

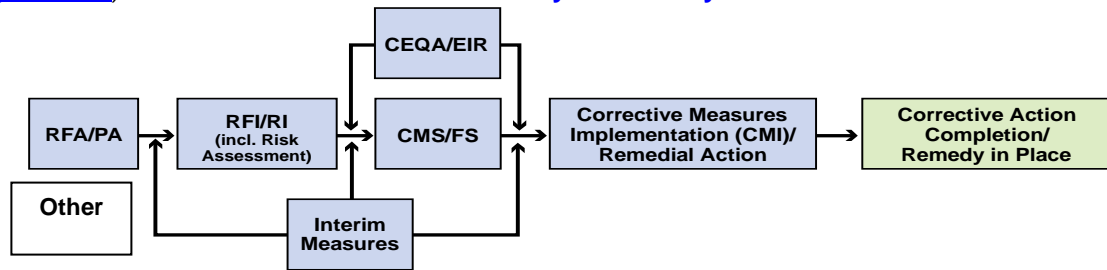
Topock Project Executive Abstract

<p>Document Title: Groundwater and Surface Water Monitoring Report, First Quarter 2009, PG&E Topock Compressor Station, Needles, California</p> <p>Submitting Agency/Author: DTSC</p> <p>Final Document? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Date of Document: June 5, 2009</p> <p>Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other)</p> <p>PG&E</p>
<p>Priority Status: HIGH <input type="checkbox"/> MED <input checked="" type="checkbox"/> LOW</p> <p>Is this time critical? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Action Required:</p> <p><input checked="" type="checkbox"/> Information Only Review & Comment</p> <p>Return to: _____</p> <p>By Date: _____</p> <p><input type="checkbox"/> Other / Explain:</p>
<p>Type of Document:</p> <p><input type="checkbox"/> Draft <input checked="" type="checkbox"/> Report <input type="checkbox"/> Letter <input type="checkbox"/> Memo</p> <p><input type="checkbox"/> Other / Explain:</p>	<p>Is this a Regulatory Requirement?</p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>If no, why is the document needed?</p> <p>For monitoring purposes.</p>
<p>What does this information pertain to?</p> <p><input type="checkbox"/> Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA)</p> <p><input checked="" type="checkbox"/> RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment)</p> <p><input type="checkbox"/> Corrective Measures Study (CMS)/Feasibility Study (FS)</p> <p><input type="checkbox"/> Corrective Measures Implementation (CMI)/Remedial Action</p> <p><input type="checkbox"/> California Environmental Quality Act (CEQA)/Environmental Impact Report (EIR)</p> <p><input type="checkbox"/> Interim Measures</p> <p><input type="checkbox"/> Other / Explain:</p>	<p>What is the consequence of NOT doing this item? What is the consequence of DOING this item?</p> <p>Data collected from the GMP supports the RCRA and CERCLA processes. This report is required by DTSC.</p>
<p>Other Justification/s:</p> <p><input type="checkbox"/> Permit <input type="checkbox"/> Other / Explain:</p>	
<p>Brief Summary of attached document:</p> <p>The Groundwater and Surface Water Monitoring (GMP) Report presents results of groundwater and surface water monitoring activities conducted at the Topock site. During the first quarter 2009, the GMP monitoring activities include: 1) a quarterly river sampling event on January 20-21, 2) two monthly sampling events on January 5-6 and February 2-3, and 3) a quarterly (and semiannual) sampling event on March 9-13. Key results are:</p> <p>1. Overall, the first quarter 2009 chromium results are in the range of concentrations observed during the prior 2008 sampling events.</p> <p>2. A historic minimum occurred at MW-34-100 with concentrations of 97.9 µg/L and 123 µg/L for Cr(VI) and Cr(T) in March 2009, respectively.</p> <p>Written by: PG&E</p>	
<p>Recommendations:</p> <p>Second quarter 2009 GMP activities will be conducted. This report is for information only.</p>	
<p>How is this information related to the Final Remedy or Regulatory Requirements:</p> <p>Data collected from the GMP support the RCRA and CERCLA processes.</p>	

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). The link to the Documents Library is currently UNDER CONSTRUCTION.



Legend

RFA/PA – RCRA Facility Assessment/Preliminary Assessment

RFI/RI – RCRA Facility Investigation/CERCLA Remedial Investigation (including Risk Assessment)

CMS/FS – RCRA Corrective Measure Study/CERCLA Feasibility Study

CEQA/EIR – California Environmental Quality Act/Environmental Impact Report



**Pacific Gas and
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Yvonne Meeks
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June 5, 2009

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

Subject: Groundwater and Surface Water Monitoring Report, First Quarter 2009
PG&E Topock Compressor Station, Needles, California

Dear Mr. Yue:

Enclosed is the Groundwater and Surface Water Monitoring Report, First Quarter 2009 for the Pacific Gas And Electric Company (PG&E) Topock Compressor Station. This report provides results for the quarterly (and semiannual) monitoring event conducted from March 9 through 13, 2009 at 51 groundwater monitoring wells, as well as results from monthly sampling events performed in January and February 2009. This report also presents results for the shoreline and in-channel Colorado River sampling conducted during January 2009.

If you have any questions on the groundwater and surface water monitoring report, please call me at (805) 234-2257.

Sincerely,

A handwritten signature in blue ink that reads 'Yvonne Meeks'.

Enclosure

cc: Chris Guerre/DTSC
Karen Baker/DTSC
Susan Young/CA-SLC
Nancy Garcia/AZ-SLD

Groundwater and Surface Water Monitoring Report, First Quarter 2009, Pacific Gas and Electric Company Topock Compressor Station, Needles, California

PREPARED FOR: California Department of Toxic Substances Control
ON BEHALF OF: Pacific Gas and Electric Company
PREPARED BY: CH2M HILL Inc.
DATE: June 5, 2009

This technical memorandum presents the results of First Quarter 2009 groundwater and surface water monitoring activities conducted at the Pacific Gas and Electric Company (PG&E) Topock Compressor Station near Needles, California. The monitoring activities are conducted as part of PG&E's Groundwater and Surface Water Monitoring Program (GMP) for the Topock site.

Figure 1 shows the locations and sampling frequencies of the monitoring wells in the GMP as of March 2009, the location of the PG&E Topock Compressor Station, and other site features. (All figures are located at the end of this technical memorandum.) The complete GMP schedule includes 108 groundwater monitoring wells, two active extraction wells, one test well, and four shoreline and 12 in-channel Colorado River surface water sampling locations. For background and description of the current groundwater and surface water sampling, analyses, and monitoring program, refer to PG&E's *Groundwater and Surface Water Monitoring Report, Fourth Quarter 2008 and Annual Summary, PG&E Topock Compressor Station*, dated March 2008.

Monitoring Summary

The following monitoring activities were conducted during First Quarter 2009 (January through March) and are addressed in this technical memorandum:

- The first quarter GMP monitoring event, which also served as the Semiannual sampling event, was conducted from March 9 through 13 2009 and included sampling 51 groundwater monitoring wells and one test well (TW-4) for hexavalent chromium [Cr(VI)], total chromium [Cr(T)], specific conductance, and field pH. Quarterly groundwater sampling of the Arizona monitoring wells (MW-54, MW-55, and MW-56 clusters) was included in this event. During this GMP event, three selected wells (MW-10, MW-12, and MW-22) were also sampled for California Code of Regulations Title 22 metals analyses.
- River sampling was conducted on January 20 and 21, 2009 during a low-river stage event. Samples were collected from four shoreline and 12 in-channel surface water locations, as shown in Figure 1. Samples were analyzed for Cr(VI), Cr(T), specific

conductance, and pH. In addition to the scheduled river samples, unfiltered samples were collected at shoreline locations and shallow in-channel locations for Cr(VI) and Cr(T) analyses. The unfiltered surface water analyses from Third Quarter 2008, Fourth Quarter 2008, and First Quarter 2009 river sampling will provide an unfiltered data set that may be used for risk assessment.

- Monthly groundwater sampling events were conducted from January 5 through 6 and February 2 through 3, 2009, which included sampling five monitoring wells (MW-34-80, MW-34-100, MW-44-115, MW-44-125, and MW-46-175) and two extraction wells (PE-1 and TW-3D) for Cr(VI) and Cr(T).

Monitoring Activities and Results

The groundwater and surface water monitoring data presented in Tables 1 through 4 include the results from First Quarter 2009. (All tables are provided at the end of this technical memorandum.) Table 4 includes data from March 2009. Groundwater sampling results from the 2008 annual monitoring period is included as Attachment 1.

Groundwater Monitoring

Figure 1 shows the locations of the GMP monitoring wells sampled during the reporting period. The analytical results for Cr(VI), Cr(T), specific conductance, and field pH in groundwater samples collected from GMP wells during March 2009 are presented in Table 1. Groundwater sampling forms and chain-of-custody forms are included in Attachment 2.

