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April 2, 2007

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

Subject: Groundwater and Surface Water Monitoring Report, Fourth Quarter 2006 and Annual Summary
PG&E Topock Compressor Station, Needles, California

Dear Mr. Yue:

Enclosed is the Groundwater and Surface Water Monitoring Report, Fourth Quarter 2006 and Annual Summary for the Pacific Gas And Electric Company (PG&E) Topock Compressor Station. This report presents the results of the fourth quarter 2006 groundwater and surface water monitoring activities under the Topock Groundwater and Surface Water Monitoring Program (GMP). In addition, this report also serves as an annual report and provides a summary of groundwater and surface water monitoring results for samples collected in 2006 under the GMP. Further, this report provides recommended changes to the GMP for future monitoring activities.

With this submittal, PG&E respectfully requests DTSC approval of the recommendations outlined in Section 5.1. With completion of the data collection effort for the Groundwater RCRA Facility Investigation/Remedial Investigation (RFI/RI) in the near future, and nearly 10 years of groundwater and surface water monitoring activities at the site, now is an appropriate time to re-visit the purpose and objectives of the Topock GMP.

PG&E looks forward to your timely approval. If you have any questions on the groundwater and surface water monitoring report, please call me at (805) 234-2257.

Sincerely,

Yvonne Meeks

Enclosure

cc: Chris Guerre/DTSC
Karen Baker/DTSC

Groundwater and Surface Water Monitoring Report, Fourth Quarter 2006 and Annual Summary

PG&E Topock Compressor Station
Needles, California

Prepared for

California Department of Toxic Substances Control

On Behalf of

Pacific Gas and Electric Company

April 2, 2007

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Groundwater and Surface Water Monitoring Report
Fourth Quarter 2006 and Annual Summary

PG&E Topock Compressor Station
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California Department of Toxic Substances Control

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This report was prepared under the supervision of a

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Acronyms and Abbreviations

CACA	Corrective Action Consent Agreement
CCR	California Code of Regulations
COC	constituent of concern
Cr(T)	total dissolved chromium
Cr(VI)	hexavalent chromium
DTSC	California Department of Toxic Substances Control
GMP	Groundwater and Surface Water Monitoring Program
IM	Interim Measures
µg/L	micrograms per liter
MAROS	Monitoring and Remediation Optimization System
mg/L	milligrams per liter
PG&E	Pacific Gas and Electric Company
RFI	RCRA facility investigation
SAFPM	Sampling, Analysis, and Field Procedures Manual
SAP	Sampling and Analysis Plan
TDS	Total dissolved solids
TSS	Total suspended solids
USEPA	United States Environmental Protection Agency

1.0 Introduction and Background

This report presents the results of the fourth quarter 2006 groundwater and surface water monitoring activities conducted at Pacific Gas and Electric Company's (PG&E) Topock Compressor Station under the Topock Groundwater and Surface Water Monitoring Program (GMP). In addition, this report also serves as an annual report and provides a summary groundwater and surface water monitoring results for samples collected in 2006 under the Topock GMP. Further, this report provides recommended changes to the GMP for future monitoring activities.

The Topock GMP is part of a Resource Conversation and Recovery Act facility investigation (RFI) being performed under a Corrective Action Consent Agreement (CACA) issued by the California Department of Toxic Substances Control (DTSC) in 1996 for the Topock site (United States Environmental Protection Agency [USEPA] ID No. CAT080011729). The Topock Compressor Station is located in eastern San Bernardino County, 15 miles southeast of the city of Needles, California, as shown on Figure 1. All figures are located at the end of this document.

1.1 Background

1.1.1 Objectives of the Topock GMP and Relationship to Other Site Monitoring Programs

The Topock GMP was initiated in 1998 as a continuation of the RFI groundwater investigations. The purpose of the Topock RFI is to identify and evaluate the nature and extent of hazardous waste and constituent releases at the compressor station. Since 1996 there have been six phases of investigation at the Topock site to collect data to complete the RFI; these phases have included well installation, pore water and sediment sampling, and ongoing groundwater and surface sampling. Groundwater monitoring data collected between July 1997 and June 2004 are presented in the *Draft RCRA Facility Investigation and Remedial Investigation Report*, dated February 2005 (CH2M HILL, 2005a). A final Groundwater RFI/RI will be prepared in 2007 that will present groundwater and surface water monitoring data collected between 1997 and 2007 from over 100 wells at the site.

