



**Pacific Gas
and
Electric
Company**

John Glass
Pacific Gas and Electric Co
Program Manager

Topock Compressor Station
145453 National Trails Hwy
Needles, CA 92363

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May 7, 2025

Christopher Ioan
Project Manager
California Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630

Subject: *Addendum to Second Quarter 2023 Well Performance Report, PG&E Topock Compressor Station, Needles, California (PGE20180115A)*

Dear Christopher Ioan:

Enclosed is an addendum to the Second Quarter 2023 Well Performance Report for the Pacific Gas and Electric Company (PG&E) Topock Compressor Station located in Needles, California (the Site), which was prepared for and submitted to the California Department of Toxic Substances Control (DTSC) on September 28, 2023. This addendum provides the monitoring well redevelopment logs and a discussion of the monitoring well redevelopment results for Second Quarter 2023, as requested by the DTSC in email correspondence on August 1, 2024.

Please contact me at (628) 219-4369 if you have any questions regarding the enclosed addendum.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Glass', followed by a vertical line.

John Glass
Pacific Gas and Electric Co
Program Manager

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

Addendum to the Second Quarter 2023 Well Performance Report for the Pacific Gas and Electric Company Topock Compressor Station

This addendum to the Second Quarter 2023 Well Performance Report provides additional documentation for monitoring well redevelopment activities that occurred during Second Quarter 2023. These activities were referenced in Section 4 of the Second Quarter 2023 Well Performance Report and are discussed in further detail herein. The monitoring well redevelopment logs are provided as an attachment to this addendum.

Monitoring wells MW-09, MW-11, MW-28-025, MW-30-030, MW-35-060, MW-39-040, and MW-82-046 were identified as requiring redevelopment in the First Quarter 2023 Well Performance Report¹ and were redeveloped by the end of Second Quarter 2023. Well redevelopment logs are attached. Monitoring well redevelopment included initial bailing and swabbing of the well using a surge block, then pumping the well using a Waterra pump or submersible pump to remove sediments that had accumulated at the bottom of the well. The wells were pumped until water quality parameters were stable (based on three readings collected at least 5 minutes apart) and turbidity was less than 10 nephelometric turbidity units (NTUs), or as directed by the Geologist/Engineer providing oversight.

Monitoring well MW-09 was redeveloped in May 2023 due to damage caused by the March and August 2022 storm events and observed changes in the analytical and field water quality results for this well following these storm events. Redevelopment reduced the downwell sediment buildup in monitoring well MW-09 by approximately 3.86 feet (measured well depth was 84.92 feet btoc in February 2023 [pre-development] and 88.78 feet btoc in June 2023 [post-development]). Additionally, turbidity in well MW-09 declined from 38 NTUs measured in February 2023 to 9 NTUs measured in June 2023. Following redevelopment, field water quality parameter (including specific conductivity and oxidation-reduction potential) readings from MW-09 returned to levels consistent with pre-storm readings, suggesting that the collected samples were indicative of aquifer conditions. However, the May 2023 redevelopment did not appear to affect hexavalent chromium (Cr6) concentrations in MW-09. Cr6 concentrations in this well had decreased following the March 2022 storm event and did not return to the pre-storm range following the May 2023 redevelopment (i.e., concentrations remained less than 2 micrograms per liter through June 2023 compared to 120 to 170 micrograms per liter prior to the March 2022 storm event).

Monitoring well MW-11 was redeveloped in March 2023 due to observed increases in Cr6 concentrations in this well following the August 2022 flood event in Bat Cave Wash. Redevelopment did not appear to affect Cr6 concentrations. The thickness of sediment measured in MW-11 following redevelopment was similar to past measurements (measured well depth was 85.65 feet btoc in February 2023 [pre-development] and 85.62 feet btoc in June 2023 [post-development]). Turbidity remained low following redevelopment, with a measurement of 9 NTUs in June 2023.

Monitoring wells MW-28-025, MW-30-030, MW-35-060, MW-39-040, and MW-82-046 were redeveloped because measured well depths during consecutive sampling events indicated that greater than 20 percent of the screened interval was covered. Redevelopment reduced downwell sediment buildup at monitoring wells MW-35-060 and MW-82-046:

- At MW-35-060, which was redeveloped in May 2023, sediment buildup was reduced by approximately 0.7 foot (measured well depth was 57.33 feet btoc in February 2023 [pre-development] and 58.00 feet btoc in August 2023 [post-development]). Turbidity and sample analytical results remained consistent with past results following redevelopment.

¹ Arcadis. 2023. First Quarter 2023 Quarterly Progress Report. PG&E Topock Compressor Station, Needles, California. June 14.

Second Quarter 2023 Well Performance Report Addendum

- At MW-82-046, which was redeveloped in May 2023, sediment buildup was reduced by approximately 0.7 foot (measured well depth was 47.40 feet btoc in May 2023 [pre-development] and 48.14 feet btoc in June 2023 [post-development]). Turbidity and sample analytical results remained consistent with past results following redevelopment.

At MW-28-025, MW-30-030 and MW-39-040, sediment infiltrated the well during bailing, preventing effective sediment removal as part of the redevelopment. Due to the high volume of sediment at MW-30-030, the surge block became stuck in this well and was unable to be removed by jetting and mechanical means. Additionally, during the attempt to remove the surge block, the well casing and monument moved approximately 3 inches, prompting the field team to cease efforts to retrieve the surge block. Well MW-30-030 was abandoned by over-drilling and replaced with a new well (MW-30-030R) in Fourth Quarter 2023 as detailed in the Fourth Quarter 2023 Quarterly Progress Report². Plans to replace MW-30-030 were presented to the Technical Working Group on July 11, 2023, and a field walk for the replacement well installation was conducted on August 9, 2023.

As a result of the experiences at MW-28-025, MW-30-030, and MW-39-040, the following changes have since been implemented regarding monitoring well redevelopment:

- Wells will be redeveloped using a smaller diameter surge block to reduce risk of the surge block being lodged between sediment and the well casing.
- Wells located in fluvial sediments (see Table 4.2 of the Second Quarter 2023 Well Performance Report), where sediment infiltration is likely given the screen slot size and/or filter pack combination, will not be redeveloped. Redevelopment of these wells is expected to have a detrimental effect on well performance due to increased potential for sediment infiltration during redevelopment.
- Wells where significant sediment infiltration occurs during redevelopment will not be considered for future redevelopment.

Monitoring wells MW-22, MW-27-020, and MW-32-020 were previously identified for redevelopment in the First Quarter 2023 Well Performance Report³. However, based on experience redeveloping MW-28-025, MW-30-030, and MW-39-040 (as discussed above) and the location of these wells in the floodplain/screened within fluvial sediments, these monitoring wells were not redeveloped in Second Quarter 2023.

² Arcadis. 2024. Fourth Quarter 2023 Quarterly Progress Report. PG&E Topock Compressor Station, Needles, California. March 13.

³ Arcadis. 2023. First Quarter 2023 Well Performance Report. PG&E Topock Compressor Station, Needles, California. June 29.

Attachments

Monitoring Well Development Logs, Second Quarter 2023

For additional help with the information provided in the attachments, please contact Kimberly Wojcik, Arcadis Report Lead, at 312.953.3365.

MW-09

MW-09 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Topock GW Monitoring Program

pg 1 of 3

Date(s) 5/17/23

Project # 30106892

ARCADIS Oversight: Matt Beckwith

ARCADIS Job Title: Staff Geologist

Well ID MW-09

Measuring Point (MP) 1.875

Total Depth (ft. BMP) 89.42

Screen Interval (ft.) 79.46 - 89.46

DTW (ft. BMP): 80.25

DTW (ft. lgs): 78.315

Water column in well (ft.): 9.17

Diameter of well (in.): 4

Gallons in well: 6.05

Rig operator: Dan Gentry

Rig type: F-550 602

Boiler make and size: 35' x 60'

Water added:

Surge block make and size: 35' x 60'

Pump make and size: Mega monsoon

Water source: GW

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (+/- 0.1)	ORP (mV) (+/- 10.0 mV)	Cond. (µS/cm) (+/- 3%)	Turb NTU (+/- 0.3 NTU)	DO (mg/L) (+/- 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
12:00	tag	-	80.25	89.42	-	-	-	-	-	-	Soft
12:09	bail	-	-	-	-	-	-	-	-	-	brn-clay 2.5gal
13:15	bail	-	-	-	-	-	-	-	-	-	Saa w/ roots 2.5gal
13:18	bail	-	-	-	-	-	-	-	-	-	Saa 2.5gal
13:23	bail	-	-	-	-	-	-	-	-	-	gray, 2.5gal
13:31	bail	-	-	-	-	-	-	-	-	-	gray-brown 10 sand 2.5gal
13:41	bail	-	-	-	-	-	-	-	-	-	Saa
13:44	bail	-	-	-	-	-	-	-	-	-	gray brown, silt 2.5gal
13:58	bail	-	-	-	-	-	-	-	-	-	Saa, 20gal total removed
14:01	tag	-	81.00	89.42	-	-	-	-	-	-	hard
14:35	surge	-	-	-	-	-	-	-	-	-	79'-84'
15:05	tag	-	80.25	89.42	-	-	-	-	-	-	Soft
5/18/23 07:06	tag	-	80.29	88.98	-	-	-	-	-	-	Soft
07:15	surge	-	-	-	-	-	-	-	-	-	84'-89'
08:22	tag	-	80.32	88.80	-	-	-	-	-	-	Soft
09:04	bail	-	-	-	-	-	-	-	-	-	brn clay 2.5gal
09:07	bail	-	-	-	-	-	-	-	-	-	Saa
09:08	bail	-	-	-	-	-	-	-	-	-	Saa
09:11	bail	-	-	-	-	-	-	-	-	-	Saa 10gal total
09:13	tag	-	81.03	89.05	-	-	-	-	-	-	Soft
09:20	surge	-	-	-	-	-	-	-	-	-	79'-84' b/c
09:45	surge	-	-	-	-	-	-	-	-	-	84'-89' b/c
10:13	tag	-	80.39	88.87	-	-	-	-	-	-	Soft