Figures 2 through 4 present the March 2009 Cr(VI) results for wells monitoring the shallow, mid-depth, and deep intervals of the alluvial aquifer, respectively. Overall, First Quarter 2009 chromium results are in the range of concentrations observed during the prior 2007 and 2008 sampling events. In First Quarter 2009, the maximum detected Cr(VI) and Cr(T) concentrations were 9,910 micrograms per liter ($\mu\text{g/L}$) and 12,400 $\mu\text{g/L}$, respectively, at MW-50-200. Most wells exhibit either stable or decreasing concentrations of Cr(VI) and Cr(T). Notably, a historic minimum occurred at MW-34-100, with concentrations of 97.9 $\mu\text{g/L}$ and 123 $\mu\text{g/L}$ for Cr(VI) and Cr(T), respectively during March 2009. Refer to PG&E's *Topock Quarterly Performance Monitoring Report and Evaluation, August through October*, dated December 22, 2008, for the recent concentration trends observed in wells in the area of active interim measure pumping. A review and discussion of the 2009 groundwater sampling results and concentration trends will be included in the annual GMP report.

The Arizona monitoring well samples from March were analyzed for Cr(VI), Cr(T), specific conductance, and field pH. Analytical results showed no chromium detections in the Arizona monitoring wells except for MW-55-120, which showed concentrations of 3.23 $\mu\text{g/L}$ and 4.12 $\mu\text{g/L}$ for Cr(VI) and Cr(T), respectively. These detections are consistent with the analytical results from the December 2008 event.

Surface Water Monitoring

Figure 1 shows the locations of the shoreline and in-channel surface water monitoring stations. Beginning in September 2008, the number of shoreline sampling locations was reduced from 10 to four locations. Locations R-19, SW-1, R-28, and RRB are shown in Figure 3. Table 2 presents the sampling results of chromium and other analytes from the January 2009 surface water monitoring event (including in-channel locations and shoreline stations). Cr(VI) and Cr(T) were not detected during the January 2009 event.

Unfiltered surface water samples were collected with the January river sampling event for the purpose of creating an unfiltered data set for possible risk assessment use. Shallow in-channel locations and shoreline locations were sampled. New sampling stations C-TM-1 and C-TM-2 were established for this unfiltered sampling effort. Results from unfiltered surface water sampling are presented in Table 3. All results were non-detect for Cr(VI) and Cr(T).

Title 22 Metals Groundwater Analyses

Table 4 presents the California Code of Regulations Title 22 metals results for the GMP monitoring wells sampled in March 2009. In addition to Cr(T), the trace metals detected during the March 2009 groundwater sampling were arsenic, barium, cobalt, copper, molybdenum, selenium, silver, and vanadium. Excluding Cr(T) (wells MW-10 and MW-12) and arsenic (wells MW-12 and MW-22), the dissolved concentrations of the trace metals detected during the March 2009 sampling are below their respective California drinking water standards.

Data Validation and Completeness

The laboratory analytical data from the semiannual GMP sampling event (First Quarter 2009) were independently reviewed by project chemists to assess data quality and to identify deviations from analytical requirements.

During data validation, anomalous metals data were identified by the project chemists when comparing against historical data. As specified in the Project Quality Assurance Project Plan, corrective action was initiated and confirmation analysis was requested.

The results of the confirmation analysis were consistent with the historical data. Final results were reported from the confirmation analyses (all metals analysis were performed by Truesdail Laboratories). Upon resolution of this issue, completeness objectives were met for all method and analyte combinations. No additional analytical deficiencies were identified in First Quarter 2009 monitoring data. Additional details are provided in the data validation reports, which are kept in the project file and are available upon request.

Schedule for Second Quarter 2009 GMP Activities

The following GMP activities are scheduled for the second quarter 2009 monitoring period:

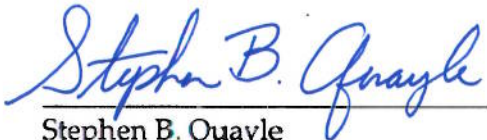
- The April monthly groundwater sampling event at five monitoring wells and two extraction wells was conducted on April 6 and 7, 2009.

- Quarterly surface water sampling at four shoreline and 12 in-channel locations was conducted on April 9 and 10, 2009. This included another round of unfiltered surface water sample collection.
- Quarterly GMP groundwater sampling, including the Arizonia wells, was conducted on April 29 and May 8, 2009.
- The June monthly groundwater sampling event at five monitoring wells and two extraction wells will be conducted during the second week of June 2009.

The results of the quarterly groundwater and surface water monitoring events and the monthly sampling events will be reported in the Second Quarter 2009 GMP Monitoring Report, which will be submitted approximately 12 weeks after the June 2009 sampling event.

Certification

This report was prepared by CH2M HILL under the supervision of the professional whose seal and signature appears herein in accordance with currently accepted professional practices. No warranty, expressed or implied, is made.



Stephen B. Quayle
Professional Geologist, PG No. 7800



Report Reviewed by:



Jay Piper
CH2M HILL Project Manager

Tables

TABLE 1
Groundwater Sampling Results, January 2009 through March 2009
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Chromium (total) (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-10	12-Mar-09	265	250	3,400	7.58
MW-12	12-Mar-09	2,490	2,660	6,400	8.27
MW-18	11-Mar-09	24.5	22.7	1,400	7.53
	11-Mar-09 FD	23.2	19.6	1,400	---
MW-20-70	12-Mar-09	2,290	2,710	3,200	7.68
MW-20-100	13-Mar-09	5,490	5,470	3,700	7.35
MW-20-130	13-Mar-09	7,500	7,720	13,000	7.42
MW-21	11-Mar-09	1.90	2.32	12,000	6.88
MW-22	12-Mar-09	ND (2.1)	2.72	34,000	6.72
MW-23	12-Mar-09	32.6	32.6	16,000	7.10
MW-24BR	11-Mar-09	ND (0.2)	ND (1.0)	15,000	8.07
MW-26	10-Mar-09	1,990	2,220	3,800	7.59
	10-Mar-09 FD	2,100	2,720	3,800	---
MW-27-85	11-Mar-09	ND (1.0)	ND (1.0)	16,000	7.24
MW-28-90	11-Mar-09	ND (0.2)	ND (1.0)	7,800	7.60
MW-29	12-Mar-09	ND (0.2)	ND (1.0)	3,200	7.20
MW-32-20	10-Mar-09	ND (2.1)	4.56	47,000	6.72
MW-33-40	12-Mar-09	ND (0.2)	ND (1.0)	6,000	8.05
MW-33-90	13-Mar-09	22.2	20.1	11,000	7.46
MW-33-150	12-Mar-09	9.00	10.9	17,000	7.49
MW-33-210	12-Mar-09	11.5	11.8	19,000	7.31
MW-34-80	07-Jan-09	ND (0.2)	ND (1.0)	---	7.18
	03-Feb-09	ND (1.0)	ND (1.0)	---	7.60
	10-Mar-09	ND (1.0)	1.69	8,100	7.31
MW-34-100	07-Jan-09	456	442	---	7.14
	03-Feb-09	170	152	---	7.64
	10-Mar-09	97.9	123	17,000	7.40
MW-35-60	11-Mar-09	35.7	33.0	6,800	7.37
MW-36-90	12-Mar-09	ND (0.2)	ND (1.0)	1,700	7.98
	12-Mar-09 FD	ND (0.2)	ND (1.0)	1,700	---
MW-36-100	12-Mar-09	63.5	90.6	13,000	6.96
MW-37D	12-Mar-09	425	682	16,000	7.70
MW-39-80	11-Mar-09	4.67	5.66	12,000	6.93
MW-39-100	13-Mar-09	708	920	20,000	6.71
MW-40D	11-Mar-09	115	135	16,000	7.49
MW-41S	11-Mar-09	17.8	21.2	5,200	7.80
MW-41D	11-Mar-09	ND (1.0)	2.80	20,000	7.67
MW-42-55	09-Mar-09	ND (1.0)	ND (1.0)	12,000	7.18
MW-42-65	09-Mar-09	ND (1.0)	ND (1.0)	14,000	6.96
MW-44-70	12-Mar-09	ND (0.2)	ND (1.0)	2,000	7.45
MW-44-115	07-Jan-09	428	425	---	7.15