Currently, PG&E is implementing an Interim Measure (IM) at the Topock site that consists of groundwater extraction for hydraulic control of the groundwater plume boundaries in the Colorado River floodplain and management of extracted groundwater. The IM facilities include a groundwater extraction system , conveyance piping, a groundwater treatment plant, and an injection well field for discharge of the treated groundwater. Simultaneous with the GMP (whose purpose is to collect data for completion of the RFI), PG&E also maintains three separate monitoring programs to monitor the effectiveness and regulatory compliance of the IM operations. These programs include:

- The Performance Monitoring Program in the floodplain area near the active extraction system.

- The Compliance Monitoring Program in the injection area near the active injection system.
- Process monitoring within the treatment plant.

The IM monitoring programs are reported separately from the GMP, and data collected for the IM monitoring programs in 2006 is not repeated in this report. PG&E is also currently implementing an *in-situ* pilot study on the floodplain of the Colorado River. A separate monitoring program has been established to evaluate the performance of the *in-situ* pilot study.

1.1.2 GMP Background

As discussed above, routine groundwater and surface water monitoring activities were initiated in 1997 as a continuation of the RFI groundwater investigation. The program initially consisted of quarterly sampling of the monitoring wells and surface water stations established during the RFI, as well as periodic sampling of inactive supply wells. Beginning in November 2003, at DTSC's request, the GMP expanded to include additional wells and more frequent sampling at select locations.

In July 2004, at the request of DTSC (DTSC, 2004a), PG&E submitted a *Sampling and Analysis Plan, Groundwater and Surface Water Monitoring* (SAP) (CH2M HILL, 2004) that described the scope, schedule, and sampling and analysis procedures for the GMP. Additionally, the SAP recommended modifications to the monitoring locations, analyses, and sampling frequency for the GMP. On August 26, 2004, PG&E received verbal approval from the DTSC to implement the sampling plan modifications proposed in the July 2004 SAP.

Before August 26, 2004, the wells and surface water monitoring locations were sampled for the site constituents of concern (COCs) defined in the 1996 CACA. The site COCs listed in the CACA include hexavalent chromium [Cr(VI)], total dissolved chromium [Cr(T)], copper, nickel, zinc, electrical conductivity (also referred to as specific conductance), and pH.

As proposed in the July 2004 SAP and approved by DTSC, the parameters analyzed in the GMP include the primary site COCs (Cr(VI), Cr(T), specific conductance, and pH, and the California Code of Regulations (CCR) Title 22 full list of metals (including copper, nickel, and zinc) at selected groundwater monitoring wells. In addition, the GMP included groundwater and surface water elevation data and field water quality data collection.

Beginning in March 2004, as directed by DTSC (DTSC, 2004b), PG&E initiated the IM program. One of the provisions for the IM activity requested by DTSC was the collection of analytical data from selected sampling locations near the pumping operation in the Colorado River floodplain. Analytical data from selected sampling locations near the pumping operation is collected both for purposes of the GMP, as well as for evaluation of the IM performance.

On April 11 2005, as required by DTSC, PG&E submitted the *Monitoring Plan for Groundwater and Surface Water Monitoring Program, PG&E Topock Compressor Station* (CH2M HILL, 2005b). This updated monitoring plan provided the objectives, scope, and schedule for the GMP, including sampling frequency, well network, analytical parameters, and rationale. DTSC provided preliminary comments on May 24, 2005 (DTSC, 2005a) that approved the

inclusion of 11 additional monitoring wells in the GMP. DTSC has not yet provided final comments or approval of the April 2005 monitoring plan.

Companion documents to the GMP include the *Sampling, Analysis, and Field Procedures Manual PG&E Topock Program* and the *Quality Assurance Project Plan for Water Quality Sampling and Analysis* (CH2M HILL, 2005c-d). The Sampling, Analysis, and Field Procedures Manual (SAFPM) contains field procedures for groundwater and surface water sample collection and other field data collection activities at the Topock site. The Quality Assurance Project Plan contains the quality assurance and quality control requirements for water quality sampling and analysis activities to ensure that environmental data are of the appropriate quality to achieve the project objectives and is provided as an appendix to the SAFPM (CH2M HILL, 2005c). DTSC has not yet provided final comments or approval of the March 2005 SAFPM.