Sample ID and Time:

Total gallons removed at completion of development: 100

ARCADIS Staff: Matt Beckwith

MW-09 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Toprock GW Monitoring Program

PG 2 of 3

Date(s) 5/17/13 - 5/18/13 Project # 30105892

Arcadis Oversight: *Plant Bathers* Well ID MW-09

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (+/- 0.1)	ORP (mV) (+/- 10.0 mV)	Cond. (µS/cm) (+/- 3%)	Turb NTU (+/- 0.1 NTU)	DO (mg/L) (+/- 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1005	bail	—	—	—	—	—	—	—	—	—	low grey-brown cloudy 2.5 gal
1025	bail	—	—	—	—	—	—	—	—	—	brown cloudy 2.5 gal
1045	bail	—	—	—	—	—	—	—	—	—	Scum
1055	bail	—	—	—	—	—	—	—	—	—	Scum total 8 gallons
1105	tag	—	80.45	84.38	—	—	—	—	—	—	soft
1115	tag	—	80.32	—	—	—	—	—	—	—	—
1120	pump	0.65	80.78	—	—	—	—	—	—	—	pump on intake: 84' b to c
1123	pump	0.58	80.83	—	—	—	—	—	—	—	—
1125	pump	0.45	80.82	—	30.3	7.50	161.4	2665	177	2.41	—
1130	pump	0.26	80.70	—	30.5	7.50	120.1	2678	112	2.20	—
1135	pump	0.28	80.64	—	31.2	7.51	83.7	2670	99.3	2.31	—
1140	pump	0.20	80.65	—	30.8	7.51	33.4	2661	65.0	2.01	—
1145	pump	0.20	80.64	—	30.9	7.51	6.1	2646	50.1	1.92	—
1150	pump	0.23	80.65	—	30.9	7.52	8.7	2640	50.2	1.90	—
1155	pump	0.28	80.64	—	30.9	7.51	-1.7	2623	35.7	2.03	—
1200	pump	0.26	80.72	—	30.7	7.51	-2.2	2615	31.3	2.01	—
1205	pump	0.28	80.73	—	30.5	7.51	-3.5	2611	21.9	1.99	—
1210	pump	0.25	80.74	—	30.6	7.50	-7.1	2616	19.2	1.92	—
1215	pump	0.22	80.66	—	30.9	7.50	-8.1	2632	17.5	1.87	—
1220	pump	0.25	80.68	—	30.9	7.49	-15.0	2639	14.5	1.81	—
1225	pump	0.26	80.70	—	31.0	7.49	-15.5	2631	10.8	1.82	—
1230	pump	0.25	80.69	—	30.7	7.49	-18.0	2639	9.57	1.77	—
1235	pump	0.23	80.65	—	31.2	7.48	-21.0	2640	7.81	1.77	—
1240	pump	0.20	80.62	—	31.2	7.48	-24.6	2659	7.96	1.70	—
1245	pump	0.25	80.64	—	30.8	7.31	-29.4	2660	over	1.41	pump intake: 88.5' b to c
1250	pump	0.26	80.70	—	30.7	7.31	-43.8	2456	6.75	1.10	—
1255	pump	0.25	80.70	—	30.6	7.34	-49.4	2433	34.2	1.12	—
1300	pump	0.25	80.70	—	30.7	7.37	-55.6	2890	15.7	1.18	—
1305	pump	0.30	80.75	—	30.6	7.41	-59.8	2800	49.5	1.31	—
1310	pump	0.28	80.72	—	30.6	7.42	-62.4	2773	41.2	1.36	—
1315	pump	0.22	80.69	—	30.8	7.42	-67.2	2744	15.9	1.48	—
1320	pump	0.34	80.73	—	30.7	7.43	-66.2	2727	12.8	1.51	—

MW-09 Well Redevelopment Log

ARCADIS

Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG

of

3 of 3

Date(s) 5/17/23 - 5/18/23

Project # 30106892

Arcadis Oversight: Matt Brasher

Well ID

MW-09

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (± 0.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1325	pump	0.3	80.72	-	30.4	7.44	-70.0	2740	86.7	1.54	SSG
1330	pump	0.25	80.70	-	30.8	7.43	-76.3	2718	40.4	1.56	
1335	pump	0.25	80.70	-	30.7	7.44	-75.3	2707	43.6	1.62	
1340	pump	0.40	80.80	-	30.4	7.44	-77.3	2701	43.8	1.61	
1345	pump	0.40	80.86	-	30.2	7.44	-76.3	2715	35.3	1.56	
1350	pump	0.45	80.90	-	30.2	7.43	-68.5	2699	20.4	1.66	
1355	pump	0.45	80.93	-	30.2	7.43	-61.5	2696	16.9	1.73	
1400	pump	0.45	80.96	-	30.1	7.43	-56.3	2701	9.64	1.76	
1405	pump	0.45	80.97	-	30.0	7.43	-52.9	2703	7.13	1.81	
1410	pump	0.5	81.00	-	30.0	7.44	-50.0	2707	7.77	1.82	pump off
1415	log	-	80.35	89.03	-	-	-	-	-	-	soft TD

5/18/23



Results of first round of bailing. Left bottle shows first bailer removed and right bottle shows last bailer of the round which was the 4th bail.



Results of second round of bailing. Left bottle shows first bailer removed and right bottle shows last bailer of the round which was the 4th bail.

MW-11

ARCADIS Well Development Record

Project Name: PG&E Topock Phase 2A GW Remedy PG 1 of 2
Date(s) 03/13/23 Project # 30126255 Arcadis Oversight: J. Alexander ARCADIS Job Title: Env. Scientist

Well ID MW-11 Measuring Point (MP) 1 ft. (gpg/bps) Total Depth (ft. BMP) 85 ft Screen Interval (ft. bps) 62'-84'

DTW (ft. BMP): 67.01 DTW (ft. bps): 66.01 Water column in well (ft): 17.99 Diameter of well (in.): 4 Gallons in well: 11.74

Rig operator: J. Durate Rig type: PinStar development rig Bailor make and size: 3 in, 10 ft bailer Water added: -

Surge block make and size: 4 inch diameter Pump make and size: Inogen man 3000 2 GPM Water source: -

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 1.0)	ORP (mV) (± 30.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (<10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
0818	Tag well		67.01 DTW	84.98' TD							(soft bottom)
0833	Preparing to swab screen - marking screen intervals										
0840	Begin swabbing screen interval			75'-85' btoe							
0855	Pause swabbing			75'-85'							
0905	Resume swabbing			75'-85'							
0940	End swabbing screen interval			75'-85', Begin swabbing							67'-75'
1020	End swabbing screen interval			67'-75' btoe							
1025	Tag well		67.30	84.85' (soft bottom)							
1036	1st bail			→ 4 ml/L sand, 650 ml/L total solids							
1040	2nd bail										14 gal. bailed
1044	3rd bail										
1049	4th bail			→ 20 ml/L fine sand, 300 ml/L total solids							
1054	Tag well		67.15	85.40' (hard bottom)							
1057	Begin swabbing screen interval			75'-85' btoe							
1147	End swabbing			75'-85', Begin swabbing screen interval							67'-75'
1227	End swabbing screen interval			67'-75'							
1234	Tag well		67.17	84.80' (soft bottom)							
1240	1st bail			→ 70 ml/L sand, 600 ml/L total solids							
1243	2nd bail										14 gal. bailed
1245	3rd bail										
1251	4th bail			→ 125 ml/L fine sand, 450 ml/L total solids							
1252	Tag well		67.10	85.40' (hard bottom)							
1335	Pump	1		~85	29.61	7.39	229	1971	71000	92.2	

Sample ID and Time: MW-11S-031323 & MW-11S-031323-EB

Total gallons removed at completion of development: 164 gallons.

