8.13	9,190	-122.3
MW-62-190	05/28/2025	nm	7.73	18,657	4.00	0.44	30.1	10.97	12,120	-179.6
MW-63-065	05/14/2025	48.32	7.28	8,233	12.00	1.29	28.3	4.27	5,054	82.6
MW-64BR	05/29/2025	119.11	6.92	12,574	6.00	0.19	30.6	7.15	8,170	-161.8

Table 3.3
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Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-65-160	05/22/2025	140.56	7.51	4,343	15.00	2.24	31.3	2.30	2,850	80.5
MW-65-225	05/22/2025	140.4	7.48	13,808	8.00	2.24	31.2	7.89	8,950	78.9
MW-66-165	05/22/2025	130.11	7.65	3,938	8.00	2.85	32.9	2.05	2,540	51.2
MW-66-230	05/22/2025	130.51	7.82	18,107	9.00	2.51	30.6	10.42	11,550	46.5
MW-66BR-270	05/27/2025	132.99	7.86	17,870	9.00	0.39	31.6	10.45	11,600	-169.3
MW-67-185	05/21/2025	169.84	7.32	5,145	21.00	0.82	30.5	2.74	3,340	-11.8
MW-67-225	05/21/2025	169.76	7.70	5,228	8.00	2.65	32.7	2.75	3,370	56.9
MW-67-260	05/21/2025	169.83	10.11	18,738	9.00	1.28	32.5	10.72	11,850	-45.9
MW-68-180	05/21/2025	164.95	7.33	3,032	8.00	4.57	31.2	1.56	1,960	24.1
MW-68-240	05/21/2025	165.17	7.85	16,955	7.00	2.23	31.7	9.13	10,280	56.5
MW-68BR-280	05/21/2025	163.6	7.89	21,742	5.00	0.76	31.5	12.56	13,730	-79.5
MW-69-195	05/22/2025	174.81	7.63	3,545	37.00	2.31	33.2	1.84	2,300	70.2
MW-70-105	05/15/2025	81.51	7.62	3,389	24.00	3.12	29.8	1.71	2,140	75.2
MW-70BR-225	05/15/2025	80.61	7.94	12,280	5.00	1.87	31.7	6.94	7,950	71.5
MW-70BR-287	05/15/2025	81.97	8.21	16,340	5.00	2.01	31.5	9.55	10,670	61.9
MW-71-035	04/10/2025	27.95	7.20	7,336	31.00	3.11	28.0	4.03	4,780	77.2
MW-71-035	05/07/2025	27.6	7.43	9,646	31.00	0.86	25.2	5.41	6,270	10.0
MW-71-035	06/11/2025	27.22	7.18	8,858	27.00	1.51	33.4	4.84	5,700	5.1
MW-72-080	05/29/2025	57.22	8.01	20,135	11.00	0.52	29.3	10.92	12,050	106.5
MW-72BR-200	05/29/2025	57.12	6.90	16,030	8.00	0.27	30.0	9.32	10,420	-138.2
MW-73-080	05/29/2025	50.12	6.78	10,769	9.00	1.70	30.4	6.06	7,000	-82.0
MW-74-240	05/22/2025	215.81	7.68	912	14.00	1.25	32.7	0.44	590	63.1
MW-75-033	05/08/2025	17.28	7.25	3,931	3.00	0.67	28.2	2.07	2,550	14.9
MW-75-117	05/08/2025	17.52	7.26	11,940	5.00	0.09	28.3	6.79	7,760	8.6
MW-75-202	05/08/2025	17.65	7.00	16,026	9.00	0.13	28.2	9.34	10,420	-37.8
MW-75-267	05/08/2025	17.4	6.99	22,485	6.00	5.94	29.4	13.48	14,620	-65.8
MW-75-337	05/08/2025	20	7.44	29,207	8.00	0.12	30.3	17.93	18,970	-150.2
MW-76-039	04/07/2025	25.17	7.32	7,400	27.00	1.22	30.5	4.05	4,810	50.3
MW-76-039	05/05/2025	24.91	7.02	9,580	12.00	0.52	25.7	5.27	6,122	117.9
MW-76-039	06/11/2025	24.93	7.12	12,193	10.00	0.75	38.5	5.33	6,292	81.9
MW-76-156	04/07/2025	25.65	6.51	10,983	13.00	0.67	33.8	5.23	6,134	168.5
MW-76-156	05/05/2025	25.21	7.02	9,503	10.00	0.52	25.1	5.34	6,162	58.1

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-76-156	06/11/2025	24.8	7.04	12,482	8.00	0.27	39.5	5.34	6,323	72.5
MW-76-181	04/07/2025	25.85	6.64	11,995	16.00	1.02	37.4	5.32	6,270	170.2
MW-76-181	05/05/2025	24.78	7.01	9,505	13.00	0.61	24.5	5.34	6,191	35.4
MW-76-181	06/11/2025	24.68	7.32	11,124	10.00	0.32	32.5	5.35	6,293	82.1
MW-76-218	04/07/2025	28.26	6.64	12,332	11.00	2.53	38.4	5.41	6,372	192.9
MW-76-218	05/05/2025	24.75	6.72	9,395	17.00	2.42	23.6	5.45	6,272	-10.9
MW-76-218	06/11/2025	24.8	7.31	11,939	17.00	0.04	36.3	5.41	6,331	77.6
MW-77-046	05/13/2025	22.23	7.43	10,174	12.00	0.52	27.6	6.45	6,275	79.3
MW-77-102	05/13/2025	22.61	7.45	10,647	15.00	0.93	28.1	5.65	6,552	85.6
MW-77-158	05/13/2025	22.42	7.34	10,124	7.00	0.43	28.3	5.26	6,131	81.4
MW-77-187	04/09/2025	25.54	6.32	12,194	5.00	0.31	37.0	5.49	6,450	115.4
MW-77-187	05/13/2025	22.45	7.67	10,863	17.00	0.62	30.5	5.50	6,392	-1.6
MW-77-187	06/09/2025	22.75	7.41	14,214	12.00	0.35	45.7	6.57	6,632	67.5
MW-78-070	04/10/2025	46.1	6.66	10,163	10.00	0.93	29.3	5.25	6,131	186.2
MW-78-070	05/08/2025	45.52	7.54	10,004	10.00	0.55	28.2	5.25	6,143	109.1
MW-78-070	06/11/2025	45.25	7.54	10,533	10.00	0.63	31.0	5.24	6,153	79.9
MW-78-142	04/10/2025	46.47	6.56	11,945	8.00	0.53	31.6	5.95	6,915	176.6
MW-78-142	05/08/2025	45.8	7.06	11,243	16.00	1.22	28.1	5.93	6,864	129.3
MW-78-142	06/11/2025	45.66	6.54	12,432	16.00	1.04	33.7	5.93	6,903	98.4
MW-79-058	04/10/2025	45.18	6.33	9,784	10.00	1.05	27.3	5.25	6,073	192.3
MW-79-058	05/08/2025	44.6	7.32	9,965	12.00	0.65	27.5	5.27	6,143	108.5
MW-79-058	06/12/2025	44.4	7.15	10,453	16.00	0.82	30.1	5.31	6,185	88.4
MW-79-102	04/10/2025	45.21	6.32	9,716	10.00	0.81	27.3	5.12	5,999	174.5
MW-79-102	05/08/2025	44.47	6.66	265	10.00	0.84	29.3	0.12	159	113.2
MW-79-102	06/12/2025	44.4	7.03	10,596	8.00	1.15	33.7	5.01	5,902	82.9
MW-80-057	04/10/2025	47.54	6.43	10,163	16.00	0.83	28.3	5.31	6,175	179.1
MW-80-057	05/08/2025	47	7.44	8,372	40.00	4.16	28.9	4.63	5,440	-18.7
MW-80-057	06/12/2025	46.65	7.43	10,094	7.00	0.37	29.2	5.18	6,059	99.4
MW-80-082	04/10/2025	47.61	6.34	9,969	10.00	0.02	29.1	5.12	5,993	174.6
MW-80-082	05/08/2025	46.83	7.03	9,272	8.00	0.31	28.3	4.85	5,662	90.3
MW-80-082	06/12/2025	46.71	7.41	10,033	10.00	3.46	29.4	5.12	5,995	101.9
MW-81-043	04/08/2025	22.2	6.59	10,733	11.00	1.22	27.6	5.75	6,673	175.3

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-81-043	05/07/2025	22	7.70	10,743	8.00	0.01	27.4	5.77	6,679	112.2
MW-81-043	06/09/2025	21.94	7.01	9,079	18.00	0.56	30.6	5.04	5,910	-50.3
MW-81-098	04/08/2025	25.56	6.50	10,055	12.00	1.23	26.4	5.51	6,363	170.3
MW-81-098	05/07/2025	22.1	7.33	10,095	10.00	0.03	26.3	5.52	6,400	96.4
MW-81-098	06/09/2025	21.84	7.10	8,593	10.00	0.79	30.8	4.75	5,590	-48.6
MW-82-046	05/06/2025	28.92	6.94	13,230	50.00	0.32	26.6	7.62	8,620	-163.0
MW-82-112	05/06/2025	27.85	7.08	9,552	10.00	0.78	26.5	5.36	6,220	-84.4
MW-82-168	05/06/2025	27.11	7.12	8,481	11.00	0.37	26.9	4.70	5,510	-6.4
MW-82-198	05/06/2025	27.03	7.12	8,571	9.00	1.25	26.4	4.76	5,570	-68.4
MW-83-090	05/28/2025	72.97	7.16	2,025	10.00	8.15	29.5	1.02	1,310	-50.3
MW-83-180	05/28/2025	73.03	7.15	9,577	11.00	6.25	30.0	5.34	6,220	-61.4
MW-83-225	05/28/2025	74.02	7.05	13,909	14.00	4.84	29.9	7.98	9,040	-61.0
MW-83-245	05/28/2025	72.94	7.03	252	8.00	5.71	30.3	0.12	160	-60.3
MW-84-057	05/28/2025	44.59	7.31	2,595	16.00	2.12	29.0	1.23	1,572	124.9
MW-84-095	05/28/2025	44.46	7.52	7,155	12.00	1.53	28.6	3.61	4,320	109.1
MW-84-132	05/28/2025	45.1	7.30	9,343	18.00	0.92	30.5	4.63	5,475	88.9
MW-84-193	05/28/2025	45.14	7.02	14,739	8.00	0.84	38.9	6.55	7,586	102.4
MW-85-129	05/28/2025	113.72	7.08	2,231	7.00	9.40	28.7	1.14	1,450	-15.8
MW-85-217	05/28/2025	113.24	7.09	8,088	10.00	6.70	31.6	4.30	5,100	-40.3
MW-85-237	05/28/2025	113.57	6.85	13,064	9.00	8.02	30.6	7.45	8,480	-31.5
MW-86-030	05/15/2025	12.14	6.93	1,472	11.00	0.26	22.1	0.82	1,011	31.9
MW-86-066	05/15/2025	12.16	7.43	8,251	10.00	0.63	21.6	4.93	5,733	93.2
MW-86-120	05/15/2025	13.26	6.44	12,821	13.00	0.12	26.5	7.08	8,053	-66.4
MW-86-140	05/15/2025	13.2	6.45	15,993	14.00	0.21	21.0	9.99	11,030	-75.5
MW-87-109	05/16/2025	90.87	7.84	2,984	28.00	2.62	28.5	1.53	1,910	56.2
MW-87-139	05/16/2025	90.82	7.59	7,626	14.00	2.09	29.7	4.07	4,840	65.5
MW-87-192	05/16/2025	91.22	7.25	9,054	8.00	5.49	28.7	5.04	5,890	15.5
MW-87-275	05/16/2025	91.18	7.07	10,331	10.00	5.31	29.1	5.80	6,720	14.8
MW-88-107	05/22/2025	90.35	7.52	2,593	14.00	3.53	30.3	1.22	1,535	86.4
MW-89-183	06/11/2025	131.31	7.30	7,147	20.00	3.82	34.1	3.86	4,640	23.8
MW-89-273	06/11/2025	131.32	7.31	7,408	38.00	4.81	33.2	4.03	4,820	18.2
MW-90-031	05/22/2025	5.87	8.48	16,720	9.00	0.94	25.9	9.84	8,400	-100.1

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
MW-91-045	05/20/2025	8.56	7.48	2,015	9.00	0.20	26.5	1.06	1,050	36.8
MW-91-120	05/20/2025	9.17	7.46	9,617	8.00	0.24	26.5	5.38	4,810	2.8
MW-91-170	05/20/2025	9.24	8.13	12,550	9.00	0.80	26.5	7.18	6,380	-262.2
MW-91-320	05/20/2025	6.51	7.48	33,060	10.00	0.40	30.0	19.96	16,070	-387.1
MW-92-037	05/20/2025	5.11	7.32	1,587	4.00	0.11	27.3	0.80	1,030	-155.6
MW-92-072	05/20/2025	5.12	7.30	2,220	5.00	0.06	28.1	1.13	1,440	-32.2
MW-92-102	05/20/2025	5.49	7.40	3,052	10.00	0.38	27.6	1.58	1,980	-16.3
MW-92-122	05/20/2025	5.82	7.34	13,183	7.00	0.39	28.1	7.59	8,600	-190.2
MW-93-050	05/14/2025	30.26	7.68	5,564	12.00	2.00	27.8	2.82	3,422	100.6
MW-93-213	05/14/2025	30.51	7.35	14,741	7.00	0.85	33.1	7.27	8,315	85.4
MW-95-113	05/29/2025	97.43	7.81	1,579	24.00	3.06	31.6	0.78	1,020	53.9
MW-95-157	05/29/2025	97.36	7.72	5,793	9.00	1.71	31.5	2.93	3,560	60.1
MW-96-045	05/28/2025	27.92	7.70	9,578	15.00	0.70	31.6	5.28	6,230	31.9
MW-96-217	05/28/2025	28.6	7.85	19,574	7.00	0.33	30.5	11.47	12,710	25.5
MW-97-042	05/13/2025	25.7	7.56	4,754	13.00	1.97	25.3	2.51	3,044	76.1
MW-97-202	05/13/2025	26.35	6.40	21,814	11.00	2.02	28.5	12.26	13,430	-65.9
MW-98-055	05/27/2025	45.76	7.38	4,234	29.00	2.59	32.5	2.22	2,750	65.5
MW-98-077	05/27/2025	45.64	7.51	8,448	18.00	2.38	32.6	4.60	5,480	68.6
PGE-07BR	05/21/2025	109.82	7.37	16,862	1.00	0.05	30.8	9.84	10,960	-260.8
PGE-08	05/19/2025	143.03	7.57	19,580	8.00	0.63	32.6	11.55	12,730	-128.9
PT5D	04/09/2025	18.11	7.18	7,513	9.00	0.08	25.4	4.14	4,880	35.3
PT5D	05/07/2025	18.03	6.93	8,581	13.00	0.18	24.0	4.75	5,540	7.5
PT5D	06/10/2025	18.31	6.84	11,551	17.00	0.27	36.5	5.22	6,205	86.4
PT5M	05/22/2025	19.62	8.49	8,262	9.00	0.84	26.3	4.56	4,130	-278.9
PT5S	05/22/2025	19.64	8.93	1,300	8.00	1.00	25.4	0.63	630	-303.0
PT6D	04/09/2025	20.88	7.16	6,397	6.00	0.11	24.1	3.49	4,150	51.0
PT6D	05/07/2025	20.61	6.96	7,147	10.00	0.27	23.6	3.93	4,650	24.0
PT6D	06/09/2025	19.87	7.11	7,017	4.00	0.29	24.7	3.85	4,560	-64.3
PT8D	05/21/2025	106.87	8.14	8,640	27.00	0.93	33.0	5.65	5,160	-63.9
PT9D	05/21/2025	103.31	7.39	13,465	14.00	5.71	29.8	7.71	8,750	11.4
PT9M	05/21/2025	103.24	7.11	9,339	6.00	1.69	29.5	5.20	6,070	1.0
PT9S	05/21/2025	103.11	7.17	3,924	7.00	5.31	29.3	2.06	2,540	7.2

Table 3.3
Second Quarter 2025 Water Quality Field Parameters
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Sample Date	Depth to Water (ft bTOC)	pH	Specific Conductance (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (deg C)	Salinity (ppt)	Total Dissolved Solids (mg/L)	ORP (mV)
TW-01	05/21/2025	164.26	7.42	7,911	4.00	3.15	32.2	4.36	5,040	89.5
TW-02D	04/08/2025	38.5	7.35	7,734	6.00	0.13	28.5	4.25	5,030	42.8
TW-02D	05/06/2025	38.03	7.22	8,701	7.00	0.11	28.3	4.83	5,660	-3.7
TW-02D	06/10/2025	37.81	7.10	8,635	4.00	0.22	29.1	4.78	5,610	-45.4
TW-02S	04/08/2025	38.49	7.25	7,432	4.00	0.51	28.6	4.07	4,830	66.3
TW-02S	05/06/2025	37.99	7.16	8,313	5.00	0.57	28.3	4.60	5,400	39.0
TW-02S	06/10/2025	37.72	7.09	8,241	3.00	0.64	28.9	4.55	5,350	-24.8
TW-03D	04/08/2025	38.22	7.34	7,932	5.00	0.05	28.7	4.37	5,160	45.8
TW-03D	05/06/2025	37.76	7.20	8,427	6.00	0.16	28.4	4.66	5,480	36.8
TW-03D	06/10/2025	37.49	7.08	8,240	2.00	0.37	29.2	4.55	5,360	-30.8
TW-04	05/14/2025	28.79	7.76	20,644	4.00	1.71	29.6	12.07	13,220	8.8
TW-05	05/21/2025	40.33	8.09	12,175	8.00	1.07	29.7	6.30	7,264	103.5

Notes:

^a Well was not sampled this reporting period because there was an insufficient volume of groundwater.