TABLE 1

Groundwater Sampling Results, January 2009 through March 2009
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Chromium (total) (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-44-115	02-Feb-09		434	433	---	7.77
	02-Feb-09	FD	434	425	---	---
	10-Mar-09		434	472	13,000	7.24
MW-44-125	07-Jan-09		300	290	---	7.35
	02-Feb-09		255	250	---	8.00
	10-Mar-09		112	126	12,000	7.93
MW-46-175	07-Jan-09		190	196	---	9.01
	07-Jan-09	FD	192	205	---	---
	03-Feb-09		143	136	---	8.39
	12-Mar-09		90.5	89.2	17,000	8.28
MW-46-205	12-Mar-09		4.98	5.95	20,000	8.29
MW-47-55	12-Mar-09		28.4	27.0	4,300	7.55
	12-Mar-09	FD	27.6	30.2	4,300	---
MW-47-115	11-Mar-09		18.6	20.8	14,000	7.58
MW-48	11-Mar-09		ND (0.2)	ND (1.0)	18,000	7.22
MW-49-135	11-Mar-09		ND (1.0)	ND (1.0)	14,000	7.80
MW-49-275	11-Mar-09		ND (1.0)	ND (1.0)	29,000	8.88
MW-49-365	11-Mar-09		ND (5.2)	ND (1.0)	44,000	8.15
MW-50-095	12-Mar-09		60.1	72.6	5,100	7.83
	12-Mar-09	FD	61.2	71.1	5,100	---
MW-50-200	13-Mar-09		9,910	12,400	20,000	7.70
MW-51	12-Mar-09		3,990	5,000	12,000	7.44
MW-52S	12-Mar-09		ND (1.0)	ND (1.0)	12,000	6.56
MW-52M	12-Mar-09		ND (1.0)	ND (1.0)	17,000	7.67
MW-52D	12-Mar-09		ND (1.0)	6.63	20,000	7.34
MW-53M	12-Mar-09		ND (1.0)	ND (2.0)	19,000	8.16
MW-53D	12-Mar-09		ND (2.1)	ND (2.0)	31,000	8.46
MW-54-85	09-Mar-09		ND (0.2)	ND (1.0)	---	7.73
MW-54-140	09-Mar-09		ND (1.0)	ND (1.0)	---	8.09
MW-54-195	09-Mar-09		ND (2.0)	ND (1.0)	---	8.42
MW-55-45	09-Mar-09		ND (0.2)	ND (1.0)	---	7.65
MW-55-120	09-Mar-09		3.23	4.12	---	7.85
	09-Mar-09	FD	3.09	4.04	---	---
MW-56S	13-Mar-09		ND (0.2)	ND (1.0)	---	7.25
MW-56M	13-Mar-09		ND (1.0)	ND (1.0)	---	7.14
MW-56D	13-Mar-09		ND (2.0)	ND (1.0)	---	7.71
PE-1	09-Jan-09		33.4	27.6	5,800	7.70 J ^
	04-Feb-09		26.3	25.5	5,580	---
	04-Mar-09		23.5	22.4	5,540	7.74 ^
TW-3D	09-Jan-09		1,570	1,300	8,450	7.38 J ^
	04-Feb-09		1,330	1,620	8,360	---
	04-Mar-09		1,280	1,280	8,390	7.37 ^

TABLE 1
Groundwater Sampling Results, January 2009 through March 2009
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Chromium (total) (µg/L)	Specific Conductance (µS/cm)	Field pH
TW-4	10-Mar-09	14.0	13.0	19,000	7.51

Notes:

µg/L micrograms per liter
 µS/cm microSiemens per centimeter
 ND not detected at listed reporting limit
 J concentration or reporting limit estimated by laboratory or data validation
 (---) not collected or not available
 FD field duplicate sample
 ^ Analytical pH results, Method SM4500-HB

Hexavalent chromium analytical methods: SM3500 (reporting limit 10 µg/L), EPA 218.6 (reporting limit 0.2 µg/L for undiluted samples).

Other analytical methods: dissolved chromium (total) - Method SW6010B or SW6020A, specific conductance - EPA 120.1.

Wells TW-3D and PE-1 are active extraction wells for the IM hydraulic containment system.

TABLE 2
Surface Water Sampling Results, January 2009
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Chromium (total) (µg/L)	Specific Conductance (µS/cm)	Lab pH
In-channel Locations					
C-BNS-D	01/20/2009	ND (0.2)	ND (1.0)	944	8.38 J
C-CON-S	01/21/2009	ND (0.2)	ND (1.0)	959	8.53 J
C-CON-D	01/21/2009	ND (0.2)	ND (1.0)	955	8.55 J
C-I-3-S	01/20/2009	ND (0.2)	ND (1.0)	938	8.51 J
C-I-3-D	01/20/2009	ND (0.2)	ND (1.0)	947	8.53 J
C-MAR-S	01/20/2009	ND (0.2)	ND (1.0)	1060	8.07 J
C-MAR-D	01/20/2009	ND (0.2)	ND (1.0)	1040	8.08 J
C-NR1-S	01/21/2009	ND (0.2)	ND (1.0)	956	8.46 J
C-NR1-D	01/21/2009	ND (0.2)	ND (1.0)	952	8.44 J
C-NR3-S	01/21/2009	ND (0.2)	ND (1.0)	964	8.49 J
C-NR3-D	01/21/2009	ND (0.2)	ND (1.0)	968	8.48 J
C-NR4-S	01/21/2009	ND (0.2)	ND (1.0)	956	8.45 J
C-NR4-D	01/21/2009	ND (0.2)	ND (1.0)	949	8.47 J
C-R22A-S	01/20/2009	ND (0.2)	ND (1.0)	964	8.45 J
C-R22A-D	01/20/2009	ND (0.2)	ND (1.0)	960	8.48 J
C-R27-S	01/20/2009	ND (0.2)	ND (1.0)	962	8.43 J
C-R27-D	01/20/2009	ND (0.2)	ND (1.0)	953	8.47 J
C-TAZ-S	01/20/2009	ND (0.2)	ND (1.0)	949	8.55 J
C-TAZ-D	01/20/2009	ND (0.2)	ND (1.0)	943	8.52 J
C-TM-1	01/20/2009	ND (0.2)	ND (1.0)	---	---
C-TM-2	01/20/2009	ND (0.2)	ND (1.0)	---	---
Shoreline Samples					
R-19	01/21/2009	ND (0.2)	ND (1.0)	951	8.55 J
R-28	01/21/2009	ND (0.2)	ND (1.0)	957	8.51 J
RRB	01/21/2009	ND (0.2)	ND (1.0)	977	8.36 J
SW1	01/21/2009	ND (0.2)	ND (1.0)	1090	7.83 J

Notes:

µg/L micrograms per liter
µS/cm microSiemens per centimeter
ND not detected at listed reporting limit
J concentration or reporting limit estimated by laboratory or data validation
(---) data not collected or not available

Hexavalent chromium analytical method EPA 218.6 (reporting limit 0.2 µg/L for undiluted samples).

Other analytical methods: dissolved chromium (total) - Method SW6020A, specific conductance - EPA 120.1, pH -SM4500-HB.

TABLE 3

Unfiltered Hexavalent and Chromium (total) Results, Risk Assessment Data Collection, January 2009
 River Monitoring Events
 PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Chromium (total) (µg/L)
In-channel Locations			
C-CON-S	01/21/2009	ND (10)	ND (1.0)
C-I-3-S	01/20/2009	ND (10)	ND (1.0)
C-MAR-S	01/20/2009	ND (10)	ND (1.0)
C-NR1-S	01/21/2009	ND (10)	ND (1.0)
C-NR3-S	01/21/2009	ND (10)	ND (1.0)
C-NR4-S	01/21/2009	ND (10)	ND (1.0)
C-R22A-S	01/20/2009	ND (10)	ND (1.0)
C-R27-S	01/20/2009	ND (10)	ND (1.0)
C-TAZ-S	01/20/2009	ND (10)	ND (1.0)
C-TM-1	01/20/2009	ND (10)	ND (1.0)
C-TM-2	01/20/2009	ND (10)	ND (1.0)
Shoreline Samples			
R-19	01/21/2009	ND (10)	ND (1.0)
SW1	01/21/2009	ND (10)	ND (1.0)
R-28	01/21/2009	ND (10)	ND (1.0)
RRB	01/21/2009	ND (10)	ND (1.0)

Notes:

µg/L micrograms per liter

ND not detected at listed reporting limit

(---) data not collected or not available

Analytical methods: unfiltered chromium, total (Method SW 6020A), unfiltered hexavalent chromium (SW 3500)

TABLE 4
Title 22 Metals Results, March 2009
PG&E Topock Groundwater and Surface Water Monitoring Program

California MCL:		6	10 ^	1,000	4	5	NE	50	1,000*	15	2	NE	100	50	100*	2	NE	5,000*
Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
MW-10	03/12/2009	ND (10)	5.22	42.1	ND (1.0)	ND (3.0)	ND (5.0)	250	ND (5.0)	ND (10)	ND (0.2)	50.9	ND (10)	ND (10)	ND (5.0)	ND (1.0)	22.4	ND (10)
MW-12	03/12/2009	ND (10)	59.0	66.8	ND (2.0)	ND (3.0)	ND (5.0)	2,660	6.90	ND (10)	ND (0.2)	24.9	ND (10)	12.4	ND (5.0)	ND (1.0)	23.3	ND (10)
MW-22	03/12/2009	ND (10)	14.4	203	ND (1.0)	ND (3.0)	6.32	2.72	ND (5.0)	ND (10)	ND (0.2)	21.5	ND (10)	ND (10)	7.45	ND (1.0)	ND (5.0)	ND (10)

Notes:
ND not detected at listed reporting limit
FD field duplicate sample
^ U.S. Environmental Protection Agency (USEPA) MCL as of January 23, 2006
NE not established
* Secondary USEPA MCL

Title 22 metals are the metals listed in California Code of Regulations, Title 22, Section 66261.24(a)(2)(A).

The maximum contaminant levels (MCLs) listed, in micrograms per liter (µg/L), are the California primary drinking water standards, except where noted.