Arcadis Staff: Jonathan Alexander

MW-11 - Well Development Record

ARCADIS

Well Development Record

Project Name: PG&E Topock Phase 2A GW Remedy

PG 2 of 2

Date(s) 03/13/23

Project # 30126255

Arcadis Oversight: J. Alexander

Well ID MW-11

Project # 30126255		Arcadis Oversight: J. Alexander		Well ID 17W-11							
Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (+/- 0.1)	ORP (mV) (+/- 10.0 mV)	Cond. (µS/cm) (+/- 3%)	Turb NTU (<10.0 NTU)	DO (mg/L) (+/- 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1345	Pump	1.8	67.25	~85	28.34	7.52	232	2057	71000	90.8	} ~136 gallons pumped
1350	Pump	2	67.25	"	28.30	7.60	251.2	2090	71000	103.1	
1355	Pump	2	67.25	"	28.07	7.62	252.5	2105	445	100.3	
1400	Pump	2	67.22	"	27.89	7.60	265.9	2114	203	94.4	
1405	Pump	2	67.22	"	27.87	7.64	257.2	2127	71.1	95.1	
1410	Pump	2	67.22	"	27.94	7.63	261.8	2138	41.0	94.5	
1415	Pump	2	67.22	"	27.84	7.62	272.8	2143	23.7	96.4	
1420	Pump	2	67.22	"	27.79	7.60	273.6	2148	22.3	95.3	
1425	Pump	2	67.22	"	27.81	7.63	268.8	2145	17.2	91.1	
1430	Pump	2	67.22	"	27.91	7.63	270.9	2173	13.5	93.0	
1435	Pump	2	67.22	"	27.77	7.64	267.7	2171	8.81	93.3	
1437	Attach filter										
1440	Pump	2	67.22	"					2.40		
1442	Sample										
1443	Pump off										
1459	Tag well	Take equipment blank sample.									
1500	Tag well	66.95	85.20	(Soft bottom)							
Finished for the day ~ 164 gal. removed.											
J. Alexander 03/13/23											

J. Alexander 03/13/23



MW-11 - Photo Documentation

Sediment collected from first bail of first round of bailing (4 ml/L sand, 600 ml/L total solids).



MW-11 - Photo Documentation

Sediment collected from last bail of first round of bailing (20 ml/L sand, 300 ml/L total solids).



VW-11 - Photo Documentation

Sediment collected from first and last bails of first round of bailing.



VW-11 - Photo Documentation

Sediment collected from first bail of second round of bailing (70 ml/L sand, 600 ml/L total solids).



MW-11 - Photo Documentation


Sediment collected from last bail of second round of bailing (125 ml/L fine sand, 460 ml/L total solids).




MW-11 - Photo Documentation

Sediment collected from first and last bails of second round of bailing.

MW-28-025

 CLIENT NAME: PG&E Arcadis PROJECT NO: 30106892		DAILY WELL CONSTRUCTION REPORT		REPORT DATE: 5/16/2023 REVISION NO: 2 REVISION DATE: 5/18/2023	
PG&E FIELD REPRESENTATIVE: David Diaz		PROJECT NAME / LOCATION: PG&E Topock GW Program, Needles, CA			
PG&E CONSTRUCTION MANAGER: David Diaz		PROJECT DESCRIPTION: MW-28-025 Redevelopment			
PROJECT MANAGER: Brian Prowd		CONSTRUCTION TASK MANAGER: Zach Hamer		QA INSPECTOR(s): Sean McGrane	
FIELD CONSTRUCTION/SAFETY MANAGER: Mat Beshears		WEATHER: Sunny		TEMPERATURE: 77-109 F	WIND: 3-11 mph
PERSONNEL ONSITE AND LENGTH OF SHIFT					
ABC Drilling (11.5 hours total) <ul style="list-style-type: none"> Dom Gonzalez - 11.5 hrs 					
Arcadis (12 hours total) <ul style="list-style-type: none"> Mathew Beshears - 12 hrs 					
TOTAL HOURS - 23.5 personnel hours					
EQUIPMENT ONSITE					
ABC Drilling <ul style="list-style-type: none"> 2022 F-550 (development rig, 475 HP) - 10 hours total 					
Arcadis <ul style="list-style-type: none"> 2022 Toyota Rav 4 (203 HP) - 4 hours total 					
SUMMARY OF WORK PERFORMED TODAY					
Field Activities Today <ul style="list-style-type: none"> Setup on MW-28-025. Completed a round of mechanical development at MW-28-025. (See general comments). Began a round of pumping at MW-28-025. Removed approximately 60 gallons of wastewater during development activities at MW-28-025. Cleaned up and secured site. 					
HEALTH AND SAFETY					
Was A Job Safety Meeting Held This Date?				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Were there any lost-time accidents this date? (If Yes, attach copy of completed OSHA report)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was a Confined Space Entry Permit Administered This Date? (If Yes, attach copy of each permit)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Crane/Manlift/Trenching/Scaffold/HV Electrical/High Work/Hazmat Work Done? (If Yes, attach statement or checklist showing inspection performed)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Hazardous Material/Waste Released into the Environment? (If Yes, attach description of incident and proposed action)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
TAILGATE MEETING/SAFETY DISCUSSIONS: <ul style="list-style-type: none"> Housekeeping Stop Work Authority Use of a spotter Work to be done for the day Traffic safety 					

OPERATIONS / PRODUCTION REPORT			
PLANNED WORK/TEST THIS WEEK:			
<ul style="list-style-type: none"> Well Development 			
VISITORS AND DISCUSSIONS:			
<ul style="list-style-type: none"> Maria (Transcon) visited to observe work. 			
QUALITY CONTROL REPORT			
No Materials Reported			
No Samples Reported			
No Testing Reported			
QUALITY AND/OR PRODUCTION ISSUES AND RESOLUTIONS: None			
REGULATORY COMPLIANCE REPORT			
PERMIT CONDITIONS THAT ARE OUT OF COMPLIANCE: None			
WASTE ACCUMULATION/STOCKPILE AREA INSPECTION			
Inspection Performed By:	N/A	Accumulation /Stockpile Area Inspected:	N/A
STORMWATER INSPECTION			
Inspection Performed By:	Deficiencies/Corrective Actions Required?		
N/A	N/A		
Required BMPs in Place:	Comments?		
N/A			
General Comments			
<ul style="list-style-type: none"> A bend in the well at approximately 5-6 feet below the top of casing was noted by the development team, however the bend did not impede the progress of work. The crew observed a safety standdown for approximately 45 minutes following reports of lightning within 10 miles of the work area. 			
Daily Report Signature:			

MW-28-025 Well Redevelopment Log

ARCADIS Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG 1 of 3

ARCADIS Job Title: Staff geologist

Date(s): 5/6/2023

Project #: 30106892

Arcadis Oversight: Matt Beshers

Screen Interval (ft. bgs): 15.10-25.10 6 to c
13.91-23.91 bgs

Well ID: MW-25-25

Measuring Point (MP) ft. (bgs/bgs): 1.19

Total Depth (ft. BMP): 24.67

DTW (ft. BMP): 10.51

DTW (ft. bgs): 9.32

Water column in well (ft): 14.16

Diameter of well (in.): 2

Gallons in well: 6.93
2.40

Rig operator: Don Gonzalez

Rig type: F-530 C&J

Railor make and size: 1 7/8" x 5' (JTD)

Surge block make and size: Custom 3" x 1.25" (pad)

Pump make and size: MC400 JTD 1013000

Water added: —

Water source: GW

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 1.0)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (<10.0 NTU)	DO (mg/l) (± 0.3 mg/l)	Notes/Gallons Removed/Water Clarity
0748	tag	—	10.51	24.48	—	—	—	—	—	—	soft
0804	bail	—	—	—	—	—	—	—	—	—	16 red-brown sandy 0.3 gal
0814	bail	—	—	—	—	—	—	—	—	—	SQA
0815	bail	—	—	—	—	—	—	—	—	—	SQA
0820	bail	—	—	—	—	—	—	—	—	—	SQA
0826	bail	—	—	—	—	—	—	—	—	—	SQA
0829	bail	—	—	—	—	—	—	—	—	—	16 brown sandy 0.3 gal some sand
0830	tag	—	10.54	24.45	—	—	—	—	—	—	soft
0836	bail	—	—	—	—	—	—	—	—	—	brn/some sand 0.5 gal
0841	bail	—	—	—	—	—	—	—	—	—	SQA
0941	bail	—	—	—	—	—	—	—	—	—	SQA
0943	bail	—	—	—	—	—	—	—	—	—	SQA
0948	bail	—	—	—	—	—	—	—	—	—	SQA
0953	bail	—	—	—	—	—	—	—	—	—	brn some sand 0.3 gal 16 brown sandy 0.3 gal some sand
0958	bail	—	—	—	—	—	—	—	—	—	brn/some sand 0.5 gal
1008	bail	—	—	—	—	—	—	—	—	—	SQA
1010	bail	—	10.58	24.79	—	—	—	—	—	—	soft
1016	bail	—	—	—	—	—	—	—	—	—	brn/some sand 0.3 gal
1017	tag	—	—	24.50	—	—	—	—	—	—	soft (hard bottom sand?)
1043	bail	—	—	—	—	—	—	—	—	—	brn/some sand 0.3 gal
1052	bail	—	—	—	—	—	—	—	—	—	SQA
1053	tag	—	—	24.67	—	—	—	—	—	—	soft
1059	bail	—	10.63	24.61	—	—	—	—	—	—	soft