Acronyms and Abbreviations:

µS/cm = microsiemen per centimeter

deg C = degree Celsius

ID = identification

ft bTOC = feet below the top of casing

mg/L = milligram per liter

mV = millivolt

nm = parameter was not measured

NTU = nephelometric turbidity unit

ORP = oxidation-reduction potential

ppt = part per thousand

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-09	05-22-2025	Yes	Yes	Good	--	--
MW-10	05-22-2025	Yes	Yes	Good	--	--
MW-10D	05-22-2025	Yes	Yes	Good	--	--
MW-11	05-22-2025	Yes	Yes	Good	--	--
MW-11D	05-22-2025	Yes	Yes	Good	--	--
MW-12	05-29-2025	Yes	Yes	Good	--	--
MW-13	05-27-2025	Yes	Yes	Good	--	--
MW-14	05-27-2025	Yes	Yes	Good	--	--
MW-15	05-13-2025	Yes	Yes	Good	--	--
MW-19	05-21-2025	Yes	Yes	Good	--	--
MW-20-070	04-08-2025	Yes	Yes	Good	--	--
MW-20-070	05-07-2025	Yes	Yes	Good	--	--
MW-20-070	06-11-2025	Yes	Yes	Good	--	--
MW-20-100	04-08-2025	Yes	Yes	Good	--	--
MW-20-100	05-07-2025	Yes	Yes	Good	--	--
MW-20-100	06-11-2025	Yes	Yes	Good	--	--
MW-20-130	04-08-2025	Yes	Yes	Good	--	--
MW-20-130	05-07-2025	Yes	Yes	Good	--	--
MW-20-130	06-11-2025	Yes	Yes	Good	--	--
MW-21	04-10-2025	Yes	Yes	Good	--	--
MW-21	05-07-2025	Yes	Yes	Good	--	--
MW-21	06-12-2025	Yes	Yes	Good	--	--
MW-22	05-22-2025	Yes	Yes	Good	--	--
MW-23-060	05-20-2025	Yes	Yes	Good	--	--
MW-23-080	05-20-2025	Yes	Yes	Good	--	--
MW-24A	05-21-2025	Yes	Yes	Good	--	--
MW-24B	05-21-2025	Yes	Yes	Good	--	--
MW-24BR	05-21-2025	Yes	Yes	Good	--	--
MW-25	05-21-2025	Yes	Yes	Good	--	--
MW-26	04-09-2025	Yes	Yes	Good	--	--
MW-26	05-08-2025	Yes	Yes	Good	--	--
MW-26	06-12-2025	Yes	Yes	Good	--	--
MW-27-020	05-05-2025	Yes	Yes	Good	--	--
MW-27-060	05-05-2025	Yes	Yes	Good	--	--
MW-27-085	05-05-2025	Yes	Yes	Good	--	--
MW-28-025	05-19-2025	Yes	Yes	Good	--	--
MW-28-090	05-19-2025	Yes	Yes	Good	--	--
MW-29	05-28-2025	Yes	Yes	Good	--	--
MW-30-030R	05-06-2025	Yes	Yes	Good	--	--
MW-30-050	05-06-2025	Yes	Yes	Good	--	--
MW-31-060	04-09-2025	Yes	Yes	Good	--	--
MW-31-060	05-13-2025	Yes	Yes	Good	--	--

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-31-060	06-09-2025	Yes	Yes	Good	--	--
MW-31-135	04-09-2025	Yes	Yes	Good	--	--
MW-31-135	05-07-2025	Yes	Yes	Good	--	--
MW-31-135	06-09-2025	Yes	Yes	Good	--	--
MW-32-020	05-22-2025	Yes	Yes	Good	--	--
MW-32-035	05-22-2025	Yes	Yes	Good	--	--
MW-33-040	05-29-2025	Yes	Yes	Good	--	--
MW-33-090	05-29-2025	Yes	Yes	Good	--	--
MW-33-150	05-29-2025	Yes	Yes	Good	--	--
MW-33-210	05-29-2025	Yes	Yes	Good	--	--
MW-34-055	05-14-2025	Yes	Yes	Good	--	--
MW-34-080	05-14-2025	Yes	Yes	Good	--	--
MW-34-100	04-09-2025	Yes	Yes	Good	--	--
MW-34-100	05-08-2025	Yes	Yes	Good	--	--
MW-34-100	06-12-2025	Yes	Yes	Good	--	--
MW-35-060	05-20-2025	Yes	Yes	Good	--	--
MW-35-135	05-20-2025	Yes	Yes	Good	--	--
MW-36-020	05-07-2025	Yes	Yes	Good	--	--
MW-36-040	05-07-2025	Yes	Yes	Good	--	--
MW-36-050	05-07-2025	Yes	Yes	Good	--	--
MW-36-070	05-07-2025	Yes	Yes	Good	--	--
MW-36-090	05-07-2025	Yes	Yes	Good	--	--
MW-36-100	04-08-2025	Yes	Yes	Good	--	--
MW-36-100	05-07-2025	Yes	Yes	Good	--	--
MW-36-100	06-10-2025	Yes	Yes	Good	--	--
MW-37D	05-28-2025	Yes	Yes	Good	--	--
MW-37S	05-28-2025	Yes	Yes	Good	--	--
MW-38D	05-22-2025	Yes	Yes	Good	--	--
MW-38S	05-22-2025	Yes	Yes	Good	--	--
MW-39-040	05-06-2025	Yes	Yes	Good	--	--
MW-39-050	05-06-2025	Yes	Yes	Good	--	--
MW-39-060	05-06-2025	Yes	Yes	Good	--	--
MW-39-070	04-08-2025	Yes	Yes	Good	--	--
MW-39-070	05-06-2025	Yes	Yes	Good	--	--
MW-39-070	06-10-2025	Yes	Yes	Good	--	--
MW-39-080	04-08-2025	Yes	Yes	Good	--	--
MW-39-080	05-06-2025	Yes	Yes	Good	--	--
MW-39-080	06-10-2025	Yes	Yes	Good	--	--
MW-39-100	04-08-2025	Yes	Yes	Good	--	--
MW-39-100	05-06-2025	Yes	Yes	Good	--	--
MW-39-100	06-10-2025	Yes	Yes	Good	--	--

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-40D	06-11-2025	Yes	Yes	Good	--	--
MW-40S	06-11-2025	Yes	Yes	Good	--	--
MW-41D	05-29-2025	Yes	Yes	Good	--	--
MW-41M	05-29-2025	Yes	Yes	Good	--	--
MW-41S	05-29-2025	Yes	Yes	Good	--	--
MW-42-030	05-21-2025	Yes	Yes	Good	--	--
MW-42-055	05-21-2025	Yes	Yes	Good	--	--
MW-43-025	04-07-2025	Yes	Yes	Good	--	--
MW-43-075	04-07-2025	Yes	Yes	Good	--	--
MW-43-090	04-07-2025	Yes	Yes	Good	--	--
MW-44-070	05-09-2025	Yes	Yes	Good	--	--
MW-44-115	04-09-2025	Yes	Yes	Good	--	--
MW-44-115	05-09-2025	Yes	Yes	Good	--	--
MW-44-115	06-12-2025	Yes	Yes	Good	--	--
MW-44-125	04-09-2025	Yes	Yes	Good	--	--
MW-44-125	05-09-2025	Yes	Yes	Good	--	--
MW-44-125	06-12-2025	Yes	Yes	Good	--	--
MW-45-095a	05-22-2025	Yes	Yes	Good	--	--
MW-46-175	04-09-2025	Yes	Yes	Good	--	--
MW-46-175	05-08-2025	Yes	Yes	Good	--	--
MW-46-175	06-12-2025	Yes	Yes	Good	--	--
MW-46-205	05-14-2025	Yes	Yes	Good	--	--
MW-47-055	05-21-2025	Yes	Yes	Good	--	--
MW-47-115	05-21-2025	Yes	Yes	Good	--	--
MW-48	05-29-2025	Yes	Yes	Good	--	--
MW-49-135	05-28-2025	Yes	Yes	Good	--	--
MW-49-275	05-28-2025	Yes	Yes	Good	--	--
MW-49-365	05-28-2025	Yes	Yes	Good	--	--
MW-50-095	05-21-2025	Yes	Yes	Good	--	--
MW-50-200	05-21-2025	Yes	Yes	Good	--	--
MW-51	04-09-2025	Yes	Yes	Good	--	--
MW-51	05-08-2025	Yes	Yes	Good	--	--
MW-51	06-12-2025	Yes	Yes	Good	--	--
MW-52D	05-14-2025	Yes	Yes	Good	--	--
MW-52M	05-14-2025	Yes	Yes	Good	--	--
MW-52S	05-14-2025	Yes	Yes	Good	--	--
MW-53D	04-10-2025	Yes	Yes	Good	--	--
MW-53M	04-10-2025	Yes	Yes	Good	--	--
MW-53S	04-10-2025	Yes	Yes	Good	--	--
MW-54-085	05-20-2025	Yes	Yes	Good	--	--
MW-54-140	05-20-2025	Yes	Yes	Good	--	--

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-54-195	05-20-2025	Yes	Yes	Good	--	--
MW-55-045	05-15-2025	Yes	Yes	Good	--	--
MW-55-120	05-15-2025	Yes	Yes	Good	--	--
MW-56D	05-14-2025	Yes	Yes	Good	--	--
MW-56M	05-14-2025	Yes	Yes	Good	--	--
MW-56S	05-14-2025	Yes	Yes	Good	--	--
MW-57-050	05-09-2025	Yes	Yes	Good	--	--
MW-57-070	05-09-2025	Yes	Yes	Good	--	--
MW-57-185	05-09-2025	Yes	Yes	Good	--	--
MW-58-065	05-15-2025	Yes	Yes	Good	--	--
MW-58BR	05-15-2025	Yes	Yes	Good	--	--
MW-59-100	05-21-2025	Yes	Yes	Good	--	--
MW-60-125	05-29-2025	Yes	Yes	Good	--	--
MW-60BR-245	05-29-2025	Yes	Yes	Good	--	--
MW-61-110	05-29-2025	Yes	Yes	Good	--	--
MW-62-065	05-09-2025	Yes	Yes	Good	--	--
MW-63-065	05-14-2025	Yes	Yes	Good	--	--
MW-64BR	05-29-2025	Yes	Yes	Good	--	--
MW-65-160	05-22-2025	Yes	Yes	Good	--	--
MW-65-225	05-22-2025	Yes	Yes	Good	--	--
MW-66-165	05-22-2025	Yes	Yes	Good	--	--
MW-66-230	05-22-2025	Yes	Yes	Good	--	--
MW-66BR-270	05-12-2025	Yes	Yes	Good	--	--
MW-67-185	05-21-2025	Yes	Yes	Good	--	--
MW-67-225	05-21-2025	Yes	Yes	Good	--	--
MW-67-260	05-21-2025	Yes	Yes	Good	--	--
MW-68-180	05-21-2025	Yes	Yes	Good	--	--
MW-68-240	05-21-2025	Yes	Yes	Good	--	--
MW-68BR-280	05-21-2025	Yes	Yes	Good	--	--
MW-69-195	05-22-2025	Yes	Yes	Good	--	--
MW-70-105	05-15-2025	Yes	Yes	Good	--	--
MW-70BR-225	05-15-2025	Yes	Yes	Good	--	--
MW-70BR-287	05-15-2025	Yes	Yes	Good	--	--
MW-71-035	04-10-2025	Yes	Yes	Good	--	--
MW-71-035	05-07-2025	Yes	Yes	Good	--	--
MW-71-035	06-11-2025	Yes	Yes	Good	--	--
MW-72-080	05-29-2025	Yes	Yes	Good	--	--
MW-72BR-200	05-29-2025	Yes	Yes	Good	--	--
MW-73-080	05-29-2025	Yes	Yes	Good	--	--
MW-74-240	05-22-2025	Yes	Yes	Good	--	--
MW-75-033	05-08-2025	Yes	Yes	Good	--	--

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-75-117	05-08-2025	Yes	Yes	Good	--	--
MW-75-202	05-08-2025	Yes	Yes	Good	--	--
MW-75-267	05-08-2025	Yes	Yes	Good	--	--
MW-75-337	05-08-2025	Yes	Yes	Good	--	--
MW-76-039	04-07-2025	Yes	Yes	Good	--	--
MW-76-039	05-05-2025	Yes	Yes	Good	--	--
MW-76-039	06-11-2025	Yes	Yes	Good	--	--
MW-76-156	04-07-2025	Yes	Yes	Good	--	--
MW-76-156	05-05-2025	Yes	Yes	Good	--	--
MW-76-156	06-11-2025	Yes	Yes	Good	--	--
MW-76-181	04-07-2025	Yes	Yes	Good	--	--
MW-76-181	05-05-2025	Yes	Yes	Good	--	--
MW-76-181	06-11-2025	Yes	Yes	Good	--	--
MW-76-218	04-07-2025	Yes	Yes	Good	--	--
MW-76-218	05-05-2025	Yes	Yes	Good	--	--
MW-76-218	06-11-2025	Yes	Yes	Good	--	--
MW-77-046	05-13-2025	Yes	Yes	Good	--	--
MW-77-102	05-13-2025	Yes	Yes	Good	--	--
MW-77-158	05-13-2025	Yes	Yes	Good	--	--
MW-77-187	04-09-2025	Yes	Yes	Good	--	--
MW-77-187	05-13-2025	Yes	Yes	Good	--	--
MW-77-187	06-09-2025	Yes	Yes	Good	--	--
MW-78-070	04-10-2025	Yes	Yes	Good	--	--
MW-78-070	05-08-2025	Yes	Yes	Good	--	--
MW-78-070	06-11-2025	Yes	Yes	Good	--	--
MW-78-142	04-10-2025	Yes	Yes	Good	--	--
MW-78-142	05-08-2025	Yes	Yes	Good	--	--
MW-78-142	06-11-2025	Yes	Yes	Good	--	--
MW-79-058	04-10-2025	Yes	Yes	Good	--	--
MW-79-058	05-08-2025	Yes	Yes	Good	--	--
MW-79-058	06-12-2025	Yes	Yes	Good	--	--
MW-79-102	04-10-2025	Yes	Yes	Good	--	--
MW-79-102	05-08-2025	Yes	Yes	Good	--	--
MW-79-102	06-12-2025	Yes	Yes	Good	--	--
MW-80-057	04-10-2025	Yes	Yes	Good	--	--
MW-80-057	05-08-2025	Yes	Yes	Good	--	--
MW-80-057	06-12-2025	Yes	Yes	Good	--	--
MW-80-082	04-10-2025	Yes	Yes	Good	--	--
MW-80-082	05-08-2025	Yes	Yes	Good	--	--
MW-80-082	06-12-2025	Yes	Yes	Good	--	--
MW-81-043	04-08-2025	Yes	Yes	Good	--	--
MW-81-043	05-07-2025	Yes	Yes	Good	--	--

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-81-043	06-09-2025	Yes	Yes	Good	--	--
MW-81-098	04-08-2025	Yes	Yes	Good	--	--
MW-81-098	05-07-2025	Yes	Yes	Good	--	--
MW-81-098	06-09-2025	Yes	Yes	Good	--	--
MW-82-046	05-06-2025	Yes	Yes	Good	--	--
MW-82-112	05-06-2025	Yes	Yes	Good	--	--
MW-82-168	05-06-2025	Yes	Yes	Good	--	--
MW-82-198	05-06-2025	Yes	Yes	Good	--	--
MW-83-090	05-28-2025	Yes	Yes	Good	--	--
MW-83-180	05-28-2025	Yes	Yes	Good	--	--
MW-83-225	05-28-2025	Yes	Yes	Good	--	--
MW-83-245	05-28-2025	Yes	Yes	Good	--	--
MW-84-057	05-28-2025	Yes	Yes	Good	--	--
MW-84-095	05-28-2025	Yes	Yes	Good	--	--
MW-84-132	05-28-2025	Yes	Yes	Good	--	--
MW-84-193	05-28-2025	Yes	Yes	Good	--	--
MW-85-129	05-28-2025	Yes	Yes	Good	--	--
MW-85-217	05-28-2025	Yes	Yes	Good	--	--
MW-85-237	05-28-2025	Yes	Yes	Good	--	--
MW-86-030	05-15-2025	Yes	Yes	Good	--	--
MW-86-066	05-15-2025	Yes	Yes	Good	--	--
MW-86-120	05-15-2025	Yes	Yes	Good	--	--
MW-86-140	05-15-2025	Yes	Yes	Good	--	--
MW-87-109	05-16-2025	Yes	Yes	Good	--	--
MW-87-139	05-16-2025	Yes	Yes	Good	--	--
MW-87-192	05-16-2025	Yes	Yes	Good	--	--
MW-87-275	05-16-2025	Yes	Yes	Good	--	--
MW-88-107	05-22-2025	Yes	Yes	Good	--	--
MW-89-183	06-11-2025	Yes	Yes	Good	--	--
MW-89-273	06-11-2025	Yes	Yes	Good	--	--
MW-90-031	05-22-2025	Yes	Yes	Good	--	--
MW-91-045	05-20-2025	Yes	Yes	Good	--	--
MW-91-120	05-20-2025	Yes	Yes	Good	--	--
MW-91-170	05-20-2025	Yes	Yes	Good	--	--
MW-91-320	05-20-2025	Yes	Yes	Good	--	--
MW-92-037	05-20-2025	Yes	Yes	Good	--	--
MW-92-072	05-20-2025	Yes	Yes	Good	--	--
MW-92-102	05-20-2025	Yes	Yes	Good	--	--
MW-92-122	05-20-2025	Yes	Yes	Good	--	--
MW-93-050	05-14-2025	Yes	Yes	Good	--	--
MW-93-213	05-14-2025	Yes	Yes	Good	--	--
MW-94-030	05-13-2025	Yes	Yes	Good	--	--
MW-94-100	05-13-2025	Yes	Yes	Good	--	--

Table 4.1
Monitoring Well Inspection Results
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Location	Date	Well Inspection Completed?	Is the Well Labeled Properly?	Is the Well in Good Condition?	Description of Deficiencies (if noted)	Well Inspection Comments
MW-94-175	05-13-2025	Yes	Yes	Good	--	--
MW-95-113	05-29-2025	Yes	Yes	Good	--	--
MW-95-157	05-29-2025	Yes	Yes	Good	--	--
MW-96-045	05-28-2025	Yes	Yes	Good	--	--
MW-96-217	05-28-2025	Yes	Yes	Good	--	--
MW-97-042	05-13-2025	Yes	Yes	Good	--	--
MW-97-202	05-13-2025	Yes	Yes	Good	--	--
MW-98-055	05-27-2025	Yes	Yes	Good	--	--
MW-98-077	05-27-2025	Yes	Yes	Good	--	--
MW-99-060	06-10-2025	Yes	Yes	Good	--	--
MW-99-140	06-10-2025	Yes	Yes	Good	--	--
PGE-07BR	05-21-2025	Yes	Yes	Good	--	--
PGE-08	05-19-2025	Yes	Yes	Good	--	--
PGE-09N	05-14-2025	Yes	Yes	Good	--	--
PGE-09S	05-14-2025	Yes	Yes	Good	--	--
PT5D	04-09-2025	Yes	Yes	Good	--	--
PT5D	05-07-2025	Yes	Yes	Good	--	--
PT5D	06-10-2025	Yes	Yes	Good	--	--
PT5M	05-22-2025	Yes	Yes	Good	--	--
PT5S	05-22-2025	Yes	Yes	Good	--	--
PT6D	04-09-2025	Yes	Yes	Good	--	--
PT6D	05-07-2025	Yes	Yes	Good	--	--
PT6D	06-09-2025	Yes	Yes	Good	--	--
PT9D	05-21-2025	Yes	Yes	Good	--	--
PT9M	05-21-2025	Yes	Yes	Good	--	--
PT9S	05-21-2025	Yes	Yes	Good	--	--
TW-01	05-21-2025	Yes	Yes	Good	--	--
TW-02D	04-08-2025	Yes	Yes	Good	--	--
TW-02D	05-06-2025	Yes	Yes	Good	--	--
TW-02D	06-10-2025	Yes	Yes	Good	--	--
TW-02S	04-08-2025	Yes	Yes	Good	--	--
TW-02S	05-06-2025	Yes	Yes	Good	--	--
TW-02S	06-10-2025	Yes	Yes	Good	--	--
TW-03D	04-08-2025	Yes	Yes	Good	--	--
TW-03D	05-06-2025	Yes	Yes	Good	--	--
TW-03D	06-10-2025	Yes	Yes	Good	--	--
TW-04	05-14-2025	Yes	Yes	Good	--	--
TW-05	05-21-2025	Yes	Yes	Good	--	--