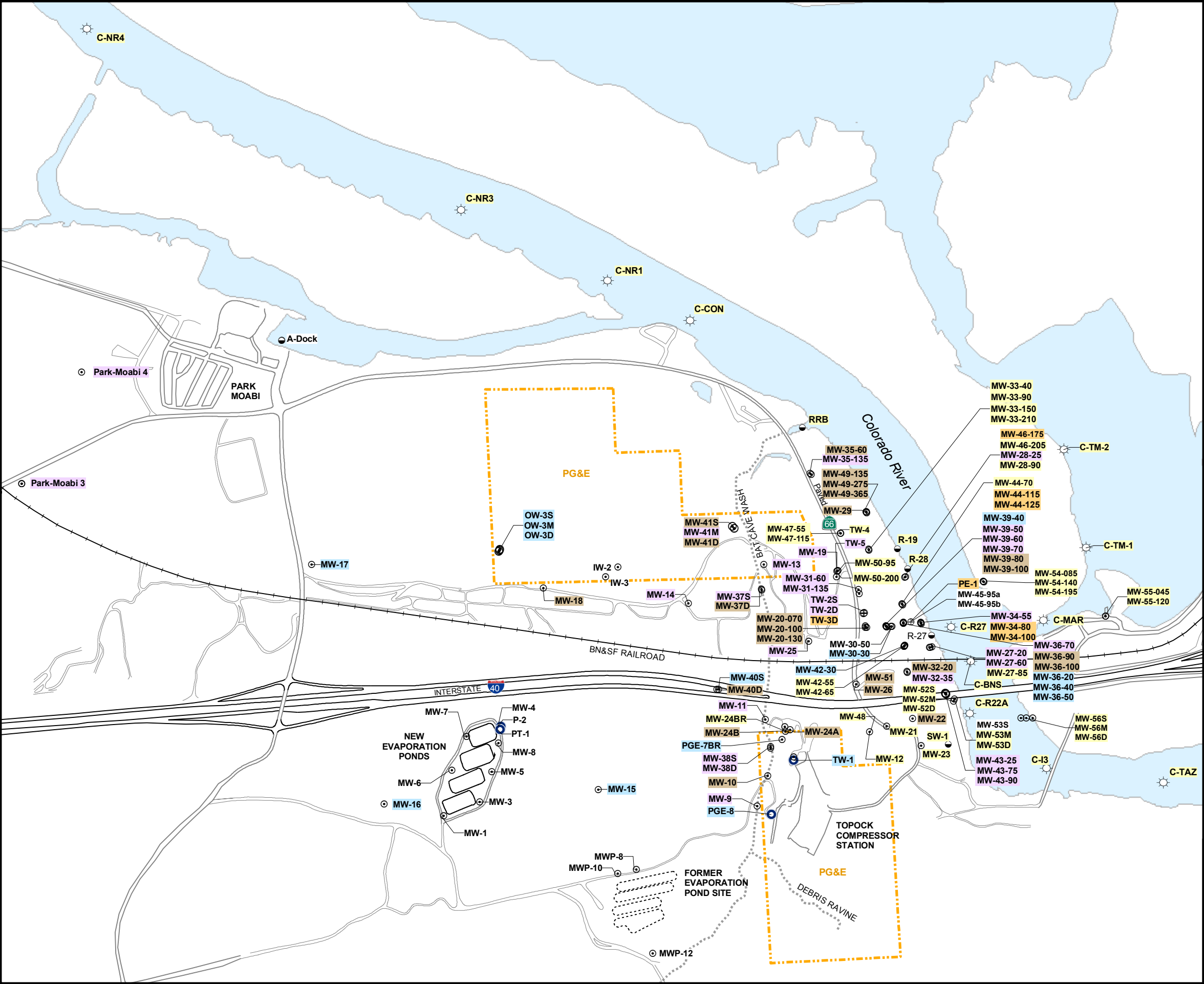
The USEPA MCL for arsenic was lowered to 10 ug/L in January 2006. The California MCL of 50 ug/L is currently under review. California Division of Drinking Water and Environmental Management is proceeding with the regulatory and adoption process.

All results are dissolved metals concentrations in µg/L from field-filtered samples.

Metals analyzed by Methods SW6010B or SW6020A or SW7470A.

Analytes detected above MCL are in bold.

Figures



LEGEND

- Groundwater Monitoring Well
- Test Well or Supply Well (Inactive)
- Extraction Well
- River Channel Surface Water Monitoring Location
- Shoreline Surface Water Monitoring Location
- PG&E Property Boundary

Sampling Frequency for Groundwater and Surface Water Monitoring Program (GMP) - March 2009

- MW-17 Biennial Sampling
- MW-9 Annual Sampling
- MW-22 Semi-Annual Sampling
- MW-12 Quarterly Sampling
- MW-34-100 Monthly Sampling

Note: Shoreline and river channel locations are sampled twice during periods of low river stage (typically November - January). Otherwise they are sampled quarterly.

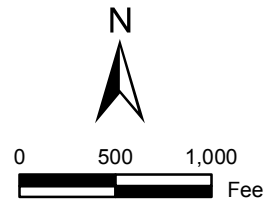
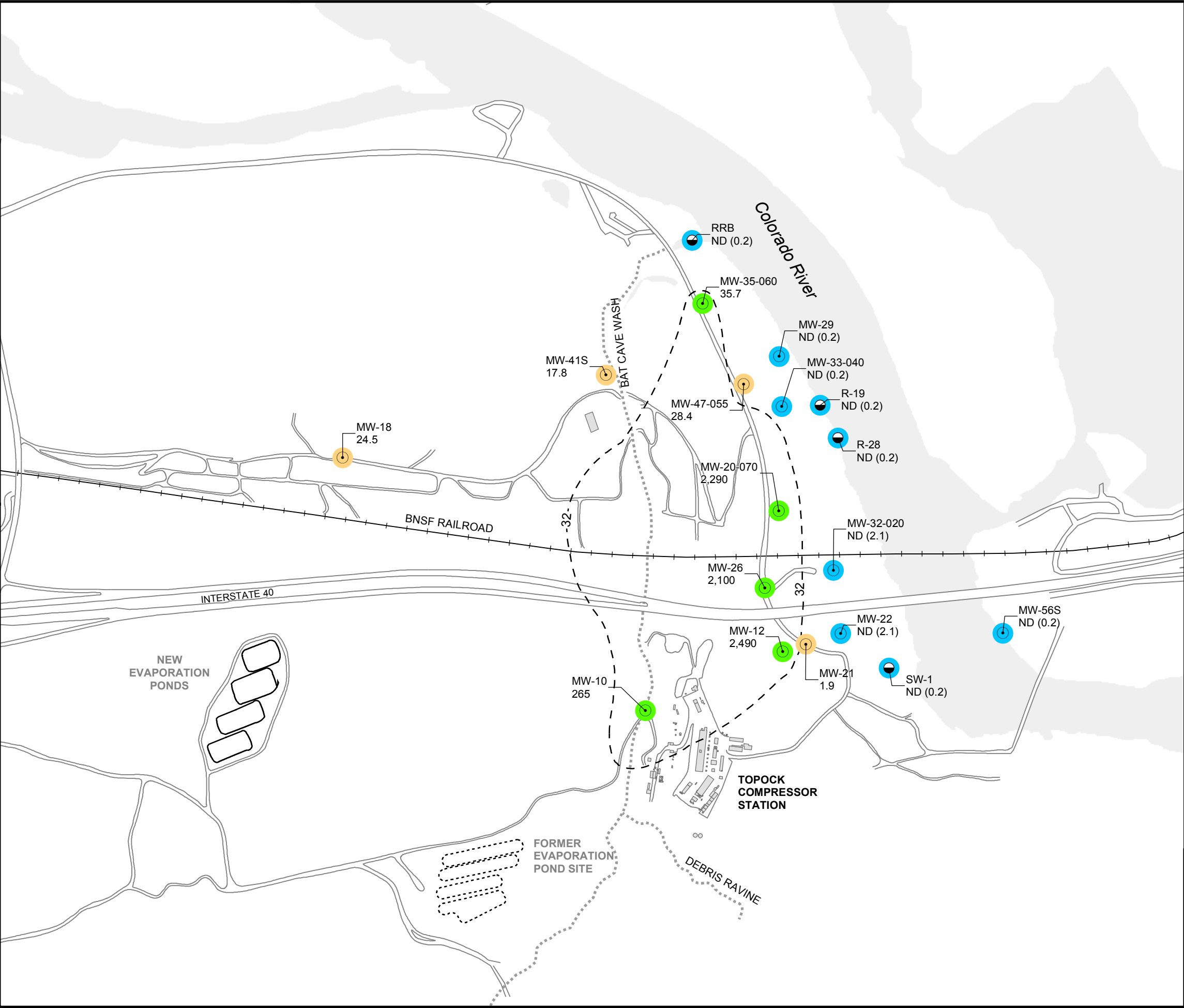


FIGURE 1
MONITORING LOCATIONS AND
SAMPLING FREQUENCY FOR GMP
MARCH 2009
GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

- Monitoring, Test, or Supply Well
- Shoreline Surface Water Monitoring Location

Results for 1st Quarter Monitoring Events

6.48 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter (µg/L)

Results shown are maximum concentrations in primary and duplicate samples from wells completed in **Shallow zone** of Alluvial Aquifer.