Sample ID and Time: —

Total gallons removed at completion of development: 130 gallons

Arcadis Staff: Matt Beshers

MW-28-025 Well Redevelopment Log

ARCADIS

Project Name: R&E Topock GW Monitoring Program

Well ID: MW-28-025

PS 2 of 3

Well Development Record

Project # 30108932

ARCADIS Oversight: Jeff Beckers

Date(s) 2/4/13

Time	Task	Core	DTW (ft. BMT)	Total Depth (ft. BMT)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond (uS/cm) (± 3%)	Turb NTU (± 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Galons Returned/Water Clarity
1110	bail	-	-	-	-	-	-	-	-	-	soft
1111	tag	-	-	24.67	-	-	-	-	-	-	14-19 bloc
1135	Surge	-	-	-	-	-	-	-	-	-	soft
1153	tag	-	10.90	22.20	-	-	-	-	-	-	14-19 bloc
1200	Surge	-	-	-	-	-	-	-	-	-	soft
1200	tag	-	10.92	20.65	-	-	-	-	-	-	brown, mostly sand 0.3 gal
1208	bail	-	-	-	-	-	-	-	-	-	brown, mostly sand 0.3 gal
1219	bail	-	-	-	-	-	-	-	-	-	soft
1224	bail	-	-	-	-	-	-	-	-	-	Saa
1226	bail	-	-	-	-	-	-	-	-	-	Saa
1230	tag	-	10.71	24.60	-	-	-	-	-	-	soft
1231	bail	-	-	-	-	-	-	-	-	-	brown, mostly sand 0.3 gal
1245	Surge	-	-	-	-	-	-	-	-	-	19-24 bloc
1310	tag	-	10.72	20.75	-	-	-	-	-	-	soft
1352	tag	-	10.69	20.63	-	-	-	-	-	-	soft
1402	bail	-	-	-	-	-	-	-	-	-	brown, mostly sand 0.3 gal
1412	bail	-	-	-	-	-	-	-	-	-	Saa
1414	bail	-	-	-	-	-	-	-	-	-	Saa
1419	bail	-	-	-	-	-	-	-	-	-	Saa
1430	bail	-	-	-	-	-	-	-	-	-	445 bail Saa
1432	tag	-	10.73	24.60	-	-	-	-	-	-	soft
1457	tag	-	10.75	-	-	-	-	-	-	-	-
1457	pump set	at 16'	-	-	-	-	-	-	-	-	for intake
1500	pump	-	-	-	-	-	-	-	-	-	pump on
1501	pump	-	-	-	-	-	-	-	-	-	pump off
1503	tag	-	10.73	-	-	-	-	-	-	-	-
1505	pump	-	-	-	-	-	-	-	-	-	pump on
1510	pump	1.25	11.25	21.3	7.30	7.30	76.3	1278	51.4	0.82	-
1515	pump	1.25	11.26	-	21.1	7.32	56.8	1272	8.26	0.79	-
1520	pump	1.25	11.27	-	21.1	7.32	51.1	1266	6.12	0.82	pump 8.9
1525	pump	1.25	11.23	-	21.2	7.32	47.8	1263	48.0	0.77	pump intake at 16' bloc
1530	pump	1.25	11.25	-	21.2	7.32	44.6	1262	5.31	0.68	-

MW-28-025 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PS&T Topsoil GW Monitoring Program
Date: 5/14/13
Project #: 30126852
Arcadis Oversight: John Brinkhaus
Well ID: MW-28-25
pg 3 of 3

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 10.0 µS/cm)	Turb NTU (± 0.1 NTU)	DO (mg/L) (± 0.1 mg/L)	Notes/Gallons removed/Water Clarity
1535	pump	1.25	11.25	-	21.1	7.32	38.9	1260	5.54	0.56	
1540	pump	1.25	11.25	-	21.0	7.32	32.8	1258	4.43	0.46	pump intake set to 20' bloc
1545	pump	1.00	11.25	-	21.1	7.32	29.7	1258	4.62	0.43	
1550	pump	1.00	11.25	-	21.0	7.32	18.7	1258	5.16	0.42	pump intake set to 22' bloc
1550	pump	-	-	-	-	-	-	-	-	-	pump off 60 gallons pumped
0644	tag	-	10.85	-	-	-	-	-	-	-	pump in well
0655	pump	-	-	-	-	-	-	-	-	-	pump on
0700	pump	1.0	11.40	-	20.6	7.28	145.3	1322	2.12	1.10	pump set at 22' bloc (intake)
0705	pump	1.0	11.40	-	20.6	7.30	155.6	1369	1.00	0.78	
0710	pump	1.0	11.40	-	20.6	7.30	127.3	1367	0.79	0.67	
0715	pump	1.0	11.40	-	20.7	7.31	114.1	1363	0.60	0.60	turbidity: 0.60
0720	pump	1.0	11.40	-	20.7	7.31	94.0	1361	0.33	0.56	
0725	pump	1.0	11.40	-	20.7	7.32	82.4	1357	0.44	0.53	
0730	pump	1.0	11.40	-	20.7	7.32	71.9	1354	0.49	0.49	
0735	pump	1.0	11.40	-	20.7	7.32	64.5	1348	0.48	0.48	turbidity: 0.48
0740	pump	1.0	11.40	-	20.7	7.32	57.9	1343	0.24	0.48	
0745	pump	1.0	11.40	-	20.7	7.33	50.3	1340	0.28	0.48	50 gal pumped
0750	pump	1.0	11.40	-	20.7	7.33	43.7	1335	0.23	0.48	
0755	pump	1.0	11.40	-	20.7	7.33	36.0	1333	0.34	0.48	
0800	pump	1.0	11.41	-	20.7	7.33	34.3	1329	0.26	0.49	
0805	pump	1.0	11.43	-	20.7	7.33	29.7	1325	4.88	0.49	pump intake moved to 18' bloc
0810	pump	1.0	11.43	-	20.7	7.33	26.5	1319	1.43	0.49	
0815	pump	1.0	11.43	-	20.7	7.33	23.4	1316	0.86	0.50	
0820	pump	1.0	11.43	-	20.8	7.33	22.2	1316	2.77	0.50	pump intake 14' bloc
0825	pump	1.0	11.43	-	20.8	7.33	20.1	1315	1.18	0.50	
0830	pump	1.0	11.43	-	20.8	7.34	18.2	1314	0.67	0.50	
0831	pump	-	-	-	-	-	-	-	-	-	pump off
0849	tag	-	11.01	24.60	-	-	-	-	-	-	set

2P 5/17/13



Results of first round of bailing, which occurred on 5/16/23. Left bottle shows first bailer removed, middle bottle shows the 14th bail, and right bottle shows last bailer of the round which was the 20th bail.





Results of second round of bailing, which occurred on 5/16/23. Left bottle shows first bailer removed and right bottle shows last bailer of the round.




Results of second and third round of bailing, which occurred on 5/16/23. From left to right: The first bottle shows the first bailer removed from the second bailing round. The second bottle shows the last bailer removed from the second bailing round. The third bottle shows the first bailer removed from the third bailing round. The fourth and rightmost bottle shows the last bailer removed from the third bailing round.

MW-30-030

 CLIENT NAME: PG&E Arcadis PROJECT NO: 30106892		DAILY WELL CONSTRUCTION REPORT		REPORT DATE: 5/13/2023 REVISION NO: 3 REVISION DATE: 5/14/2023	
PG&E FIELD REPRESENTATIVE: David Diaz		PROJECT NAME / LOCATION: PG&E Topock GW Program			
PG&E CONSTRUCTION MANAGER: David Diaz		PROJECT DESCRIPTION: MW-30-30 redevelopment			
PROJECT MANAGER: Brian Prowd		CONSTRUCTION TASK MANAGER: Zach Hamer		QA INSPECTOR(s): Sean McGrane	
FIELD CONSTRUCTION/SAFETY MANAGER: Mat Beshears		WEATHER: Sunny		TEMPERATURE: 72-103 F	WIND: 7-23 mph
PERSONNEL ONSITE AND LENGTH OF SHIFT					
ABC Drilling (11.5 hours total) <ul style="list-style-type: none"> Dom Gonzalez - 11.5 hrs 					
Arcadis (12 hours total) <ul style="list-style-type: none"> Mathew Beshears - 12 hrs 					
TOTAL HOURS - 23.5 personnel hours					
EQUIPMENT ONSITE					
ABC Drilling <ul style="list-style-type: none"> 2022 F-550 (development rig, 475 HP) - 10 hours total 					
Arcadis <ul style="list-style-type: none"> 2022 Toyota Rav 4 (203 HP) - 4 hours total 					
SUMMARY OF WORK PERFORMED TODAY					
Field Activities Today <ul style="list-style-type: none"> Setup on MW-30-030. Continued mechanical development at MW-30-030. Removed approximately 3 gallons of wastewater at MW-30-030 during bailing. (See general comments). Cleaned and secured site. 					
HEALTH AND SAFETY					
Was A Job Safety Meeting Held This Date?				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Were there any lost-time accidents this date? (If Yes, attach copy of completed OSHA report)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was a Confined Space Entry Permit Administered This Date? (If Yes, attach copy of each permit)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Crane/Manlift/Trenching/Scaffold/HV Electrical/High Work/Hazmat Work Done? (If Yes, attach statement or checklist showing inspection performed)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Hazardous Material/Waste Released into the Environment? (If Yes, attach description of incident and proposed action)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<u>TAILGATE MEETING/SAFETY DISCUSSIONS:</u> <ul style="list-style-type: none"> Housekeeping Stop Work Authority Traffic safety Use of a spotter Work to be done for the day 					
OPERATIONS / PRODUCTION REPORT					