The wells screened in the unconsolidated alluvial fan and fluvial deposits, which comprise the Alluvial Aquifer, have been separated into three depth intervals for presentation of groundwater quality and groundwater level data. The depth intervals of the Alluvial Aquifer—designated upper, middle, and lower—are based on grouping the monitoring wells screened at common elevations and do not represent distinct hydrostratigraphic units or separate aquifer zones. The subdivision of the aquifer into three depth intervals is an appropriate construct for presenting and evaluating groundwater quality data at the site. The three-interval concept is also useful for presenting and evaluating lateral gradients while minimizing effects of vertical gradients and observing the influence of pumping from partially-penetrating wells. It should be noted, however, that these divisions do not correspond to any lithostratigraphic layers within the aquifer. The Alluvial Aquifer is considered to be hydraulically undivided.

1.2 GMP Monitoring Frequency History

Numerous changes have been made to the sampling frequency under the GMP since the July 2004 SAP. These changes have included modification to the sampling frequency and the incorporation of new monitoring wells into the sampling program. Table 1 presents a chronologic summary of agency requirements and directives issued since the July 2004 SAP regarding modifications to the sampling frequency for GMP monitoring wells through December 2006.

TABLE 1
Topock GMP Monitoring Frequency Changes Through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Direction	Date	DTSC Approval[a]	New Frequency and Wells
Comments on July 2004 SAP	1/25/2005	DTSC 2005b	Quarterly Title 22 Metals: MW-10, MW-11, MW-12, MW-20-70, MW-20-130, MW-25, MW-34-55, MW-34-80, and MW-37D
IM Contingency Plan in response to MW-34-100 chromium levels	2/16/2005	DTSC 2005c	Weekly: MW-34-80, MW-34-100, MW-27-85, MW-27-60 Weekly (3 weeks): R-22, R-27, CON
Revised Contingency Plan sampling frequency	5/5/2005	DTSC 2005d	Weekly: MW-34-100 Biweekly: MW-27-85, MW-34-80

TABLE 1
Topock GMP Monitoring Frequency Changes Through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Direction	Date	DTSC Approval[a]	New Frequency and Wells
			Monthly: MW-27-60
Preliminary comments to Monitoring Plan; incorporation of new floodplain wells	5/24/2005	DTSC 2005a	Weekly: MW-34-100 Biweekly: MW-27-85 Monthly: MW-27-60, MW-33-150, MW-33-210, MW-42-30, MW-42-55, MW-42-65, MW-43-25, MW-43-75, MW-43-90
Approval of sampling plan for depth-specific surface water sampling	6/30/2005	DTSC 2005e	Quarterly: C-CON, C-I-3, C-NR1, C-NR3, C-NR4, C-R22, C-R27, C-TAZ (monthly during low-river stages, usually November – January)
Reduction in sampling frequency through September 2005 due to health and safety issues	7/20/2005	DTSC 2005f	Biweekly: MW-34-100 Monthly: MW-27-85, MW-28-90, MW-33-150, MW-33-210, MW-34-80, MW-36-90, MW-36-100, MW-39-80, MW-39-100, MW-43-75, MW-43-90
Modification to sitewide sampling frequency	9/6/2005	DTSC 2005g	Monthly: MW-27-85, MW-28-90, MW-33-210, MW-34-80, PE-1 Quarterly: MW-27-26, MW-27-20, MW-28-25, MW-29, MW-30-30, MW-30-50, MW-32-20, MW-32-35, MW-33-40, MW-33-90, MW-34-55, MW-36-20, MW-36-40, MW-36-50, MW-39-50, MW-39-60, MW-42-30, MW-42-35, MW-42-55, MW-42-65, TW-2D Semiannually: MW-9, MW-10, MW-11MW-15, MW-16, MW-17, MW-18, MW-24A, MW-24B, MW-38S, MW-38D, OW-3S, OW-3M, OW-3D Biennial: TW-1
Addition of new depth-specific surface water station	9/16/2005	DTSC – e-mail	Quarterly: C-MAR (monthly during low-river stages, usually November – January)
Initial sampling with conditional approval of well installation work plan	1/6/2006	DTSC 2006a	Monthly: (3 months, April - June) MW-44-70, MW-44-115, MW-44-125, MW-46-175, MW-46-205
Addition of monthly wells with PE-1 start approval	1/26/2006	DTSC 2006b	Monthly: MW-36-70, MW-39-70
Initiation of biweekly sampling of two new wells	3/17/2006	DTSC – e-mail	Biweekly: MW-44-115, MW-44-125
Transition of two wells to weekly sampling	4/13/2006	DTSC – phone	Weekly: MW-44-115, MW-44-125
Establish concentration trend for new well	4/25/2006	DTSC – e-mail	Biweekly: MW-46-175
Transition of two wells back to biweekly sampling	5/19/2006	DTSC – e-mail	Biweekly: MW-44-115, MW-44-125
Interim sampling frequency for new wells	5/25/2006	DTSC – e-mail	Biweekly: MW-44-115, MW-44-125, MW-46-175 Monthly: MW-46-205 Quarterly: MW-44-70, MW-47-55, MW-47-115, MW-48, MW-49-135, MW-49-275, MW-49-365, MW-50-95, MW-50-200, MW-51, TW-4, TW-5