Acronyms and Abbreviations:

-- = no comment

Table 4.2
Monitoring Well Water Levels and Specific Capacities
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Well Screen Lithology	Sample Date	Constructed Well Depth (feet bTOC)	Measured Well Depth (feet bTOC)	Difference in Constructed and Measured Well Depth (feet)	Screen Start Depth (feet bTOC)	Screen End Depth (feet bTOC)	Pre-Purge Depth to Water (feet bTOC)	Post-Purge Depth to Water (feet bTOC)	Drawdown During Purging (feet)	Purging Rate (mL/min)	Specific Capacity (gpm/foot)	Measured Depth Covering Greater than 20% of screen?	Flagged for Evaluation	Planned for Resurvey	Planned for Redevelopment	Notes	Date of Last Redevelopment
MW-09	Alluvial	05/22/2025	89.82	89.04	0.78	77.82	87.82	80.40	80.44	0.04	300	1.98	No	No	No	No	N/A	9/25/2024
MW-10	Alluvial	05/22/2025	95.73	96.90	-1.17	74.73	94.73	74.77	74.78	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-10D	Alluvial	05/22/2025	127.70	127.43	0.27	110.20	125.20	75.52	75.55	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-11	Alluvial	05/22/2025	88.21	84.47	3.74	64.60	84.60	65.53	65.58	0.05	300	1.59	No	No	No	No	N/A	3/13/2023
MW-11D	Alluvial	05/22/2025	134.59	133.47	1.12	112.19	132.19	66.55	66.58	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-12	Alluvial	05/29/2025	48.47	50.02	-1.55	27.47	47.47	27.33	27.36	0.03	400	3.52	No	No	No	No	N/A	N/A
MW-13	Alluvial	05/27/2025	51.92	48.10	3.82	28.42	48.42	30.30	30.35	0.05	300	1.59	No	No	No	No	N/A	N/A
MW-14	Alluvial	05/27/2025	134.00	133.74	0.26	113.00	133.00	114.68	114.75	0.07	500	1.89	No	No	No	No	N/A	N/A
MW-15	Alluvial	05/13/2025	204.90	N/A	N/A	182.40	202.40	185.62	185.70	0.08	500	1.65	N/A	No	No	No	N/A	N/A
MW-19	Alluvial	05/21/2025	66.32	65.92	0.40	46.32	65.32	43.70	43.73	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-20-070	Alluvial	04/08/2025	69.69	68.38	1.31	49.69	69.69	44.31	44.35	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-20-070	Alluvial	05/07/2025	69.69	68.40	1.29	49.69	69.69	43.69	43.72	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-20-070	Alluvial	06/11/2025	69.69	68.40	1.29	49.69	69.69	43.70	44.00	0.30	500	0.44	No	No	No	No	N/A	N/A
MW-20-100	Alluvial	04/08/2025	100.49	98.08	2.41	88.59	98.59	44.63	44.66	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-20-100	Alluvial	05/07/2025	100.49	98.08	2.41	88.59	98.59	43.92	43.96	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-20-100	Alluvial	06/11/2025	100.49	98.40	2.09	88.59	98.59	43.99	44.02	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-20-130	Alluvial	04/08/2025	131.49	129.55	1.94	120.15	130.15	45.06	45.08	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-20-130	Alluvial	05/07/2025	131.49	129.55	1.94	120.15	130.15	44.44	44.47	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-20-130	Alluvial	06/10/2025	131.49	129.55	1.94	120.15	130.15	44.48	44.50	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-21	Alluvial	04/10/2025	58.95	58.29	0.66	38.45	58.45	49.39	50.13	0.74	100	0.04	No	Yes	No	No	High turbidity. Turbidity improved during subsequent sampling events.	N/A
MW-21	Alluvial	05/07/2025	58.95	58.36	0.59	38.45	58.45	48.91	49.40	0.49	100	0.05	No	No	No	No	N/A	N/A
MW-21	Alluvial	06/12/2025	58.95	58.36	0.59	38.45	58.45	48.83	49.34	0.51	100	0.05	No	No	No	No	N/A	N/A
MW-22	Fluvial	05/22/2025	12.05	11.00	1.05	5.15	10.15	5.97	5.97	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-23-060	Bedrock	05/20/2025	62.68	60.25	2.43	49.68	59.68	49.50	49.54	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-23-080	Bedrock	05/20/2025	79.75	81.77	-2.02	74.75	79.75	49.00	49.04	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-24A	Alluvial	05/21/2025	129.91	127.23	2.68	106.43	126.43	111.14	111.14	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-24B	Alluvial	05/21/2025	216.85	213.60	3.25	195.01	215.01	109.81	109.81	0.00	500	N/A	No	Yes	No	No	High turbidity. Continue to monitor for consecutive high turbidity readings.	N/A
MW-24BR	Bedrock	05/22/2025	439.47	N/A	N/A	379.47	438.47	107.80	262.03	154.23	18,927	0.03	N/A	No	No	No	N/A	N/A
MW-25	Alluvial	05/21/2025	106.54	106.35	0.19	86.54	105.54	86.85	86.88	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-26	Alluvial	04/09/2025	70.82	69.02	1.80	50.82	70.82	46.37	54.37	8.00	300	0.01	No	Yes	No	No	Drawdown stabilized around 54.37 feet bTOC during purging after initial drop in water level. Continue to monitor for improved specific capacity next sampling event.	N/A
MW-26	Alluvial	05/08/2025	70.82	69.31	1.51	50.82	70.82	45.48	45.50	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-26	Alluvial	06/12/2025	70.82	69.33	1.49	50.82	70.82	45.24	45.25	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-27-020	Fluvial	05/05/2025	18.92	13.25	5.67	8.92	18.92	3.81	3.83	0.02	500	6.60	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because screened in fluvial sediments.	N/A
MW-27-060	Fluvial	05/05/2025	60.52	58.84	1.68	50.32	60.32	4.59	4.60	0.01	500	13.21	No	No	No	No	N/A	N/A
MW-27-085	Fluvial	05/05/2025	100.05	100.41	-0.36	80.05	90.05	4.46	4.48	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-28-025	Fluvial	05/19/2025	25.10	23.37	1.73	15.10	25.10	9.70	9.73	0.03	500	4.40	No	No	No	No	N/A	5/16/2023
MW-28-090	Fluvial	05/19/2025	101.46	97.70	3.76	73.10	93.10	10.80	10.83	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-29	Fluvial	05/28/2025	43.73	40.70	3.03	31.71	41.71	29.04	29.09	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-30-030R	Fluvial	05/06/2025	32.43	32.15	0.28	12.03	32.03	10.86	10.89	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-30-050	Fluvial	05/06/2025	55.01	50.05	4.96	42.41	52.41	9.90	9.92	0.02	300	3.96	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because screened in fluvial sediments.	N/A
MW-31-060	Alluvial	04/09/2025	65.71	61.38	4.33	43.21	63.21	38.70	38.72	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-31-060	Alluvial	05/13/2025	65.71	61.40	4.31	43.21	63.21	37.76	37.79	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-31-060	Alluvial	06/09/2025	65.71	61.42	4.29	43.21	63.21	38.38	38.70	0.32	300	0.25	No	No	No	No	N/A	N/A
MW-31-135	Alluvial	04/09/2025	133.16	130.02	3.14	112.86	132.86	40.03	40.04	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-31-135	Alluvial	05/07/2025	133.16	130.13	3.03	112.86	132.86	39.57	39.60	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-31-135	Alluvial	06/09/2025	133.16	130.15	3.01	112.86	132.86	39.38	39.01	-0.37	300	-0.21	No	No	No	No	N/A	N/A

Table 4.2
Monitoring Well Water Levels and Specific Capacities
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Well Screen Lithology	Sample Date	Constructed Well Depth (feet bTOC)	Measured Well Depth (feet bTOC)	Difference in Constructed and Measured Well Depth (feet)	Screen Start Depth (feet bTOC)	Screen End Depth (feet bTOC)	Pre-Purge Depth to Water (feet bTOC)	Post-Purge Depth to Water (feet bTOC)	Drawdown During Purging (feet)	Purging Rate (mL/min)	Specific Capacity (gpm/foot)	Measured Depth Covering Greater than 20% of screen?	Flagged for Evaluation	Planned for Resurvey	Planned for Redevelopment	Notes	Date of Last Redevelopment
MW-32-020	Fluvial	05/22/2025	22.41	19.24	3.17	12.41	22.41	7.57	7.57	0.00	500	N/A	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because screened in fluvial sediments. Specific capacity indicates good yield because drawdown did not occur during purging.	N/A
MW-32-035	Fluvial	05/22/2025	39.58	37.00	2.58	29.93	37.43	7.35	5.87	-1.48	500	-0.09	No	No	No	No	N/A	N/A
MW-33-040	Fluvial	05/29/2025	44.64	40.96	3.68	31.80	41.80	30.90	30.96	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-33-090	Alluvial	05/29/2025	91.83	88.15	3.68	71.83	91.11	30.81	30.89	0.08	500	1.65	No	No	No	No	N/A	N/A
MW-33-150	Alluvial	05/29/2025	158.15	155.04	3.11	134.77	154.77	31.37	31.43	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-33-210	Alluvial	05/29/2025	225.64	222.09	3.55	192.64	212.64	30.41	30.41	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-34-055	Fluvial	05/14/2025	58.81	56.80	2.01	47.21	57.21	4.14	4.15	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-34-080	Fluvial	05/14/2025	86.56	84.15	2.41	75.26	85.26	4.38	4.41	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-34-100	Fluvial	04/09/2025	116.44	115.72	0.72	91.44	101.44	4.99	5.02	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-34-100	Fluvial	05/08/2025	116.44	115.70	0.74	91.44	101.44	5.45	5.48	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-34-100	Fluvial	06/12/2025	116.44	115.72	0.72	91.44	101.44	5.01	5.05	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-35-060	Alluvial	05/20/2025	61.63	58.23	3.40	41.33	61.33	35.90	35.92	0.02	300	3.96	No	No	No	No	N/A	5/9/2023
MW-35-135	Alluvial	05/20/2025	158.98	154.40	4.58	116.28	136.28	24.90	24.90	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-36-020	Fluvial	05/07/2025	23.08	22.40	0.68	12.78	22.78	13.13	13.15	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-36-040	Fluvial	05/07/2025	43.15	42.01	1.14	32.85	42.85	13.39	13.42	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-36-050	Fluvial	05/07/2025	55.79	52.95	2.84	48.79	53.79	13.33	13.34	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-36-070	Fluvial	05/07/2025	73.02	72.28	0.74	62.72	72.72	13.91	13.94	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-36-090	Fluvial	05/07/2025	93.34	92.36	0.98	83.04	93.04	13.76	13.78	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-36-100	Fluvial	04/08/2025	111.36	109.71	1.65	91.36	101.36	13.94	13.95	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-36-100	Fluvial	05/07/2025	111.36	109.75	1.61	91.36	101.36	13.91	13.93	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-36-100	Fluvial	06/10/2025	111.36	109.71	1.65	91.36	101.36	14.00	14.02	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-37D	Alluvial	05/28/2025	229.21	225.90	3.31	182.49	202.49	30.50	30.53	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-37S	Alluvial	05/28/2025	87.47	86.75	0.72	66.47	86.47	30.35	30.36	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-38D	Alluvial	05/22/2025	186.58	184.85	1.73	166.28	186.28	70.43	70.46	0.03	300	2.64	No	No	No	No	N/A	8/19/2022
MW-38S	Alluvial	05/22/2025	97.77	97.10	0.67	77.47	97.47	68.92	68.96	0.04	300	1.98	No	No	No	No	N/A	7/25/2022
MW-39-040	Alluvial	05/06/2025	43.33	37.40	5.93	33.03	43.03	11.55	11.57	0.02	300	3.96	Yes	Yes	No	No	Second Quarter 2023 redevelopment with Waterra pump did not improve siltation. Well will not be considered for future redevelopment.	5/14/2023
MW-39-050	Alluvial	05/06/2025	57.43	54.34	3.09	49.83	54.83	11.63	11.64	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-39-060	Alluvial	05/06/2025	69.00	59.81	9.19	51.70	61.70	11.86	11.87	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-39-070	Alluvial	04/08/2025	74.51	71.23	3.28	62.82	72.82	12.80	12.81	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-39-070	Alluvial	05/06/2025	74.51	71.34	3.17	62.82	72.82	12.25	12.27	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-39-070	Alluvial	06/11/2025	74.51	71.37	3.14	62.82	72.82	12.35	12.38	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-39-080	Alluvial	04/08/2025	85.37	81.92	3.45	72.82	82.82	12.70	12.70	0.00	400	N/A	No	No	No	No	N/A	N/A
MW-39-080	Alluvial	05/06/2025	85.37	81.95	3.42	72.82	82.82	12.15	12.16	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-39-080	Alluvial	06/10/2025	85.37	81.92	3.45	72.82	82.82	12.46	12.49	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-39-100	Alluvial	04/08/2025	120.53	102.50	18.03	82.82	102.82	12.84	12.84	0.00	300	N/A	No	Yes	No	No	Measured well depth likely erroneous based on previous sampling events. Continue to monitor for potential siltation.	N/A
MW-39-100	Alluvial	05/06/2025	120.53	116.36	4.17	82.82	102.82	12.34	12.35	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-39-100	Alluvial	06/10/2025	120.53	116.34	4.19	82.82	102.82	12.56	12.59	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-40D	Alluvial	06/11/2025	265.58	265.51	0.07	239.58	259.58	110.58	110.63	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-40S	Alluvial	06/11/2025	135.04	133.79	1.25	114.74	134.74	109.93	109.99	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-41D	Alluvial	05/29/2025	314.04	311.00	3.04	273.54	293.54	23.53	23.55	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-41M	Alluvial	05/29/2025	192.78	192.20	0.58	172.78	192.78	23.71	23.74	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-41S	Alluvial	05/29/2025	62.66	61.38	1.28	42.66	62.66	23.70	23.73	0.03	500	4.40	No	Yes	No	No	High turbidity. Continue to monitor for consecutive high turbidity readings.	N/A
MW-42-030	Fluvial	05/21/2025	32.55	30.90	1.65	12.25	32.25	9.47	9.47	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-42-055	Fluvial	05/21/2025	55.29	55.10	0.19	44.99	54.99	9.87	9.87	0.00	500	N/A	No	No	No	No	N/A	N/A