ND (0.2) Cr(VI) not detected, at listed reporting limit

Cr(VI) Concentrations in Groundwater Samples

- Not detected at analytical reporting limit
- Concentration between reporting limit and 32 µg/L
- Concentration ≥ 32 µg/L
- Approximate Cr(VI) isoconcentration contour in Alluvial Aquifer, **March 2009**

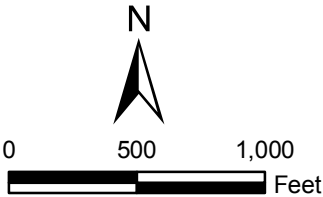
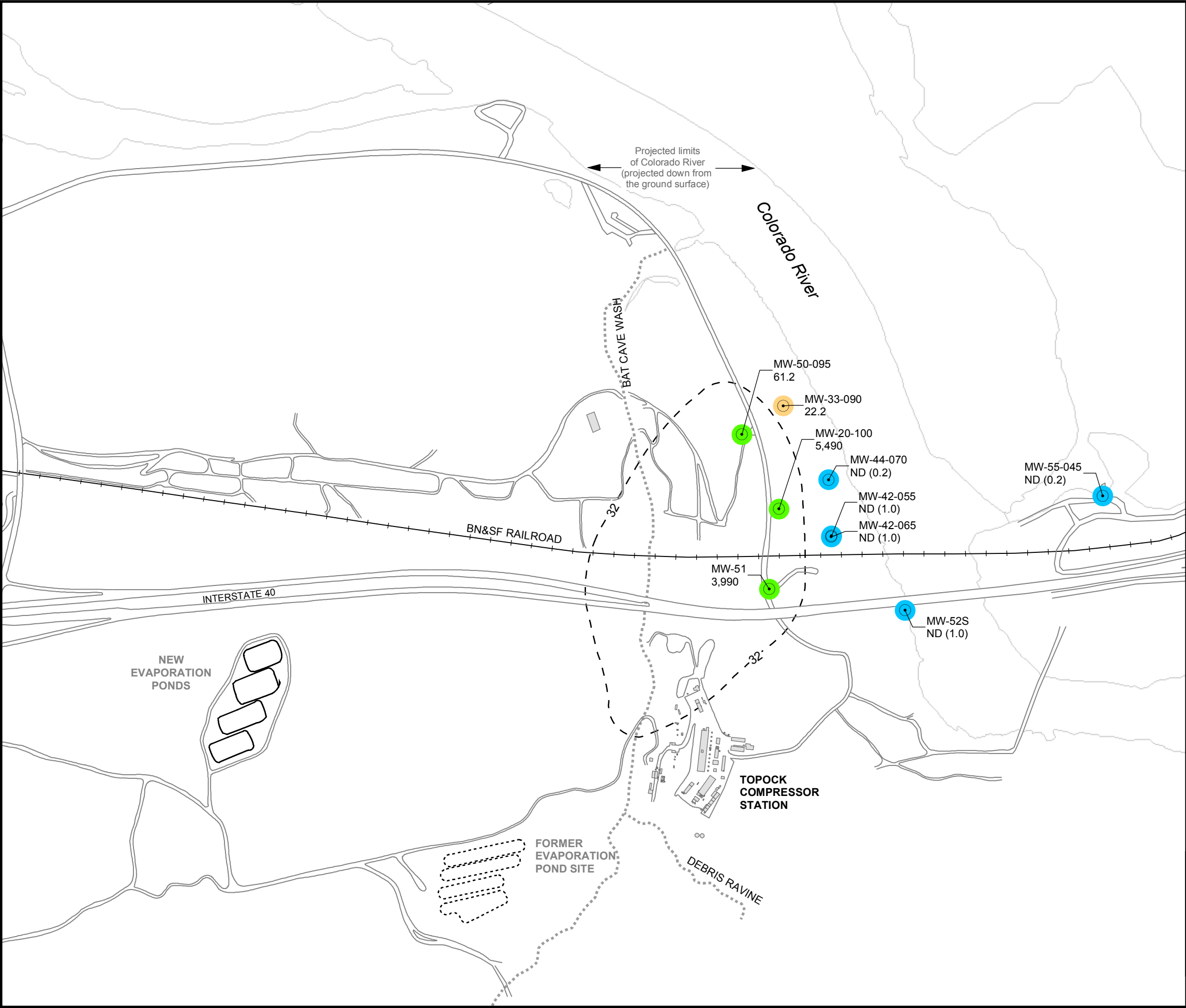


FIGURE 2
Cr(VI) SAMPLING RESULTS
SHALLOW WELLS IN ALLUVIAL AQUIFER AND
SHORELINE SURFACE WATER LOCATIONS
1ST QUARTER 2009 MONITORING

GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

Monitoring, Test, or Supply Well

Results for 1st Quarter Monitoring Events

6.48 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter (µg/L)

Results shown are maximum concentrations in primary and duplicate samples from wells completed in **Mid-Depth zone** of Alluvial Aquifer.

ND (0.2) Cr(VI) not detected at listed reporting limit

Cr(VI) Concentrations in Groundwater Samples

- Not detected at analytical reporting limit
- Concentration between reporting limit and 32 µg/L
- Concentration ≥ 32 µg/L

Approximate Cr(VI) isoconcentration contour in Alluvial Aquifer, **March 2009**

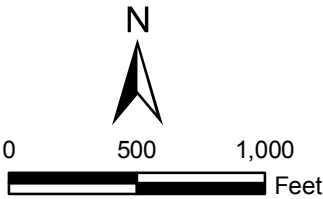
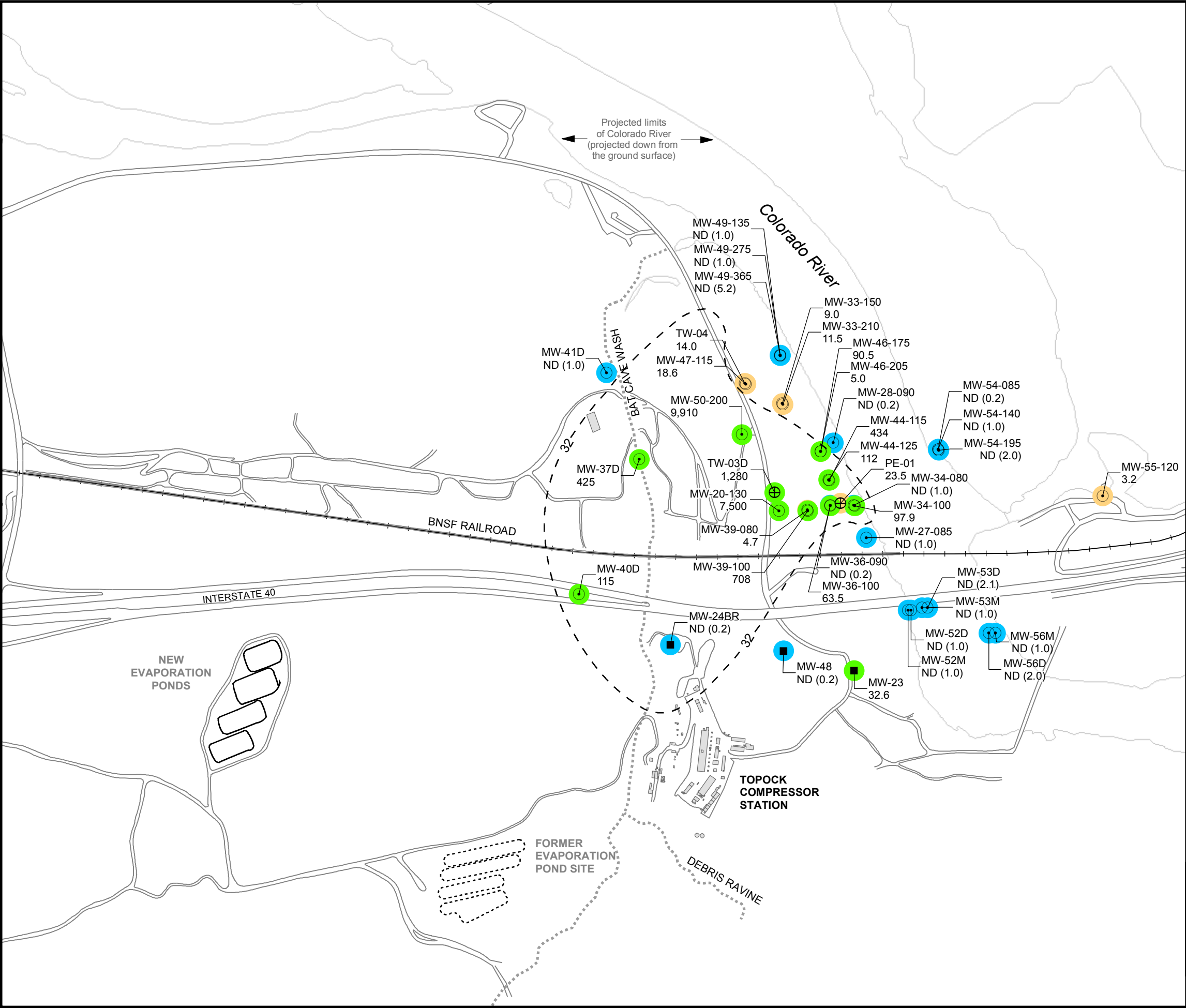


FIGURE 3
Cr(VI) SAMPLING RESULTS
MID-DEPTH WELLS IN ALLUVIAL AQUIFER
1ST QUARTER 2009 MONITORING

GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPECK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

- ⊕ Extraction Well
- Bedrock Well
- ⊙ Monitoring, Test or Supply Well

Results for 1st Quarter Monitoring Events

6.48 Concentration of hexavalent chromium [Cr(VI)] in micrograms per liter (µg/L)

Results shown are maximum concentrations in primary and duplicate samples from wells completed in **Deep zone** of Alluvial Aquifer.