TABLE 1
Topock GMP Monitoring Frequency Changes Through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Direction	Date	DTSC Approval[a]	New Frequency and Wells
Interim transition of two wells to quarterly sampling	6/6/2006	DTSC – e-mail	Quarterly: MW-43-75 and MW-43-90
Modification to sitewide sampling frequency *	10/26/06	DTSC 2006c	Biweekly: MW-34-100 Monthly: MW-27-85, MW-34-80, MW-36-90, MW-6-100, MW-39-80, MW-39-100, MW-44-115, MW-44-125, MW-46-175 Quarterly: MW-10, MW-12, MW-19, MW-20-70, MW-20-100, MW-20-130, MW-21, MW-23, MW-4A, MW-24B, MW-24BR, MW-28-90, MW-32-20, MW-32-35, MW-33-40, MW-33-90, MW-33-150, MW-33-210, MW-36-70, MW-37D, MW-39-40, MW-39-70, MW-40D, MW-42-55, MW-42-65, MW-43-75, MW-43-90, MW-44-70, MW-46-205, MW-47-55, MW-47-115, MW-48, MW-49-135, MW-49-275, MW-49-365, MW-50-95, MW-50-200, MW-51 Quarterly (monthly during low river): CON, I-3, NR-1, NR-2, NR-3, R-22, R-27, R-28, RRB Semiannually: MW-13, MW-14, MW-18, MW-22, MW-25, MW-26, MW-31-60, MW-31-135, MW-35-60, MW-35-135, MW-37S, MW-41S, MW-41M, MW-41D, MW-42-30, MW-43-25, OW-3S, OW-3M, OW-3D, TW-4 Annually: MW-9, MW-11, MW-27-20, MW-27-60, MW-28-25, MW-29, MW-34-55, MW-36-20, MW-36-40, MW-36-50, MW-38S, MW-38D, MW-39-50, MW-39-60, MW-40S, TW-2S, TW-2D, TW-5 Biennially: MW-15, MW-16, MW-17, MW-30-30, TW-1, PGE-7, PGE-8, Park Moabi

[a] Referenced approval letters are identified in Section 6.0.
* All wells are listed rather than only wells with changes.
Table includes monitoring frequency change directives in effect for events conducted through December 2006.

1.3 Sampling Procedure Modification

At DTSC's request, in the spring of 2005, a chromium filtration comparison test was performed to evaluate the effects, if any, of field filtering versus laboratory filtering of samples collected for chromium analysis. The chromium results of groundwater samples collected from 16 wells during the March 2005 and April 2005 monthly monitoring events were statistically analyzed and evaluated to determine the effects of the two filtering approaches. From the results of the filtration comparison test, it was recommended that samples analyzed for Cr(VI) by USEPA Methods 7199 and 7196A should be filtered in the laboratory, and samples analyzed for Cr(T) by USEPA Method 6010B should be filtered and preserved in the field after sample collection (CH2M HILL, 2005c). In a June 2005 letter, DTSC agreed with the recommendations and directed the changes to be initiated for the July 2005 monthly event (DTSC, 2005b). Since July 2005, all groundwater samples analyzed for Cr(T)

by USEPA Method 6010B are being filtered and preserved in the field after sample collection.