Table 4.2
Monitoring Well Water Levels and Specific Capacities
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Well Screen Lithology	Sample Date	Constructed Well Depth (feet bTOC)	Measured Well Depth (feet bTOC)	Difference in Constructed and Measured Well Depth (feet)	Screen Start Depth (feet bTOC)	Screen End Depth (feet bTOC)	Pre-Purge Depth to Water (feet bTOC)	Post-Purge Depth to Water (feet bTOC)	Drawdown During Purging (feet)	Purging Rate (mL/min)	Specific Capacity (gpm/foot)	Measured Depth Covering Greater than 20% of screen?	Flagged for Evaluation	Planned for Resurvey	Planned for Redevelopment	Notes	Date of Last Redevelopment
MW-42-065	Fluvial	05/21/2025	83.47	68.10	15.37	58.47	68.47	8.87	8.87	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-43-025	Fluvial	04/07/2025	27.52	26.50	1.02	17.52	27.52	5.97	6.00	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-43-075	Fluvial	04/07/2025	77.79	77.51	0.28	67.79	77.79	6.24	6.27	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-43-090	Fluvial	04/07/2025	99.82	102.66	-2.84	82.82	92.82	6.50	6.52	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-44-070	Fluvial	05/09/2025	72.10	72.30	-0.20	62.10	72.10	15.92	15.95	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-44-115	Alluvial	04/09/2025	114.52	114.45	0.07	106.52	114.52	16.29	16.32	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-44-115	Alluvial	05/09/2025	114.52	114.40	0.12	106.52	114.52	16.60	16.62	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-44-115	Alluvial	06/12/2025	114.52	114.37	0.15	106.52	114.52	16.50	16.53	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-44-125	Alluvial	04/09/2025	130.35	128.75	1.60	117.55	126.55	16.26	16.28	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-44-125	Alluvial	05/09/2025	130.35	128.60	1.75	117.55	126.55	16.31	16.33	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-44-125	Alluvial	06/12/2025	130.35	128.57	1.78	117.55	126.55	16.18	16.20	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-46-175	Alluvial	04/09/2025	176.84	176.01	0.83	166.34	176.34	27.05	27.08	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-46-175	Alluvial	05/08/2025	176.84	176.01	0.83	166.34	176.34	27.26	27.28	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-46-175	Alluvial	06/12/2025	176.84	176.10	0.74	166.34	176.34	26.99	27.02	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-46-205	Alluvial	05/14/2025	209.49	218.70	-9.21	199.49	209.49	27.29	27.33	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-47-055	Alluvial	05/21/2025	56.94	56.40	0.54	46.94	56.94	27.81	27.85	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-47-115	Alluvial	05/21/2025	116.58	115.52	1.06	106.58	116.58	28.25	28.27	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-48	Bedrock	05/29/2025	139.81	126.47	13.34	125.81	135.81	32.50	32.54	0.04	300	1.98	Yes	Yes	No	No	Siltation. Not recommended for redevelopment given it is a bedrock well and specific capacity indicates good yield.	N/A
MW-49-135	Alluvial	05/28/2025	136.52	136.32	0.20	126.52	136.52	28.51	28.55	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-49-275	Alluvial	05/28/2025	276.45	274.70	1.75	256.45	276.45	29.24	29.30	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-49-365	Alluvial	05/28/2025	368.86	367.35	1.51	347.51	367.51	30.72	30.81	0.09	500	1.47	No	No	No	No	N/A	N/A
MW-50-095	Alluvial	05/21/2025	97.16	96.40	0.76	87.16	97.16	40.40	40.45	0.05	300	1.59	No	No	No	No	N/A	N/A
MW-50-200	Alluvial	05/21/2025	206.53	203.57	2.96	192.03	202.03	40.70	40.74	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-51	Alluvial	04/09/2025	112.94	112.96	-0.02	96.69	111.69	45.46	45.46	0.00	400	N/A	No	No	No	No	N/A	N/A
MW-51	Alluvial	05/08/2025	112.94	113.02	-0.08	96.69	111.69	44.95	44.96	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-51	Alluvial	06/12/2025	112.94	113.05	-0.11	96.69	111.69	44.90	44.83	-0.07	300	-1.13	No	No	No	No	N/A	N/A
MW-54-085	Fluvial	05/20/2025	92.91	86.08	6.83	76.71	86.71	9.69	9.70	0.01	500	13.21	No	No	No	No	N/A	N/A
MW-54-140	Fluvial	05/20/2025	137.59	135.80	1.79	127.59	137.59	9.81	9.81	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-54-195	Fluvial	05/20/2025	195.04	192.00	3.04	185.04	195.04	9.64	9.66	0.02	500	6.60	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because screened in fluvial sediments.	N/A
MW-55-045	Fluvial	05/15/2025	56.14	49.18	6.96	39.09	49.09	9.22	9.25	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-55-120	Fluvial	05/15/2025	122.14	120.56	1.58	109.89	119.89	9.26	9.28	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-56D	Fluvial	05/14/2025	N/A	105.50	N/A	104.93	106.93	8.51	8.53	0.02	500	6.60	N/A	No	No	No	N/A	N/A
MW-56M	Fluvial	05/14/2025	N/A	75.50	N/A	74.93	76.93	9.08	9.11	0.03	500	4.40	N/A	No	No	No	N/A	N/A
MW-56S	Fluvial	05/14/2025	N/A	35.50	N/A	34.93	36.93	9.80	9.82	0.02	500	6.60	N/A	No	No	No	N/A	N/A
MW-57-070	Bedrock	05/09/2025	70.40	68.50	1.90	55.40	70.40	53.35	52.37	-0.98	300	-0.08	No	No	No	No	N/A	N/A
MW-57-185	Bedrock	05/09/2025	184.70	180.84	3.86	70.00	184.00	52.41	52.43	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-58BR	Bedrock	05/15/2025	209.13	204.20	4.93	69.13	209.13	67.08	67.10	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-59-100	Alluvial	05/21/2025	100.71	100.73	-0.02	85.71	100.71	82.45	82.45	0.00	300	N/A	No	No	No	No	N/A	10/18/2024
MW-60-125	Bedrock	05/29/2025	122.69	121.83	0.86	102.69	122.69	99.10	99.14	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-60BR-245	Bedrock	05/29/2025	244.09	244.01	0.08	135.09	244.09	98.85	98.88	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-61-110	Bedrock	05/29/2025	110.81	112.03	-1.22	90.81	110.81	87.10	87.12	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-62-065	Bedrock	05/09/2025	67.40	63.70	3.70	44.50	64.50	47.92	47.96	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-63-065	Bedrock	05/14/2025	65.47	63.20	2.27	45.47	65.47	48.32	48.34	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-64BR	Bedrock	05/29/2025	260.02	258.00	2.02	2.02	258.02	119.11	119.13	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-65-160	Alluvial	05/22/2025	159.70	160.43	-0.73	149.60	159.60	140.56	140.62	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-65-225	Alluvial	05/22/2025	224.68	225.37	-0.69	214.59	224.59	140.40	140.48	0.08	500	1.65	No	No	No	No	N/A	N/A
MW-66-165	Alluvial	05/22/2025	161.25	160.94	0.31	141.25	161.25	130.11	130.19	0.08	500	1.65	No	No	No	No	N/A	N/A
MW-66-230	Alluvial	05/22/2025	227.31	227.05	0.26	217.31	227.31	130.51	130.60	0.09	500	1.47	No	No	No	No	N/A	N/A
MW-66BR-270	Bedrock	05/27/2025	270.65	N/A	N/A	247.65	270.65	132.99	159.22	26.23	18,927	0.19	N/A	No	No	No	N/A	N/A
MW-67-185	Alluvial	05/21/2025	186.73	186.70	0.03	176.73	186.73	169.84	169.88	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-67-225	Alluvial	05/21/2025	224.52	225.17	-0.65	209.52	224.52	169.76	169.80	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-67-260	Alluvial	05/21/2025	259.50	260.15	-0.65	249.50	259.50	169.83	169.88	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-68-180	Alluvial	05/21/2025	179.68	180.02	-0.34	164.59	179.59	164.95	164.80	-0.15	500	-0.88	No	No	No	No	N/A	N/A
MW-68-240	Alluvial	05/21/2025	239.63	239.93	-0.30	219.63	239.63	165.17	165.25	0.08	500	1.65	No	No	No	No	N/A	N/A
MW-68BR-280	Bedrock	05/21/2025	278.27	N/A	N/A	256.27	278.27	163.60	228.26	64.66	379	0.00	N/A	No	No	No	N/A	N/A

Table 4.2
Monitoring Well Water Levels and Specific Capacities
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Well Screen Lithology	Sample Date	Constructed Well Depth (feet bTOC)	Measured Well Depth (feet bTOC)	Difference in Constructed and Measured Well Depth (feet)	Screen Start Depth (feet bTOC)	Screen End Depth (feet bTOC)	Pre-Purge Depth to Water (feet bTOC)	Post-Purge Depth to Water (feet bTOC)	Drawdown During Purging (feet)	Purging Rate (mL/min)	Specific Capacity (gpm/foot)	Measured Depth Covering Greater than 20% of screen?	Flagged for Evaluation	Planned for Resurvey	Planned for Redevelopment	Notes	Date of Last Redevelopment
MW-69-195	Bedrock	05/22/2025	195.27	195.61	-0.34	175.27	195.27	174.81	174.88	0.07	500	1.89	No	Yes	No	No	Consecutive high turbidity readings. Not recommended for redevelopment given it is a bedrock well that does not have siltation and specific capacity indicates good yield.	N/A
MW-70-105	Bedrock	05/15/2025	107.87	105.40	2.47	84.87	104.87	81.51	81.56	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-70BR-225	Bedrock	05/15/2025	228.89	221.52	7.37	119.61	226.61	80.61	80.69	0.08	500	1.65	No	No	No	No	N/A	5/7/2022
MW-70BR-287	Bedrock	05/15/2025	286.98	285.20	1.78	239.98	286.98	81.97	82.03	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-71-035	Bedrock	04/10/2025	35.90	35.57	0.33	25.70	35.70	27.95	28.62	0.67	100	0.04	No	Yes	No	No	High turbidity. Continue to monitor for consecutive high turbidity readings.	N/A
MW-71-035	Bedrock	05/07/2025	35.90	35.59	0.31	25.70	35.70	27.60	28.10	0.50	100	0.05	No	Yes	No	No	High turbidity. Turbidity improved during subsequent sampling event.	N/A
MW-71-035	Bedrock	06/11/2025	35.90	35.30	0.60	25.70	35.70	27.22	28.05	0.83	100	0.03	No	No	No	No	N/A	N/A
MW-72-080	Bedrock	05/29/2025	79.88	79.12	0.76	59.79	79.79	57.22	57.24	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-72BR-200	Bedrock	05/29/2025	199.29	200.00	-0.71	106.29	199.29	57.12	57.14	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-73-080	Bedrock	05/29/2025	80.02	79.66	0.36	59.52	79.52	50.12	50.15	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-74-240	Bedrock	05/22/2025	239.44	240.65	-1.21	219.44	239.44	215.81	216.05	0.24	200	0.22	No	No	No	No	N/A	N/A
MW-75-033	Alluvial	05/08/2025	35.48	34.79	0.69	18.08	33.08	17.28	17.30	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-75-117	Alluvial	05/08/2025	119.45	118.10	1.35	97.15	117.15	17.52	17.55	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-75-202	Alluvial	05/08/2025	204.49	204.30	0.19	182.49	202.49	17.65	17.68	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-75-267	Alluvial	05/08/2025	269.50	268.55	0.95	247.20	267.20	17.40	17.42	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-75-337	Alluvial	05/08/2025	339.79	338.40	1.39	317.49	337.49	20.00	20.02	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-76-039	Alluvial	04/07/2025	39.10	38.61	0.49	23.60	38.60	25.17	25.20	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-76-039	Alluvial	05/05/2025	39.10	38.65	0.45	23.60	38.60	24.91	24.94	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-76-039	Alluvial	06/11/2025	39.10	36.70	2.40	23.60	38.60	24.93	24.97	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-76-156	Alluvial	04/07/2025	158.01	157.03	0.98	135.71	155.71	25.65	25.66	0.01	400	10.57	No	No	No	No	N/A	N/A
MW-76-156	Alluvial	05/05/2025	158.01	157.05	0.96	135.71	155.71	25.21	25.23	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-76-156	Alluvial	06/11/2025	158.01	157.01	1.00	135.71	155.71	24.80	24.82	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-76-181	Alluvial	04/07/2025	183.12	182.70	0.42	170.82	180.82	25.85	25.87	0.02	400	5.28	No	No	No	No	N/A	N/A
MW-76-181	Alluvial	05/05/2025	183.12	182.76	0.36	170.82	180.82	24.78	24.80	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-76-181	Alluvial	06/11/2025	183.12	182.80	0.32	170.82	180.82	24.68	24.74	0.06	300	1.32	No	No	No	No	N/A	N/A
MW-76-218	Alluvial	04/07/2025	220.05	219.72	0.33	197.75	217.75	25.26	25.27	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-76-218	Alluvial	05/05/2025	220.05	219.75	0.30	197.75	217.75	24.75	24.76	0.01	400	10.57	No	No	No	No	N/A	N/A
MW-76-218	Alluvial	06/11/2025	220.05	219.80	0.25	197.75	217.75	24.80	24.86	0.06	300	1.32	No	No	No	No	N/A	N/A
MW-77-046	Alluvial	05/13/2025	48.15	40.00	8.15	25.85	45.85	22.23	22.26	0.03	300	2.64	Yes	Yes	No	No	Siltation. Redevelopment occurred in October 2024. Minimal drawdown occurred during purging. Continue to monitor.	10/16/2024
MW-77-102	Alluvial	05/13/2025	104.21	104.22	-0.01	81.91	101.91	22.61	22.66	0.05	400	2.11	No	No	No	No	N/A	N/A
MW-77-158	Alluvial	05/13/2025	160.14	160.00	0.14	137.64	157.74	22.42	22.44	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-77-187	Alluvial	04/09/2025	189.21	188.93	0.28	166.71	186.81	25.54	25.56	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-77-187	Alluvial	05/13/2025	189.21	188.75	0.46	166.71	186.81	22.45	22.49	0.04	400	2.64	No	No	No	No	N/A	N/A
MW-77-187	Alluvial	06/09/2025	189.21	188.70	0.51	166.71	186.81	22.75	22.78	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-78-070	Alluvial	04/10/2025	71.85	71.84	0.01	49.55	69.55	46.10	46.12	0.02	400	5.28	No	No	No	No	N/A	N/A
MW-78-070	Alluvial	05/08/2025	71.85	71.88	-0.03	49.55	69.55	45.52	45.53	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-78-070	Alluvial	06/11/2025	71.85	71.90	-0.05	49.55	69.55	45.25	45.28	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-78-142	Alluvial	04/10/2025	141.76	142.02	-0.26	121.46	141.46	46.47	46.48	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-78-142	Alluvial	05/08/2025	141.76	142.05	-0.29	121.46	141.46	45.80	45.82	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-78-142	Alluvial	06/11/2025	141.76	142.08	-0.32	121.46	141.46	45.66	45.68	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-79-058	Alluvial	04/10/2025	60.05	60.10	-0.05	47.55	57.55	45.18	45.21	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-79-058	Alluvial	05/08/2025	60.05	60.49	-0.44	47.55	57.55	44.60	44.63	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-79-058	Alluvial	06/12/2025	60.05	60.51	-0.46	47.55	57.55	44.40	44.43	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-79-102	Alluvial	04/10/2025	104.23	104.20	0.03	91.43	101.43	45.21	45.21	0.00	400	N/A	No	No	No	No	N/A	N/A
MW-79-102	Alluvial	05/08/2025	104.23	104.31	-0.08	91.43	101.43	44.47	44.49	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-79-102	Alluvial	06/12/2025	104.23	104.35	-0.12	91.43	101.43	44.40	44.43	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-80-057	Alluvial	04/10/2025	59.46	59.00	0.46	46.96	56.96	47.54	47.56	0.02	300	3.96	No	No	No	No	N/A	N/A

Table 4.2
Monitoring Well Water Levels and Specific Capacities
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

Well ID	Well Screen Lithology	Sample Date	Constructed Well Depth (feet bTOC)	Measured Well Depth (feet bTOC)	Difference in Constructed and Measured Well Depth (feet)	Screen Start Depth (feet bTOC)	Screen End Depth (feet bTOC)	Pre-Purge Depth to Water (feet bTOC)	Post-Purge Depth to Water (feet bTOC)	Drawdown During Purging (feet)	Purging Rate (mL/min)	Specific Capacity (gpm/foot)	Measured Depth Covering Greater than 20% of screen?	Flagged for Evaluation	Planned for Resurvey	Planned for Redevelopment	Notes	Date of Last Redevelopment
MW-80-057	Alluvial	05/08/2025	59.46	59.08	0.38	46.96	56.96	47.00	47.04	0.04	500	3.30	No	Yes	No	No	High turbidity. Turbidity improved during subsequent sampling event. Continue to monitor.	N/A
MW-80-057	Alluvial	06/12/2025	59.46	59.10	0.36	46.96	56.96	46.65	46.66	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-80-082	Alluvial	04/10/2025	84.00	83.73	0.27	66.50	81.50	47.61	47.64	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-80-082	Alluvial	05/08/2025	84.00	83.85	0.15	66.50	81.50	46.83	46.86	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-80-082	Alluvial	06/12/2025	84.00	83.89	0.11	66.50	81.50	46.71	46.74	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-81-043	Alluvial	04/08/2025	44.73	42.90	1.83	22.43	42.43	22.20	22.21	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-81-043	Alluvial	05/07/2025	44.73	42.93	1.80	22.43	42.43	22.00	22.02	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-81-043	Alluvial	06/09/2025	44.73	44.59	0.14	22.43	42.43	21.94	21.97	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-81-098	Alluvial	04/08/2025	99.82	99.25	0.57	77.52	97.52	22.56	22.57	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-81-098	Alluvial	05/07/2025	99.82	91.52	8.30	77.52	97.52	22.10	22.11	0.01	300	7.93	Yes	Yes	No	No	Siltation. Minimal drawdown occurred during purging and specific capacity indicates good yield. Continue to monitor.	N/A
MW-81-098	Alluvial	06/09/2025	99.82	99.38	0.44	77.52	97.52	21.84	21.88	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-82-046	Alluvial	05/06/2025	48.87	45.91	2.96	26.57	46.57	28.92	28.95	0.03	500	4.40	No	Yes	No	No	High turbidity. Continue to monitor for consecutive high turbidity readings.	5/11/2023
MW-82-112	Alluvial	05/06/2025	114.78	114.16	0.62	92.48	112.48	27.85	27.88	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-82-168	Alluvial	05/06/2025	170.34	169.77	0.57	148.04	168.04	27.11	27.13	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-82-198	Alluvial	05/06/2025	200.25	199.44	0.81	177.95	197.95	27.03	27.05	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-83-090	Alluvial	05/28/2025	91.59	91.84	-0.25	69.29	89.29	72.97	73.00	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-83-180	Alluvial	05/28/2025	181.18	181.60	-0.42	159.18	179.18	73.03	73.06	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-83-225	Alluvial	05/28/2025	227.55	224.74	2.81	205.15	225.15	74.02	74.07	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-83-245	Alluvial	05/28/2025	247.40	246.11	1.29	235.00	245.00	72.94	72.97	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-84-057	Alluvial	05/28/2025	59.38	58.15	1.23	41.98	56.98	44.59	44.61	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-84-095	Alluvial	05/28/2025	97.32	93.05	4.27	74.92	94.92	44.46	44.48	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-84-132	Alluvial	05/28/2025	134.39	134.10	0.29	111.99	131.99	45.10	45.16	0.06	300	1.32	No	No	No	No	N/A	N/A
MW-84-193	Alluvial	05/28/2025	195.41	194.40	1.01	173.11	193.11	45.17	45.17	0.00	300	N/A	No	No	No	No	N/A	N/A
MW-85-129	Alluvial	05/28/2025	131.13	131.22	-0.09	113.63	128.83	113.72	113.75	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-85-217	Alluvial	05/28/2025	218.70	217.40	1.30	196.40	216.40	113.24	113.28	0.04	500	3.30	No	No	No	No	N/A	N/A
MW-85-237	Alluvial	05/28/2025	238.84	238.00	0.84	226.54	236.54	113.57	113.60	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-86-030	Alluvial	05/15/2025	34.51	31.68	2.83	12.21	32.21	12.14	12.16	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-86-066	Alluvial	05/15/2025	70.40	69.28	1.12	48.10	69.28	12.16	12.17	0.01	300	7.93	No	No	No	No	N/A	N/A
MW-86-120	Alluvial	05/15/2025	124.67	123.30	1.37	102.37	122.37	13.26	13.26	0.00	300	N/A	No	No	No	No	N/A	N/A
MW-86-140	Alluvial	05/15/2025	144.53	143.24	1.29	132.23	142.23	13.20	13.25	0.05	300	1.59	No	No	No	No	N/A	N/A
MW-87-109	Alluvial	05/16/2025	111.14	110.77	0.37	88.84	108.84	90.87	90.93	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-87-139	Alluvial	05/16/2025	141.24	140.91	0.33	118.84	138.84	90.82	90.88	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-87-192	Alluvial	05/16/2025	194.21	193.13	1.08	171.91	191.91	91.22	91.25	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-87-275	Bedrock	05/16/2025	277.06	276.17	0.89	254.76	274.76	91.18	91.20	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-88-107	Bedrock	05/22/2025	109.06	108.85	0.21	86.76	106.76	90.35	90.38	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-89-183	Alluvial	06/11/2025	185.42	185.19	0.23	163.02	183.02	131.31	131.33	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-89-273	Alluvial	06/11/2025	275.56	274.70	0.86	253.16	273.16	131.32	131.35	0.03	500	4.40	No	Yes	No	No	Consecutive high turbidity readings. Not recommended for redevelopment given measured well depth and specific capacity indicates good yield.	N/A
MW-90-031	Alluvial	05/22/2025	33.60	31.30	2.30	21.30	31.30	5.87	5.87	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-91-045	Fluvial	05/20/2025	46.51	46.90	-0.39	24.21	44.21	8.56	8.56	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-91-120	Alluvial	05/20/2025	122.00	122.00	0.00	99.70	119.70	9.17	9.17	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-91-170	Alluvial	05/20/2025	173.14	172.63	0.51	150.74	170.74	9.24	9.24	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-91-320	Alluvial	05/20/2025	323.05	321.50	1.55	300.65	320.65	6.51	6.51	0.00	500	N/A	No	No	No	No	N/A	N/A
MW-92-037	Fluvial	05/20/2025	40.96	40.58	0.38	18.56	38.56	5.11	5.13	0.02	500	6.60	No	No	No	No	N/A	N/A
MW-92-072	Fluvial	05/20/2025	75.93	75.50	0.43	53.53	73.53	5.12	5.15	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-92-102	Fluvial	05/20/2025	106.72	106.59	0.13	84.42	104.42	5.49	5.50	0.01	500	13.21	No	No	No	No	N/A	N/A
MW-92-122	Bedrock	05/20/2025	126.64	126.02	0.62	114.34	124.34	5.82	5.85	0.03	500	4.40	No	No	No	No	N/A	N/A
MW-93-050	Alluvial	05/14/2025	51.90	51.65	0.25	29.60	49.60	30.26	30.28	0.02	300	3.96	No	No	No	No	N/A	N/A
MW-93-213	Alluvial	05/14/2025	214.82	214.53	0.29	192.52	212.52	30.51	30.55	0.04	300	1.98	No	No	No	No	N/A	N/A