PLANNED WORK/TEST THIS WEEK:			
<ul style="list-style-type: none"> Well Development 			
VISITORS AND DISCUSSIONS:			
<ul style="list-style-type: none"> Alexander Smith (AE) visited to observe modifications to the MW-39-040 pad. Brandy McWain and Maria Dominguez (Transcon) visited to observe modifications to the MW-39-040 pad. GWP modified the MW-39-040 pad and vacuum wastewater from the tote. 			
QUALITY CONTROL REPORT			
No Materials Reported			
No Samples Reported			
No Testing Reported			
QUALITY AND/OR PRODUCTION ISSUES AND RESOLUTIONS: None			
REGULATORY COMPLIANCE REPORT			
PERMIT CONDITIONS THAT ARE OUT OF COMPLIANCE: None			
WASTE ACCUMULATION/STOCKPILE AREA INSPECTION			
Inspection Performed By:	N/A	Accumulation /Stockpile Area Inspected:	N/A
STORMWATER INSPECTION			
Inspection Performed By:	Deficiencies/Corrective Actions Required?		
N/A	N/A		
Required BMPs in Place:	Comments?		
N/A			
General Comments			
<ul style="list-style-type: none"> Archeology and biology onsite to observe MW-39-040 development pad modifications. During bailing at MW-30-030, sediment continued to infiltrate the well inhibiting the ability to effectively remove sediment from the well in order to continue mechanical development. Due to the high volume of sand, the surge block became stuck and was unable to be retrieved from the well. The development crew will attempt to remove the surge block the following day. The MW-30-030 well monument and well casing seem "loose" and can be jostled as one by hand. 			
Daily Report Signature:			

 CLIENT NAME: PG&E Arcadis PROJECT NO: 30106892		DAILY WELL CONSTRUCTION REPORT		REPORT DATE: 5/14/2023 REVISION NO: 2 REVISION DATE: 5/15/2023	
PG&E FIELD REPRESENTATIVE: David Diaz		PROJECT NAME / LOCATION: PG&E Topock GW Program			
PG&E CONSTRUCTION MANAGER: David Diaz		PROJECT DESCRIPTION: MW-30-030 and MW-39-040 Redevelopment			
PROJECT MANAGER: Brian Prowd		CONSTRUCTION TASK MANAGER: Zach Hamer		QA INSPECTOR(s): Sean McGrane	
FIELD CONSTRUCTION/SAFETY MANAGER: Mat Beshears		WEATHER: Sunny		TEMPERATURE: 72-103 F	WIND: 7-15 mph
PERSONNEL ONSITE AND LENGTH OF SHIFT					
ABC Drilling (11.5 hours total) <ul style="list-style-type: none"> Dom Gonzalez - 11.5 hrs 					
Arcadis (12 hours total) <ul style="list-style-type: none"> Mathew Beshears - 12 hrs 					
TOTAL HOURS - 23.5 personnel hours					
EQUIPMENT ONSITE					
ABC Drilling <ul style="list-style-type: none"> 2022 F-550 (development rig, 475 HP) - 10 hours total 					
Arcadis <ul style="list-style-type: none"> 2022 Toyota Rav 4 (203 HP) - 4 hours total 					
SUMMARY OF WORK PERFORMED TODAY					
Field Activities Today <ul style="list-style-type: none"> Setup on MW-30-030. Attempted to remove sand locked surge block at MW-30-030. (See general comments). Added approximately 3 gallons of freshwater at MW-30-030 during jetting. Breakdown MW-30-030. Setup at MW-39-040. Airlifted at MW-39-040. Removed approximately 20 gallons of wastewater at MW-39-040 during airlifting. Cleaned and secured site. 					
HEALTH AND SAFETY					
Was A Job Safety Meeting Held This Date?				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Were there any lost-time accidents this date? (If Yes, attach copy of completed OSHA report)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was a Confined Space Entry Permit Administered This Date? (If Yes, attach copy of each permit)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Crane/Manlift/Trenching/Scaffold/HV Electrical/High Work/Hazmat Work Done? (If Yes, attach statement or checklist showing inspection performed)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Hazardous Material/Waste Released into the Environment? (If Yes, attach description of incident and proposed action)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

TAILGATE MEETING/SAFETY DISCUSSIONS:

- Housekeeping
- Stop Work Authority
- Traffic safety
- Use of a spotter
- Work to be done for the day

OPERATIONS / PRODUCTION REPORT**PLANNED WORK/TEST THIS WEEK:**

- Well Development

VISITORS AND DISCUSSIONS:

- Maria Dominguez (Transcon) visited to observe work.

QUALITY CONTROL REPORT

No Materials Reported

No Samples Reported

No Testing Reported

QUALITY AND/OR PRODUCTION ISSUES AND RESOLUTIONS: None**REGULATORY COMPLIANCE REPORT****PERMIT CONDITIONS THAT ARE OUT OF COMPLIANCE:** None**WASTE ACCUMULATION/STOCKPILE AREA INSPECTION****Inspection Performed By:** N/A**Accumulation
/Stockpile Area
Inspected:**

N/A

STORMWATER INSPECTION**Inspection Performed By:**

N/A

Deficiencies/Corrective Actions Required?

N/A

Required BMPs in Place:

N/A

Comments?**General Comments**

- Attempted to remove sand locked surge block at MW-30-030 using jetting as well as pushing the surge block down before pulling up. During the attempt the well casing and monument appeared to move approximately 3 inches. The development crew stopped work to cut the cable on the surge block and left it in place in the well.

Daily Report Signature:

MW-30-030 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG

1 of 3

Date(s) 5/2/13

Project # 30106892

Arcadis Oversight: Mont Beshers

ARCADIS Job Title: Staff Geologist

Well ID MW-30-30

Measuring Point (MP)
ft. bgs/bgs 1.5'

Total Depth (ft. BMP) 33.92

Screen Interval (ft. bgs) 13.92-33.92

DTW (ft. BMP): 12.66

DTW (ft. bgs): 11.16

Water column in well (ft.): 21.26

3.47

Diameter of well (in.): 2

Gallons in well: 3.47

Rig operator: Dan Gozalez

Rig type: 6" development

Ballie make and size: 1.25" x 7'

Water added:

Surge block make and size: 1.5" / 5' 1.75" / 7'

Pump make and size: N/A

Water source: GW

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 1.0)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (<10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1415	tag	—	12.66	25.03	—	—	—	—	—	—	soft
1422	bail	—	—	—	—	—	—	—	—	—	blackish roots 0.3 gal
1430	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1431	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1433	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1434	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1436	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1438	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1439	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1443	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1444	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1446	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1450	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1451	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1452	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1455	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1457	bail	—	—	—	—	—	—	—	—	—	0.3 gal
1500	tag	—	12.64	33.38	—	—	—	—	—	—	soft TD
5/13/13 0945	tag	—	12.55	32.92	—	—	—	—	—	—	soft TD
0951	bail	—	—	—	—	—	—	—	—	—	0.3 gal
0957	bail	—	—	—	—	—	—	—	—	—	0.3 gal
0958	tag	—	12.57	33.83	—	—	—	—	—	—	hard TD
0950	surge	—	—	—	—	—	—	—	—	—	13-18' blue

Sample ID and Time: N/A

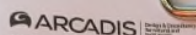
Total gallons removed at completion of development: —