1.4 Surface Water Monitoring Modification

In an April 26, 2005 letter (DTSC, 2005c), DTSC directed PG&E to submit a revised Section 5.0 of the monitoring plan (CH2M HILL, 2005b) to include a plan for depth-specific surface water sampling in the Colorado River to supplement the existing shoreline surface water sampling program. A *Revised Sampling Plan and Standard Operating Procedure for Depth-Specific Surface Water Sampling* was submitted to DTSC on May 16, 2005 (CH2M HILL, 2005e). DTSC provided conditional approval and comments on the revised Section 5.0 on June 30, 2005 (DTSC, 2005d). The *Revised Sampling Plan and Standard Operating Procedure for Depth-Specific Surface Water Sampling* (CH2M HILL, 2005f) that incorporated DTSC comments was submitted on July 13, 2005 with eight in-channel stations. An additional sampling station was added in September 2005 (CH2M HILL, 2005g). The depth-specific surface water sampling program was initiated in July 2005. To date, the in-channel surface water sampling has occurred quarterly during normal river stages and monthly during low river stages (typically November through January). As shown in Table 1, the surface water monitoring program was recently revised to reflect consistent monitoring frequencies for the shoreline and in-channel surface water locations, which is quarterly during most of the year and monthly during low-river stage (typically November through January) (DTSC, 2006).

1.5 Access Routes

On September 14, 2005, *A Review of Access Routes for Groundwater and Surface Water Monitoring Locations, and Proposed Mitigation Procedures* (CH2M HILL, 2005h) was submitted to DTSC outlining access route requirements to be followed at all monitoring wells at the site throughout the year. The access procedures for certain wells on the floodplain were revised in April 2006 to address habitat concerns during the southwestern willow flycatcher nesting season (typically May through September) (CH2M HILL, 2006a). The Havasu National Wildlife Refuge and the Bureau of Land Management approved the modifications to the summer procedures in May 2006. These revised access procedures for the floodplain wells were followed during the summer monitoring events conducted between May 1 and September 30, 2006. The access procedures from the September 14, 2005 document remains in effect for the other monitoring wells at the site.

1.6 Current GMP Monitoring Activity

Figure 2 shows the locations and sampling frequencies of the monitoring wells in the GMP as of December 2006, the location of the PG&E Topock Compressor Station, and other site features. Table 2 summarizes information on well construction and sampling methods for all wells in the GMP and other monitoring wells at the site. There are a total of 94 monitoring monitoring wells and two extraction wells that fall under the GMP sampling schedule. Figure 3 presents the locations of the nine shoreline surface water stations and the nine in-channel surface water sampling locations as of December 2006.

As of December 2006, the GMP consists of sample collection at groundwater monitoring wells and surface water sampling stations according to the following schedule:

- All ninety-four of the site monitoring wells are sampled during biennial sampling events (once every 2 years).
- Eighty-six of the monitoring wells are sampled during annual sampling events (twice a year).
- Sixty-eight of the monitoring wells are sampled during semiannual sampling events.
- Forty-eight monitoring wells are sampled during quarterly sampling events. Nine shoreline surface water stations and nine in-channel surface water stations are sampled quarterly and monthly during low-river stages.
- Ten monitoring wells on the floodplain and two active extraction wells are sampled monthly.
- One monitoring well on the floodplain is sampled biweekly (every 2 weeks).

2.0 Fourth Quarter 2006 Monitoring Activities

This section provides a summary of the monitoring and sampling activities completed during the fourth quarter 2006 reporting period and the specific groundwater and surface water analyses performed for the fourth quarter monitoring event.