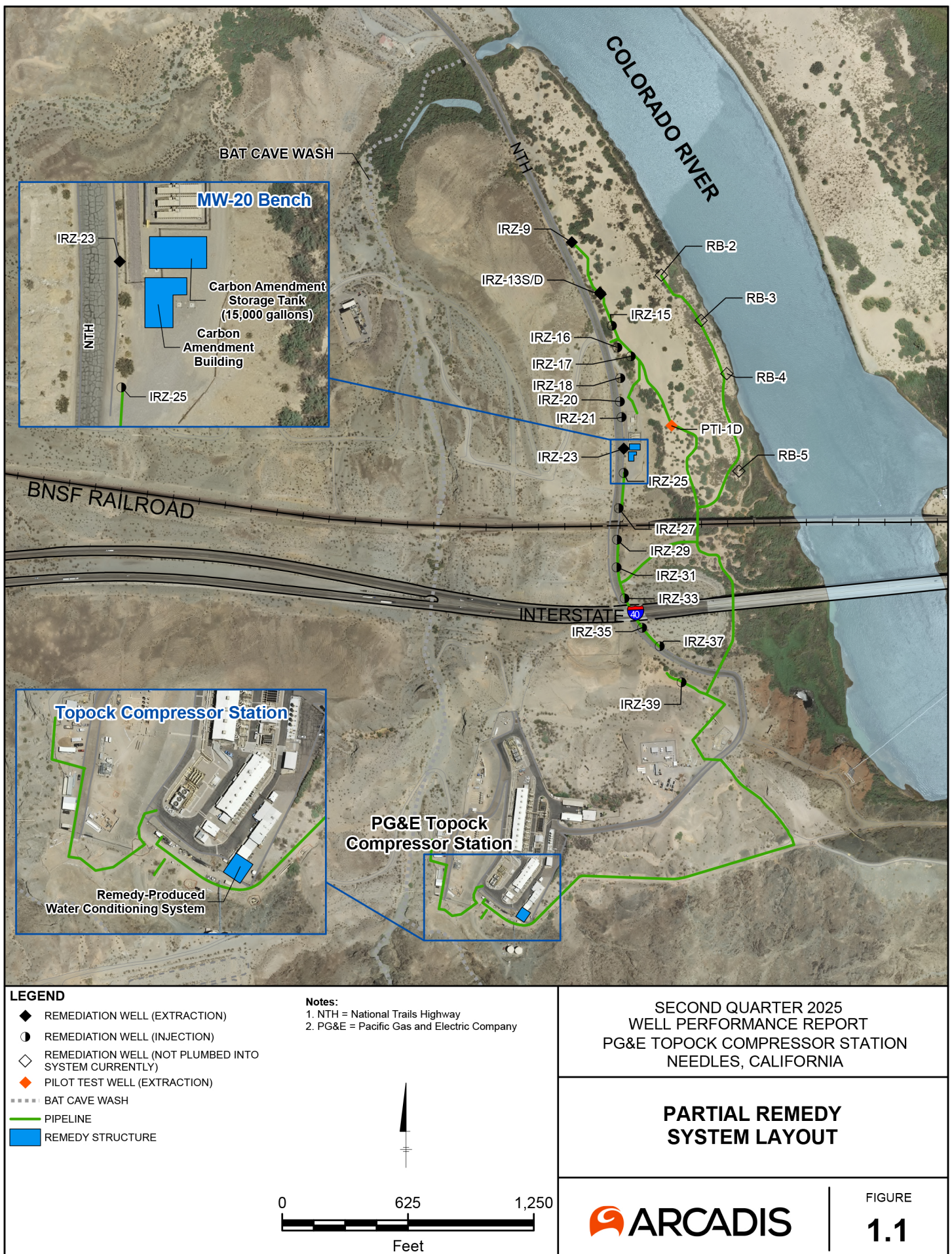
Table 4.2
Monitoring Well Water Levels and Specific Capacities
Second Quarter 2025 Well Performance Report
Pacific Gas and Electric Company, Topock Compressor Station, Needles, California

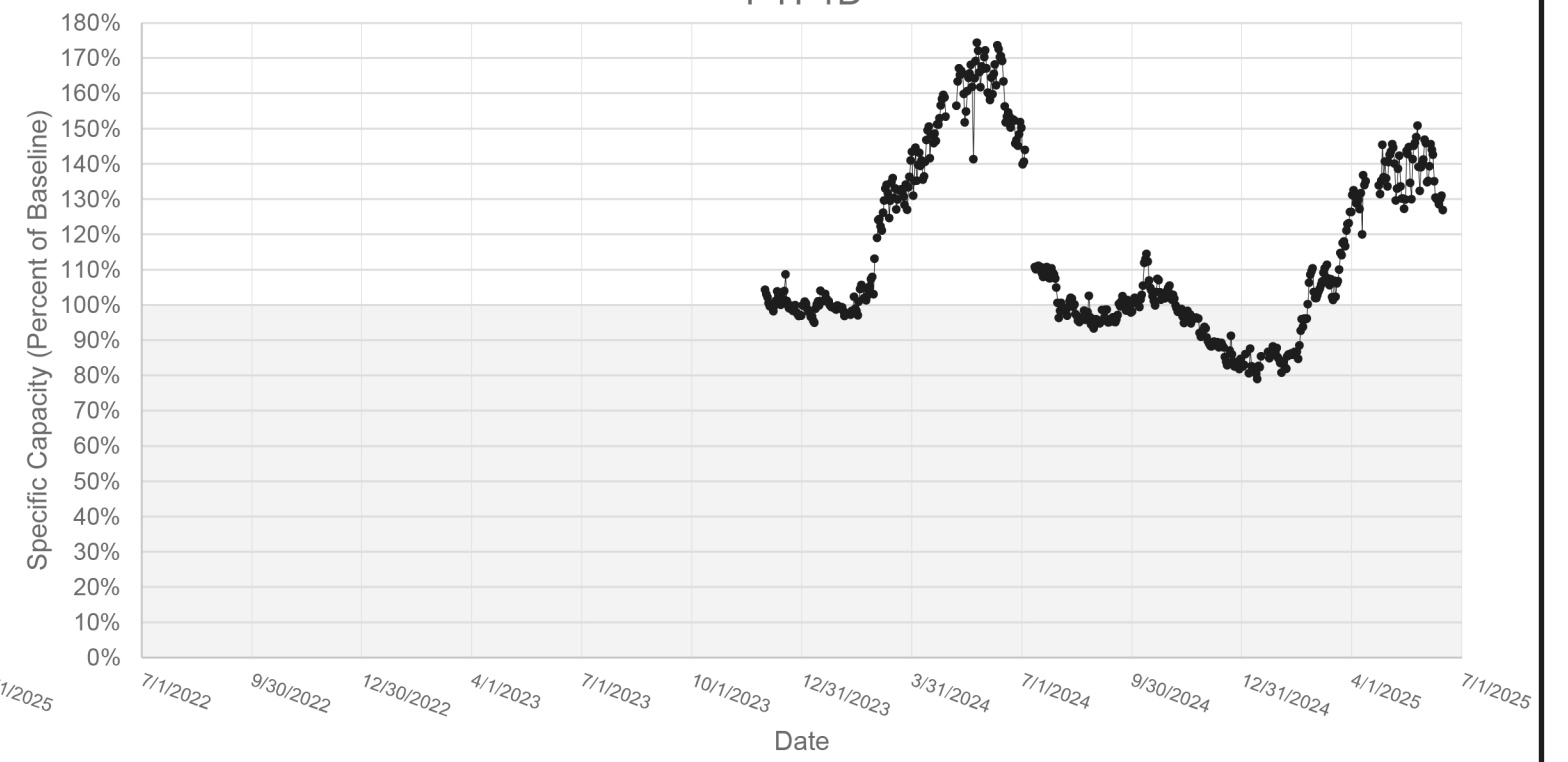
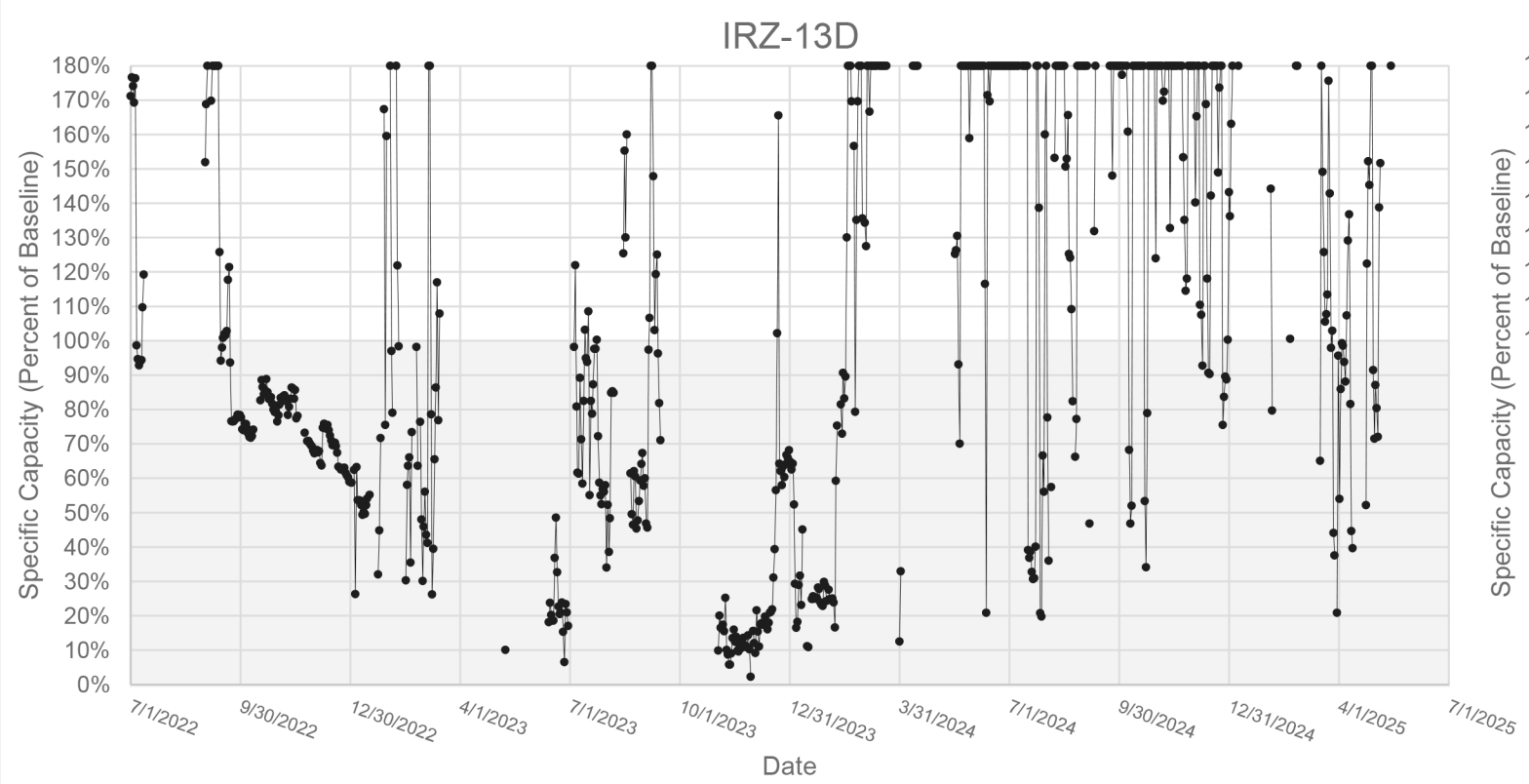
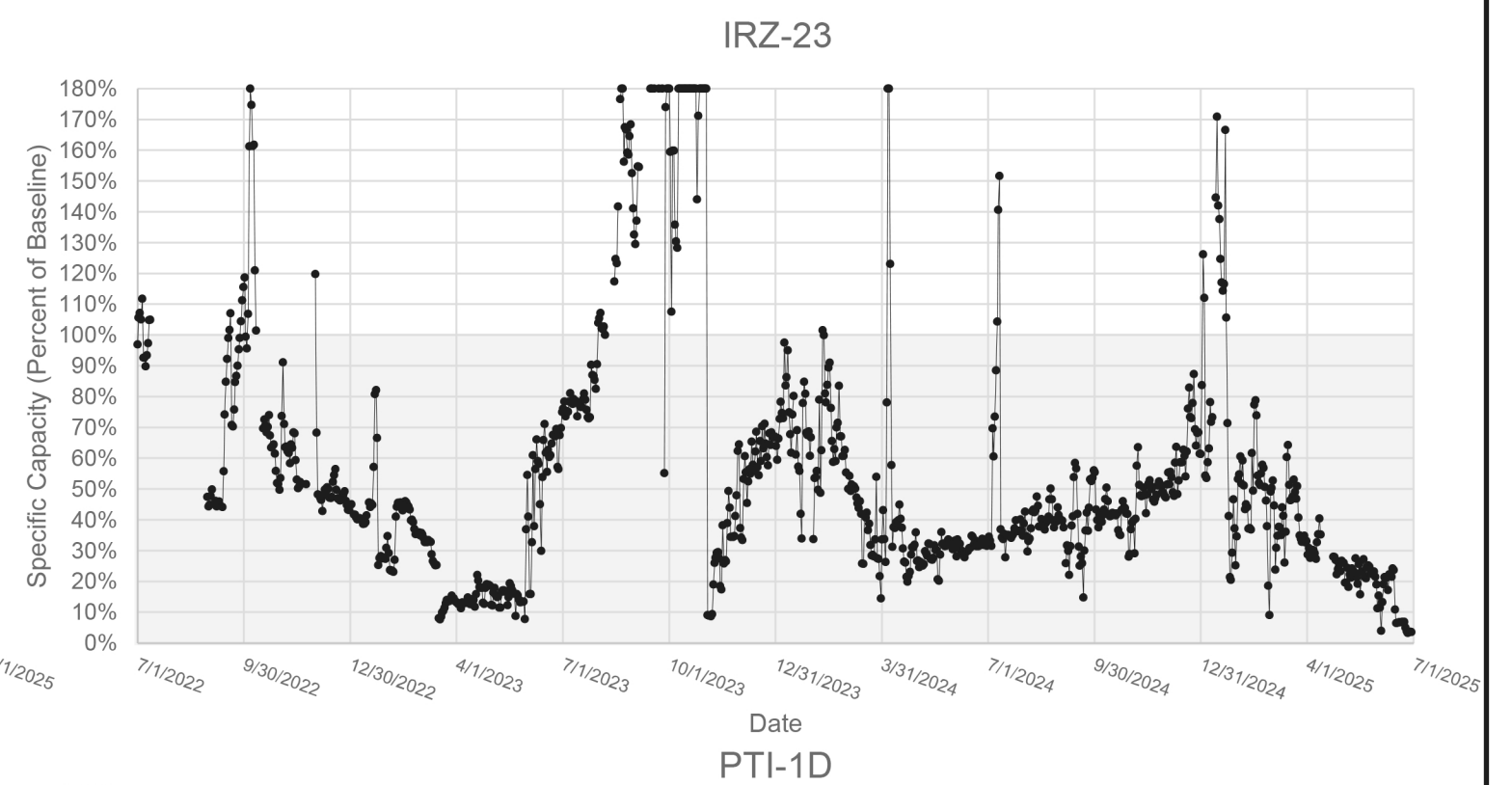
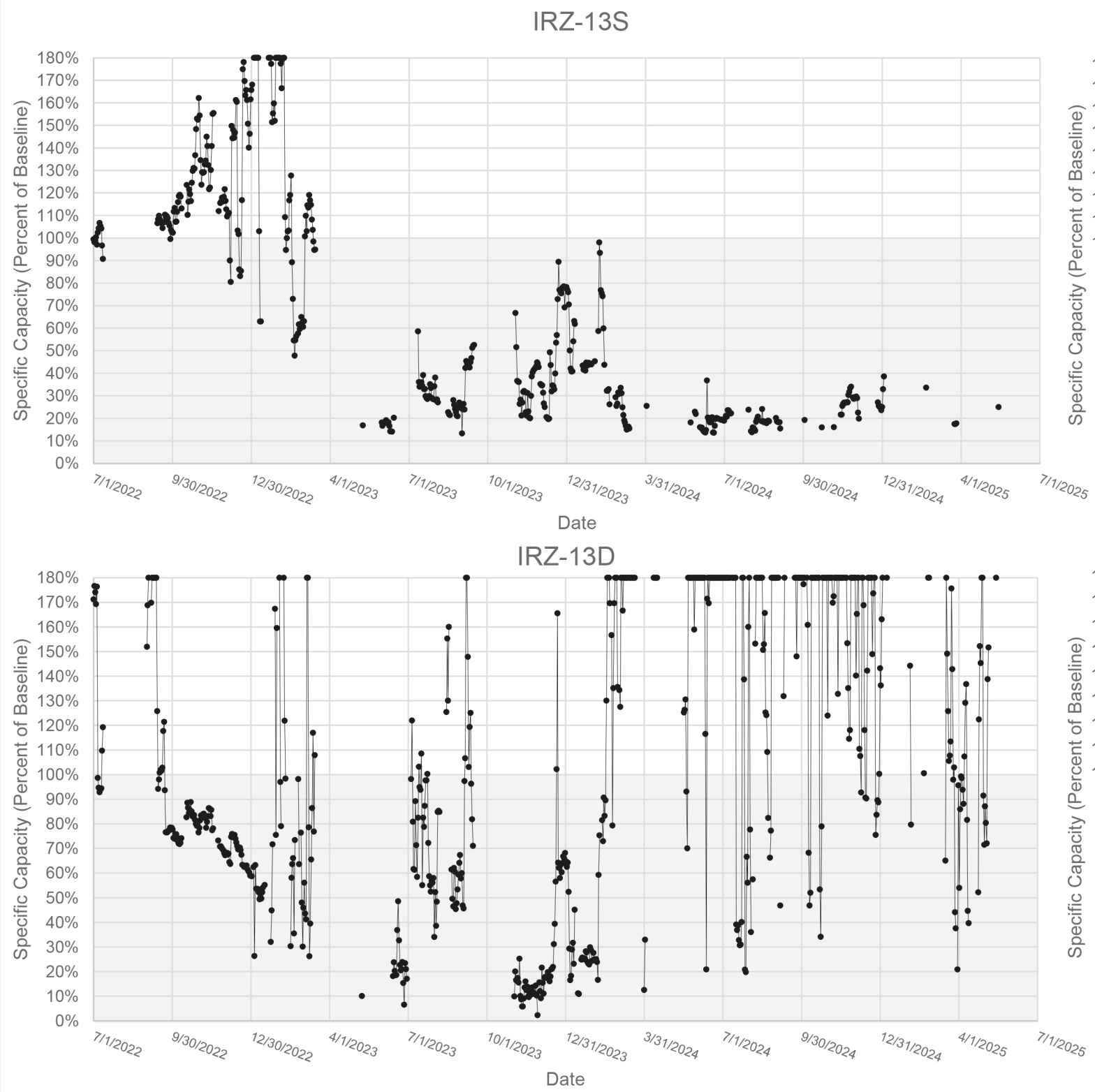
Well ID	Well Screen Lithology	Sample Date	Constructed Well Depth (feet bTOC)	Measured Well Depth (feet bTOC)	Difference in Constructed and Measured Well Depth (feet)	Screen Start Depth (feet bTOC)	Screen End Depth (feet bTOC)	Pre-Purge Depth to Water (feet bTOC)	Post-Purge Depth to Water (feet bTOC)	Drawdown During Purging (feet)	Purging Rate (mL/min)	Specific Capacity (gpm/foot)	Measured Depth Covering Greater than 20% of screen?	Flagged for Evaluation	Planned for Resurvey	Planned for Redevelopment	Notes	Date of Last Redevelopment
MW-95-113	Alluvial	05/29/2025	117.60	117.71	-0.11	95.30	115.30	97.43	97.49	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-95-157	Alluvial	05/29/2025	161.56	161.46	0.10	139.26	159.26	97.36	97.41	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-96-045	Alluvial	05/28/2025	47.52	46.81	0.71	25.22	45.22	27.92	27.98	0.06	500	2.20	No	No	No	No	N/A	N/A
MW-96-217	Alluvial	05/28/2025	219.33	218.62	0.71	197.03	217.03	28.60	28.65	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-97-042	Alluvial	05/13/2025	42.63	41.95	0.68	22.13	42.13	25.70	25.74	0.04	300	1.98	No	No	No	No	N/A	N/A
MW-97-202	Alluvial	05/13/2025	201.47	200.95	0.52	190.97	200.97	26.35	26.38	0.03	300	2.64	No	No	No	No	N/A	N/A
MW-98-055	Alluvial	05/27/2025	59.69	59.16	0.53	42.29	57.39	45.76	45.81	0.05	500	2.64	No	No	No	No	N/A	N/A
MW-98-077	Alluvial	05/27/2025	81.58	80.99	0.59	69.28	79.28	45.64	45.72	0.08	500	1.65	No	No	No	No	N/A	N/A
PGE-07BR	Bedrock	05/21/2025	333.14	N/A	N/A	252.14	303.14	109.82	N/A	N/A	37,854	N/A	N/A	No	No	No	N/A	N/A
PGE-08	Bedrock	05/19/2025	553.25	N/A	N/A	407.75	553.25	143.03	N/A	N/A	37,854	N/A	N/A	No	No	No	N/A	N/A
PT5D	Alluvial	04/09/2025	107.37	105.09	2.28	97.37	107.37	18.11	18.12	0.01	500	13.21	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because low turbidity was measured during sampling, minimal drawdown occurred, and specific capacity indicates good yield.	N/A
PT5D	Alluvial	05/07/2025	107.37	105.07	2.30	97.37	107.37	18.03	18.05	0.02	500	6.60	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because low turbidity was measured during sampling, minimal drawdown occurred, and specific capacity indicates good yield.	N/A
PT5D	Alluvial	06/10/2025	107.37	105.04	2.33	97.37	107.37	18.31	18.35	0.04	300	1.98	Yes	Yes	No	No	Siltation. Not recommended for redevelopment because low turbidity was measured during sampling, minimal drawdown occurred, and specific capacity indicates good yield. Continue to monitor.	N/A
PT5M	Alluvial	05/22/2025	N/A	71.90	N/A	62.37	72.37	19.80	19.80	0.00	500	N/A	N/A	No	No	No	N/A	N/A
PT5S	Alluvial	05/22/2025	N/A	47.65	N/A	37.35	47.35	19.64	19.64	0.00	500	N/A	N/A	No	No	No	N/A	N/A
PT8D	Alluvial	05/21/2025	211.95	210.60	1.35	189.45	209.45	106.87	106.87	0.00	500	N/A	No	No	No	No	N/A	N/A
PT9D	Alluvial	05/21/2025	212.10	210.20	1.90	189.60	209.60	103.31	103.35	0.04	500	3.30	No	No	No	No	N/A	N/A
PT9M	Alluvial	05/21/2025	186.64	186.60	0.04	161.64	181.64	103.24	103.30	0.06	500	2.20	No	No	No	No	N/A	N/A
PT9S	Alluvial	05/21/2025	152.76	152.88	-0.12	127.76	147.76	103.11	103.16	0.05	500	2.64	No	No	No	No	N/A	N/A
TW-01	Alluvial	05/21/2025	269.73	265.81	3.92	166.73	266.73	164.26	164.71	0.45	15,142	8.89	No	No	No	No	N/A	N/A
TW-02D	Alluvial	04/08/2025	148.96	149.61	-0.65	108.96	143.96	38.50	38.60	0.10	3,785	10.00	No	No	No	No	N/A	N/A
TW-02D	Alluvial	05/06/2025	148.96	149.61	-0.65	108.96	143.96	38.03	38.05	0.02	5,300	70.00	No	No	No	No	N/A	N/A
TW-02D	Alluvial	06/10/2025	148.96	149.61	-0.65	108.96	143.96	37.81	37.83	0.02	5,300	70.00	No	No	No	No	N/A	N/A
TW-02S	Alluvial	04/08/2025	94.39	96.27	-1.88	39.39	89.39	38.49	38.60	0.11	3,785	9.09	No	No	No	No	N/A	N/A
TW-02S	Alluvial	05/06/2025	94.39	96.27	-1.88	39.39	89.39	37.99	38.00	0.01	5,300	140.00	No	No	No	No	N/A	N/A
TW-02S	Alluvial	06/10/2025	94.39	96.27	-1.88	39.39	89.39	37.72	37.75	0.03	5,300	46.67	No	No	No	No	N/A	N/A
TW-03D	Alluvial	04/08/2025	151.22	152.32	-1.10	106.22	151.22	38.22	38.25	0.03	3,785	33.33	No	No	No	No	N/A	N/A
TW-03D	Alluvial	05/06/2025	151.22	152.32	-1.10	106.22	151.22	37.76	37.78	0.02	5,300	70.00	No	No	No	No	N/A	N/A
TW-03D	Alluvial	06/10/2025	151.22	152.32	-1.10	106.22	151.22	37.49	37.52	0.03	5,300	46.67	No	No	No	No	N/A	N/A
TW-04	Alluvial	05/14/2025	256.49	253.95	2.54	211.49	251.49	28.79	28.85	0.06	500	2.20	No	No	No	No	N/A	N/A
TW-05	Alluvial	05/21/2025	156.33	155.75	0.58	111.33	151.33	40.33	40.34	0.01	300	7.93	No	No	No	No	N/A	N/A