Arcadis Staff: Mont Beshers

MW-30-030 Well Redevelopment Log

ARCADIS											
Well Development Record											
Project Name: PG&E Topock GW Monitoring Program											
PG 2 of 3											
Date(s) 5/12/13											
Project # 30106892											
Arcadis Oversight: Mat Basler Well ID MW-30-30											
Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (+1.0)	ORP (mV) (+10.0 mV)	Cond. (µS/cm) (+3%)	Turb NTU (<10.0 NTU)	DO (mg/L) (+0.3 mg/L)	Notes/Gallons Removed/Water Clarity
900	tag	-	-	22.80	-	-	-	-	-	-	soft
901	tag	-	-	21.75	-	-	-	-	-	-	soft
903	tag	-	-	21.20	-	-	-	-	-	-	soft
1000	tag	-	2.68	20.93	-	-	-	-	-	-	soft
1005	bail	-	-	-	-	-	-	-	-	-	brn/grey, very cloudy, 0.3 gal / bail
1126	bail	-	-	-	-	-	-	-	-	-	brn/grey, very cloudy, sand to 1.5'xs, 1000 gal
1128	bail	-	-	-	-	-	-	-	-	-	brn-grey, cloudy, high volume of sand
1136	bail	-	-	-	-	-	-	-	-	-	Sga
1157	bail	-	-	-	-	-	-	-	-	-	Sga
1158	tag	-	12.98	29.10	-	-	-	-	-	-	-
1252	tag	-	12.75	29.90	-	-	-	-	-	-	-
1328	tag	-	-	32.90	-	-	-	-	-	-	- soft
1352	tag	-	12.75	30.20	-	-	-	-	-	-	- soft
1400	bail	-	-	-	-	-	-	-	-	-	very sandy, brn
1403	bail	-	-	-	-	-	-	-	-	-	Sga
1412	bail	-	-	-	-	-	-	-	-	-	1000 gal Sga
1412	tag	-	13.00	32.00	-	-	-	-	-	-	-
1419	bail	-	-	-	-	-	-	-	-	-	brn/cloudy
1420	tag	-	-	29.80	-	-	-	-	-	-	-
1424	bail	-	-	-	-	-	-	-	-	-	-
1424	tag	-	-	31.47	-	-	-	-	-	-	brn, mostly (2) hrs sand
1442	bail	-	-	-	-	-	-	-	-	-	brn, mostly sand
1442	tag	-	-	31.65	-	-	-	-	-	-	- soft
1451	bail	-	-	-	-	-	-	-	-	-	brn, mostly sand
1451	tag	-	-	32.10	-	-	-	-	-	-	- soft
1458	bail	-	-	-	-	-	-	-	-	-	brn, mostly sand
1458	tag	-	-	33.85	-	-	-	-	-	-	soft, clear, 1000 gal
1501	tag	-	-	32.29	-	-	-	-	-	-	soft
1504	tag	-	-	31.92	-	-	-	-	-	-	soft
1510	bail	-	-	-	-	-	-	-	-	-	brn/grey, cloudy, 3' sand
1510	tag	-	-	33.87	-	-	-	-	-	-	hard
1510	Surge	-	-	-	-	-	-	-	-	-	-

MW-30-030 Well Redevelopment Log



Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG 3 of 3

Date(s) 5/12/13

Project # 30106892

Arcadis Oversight: Monty Boshert

Well ID

MW-30-30

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 1.0)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (≤ 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1512	tag	-	12.85	33.40	-	-	-	-	-	-	Soft
1513	surge	-	-	-	-	-	-	-	-	-	23'-18'6" toe
1529	tag	-	-	-	-	-	-	-	-	-	
5/14/13 737	tag	-	10.06	-	-	-	-	-	-	-	13.00' b/c toe



Results of first round of bailing, which occurred on 5/12/23. Left bottle shows first bailer removed and right bottle shows last bailer of the round which ended up being the 16th bail. First redevelopment day.



Results of second round of bailing, which occurred on 5/13/2023. Left bottle shows first bailer removed and right bottle shows last bailer of the round which ended up being the 5th bail. Second redevelopment day.

MW-35-060

MW-35-060 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG 1 of 3

Date(s) 5/6/2024

Project # 30106892

Arcadis Oversight: Mat Beshers

ARCADIS Job Title: Staff geologist

Well ID MW-35-60

Measuring Point (MP)

R. (ggs/bgs)

Total Depth (ft. BMP)

Screen Interval (ft. bgs)

DTW (ft. BMP): 26.03 ft.

DTW (ft. bgs):

Water column in well (ft): 22.0

Diameter of well (in.): 2"

Gallons in well: 5.22

Rig operator: Don

Rig type: TDA 6X

Boiler make and size: 1" x 57"

Water added: N/A

Surge block make and size: 23" x 3.5"

Pump make and size: Ingersoll Rand

Water source: GW

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (± 10.0 NTU)	DO (mg/l) (± 0.3 mg/l)	Notes/Gallons Removed/Water Clarity
1304	tag - DTW btoe: 26.03'					TD (soft): 57.32					
1338	begin bail										
1347	1 st bail - 0.3 gallons/bail										
1349	2 nd bail										
1352	3 rd bail										
1356	4 th bail - 1.2 total gallons removed										
1359	tag - DTW: 26.03 btoe TD (hard): 58.03										
1415	surge 38' - 43'										
1440	surge 45' - 48'										
1505	surge 53' - 58' 48' - 53'										
1530	surge 53' - 58'										
1555	end surging										
1600	tag - DTW btoe: 26.15 TD (soft): 58.0										
1605	1 st bail 0.3 gallons/bail										
1609	2 nd bail										
1613	3 rd bail 0.9 gallons total										
1616	4 th bail 1.2 gallons total										24 total gallons removed
5/10 1645											
730	tag DTW btoe: 26.04 ft TD (soft): 58.01 btoe										0.3 gal/bail removed
743	bail - 1										0.3 gal/bail removed
748	bail - 2										0.3 gal/bail removed
751	bail - 4										0.3 gal/bail removed
0755	tag - DTW btoe: 26.12 ft TD btoe: 58.05 (hard)										

Sample ID and Time: N/A

Total gallons removed at completion of development: 16.5

Arcadis Staff: Mat Beshers

MW-35-060 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG 2 of 3

Date(s) 5/9/23 - 5/10/23 Project # 30106892

Arcadis Oversight: *Monte B. Lopez*

Well ID MW-35-060

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (+/- 0.1)	ORP (mV) (+/- 10.0 mV)	Cond. (µS/cm) (+/- 3%)	Turb NTU (+/- 0.1 NTU)	DO (mg/L) (+/- 0.3 mg/L)	Notes/Gallons Removed/Water Quality
0800	Surge										38' - 43' b.toc
815	Surge										43' - 48' b.toc
850	Surge										48' - 55' b.toc
915	Surge										53' - 58' b.toc
940	End Surge										
941	Tag - DTW b.toc: 26.15 ft										TD b.toc: 58.00 soft
947	Boil 1st										0.3 gal/hr
956	Boil 5th										1.5 gal to 1st / 1st brown
1002	Tag DTW b.toc: 26.16 ft										TD b.toc: 58.03 (hard)
1116	Tag DTW b.toc: 26.13 ft										pump at 48' b.toc to be later start 1052.36
1120	Start pump										
1125	purge 1.83	26.13	-		27.2	7.26	120.0	6010	372	2.21	-
1130	purge 1.87	26.33	-		27.2	7.31	78.4	5947	198	2.14	-
1135	purge 1.86	26.33	-		27.2	7.32	61.6	5869	19.1	2.13	-
1140	purge 1.84	26.33	-		27.2	7.33	55.1	5825	47.4	2.14	10.3 NTU
1145	purge 1.83	26.33	-		27.2	7.33	54.8	5811	9.21	2.15	-
1150	purge 1.80	26.33	-		27.2	7.33	56.3	5801	6.73	2.17	-
1155	purge 1.83	26.33	-		27.2	7.34	57.7	5770	4.50	2.18	-
1156	move pump to 53' b.toc										
1200	purge 1.80	26.33	-		27.2	7.34	58.5	5786	30.6	2.17	-
1205	purge 1.83	26.33	-		27.2	7.35	60.0	5814	26.3	2.19	-
1210	purge 1.85	26.33	-		27.2	7.35	61.0	5783	6.98	2.19	-
1211	pump move to 6" above TD										
1215	purge 1.87	26.31	-		27.2	7.36	62.4	5829	-	2.19	digital tabulator not working
1220	purge 1.80	26.31	-		27.2	7.36	61.4	5800	6.18	2.20	-
1221	move pump to 37' b.toc										
1225	purge 1.80	26.31	-		27.3	7.38	64.3	5424	436	2.40	-
1230	purge 1.80	26.33	-		27.3	7.37	64.5	5746	279	2.23	-
1235	purge 1.80	26.33	-		27.3	7.37	64.5	5744	18.7	2.23	-
1240	purge 1.80	26.33	-		27.3	7.37	63.7	5714	5.4	2.25	-
1245	purge 1.80	26.33	-		27.3	7.38	64.9	5735	2.59	2.25	-
1250	purge 1.80	26.33	-		27.3	7.38	66.2	5745	2.3	2.25	-

MW-35-060 Well Redevelopment Log

ARCADIS

Project Name: PG&E Topock GW Monitoring Program

PG 3 of 3

Well Development Record

Date(s) 5/1/2013-5/1/13

Project # 30106892

Arcadis Oversight: Junt Boshuis

Well ID MW-35-60

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (≤ 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1251	raise pump to 57'			Stop							
1255	purge	1.80	26.33	—	27.2	7.37	67.2	6012	72.7	2.12	—
1300	purge	1.80	26.32	—	27.2	7.38	69.4	5825	7.21	2.22	—
1305	purge	1.80	26.32	—	27.3	7.36	70.5	5793	1.75	2.23	—
1310	purge	1.80	26.32	—	27.3	7.38	71.1	5775	1.68	2.40	—
1311	remove pump										
1323	DTW: 26.046 to										
1327	—	—	—	—	—	—	—	—	~1.65 ppm		total gallons removed 185

27
5/1/13



Results of first round of bailing on 5/9/2023. Left bottle shows first bailer removed and right bottle shows last bailer of the round which ended up being the 4th bail. First redevelopment day.