2.1 Summary of Monitoring and Sampling

GMP monitoring activities in fourth quarter 2006 consisted of:

- The quarterly monitoring event was conducted from December 11 through 15, 2006 and consisted of:
  - Forty-eight groundwater monitoring wells and nine shoreline surface water stations were sampled for analysis of Cr(VI), Cr(T), specific conductance, and pH.
  - Six of the forty-eight wells were sampled for analysis of the full list of CCR Title 22 metals.
  - Duplicate samples were collected at five monitoring wells (MW-20-100, MW-20-130, MW-23, MW-33-90, and MW-36-90) to assess field sampling and analytical procedures.
  - Nine in-channel surface water stations were sampled December 19 and 20, 2006 for analysis of Cr(VI), Cr(T), specific conductance, pH, hardness, total dissolved solids (TDS), and total suspended solids (TSS). All of the in-channel stations were sampled at three depths, except for stations C-MAR and C-R27, where only one depth could be sampled due to the shallow water column.
- A sitewide groundwater level survey was performed on December 18, 2006 to provide data for the generation of a groundwater elevation contour map of the shallow-depth interval of the Alluvial Aquifer for the fourth quarter 2006. Wells outside the GMP program, such as wells constructed to monitor existing evaporation ponds at the Topock Compressor Station or IM injection area, were included in this sitewide groundwater level survey.
- Ten groundwater monitoring wells, two active extraction wells, nine shoreline surface water stations, and nine in-channel surface water stations were sampled as part of the monthly sampling event on November 15 and 16, 2006 for analysis of Cr(VI), Cr(T), specific conductance, and pH. The in-channel samples were also analyzed for hardness, TDS, and TSS.
- A semiannual monitoring event was conducted in October 2006. While technically held during the fourth quarter, it was considered a third quarter event and was reported in the previous groundwater monitoring report (CH2M HILL, 2006b).

- Four biweekly sampling events at select floodplain wells on October 18, November 1, November, 30, and December 28 for analysis of Cr(VI), Cr(T), specific conductance, and pH.

The sampling procedures, field documentation of sampling, water level measurements, and field water quality monitoring were performed in accordance with the *Sampling, Analysis, and Field Procedures Manual, Revision 1*, dated March 31, 2005 (CH2M HILL, 2005c).

The monitoring data presented in this report (Tables 3 through 8) include the results from all events conducted during the fourth quarter 2006, as well as the results from December 2005 through December 2006. Table 6 presents results beginning September 2004, when the sample collection for Title 22 metals commenced.

2.1.1 Site COC Analyses

Samples collected from monitoring wells and surface water stations during fourth quarter 2006 were analyzed for Cr(VI), Cr(T), specific conductance, and pH. The analyses for the site COC parameters were performed by Truesdail Laboratories, Inc., a California-certified analytical laboratory in Tustin, California. In accordance with the SAP, Cr(VI) and Cr(T) were analyzed using the following analytical methods:

- Method SW 7196A was used for samples collected from monitoring wells where prior monitoring has detected Cr(VI) concentrations above 100 micrograms per liter (µg/L). The minimum reporting limit for Method SW 7196A for undiluted samples is 10 µg/L.
- Method SW 7199 was used for all surface water samples and all groundwater samples collected from monitoring wells where prior monitoring did not detect Cr(VI) concentrations above 100 µg/L. The minimum reporting limit for Cr(VI) using Method SW 7199 is 0.2 µg/L for undiluted samples. Currently, samples from wells MW-34-100, MW-44-115, MW-44-125, and MW-46-175 are analyzed using Method SW 7199, even though prior detections exceeded 100 µg/L.
- Dissolved Cr(T) was analyzed using Method SW 6010B or Method SW 6020A. Both methods have a reporting limit of 1 µg/L for undiluted samples.
- Method USEPA 218.6 (equivalent to Method SW 7199), with a reporting limit of 0.2 µg/L, was used for the Cr(VI) water analysis from the domestic supply well at Park Moabi.

2.1.2 Title 22 Metals

In addition to the site COCs, samples from six monitoring wells (MW-10, MW-12, MW-20-70, MW-20-130, MW-34-80, and MW-37D) were analyzed for the CCR Title 22 full list of metals. The Title 22 metals include antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. The groundwater samples for CCR Title 22 dissolved metals analyses were field-filtered. The metals analyses were performed by Emax Laboratories, a California-certified analytical laboratory in Torrance, California.

2.1.3 In-channel Surface Water Analyses

In addition to the site COCs, pH, and specific conductance, the in-channel depth-specific surface water samples collected in fourth quarter 2006 were also analyzed for:

- Hardness (USEPA Method 130.2)
- TDS (USEPA Method 160.1)
- TSS (USEPA Method 160.2)

Emax Laboratories performed the analyses for these parameters, pH, and specific conductance. Truesdail Laboratories performed the Cr(VI) and Cr(T) analyses for the in-channel samples.