ND (0.2) Cr(VI) not detected at listed reporting limit

Cr(VI) Concentrations in Groundwater Samples

- Not detected at analytical reporting limit
- Concentration between reporting limit and 32 µg/L
- Concentration ≥ 32 µg/L

Approximate Cr(VI) isoconcentration contour in Alluvial Aquifer, March 2009

The Cr(VI) distribution map for the lower depth interval incorporates all available data and depicts the inferred location of the Cr(VI) plume based upon analysis of the relevant hydrogeologic, water quality, and geochemical data collected during 2005-2008 site monitoring. There is no data confirming the existence of Cr(VI) under the Colorado River.

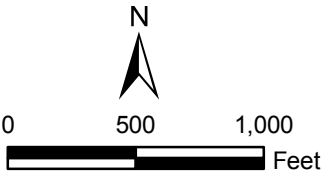


FIGURE 4
Cr(VI) SAMPLING RESULTS
DEEP WELLS IN ALLUVIAL AQUIFER
1ST QUARTER 2009 MONITORING

GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Attachment 1
Groundwater COC Sampling Results, January
through December 2008

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-9	06-Oct-08	282	280	3,300	7.20
MW-10	11-Mar-08	478	473	2,990	7.53
	06-Oct-08	462	483	3,100	7.40
MW-12	10-Mar-08	2,760	2,860	5,270	8.44
	05-May-08	2,580	---	6,200	8.19
	07-Oct-08	2,680	3,000	6,400	8.13
	07-Oct-08 FD	2,580	2,990	6,400	---
	11-Dec-08	2,460	2,740	5,760	8.06
MW-13	02-Oct-08	23.2	23.0	1,900	7.00
MW-14	03-Oct-08	27.9 J	29.1	1,500	7.57
MW-16	03-Oct-08	9.15	6.51	---	7.85
MW-17	02-Oct-08	7.93	6.92	---	7.40
MW-18	11-Mar-08	30.2	27.7	1,230	7.57
	11-Mar-08 FD	30.0	27.2	1,320	---
	02-Oct-08	25.5	26.4	1,300	6.92
MW-19	07-Oct-08	682	786	2,500	7.31
MW-20-70	12-Mar-08	2,580	2,260	2,880	7.53
	07-Oct-08	2,010	2,070	3,200	7.44
MW-20-100	12-Mar-08	9,690	7,910	3,420	7.39
	08-Oct-08	6,770	8,140	3,500	7.23
MW-20-130	12-Mar-08	13,300	11,300	12,200	7.42
	08-Oct-08	8,990	11,700	12,000	7.29
MW-21	11-Mar-08	ND (1.0)	1.80	12,900	7.00
	06-May-08	ND (1.0)	3.01	13,000	6.76
	02-Oct-08	ND (1.0)	ND (1.0)	15,000	6.66
	11-Dec-08	1.86	ND (1.0)	12,400	7.66
MW-22	11-Mar-08	ND (1.0)	ND (1.0)	27,200	6.66
	03-Oct-08	ND (0.2)	ND (1.0)	29,000	6.68
MW-23	21-Jan-08	ND (1.0)	3.40	---	---
	22-Jan-08	2.10	36.5	---	---
	23-Jan-08	34.3	40.0	---	---
	10-Mar-08	ND (20)	24.3	15,700	---
	11-Mar-08	43.7	39.6	---	7.30
	06-May-08	22.2	---	17,000	7.00
	06-May-08 FD	23.2	---	17,000	---
	01-Oct-08	8.03	8.50	16,000	6.75
	11-Dec-08	5.21 J	6.46	16,200	7.27
	12-Dec-08 FD	2.53 J	6.22	16,300	---
MW-24BR	11-Mar-08	7.10	7.46	14,000	8.10
	08-May-08	ND (1.0)	---	15,000	---
	02-Oct-08	ND (0.2)	ND (1.0)	14,000	8.41
	10-Dec-08	ND (1.0)	ND (1.0)	13,500	7.93
MW-25	07-Oct-08	544	618	1,300	7.27
	07-Oct-08 FD	552	572	1,300	---

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-26	12-Mar-08		2,980	2,560	3,570	7.50
	12-Mar-08	FD	2,720	2,640	3,570	---
	08-Oct-08		2,560	2,410	3,800	7.18
MW-27-20	03-Oct-08		ND (0.2)	ND (1.0)	1,100	7.64
MW-27-60	03-Oct-08		0.32	ND (1.0)	4,300	7.54
	10-Dec-08		ND (0.2)	ND (1.0)	3,870	7.28
MW-27-85	10-Mar-08		ND (1.0)	ND (1.0)	15,900	7.26
	06-May-08		ND (1.0)	ND (1.0)	17,000	6.95
	03-Oct-08		ND (0.2)	1.72	16,000	7.07
	10-Dec-08		ND (1.0)	ND (1.0)	15,800	6.70
MW-28-25	08-Oct-08		ND (0.2)	ND (1.0)	1,300	7.68
MW-28-90	13-Mar-08		ND (0.2)	ND (1.0)	7,420	7.15
	07-May-08		ND (0.2)	ND (1.0)	7,600	7.34
	08-Oct-08		ND (0.2)	ND (1.0)	7,600	7.65
	09-Dec-08		ND (1.0)	ND (1.0)	7,270	6.79
MW-29	12-Mar-08		ND (1.0)	ND (1.0)	3,840	6.84
	30-Sep-08		0.38 J	1.68	2,800	7.55
	10-Dec-08		ND (0.2) J	ND (1.0)	3,010	6.85
MW-31-60	06-Oct-08		534	498	3,400	7.30
MW-31-135	06-Oct-08		ND (8.6)	20.3	11,000	7.52
MW-32-20	10-Mar-08		ND (2.1)	ND (1.0)	38,800	6.65
	03-Oct-08		ND (0.2)	ND (1.0)	60,000	6.68
MW-32-35	03-Oct-08		ND (0.2)	ND (1.0)	22,000	6.94
MW-33-40	12-Mar-08		ND (0.2)	ND (1.0)	5,380	7.76
	05-May-08		ND (0.2)	ND (1.0)	5,100	8.31
	06-Oct-08		ND (1.0)	1.08	10,000	7.69
	09-Dec-08		ND (1.0)	2.10	7,640	7.25
MW-33-90	12-Mar-08		23.7	22.5	10,300	7.22
	05-May-08		21.1	20.2	10,000	7.48
	06-Oct-08		21.1	19.2	11,000	7.43
	11-Dec-08		23.2	22.6	9,960	7.32
MW-33-150	12-Mar-08		7.87	8.06	16,300	7.29
	06-May-08		8.83	9.21	16,000	7.62
	06-Oct-08		8.84	9.07	17,000	7.54
	06-Oct-08	FD	8.91	7.86	17,000	---
	11-Dec-08		10.4	9.73	16,400	7.33
MW-33-210	12-Mar-08		11.7	11.5	18,900	7.13
	05-May-08		10.6	9.93	18,000	7.15
	06-Oct-08		12.4	11.7	18,000	7.33
	11-Dec-08		13.2	12.8	18,000	7.13
MW-34-55	07-Oct-08		ND (0.2)	ND (1.0)	1,200	7.54
MW-34-80	16-Jan-08		ND (1.0)	ND (1.0)	---	7.27
	16-Jan-08	FD	ND (1.0)	1.20	---	---
	13-Feb-08		ND (0.2)	ND (1.0)	---	7.26
	12-Mar-08		ND (0.2)	10.9	8,590	7.07