First round of bailing. Left bottle shows first bailer removed and right bottle shows the last bailer of the round which ended up being the 4th bail.

Second round of bailing. Left bottle shows first bailer removed and right bottle shows the last bailer of the round which ended up being the 5th bail.

Results of first (left) and second (right) rounds of bailing on 5/10/2023. Second redevelopment day.

MW-39-040

 CLIENT NAME: PG&E Arcadis PROJECT NO: 30106892		DAILY WELL CONSTRUCTION REPORT		REPORT DATE: 5/15/2023 REVISION NO: 1 REVISION DATE: 5/15/2023	
PG&E FIELD REPRESENTATIVE: David Diaz		PROJECT NAME / LOCATION: PG&E Topock GW Program			
PG&E CONSTRUCTION MANAGER: David Diaz		PROJECT DESCRIPTION: MW-39-040 and MW-28-025 Redevelopment			
PROJECT MANAGER: Brian Prowd		CONSTRUCTION TASK MANAGER: Zach Hamer		QA INSPECTOR(s): Sean McGrane	
FIELD CONSTRUCTION/SAFETY MANAGER: Mat Beshears		WEATHER: Sunny		TEMPERATURE: 77-103 F	WIND: 3-11 mph
PERSONNEL ONSITE AND LENGTH OF SHIFT					
ABC Drilling (11.5 hours total) <ul style="list-style-type: none"> Dom Gonzalez - 11.5 hrs 					
Arcadis (12 hours total) <ul style="list-style-type: none"> Mathew Beshears - 12 hrs 					
TOTAL HOURS - 23.5 personnel hours					
EQUIPMENT ONSITE					
ABC Drilling <ul style="list-style-type: none"> 2022 F-550 (development rig, 475 HP) - 10 hours total 					
Arcadis <ul style="list-style-type: none"> 2022 Toyota Rav 4 (203 HP) - 4 hours total 					
SUMMARY OF WORK PERFORMED TODAY					
Field Activities Today <ul style="list-style-type: none"> Setup on MW-39-040. Began a round of mechanical development at MW-39-040. Removed approximately 0.5 gallons of wastewater during bailing at MW-39-040. Attempted a round of pumping at MW-39-040. (See general comments). Removed approximately 83 gallons of wastewater during pumping at MW-39-040. Breakdown at MW-39-040. Setup at MW-28-025. Cleaned and secured site. 					
HEALTH AND SAFETY					
Was A Job Safety Meeting Held This Date?				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Were there any lost-time accidents this date? (If Yes, attach copy of completed OSHA report)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was a Confined Space Entry Permit Administered This Date? (If Yes, attach copy of each permit)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Crane/Manlift/Trenching/Scaffold/HV Electrical/High Work/Hazmat Work Done? (If Yes, attach statement or checklist showing inspection performed)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Was Hazardous Material/Waste Released into the Environment? (If Yes, attach description of incident and proposed action)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

TAILGATE MEETING/SAFETY DISCUSSIONS:

- Housekeeping
- Stop Work Authority
- Traffic safety
- Use of a spotter
- Work to be done for the day

OPERATIONS / PRODUCTION REPORT**PLANNED WORK/TEST THIS WEEK:**

- Well Development

VISITORS AND DISCUSSIONS:

- Maria Dominguez (Transcon) visited to observe work.

QUALITY CONTROL REPORT

No Materials Reported

No Samples Reported

No Testing Reported

QUALITY AND/OR PRODUCTION ISSUES AND RESOLUTIONS: None**REGULATORY COMPLIANCE REPORT****PERMIT CONDITIONS THAT ARE OUT OF COMPLIANCE:** None**WASTE ACCUMULATION/STOCKPILE AREA INSPECTION****Inspection Performed By:** N/A**Accumulation
/Stockpile Area
Inspected:**

N/A

STORMWATER INSPECTION**Inspection Performed By:**

N/A

Deficiencies/Corrective Actions Required?

N/A

Required BMPs in Place:

N/A

Comments?**General Comments**

- The development crew attempted to pump at MW-39-040 with a Waterra pump, however sediment continued to infiltrate the well. Other methods of redevelopment will be evaluated and discussed with PG&E.

Daily Report Signature:

MW-39-040 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Topock GW Monitoring Program

pg 1 of 1
Job Title: 3/1/16

Date(s): 4/1/03

Project # 30105892

Arcadis Oversight: Matt Boshuys

ARCADIS Job Title: 3/1/16

Well ID: MW-39-40

Measuring Point (MP)
ft. (bgs): 2'

Total Depth (ft. BMP): 42.40

Screen Interval (ft.
bgs): 32.03-42.03DTW
(ft. BMP): 12.55DTW
(ft. bgs): 10.55Water column
in well (ft): 31.85

Diameter of well (in.): 1

Gallons in well: 1.30

Rig operator: Dan Gonzalez

Rig type: F-550 C&T

Bailer make and size: 1/2" x 36"

Water added: -

Surge block make
and size: N/A

Pump make and size: Weathered hydro-lift 2

Water source: Gater

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 1.0)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 2%)	Turb NTU (± 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1257	tag	-	12.55	37.58	-	-	-	-	-	-	Soft
1355	airlift	-	-	-	-	-	-	-	-	-	20gal removed
1456	tag	-	13.50	40.40	-	-	-	-	-	-	hard soft
5/1/13 0652	tag	-	11.92	40.70	-	-	-	-	-	-	TD: 40.58' soft
0710	bail	-	-	-	-	-	-	-	-	-	cloudy brown 4oz removed
0712	bail	-	-	-	-	-	-	-	-	-	SQA
0715	bail	-	-	-	-	-	-	-	-	-	SQA
0716	tag	-	-	40.92	-	-	-	-	-	-	-
0716	bail	-	-	-	-	-	-	-	-	-	SQA
0721	bail	-	-	-	-	-	-	-	-	-	SQA
0724	bail	-	-	-	-	-	-	-	-	-	SQA
0726	bail	-	-	-	-	-	-	-	-	-	brn/cloudy 4oz removed
0730	bail	-	-	-	-	-	-	-	-	-	SQA
0732	bail	-	-	-	-	-	-	-	-	-	SQA
0734	bail	-	-	-	-	-	-	-	-	-	SQA
0736	bail	-	-	-	-	-	-	-	-	-	SQA
0740	bail	-	-	-	-	-	-	-	-	-	SQA
0744	tag	-	-	40.88	-	-	-	-	-	-	brn/cloudy 4oz removed
0935	pump	-	-	-	-	-	-	-	-	-	TD: 40.83 (Soft)
1040	pump	0.5	-	-	22.3	7.92	96.5	1283	over	2.51	pump on at 37' b/c
1145	pump	0	-	-	-	-	-	-	-	-	cup high sand content
1228	tag	-	11.74	39.33	-	-	-	-	-	-	pump off Soft

Sample ID and Time: N/A

Total gallons removed at completion of development: 60 gal - 85 gal

Arcadis Staff: Matt Boshuys



First discharge from wattera pump



Results during Waterra pumping at MW-39-040. From left to right, results were collected at 10:25, 10:40, 10:55, and 11:10.

MW-82-046

MW-82-046 Well Redevelopment Log

ARCADIS

Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG

1

of

4

Date(s) 5/4/23-5/12/23

Project # 30106892

Arcadis Oversight: Mat BeshearsARCADIS Job Title: Staff Geologist

Well ID MW-82-46

Measuring Point (MP)

ft. (ags/bgs)

Total Depth (ft. BMP)

Screen Interval (ft.)

bpt-btoc

DTW (ft. BMP): 29.14'

DTW (ft. bgs):

Water column

in well (ft): 19.07

Diameter of well (in.): 2

Gallons in well: 3.11

Rig operator: Dem BonchkaRig type: 6" development

Bailer make and size: 1.25'x7'

Water added: NA

Surge block make and size: 4.25'x7'

Pump make and size: pages mentionWater source: GW

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (± 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
0753	tag	DTW	bloc: 29.14'	TD	soft	bloc: 47.12'					
807	bail										grey/very cloudy 0.3 gal. opaque
810	bail										grey/very cloudy 0.3 gal.
813	bail										grey/very cloudy/sand 0.3 gal.
816	bail										grey/very cloudy 0.3 gal.
818	bail										grey/cloudy 0.3 gal.
820	bail										grey/cloudy 0.3 gal.
825	tag	DTW	bloc: 29.15'	TD	bloc: 48.21' (hard)						
845	surge										28'-33' bloc
9:10	surge										33'-38' bloc
9:35	surge										38'-43' bloc
10:00	surge										43'-48' bloc
10:25	tag	DTW	bloc: 29.28'	TD	bloc: 48.00 (soft)						
1130	tag	DTW	TD	bloc: 48.00 (soft)							
1135	bail										grey/brown silty sand 0.3 gal
1137	bail										sda
1139	bail										sda
1140	bail										sda
1141	bail										grey/brown silty/sand 0.3 gal
1143	bail										sda
1144	bail										grey/brown silty/sand 0.3 gal
1147	tag	DTW	bloc: 29.17'	TD	bloc: 48.21' (hard)						
1200	surge										28'-33' bloc