Notes:
1. Slant wells (MW-52D, MW-52M, MW-52S, MW-53D, MW-53M, and MW-53S) are not included in this evaluation.
2. Specific capacity is evaluated for alluvial and fluvial wells. Bedrock wells are not included in this evaluation.
3. Monitoring wells MW-20-70, MW-20-100, MW-20-130, MW-22, MW-22, MW-38-D, MW-38-S, PGE-9N, and PGE-9S were resurveyed on July 25, 2022 due to observed discrepancies between constructed and measured well depths. PGE-9N and PGE-9S were not sampled during Second Quarter 2022 and are not included in the table.

Acronyms and Abbreviations:
ft bTOC = feet below top of casing
gpm/foot = gallon per minute per foot
ID = identification
mL/min = milliliter per minute
N/A = not applicable

Figures





Notes:

1. % = percent
2. Baseline specific capacity for each screen interval is represented as 100% on the y-axis. Values greater than 100% indicate performance exceeding baseline. Values less than 100% are shaded gray.
3. Baseline specific capacity has not been established for IRZ-9 due to limited operation. Therefore, a graph of IRZ-9 is not included.
4. Specific capacities greater than or equal to 180% are shown as 180% to indicate well was operational at a high specific capacity.
5. PTI-1D began operation in November 2023. A baseline specific capacity was established for this well in December 2023. The graph excludes data collected prior to the baseline specific capacity being established.
6. Displayed notes pertain exclusively to data from the current quarter.

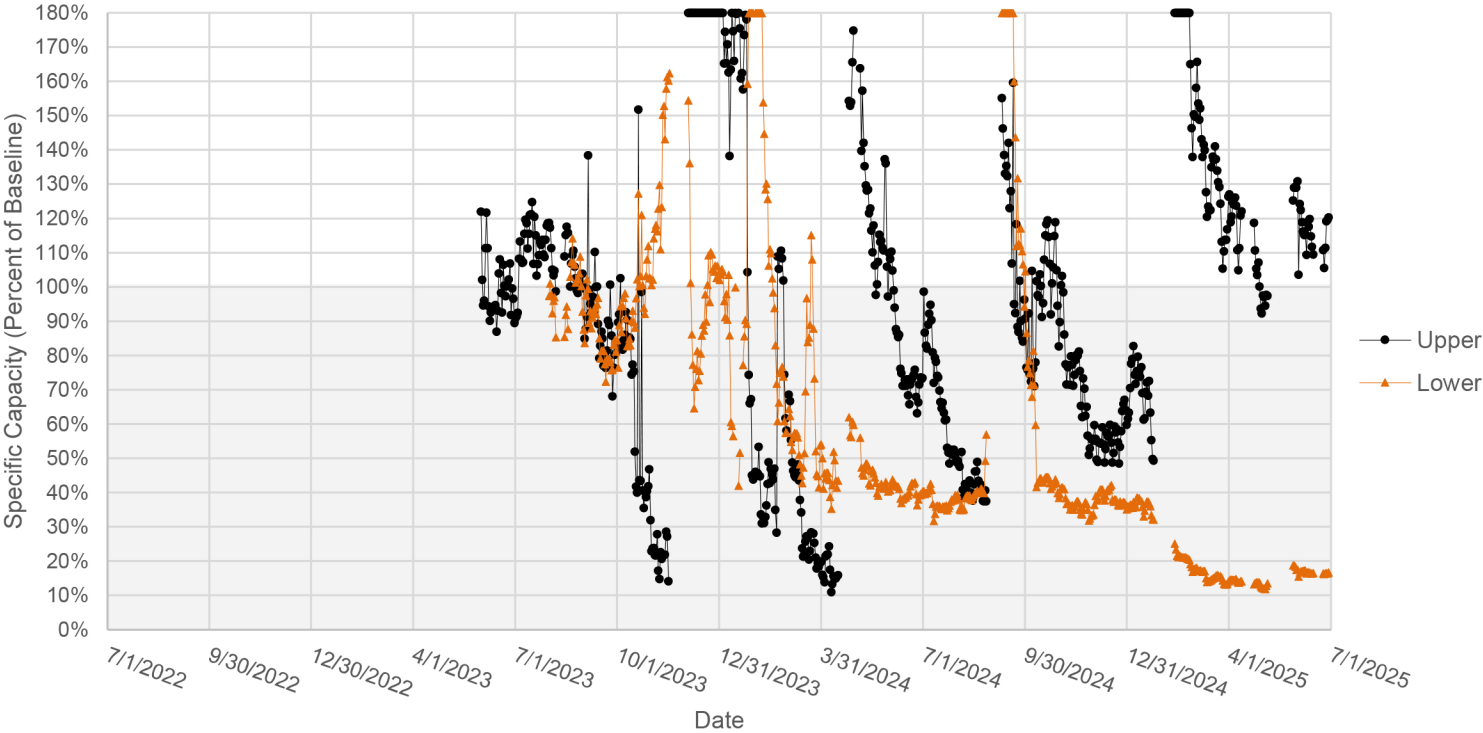
SECOND QUARTER 2025
WELL PERFORMANCE REPORT
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