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-34-80	08-Apr-08	ND (1.0)	ND (1.0)	---	7.83
	06-May-08	ND (0.2)	ND (1.0)	8,730	7.12
	04-Jun-08	ND (1.0)	ND (1.0)	---	7.57
	08-Jul-08	ND (1.0)	ND (1.0)	---	7.75
	20-Aug-08	ND (0.2)	ND (1.0)	---	7.27
	03-Sep-08	ND (1.0)	ND (1.0)	---	7.36
	07-Oct-08	ND (0.2)	1.52	8,700	7.32
	06-Nov-08	ND (0.2)	ND (1.0)	---	6.45
	10-Dec-08	ND (1.0)	ND (1.0)	7,490	6.99
MW-34-100	16-Jan-08	564	648	---	7.69
	13-Feb-08	492	560	---	7.68
	12-Mar-08	358	338	17,100	7.45
	08-Apr-08	280	276	---	8.11
	08-Apr-08	FD 292	274	---	---
	06-May-08	234	228	17,000	7.32
	06-May-08	FD 238	228	17,000	---
	04-Jun-08	268	323	---	7.41
	08-Jul-08	250	266	---	7.61
	08-Jul-08	FD 257	268	---	---
	20-Aug-08	283	287	---	7.45
	20-Aug-08	FD 250	253	---	---
	03-Sep-08	294	308	---	7.59
	07-Oct-08	272	245	17,000	7.35
	07-Oct-08	FD 286 J	242	17,000	---
	06-Nov-08	364	447	---	7.28
	10-Dec-08	481	422	15,800	7.36
	10-Dec-08	FD 519	435	16,000	---
MW-35-60	11-Mar-08	35.8	35.4	6,450	7.36
	07-Oct-08	24.3	26.8	7,700	7.15
	07-Oct-08	FD 26.5	27.7	7,700	---
MW-35-135	07-Oct-08	32.0	32.8	10,000	7.58
MW-36-70	03-Oct-08	ND (0.2)	ND (1.0)	1,400	7.83
MW-36-90	11-Mar-08	0.71	1.46	2,880	7.42
	11-Mar-08	FD 0.703	1.24	2,780	---
	03-Oct-08	0.61	1.46	1,800	7.67
MW-36-100	11-Mar-08	146	145	14,200	6.72
	07-Oct-08	88.4	89.0	13,000	7.04
MW-37S	03-Oct-08	7.59	8.74	5,000	7.58
	03-Oct-08	FD 7.68 J	7.80	5,000	---
MW-37D	13-Mar-08	695	742	14,800	7.72
	06-Oct-08	451	542	15,000	7.49
MW-39-50	01-Oct-08	ND (0.2)	ND (1.0)	2,700	7.76
MW-39-60	01-Oct-08	ND (0.2)	ND (1.0)	3,500	7.62
MW-39-70	01-Oct-08	ND (0.2)	ND (1.0)	5,200	7.42
MW-39-80	14-Mar-08	34.8	28.6	12,600	6.95
	01-Oct-08	7.58	8.05	12,000	6.97

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-39-100	14-Mar-08	1,150	1,290	19,900	6.67
	01-Oct-08	706	613	19,000	6.72
MW-40D	13-Mar-08	115	108	15,300	7.49
	06-Oct-08	ND (100)	102	16,000	7.30
MW-41S	12-Mar-08	19.1	18.3	4,820	7.78
	03-Oct-08	19.3	18.8	5,000	7.77
	03-Oct-08 FD	19.4 J	19.9	5,000	---
MW-41M	03-Oct-08	10.2	11.4	15,000	7.39
MW-41D	12-Mar-08	2.08	2.98	20,800	7.65
	03-Oct-08	ND (0.2)	ND (1.0)	19,000	7.67
MW-42-55	11-Mar-08	ND (1.0)	ND (1.0)	15,400	6.71
	06-May-08	ND (1.0)	ND (1.0)	14,000	7.14
	03-Oct-08	ND (0.2)	ND (1.0)	13,000	7.20
	09-Dec-08	ND (1.0)	ND (1.0)	12,000	6.64
MW-42-65	11-Mar-08	ND (1.0)	ND (1.0)	17,200	6.72
	06-May-08	ND (1.0)	ND (1.0)	15,000	6.91
	03-Oct-08	ND (0.2) J	1.09	14,000	6.91
	09-Dec-08	ND (1.0)	ND (1.0)	13,600	6.41
MW-43-25	02-Oct-08	ND (0.2)	ND (1.0)	1,400	7.49
MW-43-75	02-Oct-08	ND (0.2)	ND (1.0)	14,000	7.63
MW-43-90	02-Oct-08	ND (0.2)	ND (1.0)	18,000	6.92
MW-44-70	11-Mar-08	ND (0.2)	ND (1.0)	4,490	7.07
	07-May-08	ND (0.2)	ND (1.0)	4,200	7.53
	07-Oct-08	ND (0.2)	ND (1.0)	3,700	7.65
	10-Dec-08	ND (0.2)	ND (1.0)	3,120	7.34
MW-44-115	14-Jan-08	746	652	---	7.64
	14-Feb-08	744	668	---	7.59
	14-Feb-08 FD	735	706	---	---
	11-Mar-08	742	596	14,000	7.47
	07-Apr-08	685	689	---	8.03
	08-May-08	620	---	13,000	7.90
	02-Jun-08	564	542	---	7.66
	07-Jul-08	493	478	---	7.98
	19-Aug-08	498 J	555	---	7.82
	02-Sep-08	488	489	---	11.9
	07-Oct-08	456	502	13,000	8.03
	07-Oct-08 FD	527 J	466	13,000	---
	06-Nov-08	429	529	---	6.86
	11-Dec-08	426	403	11,800	7.62
MW-44-125	14-Jan-08	338	344	---	7.82
	14-Feb-08	326	324	---	7.61
	14-Mar-08	338	291	12,000	7.63
	07-Apr-08	318	326	---	7.90
	08-May-08	253	342	12,000	7.63
	24-Jun-08	293	339	---	7.92
	07-Jul-08	281	291	---	8.03

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-44-125	19-Aug-08	294	297	---	7.60
	07-Oct-08	55.9	64.5	10,000	7.75
	06-Nov-08	312	317	---	7.65
	06-Nov-08 FD	301	316	---	---
	12-Dec-08	189	200	13,000	7.91
MW-46-175	14-Jan-08	51.5	133	---	8.21
	13-Feb-08	125	136	---	8.39
	13-Mar-08	99.8	92.8	16,400	8.09
	07-Apr-08	95.6	100	---	8.66
	07-May-08	77.9	74.7	17,000	8.43
	02-Jun-08	74.2	86.8	---	8.17
	02-Jun-08 FD	73.6	87.0	---	---
	08-Jul-08	75.3	83.4	---	8.29
	20-Aug-08	98.2	91.4	---	8.25
	03-Sep-08	100	112	---	8.37
	03-Sep-08 FD	103	102	---	---
	08-Oct-08	105	87.2	17,000	8.77
	06-Nov-08	130	171	---	8.43
	11-Dec-08	178	167	16,200	8.14
MW-46-205	13-Mar-08	5.21	5.20	20,100	8.17
	07-May-08	4.52	4.25	19,000	8.38
	08-Oct-08	ND (4.9)	4.32	19,000	8.66
	09-Dec-08	4.28	4.47	19,600	7.79
MW-47-55	14-Feb-08	37.1	39.0	---	7.43
	14-Feb-08 FD	37.2	39.4	---	---
	14-Mar-08	53.7	46.1	3,570	7.52
	14-Mar-08 FD	48.4	42.6	3,590	---
	07-May-08	34.8	32.7	4,100	7.65
	08-Oct-08	ND (49)	50.3	4,200	8.26
	10-Dec-08	71.8	72.7	3,880	7.66
MW-47-115	14-Mar-08	18.0	16.5	12,400	7.59
	07-May-08	18.2	18.3	13,000	7.76
	08-Oct-08	ND (15)	15.6	13,000	8.22
	10-Dec-08	13.3	13.6	13,200	7.68
MW-48	11-Mar-08	ND (2.3)	2.93	18,800	7.21
	07-May-08	ND (1.0)	---	17,000	7.00
	01-Oct-08	ND (1.0)	ND (1.0)	17,000	6.83
	10-Dec-08	ND (1.0)	ND (1.0)	16,700	7.30
MW-49-135	13-Mar-08	ND (1.0)	1.43	13,400	7.64
	06-Oct-08	ND (0.2)	1.59	14,000	7.68
MW-49-275	13-Mar-08	ND (1.0)	1.27	23,400	7.84
	30-Sep-08	ND (1.0)	ND (1.0)	25,000	8.21
MW-49-365	13-Mar-08	ND (1.0)	ND (1.0)	35,700	7.79
	06-Oct-08	ND (1.0)	ND (1.0)	44,000	7.78
MW-50-095	12-Mar-08	150	160	4,680	7.77
	12-Mar-08 FD	148	160	5,020	---
	07-May-08	154	187	5,100	7.66