Sample ID and Time: NA

Total gallons removed at completion of development: 118.1

Arcadis Staff: Mat Beshears

MW-82-046 Well Redevelopment Log

ARCADIS
Well Development Record

Project Name: PG&E Topock GW Monitoring Program PG 2 of 4

Date(s): 5/12/23 Project #: 30106R32 Arcadis Oversight: 7th + 3rd hours Well ID: MW-82-46

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 5%)	Turb NTU (± 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1225	Surge	—	—	—	—	—	—	—	—	—	33'-38' btoc
1250	Surge	—	—	—	—	—	—	—	—	—	38'-43' btoc
1315	Surge	—	—	—	—	—	—	—	—	—	43'-48' btoc
1347	tag	DTW	btoc: 28.74'	TD	btoc: 48.04'	(soft)	—	—	—	—	—
1358	bail	—	—	—	—	—	—	—	—	—	brown/opaque 0.5 gal
1402	bail	—	—	—	—	—	—	—	—	—	S&A
1408	bail	—	—	—	—	—	—	—	—	—	S&A
1407	bail	—	—	—	—	—	—	—	—	—	S&A
1408	bail	—	—	—	—	—	—	—	—	—	S&A
1409	bail	—	—	—	—	—	—	—	—	—	brown/opaque 0.5 gal
1411	bail	—	—	—	—	—	—	—	—	—	S&A
1416	bail	—	—	—	—	—	—	—	—	—	S&A
1419	bail	—	—	—	—	—	—	—	—	—	brown/opaque 2.5 gallons total
1422	tag	DTW	btoc: 29.23'	TD	btoc: 48.21'	(hard)	—	—	—	—	—
1542	—	—	—	—	—	—	—	—	—	—	—
5/12/23 0843	tag	DTW	btoc: 29.14'	TD	btoc: 48.39'	(soft)	—	—	—	—	—
0657	bail	—	—	—	—	—	—	—	—	—	1st brown/opaque 0.5 gal/bail
0708	bail	—	—	—	—	—	—	—	—	—	6th brown/opaque 1.5 gal total
0710	tag	DTW	btoc: 29.26'	TD	btoc: 48.21'	(hard)	—	—	—	—	—
0740	set pump	38'	btoc	—	—	—	—	—	—	—	—
0745	start pumping	—	—	—	—	—	—	—	—	—	—
0747	stop pump	—	—	—	—	—	—	—	—	—	scum/trash/sediment
0750	start pump	—	—	—	—	—	—	—	—	—	—
0755	drop pump	to	43'	btoc	—	—	—	—	—	—	—
0755	pump	0.9	31.77	—	25.5	7.26	-175.5	450.9	over	0.73	DTW: 33.71
0800	pump	0.5	32.00	—	26.0	7.24	-160.2	148.00	over	0.93	—
0805	pump	0.42	31.50	—	25.9	7.23	-136.1	138.75	830	1.73	—
0810	pump	0.38	31.0	—	26.0	7.21	-133.9	137.43	900	1.45	—
0815	pump	0.32	30.64	—	26.1	7.20	-134.2	135.55	820	1.21	increase flow rate
0820	pump	0.42	31.16	—	26.0	7.19	-134.6	135.0	504	1.07	—
0825	pump	0.38	31.28	—	26.0	7.19	-134.0	135.5	679	1.20	—
0830	pump	0.36	31.15	—	26.1	7.19	-134.6	135.72	603	1.24	—

MW-82-046 Well Redevelopment Log

ARCADIS

Well Development Record

Project Name: PS&E Toprock GW Monitoring Program

PG 3 of 4

Date(s): 5/11/23-5/11/23

Project #: 30106802

Arcadis Oversight: Matt Carlson

Well ID: MW-82-46

Time	Task	GPM	DTW (ft. BMP)	Total Depth (ft. BMP)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 2%)	Turb NTU (± 0.5 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Salinity Removed/Water Clarity
0835	pump	0.38	31.30	-	26.1	7.18	-130.9	13566	659	1.15	
0840	pump	0.38	31.22	-	26.1	7.19	-131.0	13567	650	1.19	
0845	pump	0.38	31.21	-	26.2	7.19	-128.0	13589	526	1.28	
0850	pump	0.38	31.21	-	26.2	7.19	-126.4	13510	513	1.32	
0855	pump	0.38	31.21	-	26.3	7.19	-125.5	13581	461	1.31	
0900	pump	0.38	31.21	-	26.3	7.18	-124.4	13566	495	1.31	
0905	pump	0.40	31.21	-	26.3	7.18	-124.1	13440	448	1.39	
0910	pump	0.40	31.21	-	26.3	7.18	-122.2	13622	435	1.40	
0911	drop pump	increase rate to pump									well dry, pump on 3" above TD
0914	tag	DTW b/toc	~48								well dry
0923	tag	2.5	29.26								pump on
0925	tag	-	48.00								well dry
0932	tag	0	29.30								
0934	tag	0	29.26								pump on
0936	tag	2.5	48.00								well dry
0945	tag	0	29.26								pump on
0947	tag	2.5	48.00								well dry
0955	tag	0	29.26								pump on
0958	tag	2.5	48.00								well dry
1007	tag	0	29.26								more pump to 38" b/toc
1010	tag	0.5	29.26								pump on
1015	pump	0.38	31.43	-	26.5	7.21	-112.9	13346	43.9	1.53	
1020	pump	0.5	32.29	-	25.4	7.21	-117.0	13322	48.0	1.82	
1025	pump	0.52	32.90	-	26.3	7.21	-117.0	13460	54.3	1.97	reduce flow rate
1030	pump	0.35	31.45	-	26.7	7.21	-115.6	14025	36.5	2.01	
1035	pump	0.35	31.45	-	26.7	7.20	-118.9	13691	25.7	1.81	
1040	pump	0.35	31.30	-	26.7	7.20	-119.1	13556	15.3	1.73	
1045	pump	0.36	31.30	-	26.7	7.20	-120.0	13570	11.8	1.64	no ORP reading
1050	pump	0.35	31.30	-	26.7	7.21	-117.1	13440	7.58	1.62	
1055	pump	0.38	31.35	-	26.7	7.21	-114.8	13522	6.92	1.64	
1100	pump	0.38	31.43	-	26.8	7.21	-116.5	13740	4.2	1.58	Turbidity: 6.64

MW-82-046 Well Redevelopment Log

ARCADIS

Well Development Record

Project Name: PG&E Topock GW Monitoring Program

PG 4 of 4

Date(s) 5/1/23 - 5/1/23 Project # 30106892

Arcadis Oversight: Janet Boshack

Well ID MW-82-46

Time	Task	GPM	DTW (ft. B.M.P)	Total Depth (ft. B.M.P)	Temp °C	pH (± 0.1)	ORP (mV) (± 10.0 mV)	Cond. (µS/cm) (± 3%)	Turb NTU (≤ 10.0 NTU)	DO (mg/L) (± 0.3 mg/L)	Notes/Gallons Removed/Water Clarity
1105	pump	0.38	31.33	-	26.5	7.21	-103.0	14740	707	0.73	pump dropped to
1110	pump	0.38	31.47	-	26.5	7.21	-112.5	13635	212	1.55	
1115	pump	0.38	31.66	-	26.5	7.20	-114.3	13609	68.1	1.51	
1120	pump	0.36	31.66	-	26.5	7.21	-114.1	13691	10.7	1.63	
1125	pump	0.36	31.55	-	26.5	7.21	-113.1	13714	7.16	1.69	
1130	pump	0.38	31.58	-	26.5	7.21	-112.6	13712	6.33	1.71	
1135	pump	0.38	31.60	-	26.5	7.21	-110.3	13669	7.27	1.70	
1137	pump	0	-	-	-	-	-	-	-	-	110gals pumped pump cut
1236	tag	-	29.18	48.21	-	-	-	-	-	-	

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5/1/23



Results of first round of bailing on 5/11/2023. Left bottle shows first bailer removed and right bottle shows last bailer of the round which was the 6th bail. First redevelopment day.



Additional photos of first round of bailing on 5/11/23. Left bottle shows first bailer removed and right bottle shows last bailer of the round which ended up being the 6th bail.



Results of second round of bailing on 5/11/2023. Left bottle shows first bailer removed and right bottle shows last bailer of the round which was the 7th bail. First redevelopment day.



Results of third round of bailing on 5/11/2023. Left bottle shows first bailer removed and right bottle shows last bailer of the round which was the 9th bail. First redevelopment day.



Results of fourth round of bailing on 5/12/21. Left bottle shows first bailer removed and right bottle shows last bailer of the round which was the 6th bail. Second redevelopment day.