**EXTRACTION WELL SPECIFIC
CAPACITY TRENDS**

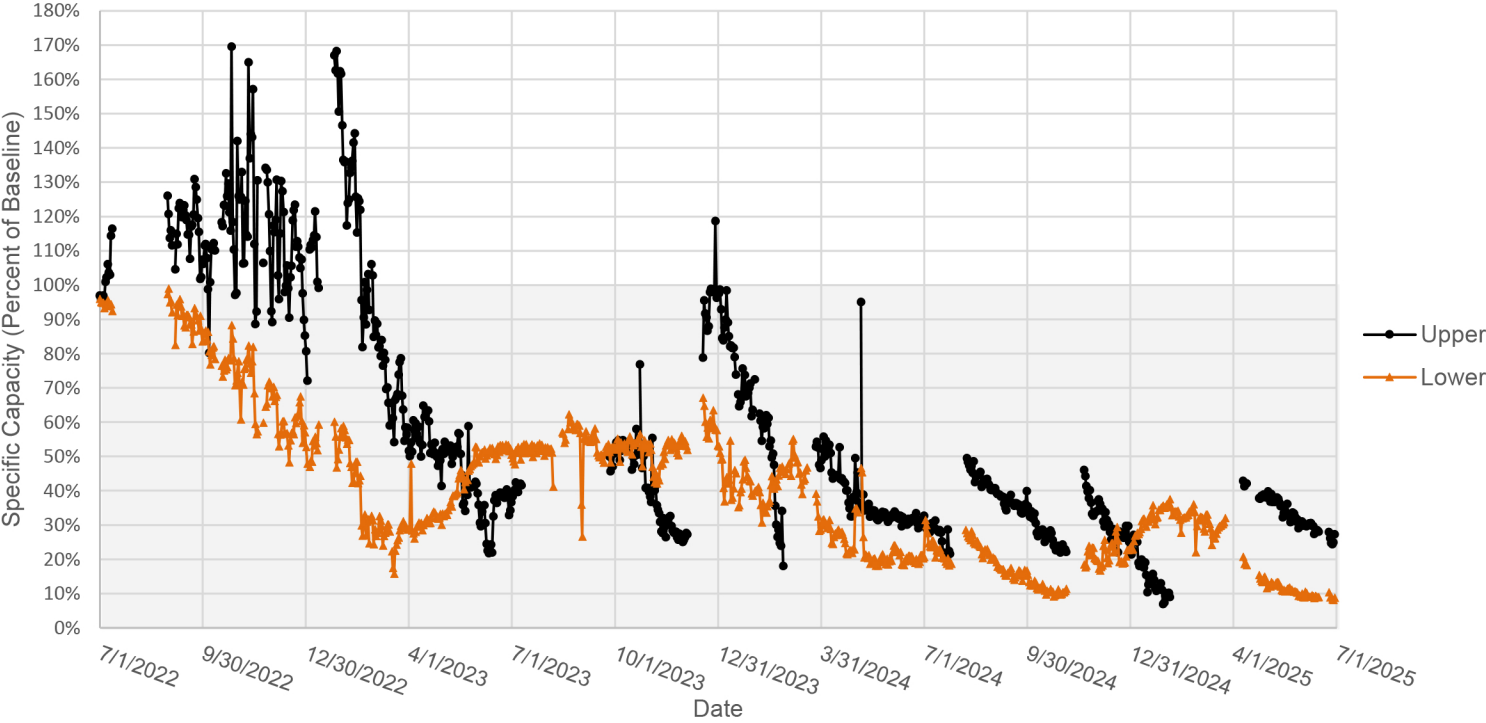


FIGURE
3.1

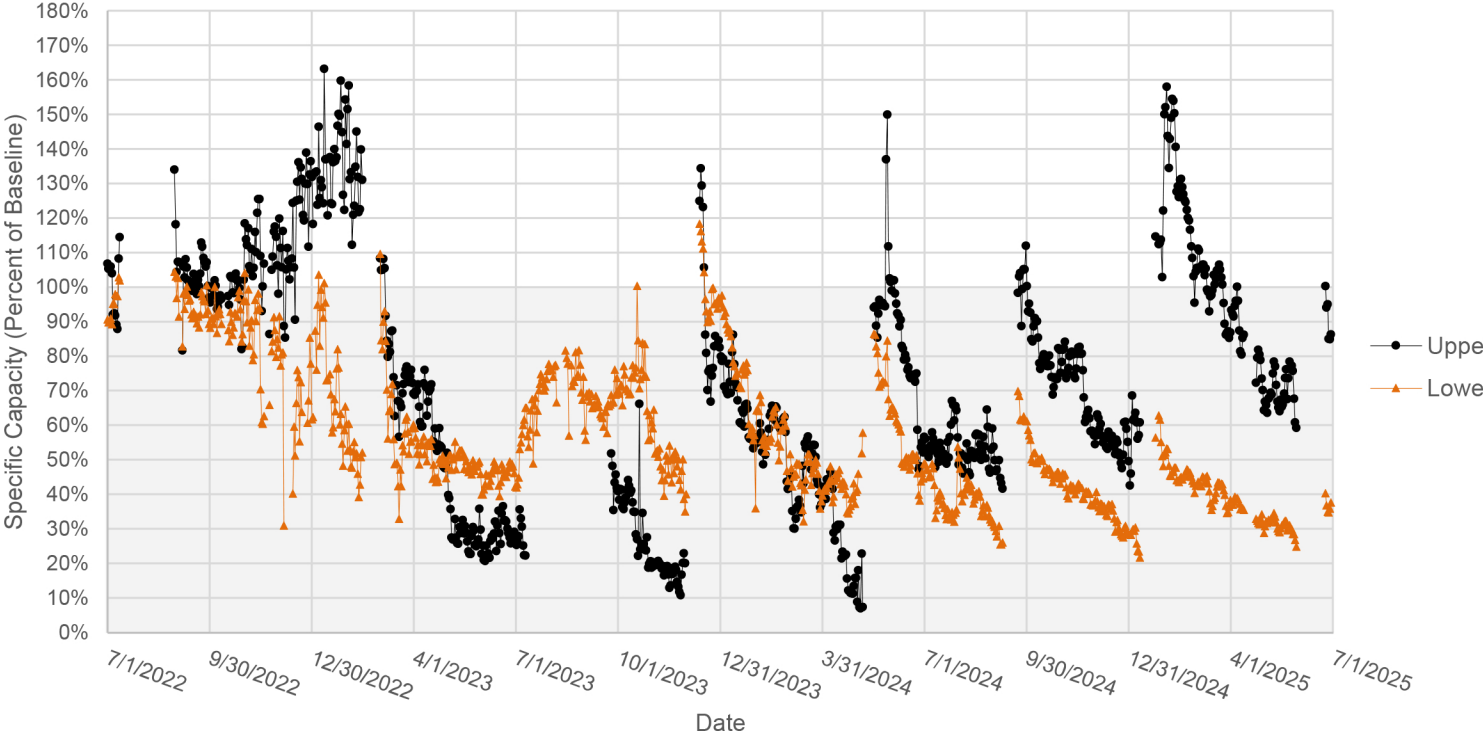
IRZ-15 Injection Screens



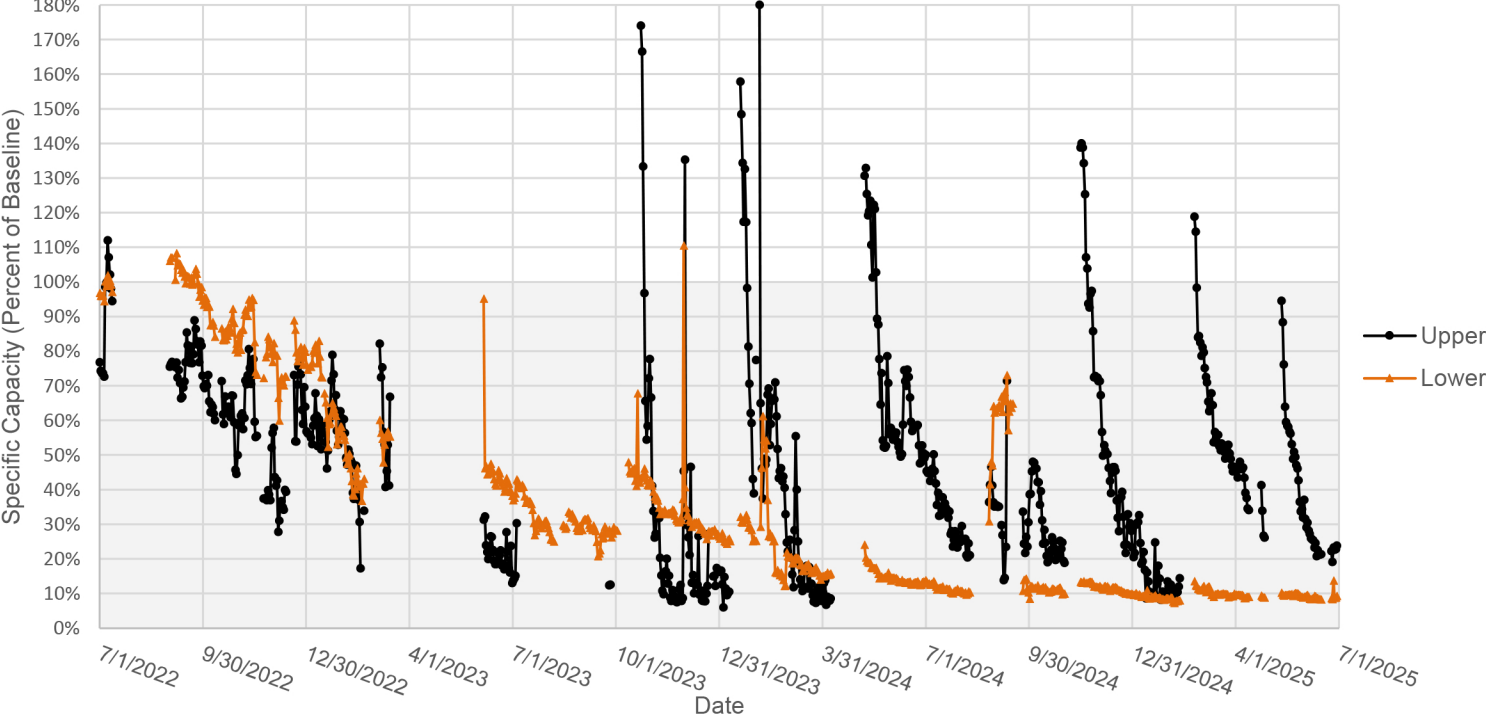
IRZ-17 Injection Screens



IRZ-16 Injection Screens



IRZ-18 Injection Screens



Notes:

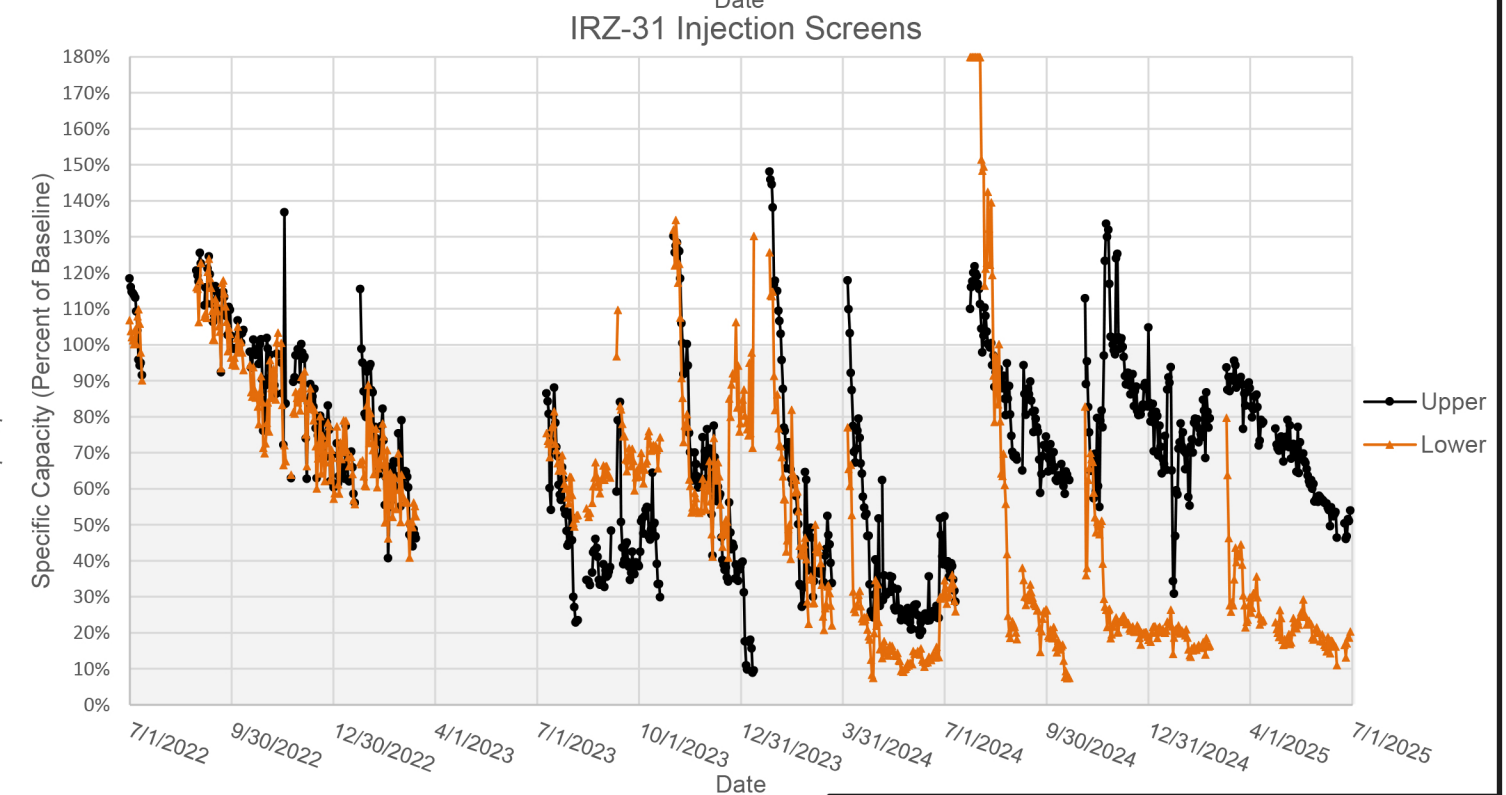
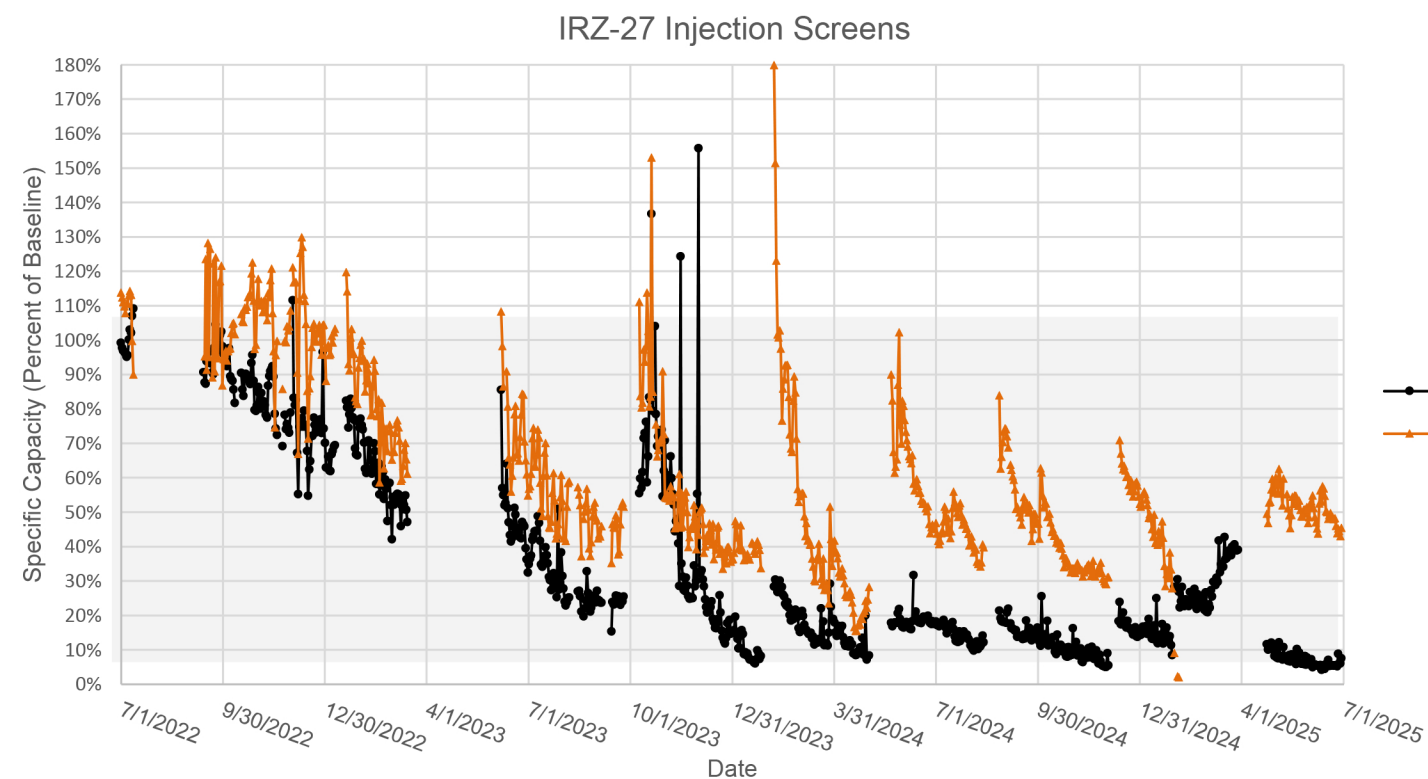
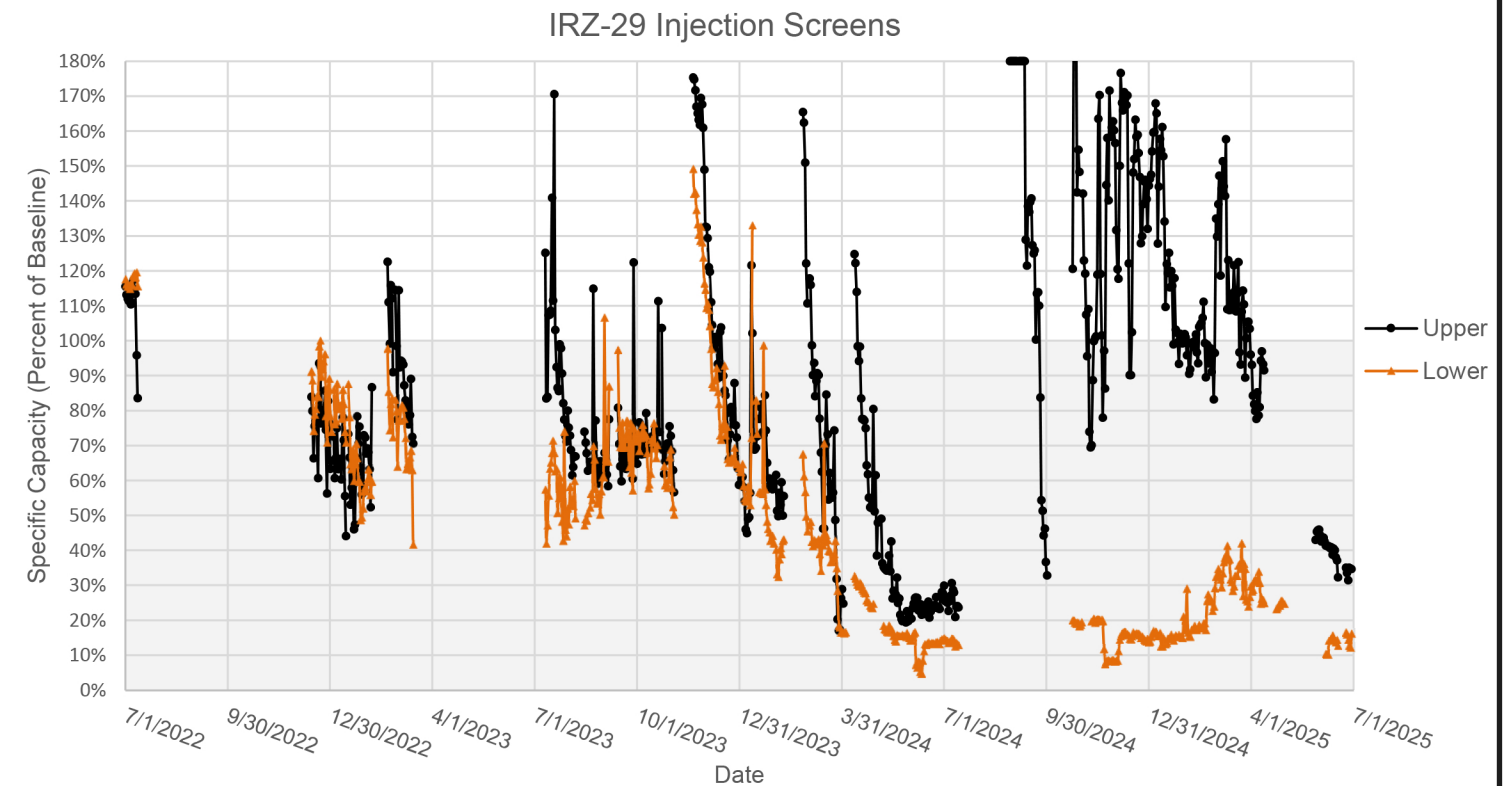
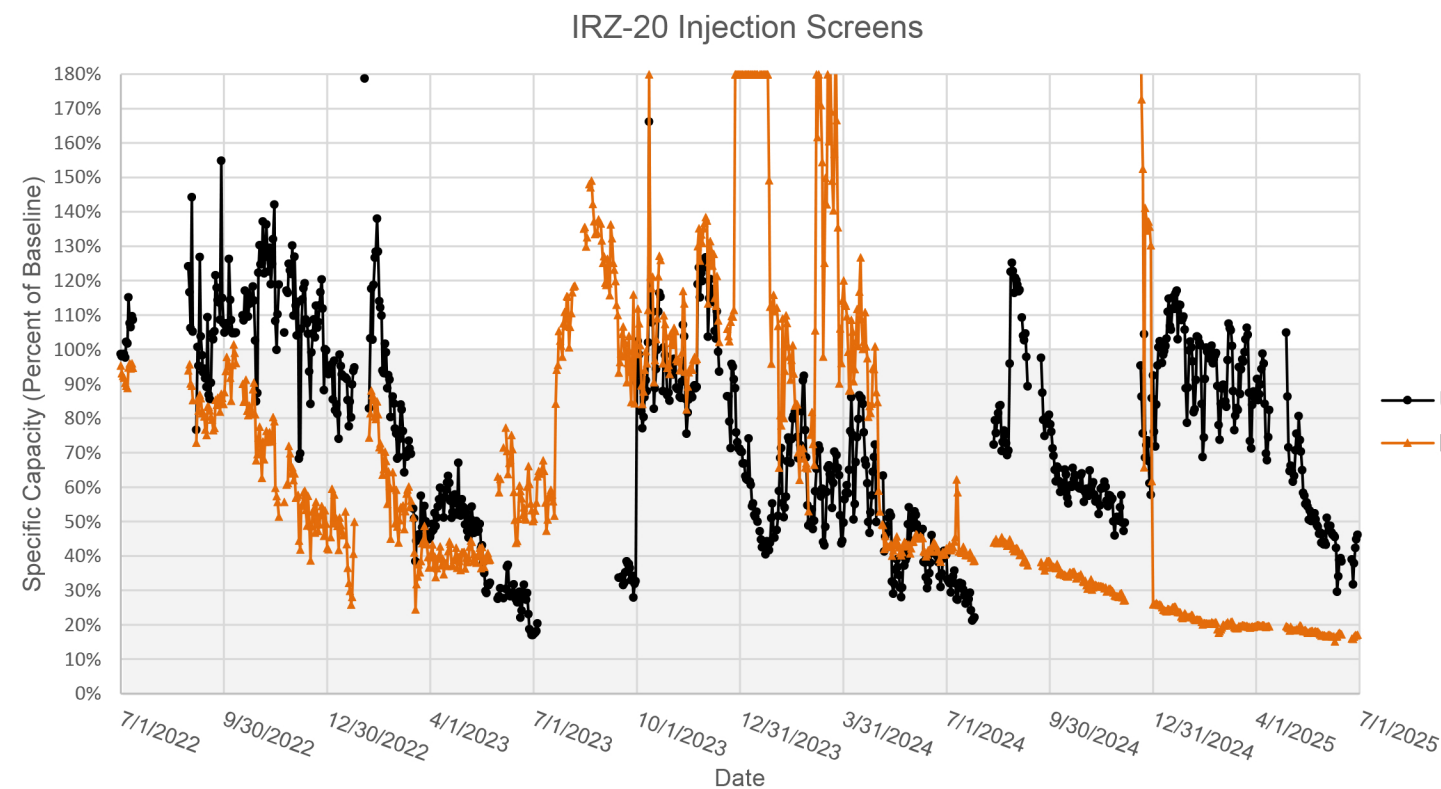
1. % = percent
2. Baseline specific capacity for each screen interval is represented as 100% on the y-axis. Specific capacity values greater than 100% indicate performance exceeding baseline. Values less than 100% are shaded gray.
3. Specific capacities greater than or equal to 180% are shown as 180% to indicate well was operational at a high specific capacity.
4. IRZ-15 (upper) began operation in March 2023. IRZ-15 (lower) began operation in April 2023. Baseline specific capacities were established for these wells in June and August 2023, respectively. The graphs exclude data collected prior to the baseline specific capacity being established.
5. Displayed notes pertain exclusively to data from the current quarter.