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-50-095	07-May-08	FD	164	192	5,200	---
	06-Oct-08		ND (89)	87.7	5,200	7.67
	10-Dec-08		82.2	73.4	4,670	7.93
	10-Dec-08	FD	78.2	74.5	4,650	---
MW-50-200	12-Mar-08		10,900	11,800	20,500	7.51
	08-May-08		10,500	---	19,000	7.67
	07-Oct-08		7,390	8,890	19,000	7.61
	12-Dec-08		8,040	8,700	19,000	7.58
MW-51	11-Mar-08		4,940	4,590	12,300	7.39
	08-Oct-08		4,160	4,600	11,000	7.27
MW-52S	13-Mar-08		ND (1.0)	ND (1.0)	11,000	7.37
	07-May-08		ND (1.0)	ND (1.0)	11,000	7.70
	01-Oct-08		ND (1.0)	ND (1.0)	11,000	7.19
	11-Dec-08		ND (1.0)	ND (1.0)	10,500	---
MW-52M	13-Mar-08		ND (1.0)	ND (1.0)	16,400	7.60
	07-May-08		ND (1.0)	ND (1.0)	16,000	8.09
	01-Oct-08		ND (1.0)	ND (1.0)	16,000	7.26
	11-Dec-08		ND (1.0)	ND (1.0)	15,600	6.94
MW-52D	13-Mar-08		ND (1.0)	ND (1.0)	20,800	7.76
	07-May-08		ND (1.0)	ND (1.0)	---	7.99
	01-Oct-08		ND (1.0)	ND (1.0)	19,000	7.78
	11-Dec-08		ND (1.0)	ND (1.0)	20,100	---
MW-53M	13-Mar-08		ND (1.0)	ND (1.0)	17,400	8.37
	07-May-08		ND (1.0)	ND (1.0)	18,000	8.34
	01-Oct-08		ND (1.0)	ND (1.0)	18,000	8.06
	11-Dec-08		ND (1.0)	ND (1.0)	18,300	---
MW-53D	13-Mar-08		ND (1.0)	ND (1.0)	25,500	8.55
	07-May-08		ND (1.0)	ND (1.0)	27,000	8.44
	01-Oct-08		ND (1.0)	ND (1.0)	27,000	8.37
	11-Dec-08		ND (1.0)	ND (1.0)	24,800	8.79
MW-54-85	15-Apr-08		ND (0.2)	ND (1.0)	---	7.67
	03-Jun-08		ND (0.2)	ND (1.0)	---	7.45
	09-Jul-08		ND (0.2)	ND (1.0)	---	7.39
	19-Aug-08		ND (0.2)	ND (1.0)	---	7.35
	04-Sep-08		ND (0.2)	ND (1.0)	---	7.25
	01-Oct-08		ND (0.2)	ND (1.0)	---	---
	08-Dec-08		ND (1.0)	ND (5.0)	---	7.45
MW-54-140	14-Apr-08		ND (0.2)	ND (1.0)	---	7.66
	03-Jun-08		ND (0.2)	ND (1.0)	---	7.70
	09-Jul-08		ND (1.0)	ND (1.0)	---	7.72
	19-Aug-08		ND (1.0)	ND (1.0)	---	7.73
	04-Sep-08		ND (1.0)	ND (1.0)	---	7.76
	01-Oct-08		ND (0.2)	1.36	---	---
MW-54-140-TLI	01-Oct-08		ND (1.0)	ND (1.0)	---	---
MW-54-140	08-Dec-08		ND (1.0)	ND (5.0)	---	7.87
MW-54-195	14-Apr-08		ND (1.0)	ND (1.0)	---	8.18

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
MW-54-195	03-Jun-08	ND (1.0)	ND (1.0)	---	8.22
	09-Jul-08	ND (1.0)	ND (1.0)	---	8.09
	19-Aug-08	ND (1.0)	ND (1.0)	---	7.94
	04-Sep-08	ND (1.0)	ND (1.0)	---	7.45
MW-54-195-TLI	01-Oct-08	ND (1.0) J	ND (1.0)	---	---
MW-54-195	01-Oct-08	ND (1.0)	1.27	---	---
	09-Dec-08	ND (1.0) J	ND (5.0)	---	8.05
MW-55-45	15-Apr-08	ND (0.2)	ND (1.0)	---	8.08
	03-Jun-08	ND (0.2)	ND (1.0)	---	7.66
	08-Jul-08	ND (1.0)	ND (1.0)	---	7.77
	18-Aug-08	ND (0.2)	ND (1.0)	---	7.54
	03-Sep-08	ND (0.2)	ND (1.0)	---	7.40
	02-Oct-08	ND (0.2)	ND (1.0)	---	---
	08-Dec-08	ND (0.2)	ND (5.0)	---	7.71
MW-55-120	15-Apr-08	ND (0.2)	ND (1.0)	---	8.10
	03-Jun-08	ND (0.2)	ND (1.0)	---	7.91
	08-Jul-08	ND (0.2)	ND (1.0)	---	7.90
	18-Aug-08	ND (0.2)	ND (1.0)	---	7.86
	03-Sep-08	0.614	1.17	---	7.61
MW-55-120-TLI	03-Sep-08	0.60 J	ND (1.0)	---	---
MW-55-120	02-Oct-08	0.402	1.13	---	---
	08-Dec-08	3.45	4.38	---	7.55
	08-Dec-08	FD 3.22	4.34	---	---
MW-56S	29-Apr-08	ND (0.2)	ND (1.0)	---	7.39
	04-Jun-08	ND (0.2)	ND (1.0)	---	7.95
	09-Jul-08	ND (0.2)	ND (1.0)	---	7.29
	18-Aug-08	ND (0.2)	ND (1.0)	---	7.36
	03-Sep-08	ND (0.2)	ND (1.0)	---	6.78
	02-Oct-08	ND (0.2)	ND (1.0)	---	---
	08-Dec-08	ND (0.2) J	ND (5.0)	---	7.39
MW-56M	29-Apr-08	ND (0.2)	ND (1.0)	---	7.38
	04-Jun-08	ND (0.2)	ND (1.0)	---	7.56
	09-Jul-08	ND (1.0)	ND (1.0)	---	7.53
	18-Aug-08	ND (1.0)	ND (1.0)	---	7.38
	03-Sep-08	ND (1.0)	ND (1.0)	---	7.58
	02-Oct-08	ND (0.2)	ND (1.0)	---	---
	08-Dec-08	ND (1.0)	ND (5.0)	---	7.34
MW-56D	29-Apr-08	ND (1.0)	ND (5.0)	---	8.00
	04-Jun-08	ND (1.0)	ND (1.0)	---	7.91
	09-Jul-08	ND (5.0)	ND (1.0)	---	7.92
	18-Aug-08	ND (1.0)	ND (1.0)	---	7.75
	03-Sep-08	ND (1.0)	ND (1.0)	---	7.45
	02-Oct-08	ND (2.0)	ND (1.0)	---	---
	08-Dec-08	ND (2.0) J	ND (5.0)	---	7.54
PE-1	03-Jan-08	48.4	56.9	6,590	7.63 J ^
	06-Feb-08	42.8	44.1	6,510	7.54 J ^
	05-Mar-08	39.5	40.8	6,380	7.60 J ^

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	Field pH
PE-1	02-Apr-08	29.0	37.1	6,460	7.66 J ^
	08-May-08	26.4	29.3	6,580	7.69 J ^
	04-Jun-08	16.0	33.4	6,320	7.63 J ^
	02-Jul-08	25.7	28.7	6,060	7.59 J ^
	06-Aug-08	28.2	27.4	6,050	7.65 J ^
	04-Sep-08	29.7	28.0	6,040	7.52 J ^
	01-Oct-08	27.6	27.5	5,680	7.67 J ^
	06-Nov-08	29.8	27.7	5,460	7.72 J ^
	04-Dec-08	28.8	32.3	5,710	7.59 J ^
PGE-7BR	12-Mar-08	ND (1.0)	1.02	17,300	9.24
	08-May-08	ND (1.0)	ND (1.0)	18,200	8.61
	07-Oct-08	ND (0.2)	ND (1.0)	16,700	9.48
Park Moabi-3	02-Oct-08	8.74	8.35 UF	1,400	7.42
Park Moabi-4	02-Oct-08	20.6	18.5 UF	1,700	7.44
TW-2S	03-Oct-08	860	748	2,700	7.43
TW-2D	03-Oct-08	561	644	9,400	7.22
TW-3D	03-Jan-08	1,830	2,210	8,390	7.37 J ^
	06-Feb-08	1,760	1,600	8,490	7.31 J ^
	05-Mar-08	1,810	1,740	8,320	7.36 J ^
	02-Apr-08	1,550	2,010	8,580	7.39 J ^
	08-May-08	1,540	1,740	8,690	7.69 J ^
	04-Jun-08	1,460	1,700	8,440	7.35 J ^
	02-Jul-08	1,460	1,780	8,270	7.30 J ^
	06-Aug-08	1,440	1,450	8,350	7.26 J ^
	04-Sep-08	1,490	1,380	8,460	7.27 J ^
	01-Oct-08	1,460	1,300	7,820	7.37 J ^
	06-Nov-08	1,650	1,810	7,730	7.29 J ^
	04-Dec-08	1,570	1,360	8,240	7.28 J ^
TW-4	14-Mar-08	27.4	28.4	19,900	7.65
	08-May-08	22.6	23.2	19,000	7.47
	02-Oct-08	19.9	17.5	19,000	7.51
	02-Oct-08 FD	19.0	20.5	19,000	---
	10-Dec-08	9.81	10.0	20,200	7.82
TW-5	02-Oct-08	9.76	8.89	12,000	7.62

ATTACHMENT 1

Groundwater COC Sampling Results, 2008

PG&E Topock Groundwater and Surface Water Monitoring Program

Notes:

µg/L micrograms per liter

µS/cm microSiemens per centimeter

ND not detected at listed reporting limit

J concentration or reporting limit estimated by laboratory or data validation

(---) not collected or not available

FD field duplicate sample

^ Analytical pH results, Method SM4500-HB

UF unfiltered

Hexavalent chromium analytical methods: SM3500 (reporting limit 10 µg/L), EPA 218.6 (reporting limit 0.2 µg/L for undiluted samples).

Other analytical methods: dissolved total chromium (Methods SW 6020A), specific conductance (EPA 120.1).

Wells TW-3D and PE-1 are active extraction wells for the IM hydraulic containment system.

Attachment 2
Groundwater Sampling and Chain-of-Custody
Forms

(Data included on enclosed CD)