SECOND QUARTER 2025
WELL PERFORMANCE REPORT
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INJECTION WELL SPECIFIC
CAPACITY TRENDS PART 1



FIGURE
3.2



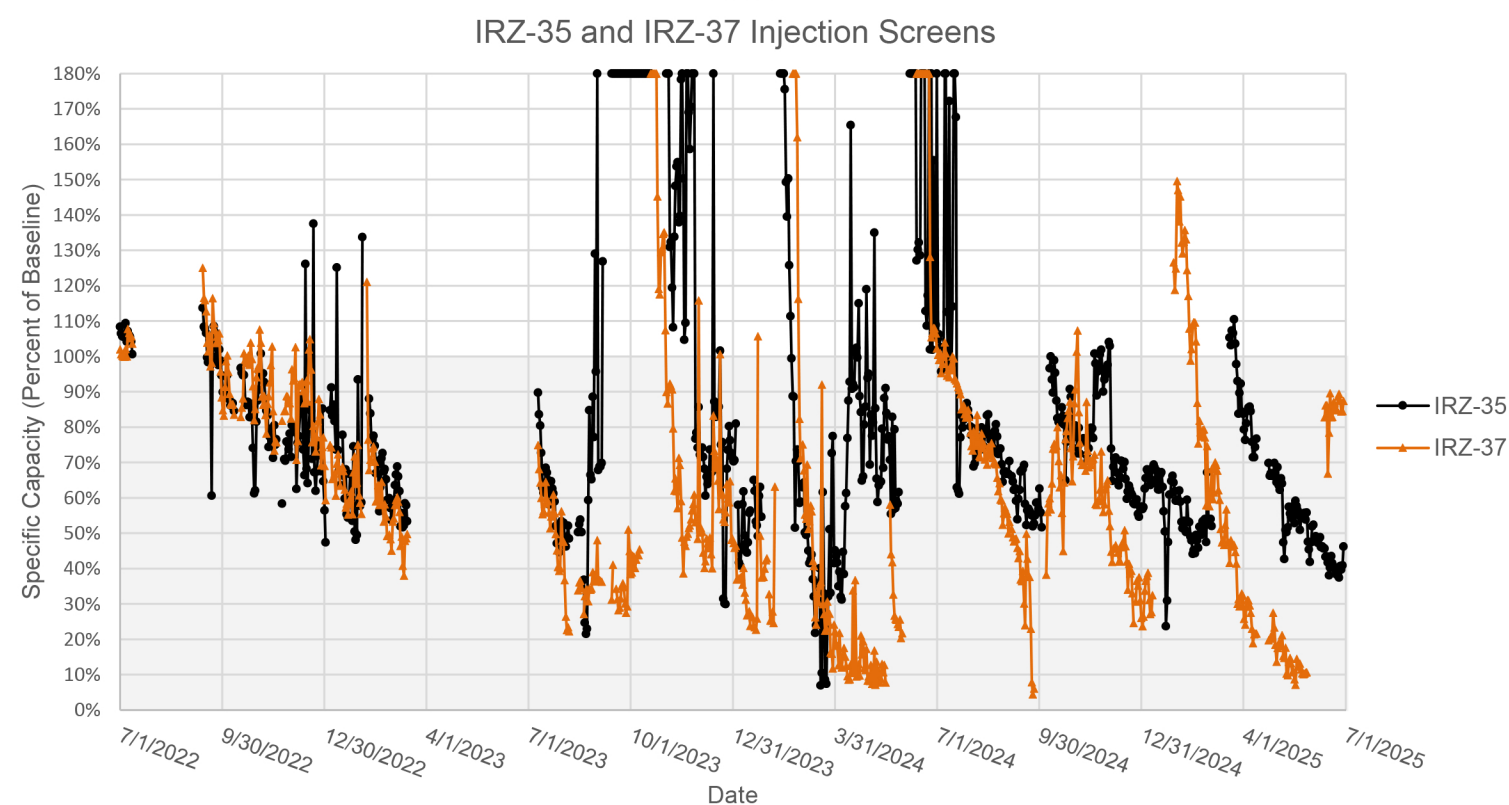
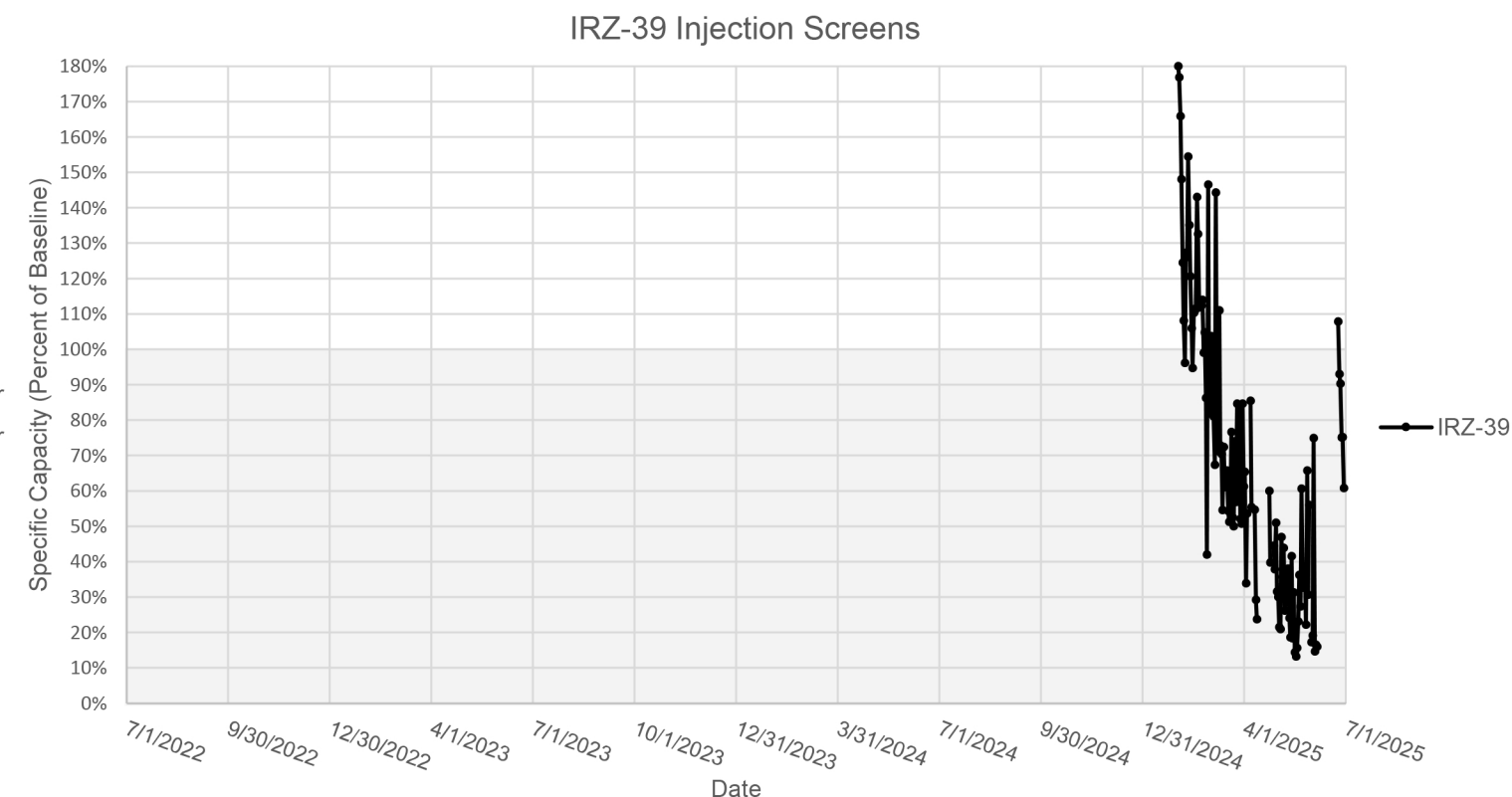
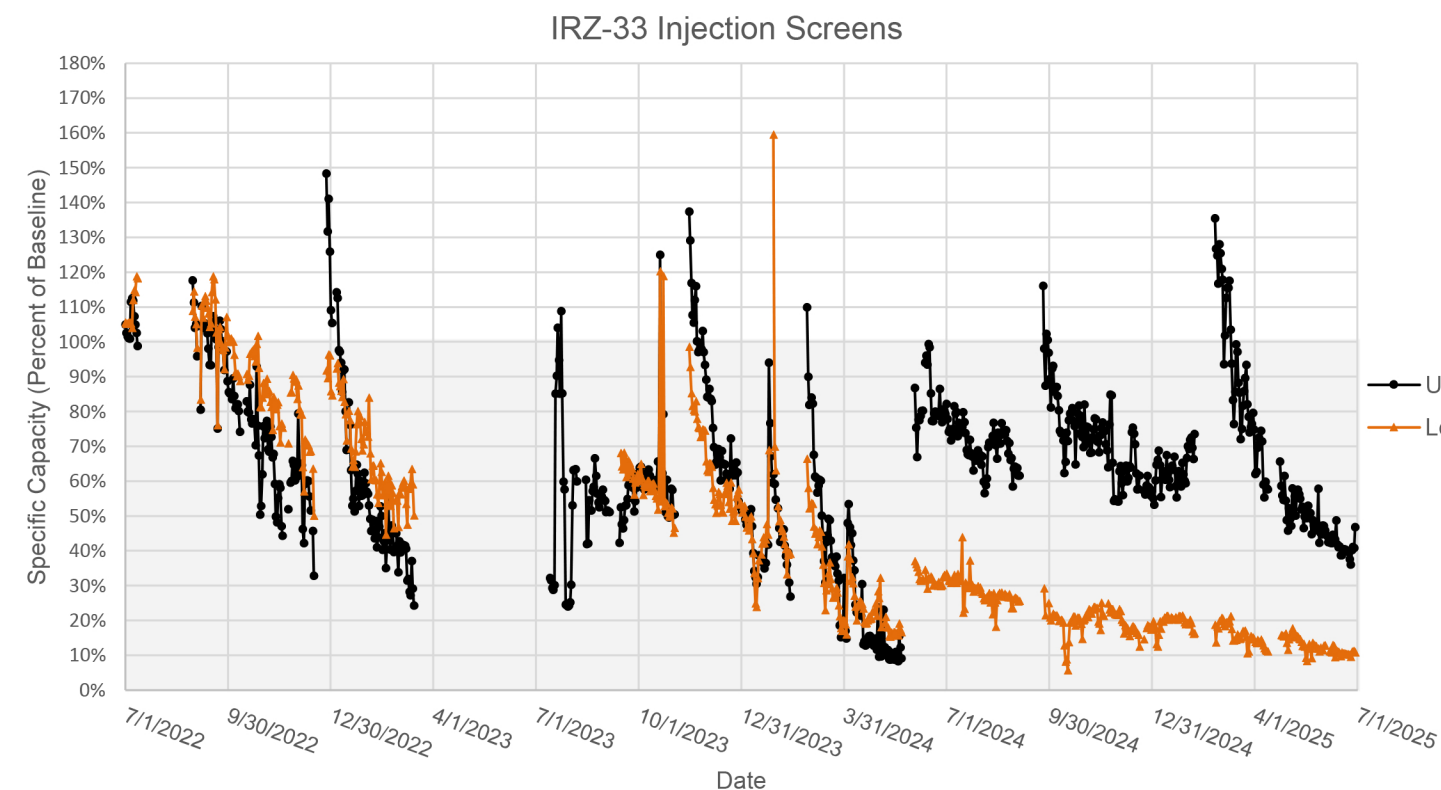
- Notes:**
1. % = percent
 2. Baseline specific capacity for each screen interval is represented as 100% on the y-axis. Specific capacity values greater than 100% indicate performance exceeding baseline. Values less than 100% are shaded gray.
 3. Specific capacities greater than or equal to 180% are shown as 180% to indicate well was operational at a high specific capacity.
 4. Specific capacity data for injection wells IRZ-29 (upper) and IRZ-29 (lower) were not calculated from April 24 through May 28 and from May 2 through June 6, 2025, respectively, due to inaccurate pressure transducer readings. IRZ-29 (upper) and IRZ-29 (lower) operated during these timeframes with brief periods of downtime, and the engineering team investigated the instrument inaccuracies the week of May 20, 2025. Troubleshooting did not identify faults in the pressure transducer wiring or controls. The pressure transducers for IRZ-29 (upper) and IRZ-29 (lower) were replaced proactively on May 28 and June 6, 2025, respectively.
 5. Displayed notes pertain exclusively to data from the current quarter.

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INJECTION WELL SPECIFIC CAPACITY TRENDS PART 2



FIGURE
3.3



Notes:

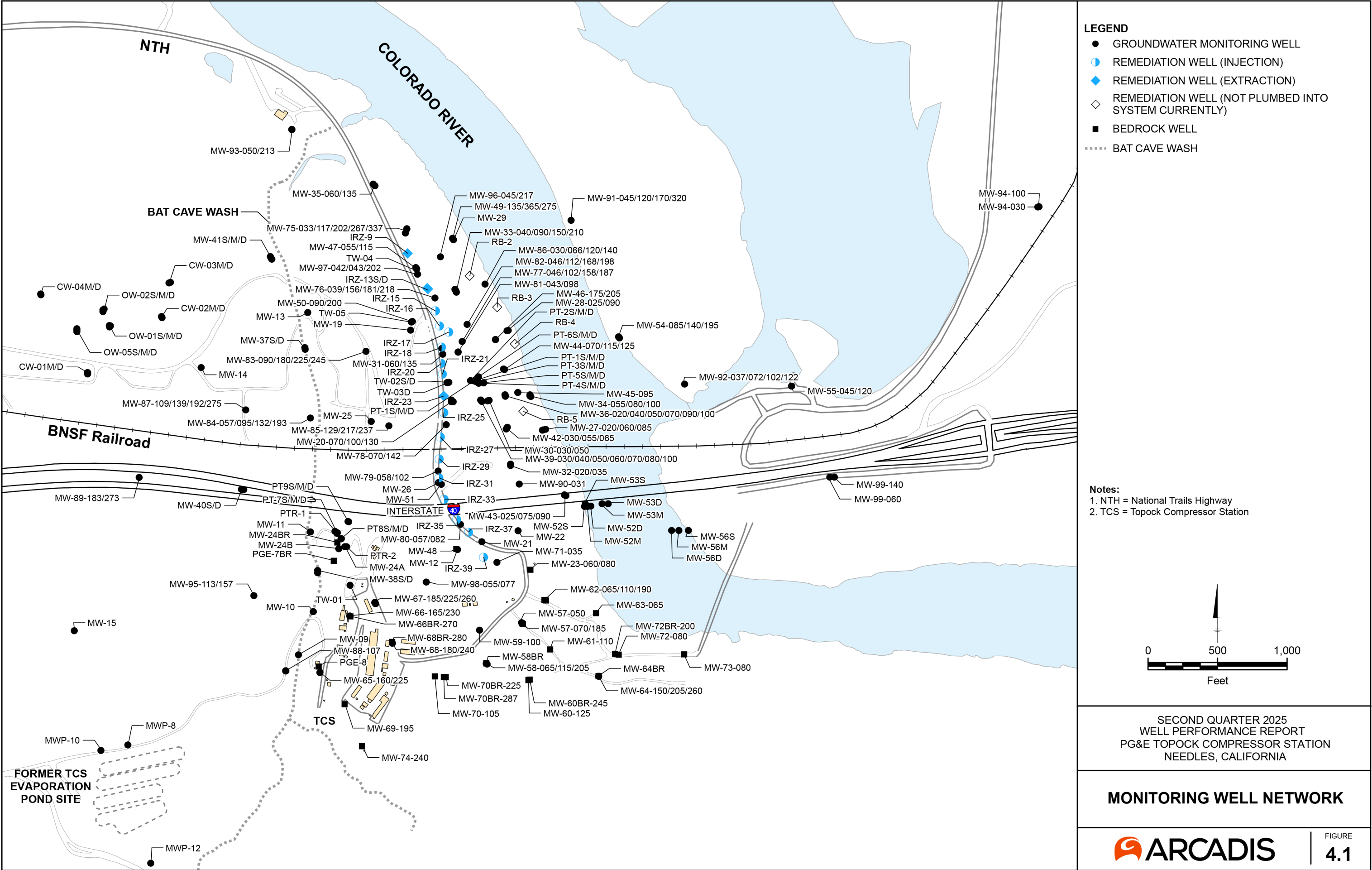
1. % = percent
2. Baseline specific capacity for each screen interval is represented as 100% on the y-axis. Specific capacity values greater than 100% indicate performance exceeding baseline. Values less than 100% are shaded gray.
3. Specific capacities greater than or equal to 180% are shown as 180% to indicate well was operational at a high specific capacity.
4. IRZ-39 began operation again in December 2024. A baseline specific capacity was established for this well in February 2025. The graph excludes data collected prior to the baseline specific capacity being established.
5. Displayed notes pertain exclusively to data from the current quarter.

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**INJECTION WELL SPECIFIC
CAPACITY TRENDS PART 3**



FIGURE
3.4



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