3.0 Fourth Quarter 2006 Monitoring Results

This section summarizes the results of the groundwater and surface water sampling completed for the Topock GMP during fourth quarter 2006. Figure 2 shows the locations of the GMP monitoring wells. Figure 3 shows the locations of the shoreline and in-channel surface water monitoring stations in the Colorado River.

The monitoring results and data presented include site COCs, CCR Title 22 metals, and additional in-channel surface water analytical parameters. Laboratory data quality review, water level measurements, and water quality field parameter data are also presented in this section. Complete laboratory reports and analytical documentation are maintained in the project file and are available upon request.

3.1 Site COC Analytical Results

3.1.1 Groundwater

Table 3 presents the results for chromium and other site COCs in groundwater samples collected from December 2005 to December 2006. In fourth quarter 2006, the maximum detected Cr(VI) concentration was 12,000 µg/L at well MW-20-130. Overall, the fourth quarter 2006 chromium results are consistent with the prior 2006 quarterly sampling results.

Figures 4A through 4C present the Cr(VI) results for wells monitoring the upper, middle, and lower depth intervals of the Alluvial Aquifer, respectively, from the December 2006 quarterly sampling event. Figures 4A through 4C also show the approximate outline of the areas where Cr(VI) was detected in samples at concentrations greater than 50 µg/L (the California drinking water standard for total chromium).

The approximate outlines of monitoring wells with Cr(VI) concentrations greater than 50 µg/L in the shallow, middle, and lower depth intervals of the Alluvial Aquifer are similar to the previous quarterly monitoring event (CH2M HILL, 2006b).

Relative to October 2006 monitoring, increasing Cr(VI) concentrations were detected in the December samples at MW-12 (2,050 µg/L), MW-40D (110 µg/L), and deep well MW-50-200 (10,100 µg/L). Wells MW-12 and MW-40D are located upgradient of the capture zone of the IM extraction wells. Although recent concentrations have declined in well MW-39-100, there was an increase from 2,960 µg/L in October to 3,820 µg/L in December 2006. Declining or stable concentration trends continue to be observed in the other wells in the MW-39 cluster. Two wells in the MW-36 cluster had detectable concentrations (MW-36-90 and MW-36-100). Both had stable concentration trends. The Park Moabi drinking water production well had detections of Cr(VI) (2.00 µg/L) and Cr(T) (6.30 µg/L). The Cr(T) detection was below the California drinking water standard of 50 µg/L.

3.1.2 Surface Water

Table 4 presents the results of chromium and other analytes in shoreline surface water sampling events performed from December 2005 through December 2006. Cr(VI) and Cr(T) were not detected in any of the water samples collected at the nine shoreline surface water stations during the fourth quarter. The Cr(VI) results for the shoreline surface water sampling during fourth quarter 2006 are shown on Figure 4A.

Table 5 presents the results of chromium, other site COCs, TDS, TSS, and hardness analyses for the in-channel surface water sampling events performed from December 2005 through December 2006. Cr(VI) and Cr(T) were not detected in any of the water samples collected at the nine depth-specific surface water stations during the fourth quarter.

3.2 Additional Analytes Results

Table 6 presents the CCR Title 22 metal results for the GMP monitoring wells sampled from September 2004 through December 2006. In addition to Cr(T), the trace metals detected during the December 2006 groundwater sampling event were arsenic, barium, cobalt, copper, lead, molybdenum, nickel, selenium, vanadium, and zinc. Excluding Cr(T) and arsenic, the dissolved concentrations of the trace metals detected during the December 2006 monitoring event are below the respective California drinking water standards.

3.3 Analytical Data Quality Review

The laboratory analytical data from GMP monitoring in fourth quarter 2006 were independently reviewed by project chemists to assess data quality and to identify deviations from analytical requirements. The quality assurance and quality control requirements are outlined in the Quality Assurance Project Plan for the PG&E Topock Program, which is Appendix D of the *Sampling, Analysis, and Field Procedures Manual, Revision 1* (CH2M HILL, 2005c). A detailed discussion of data quality for the GMP sampling data is presented in the data validation reports, which are kept in the project file and are available upon request.

As discussed below, the completeness objectives were met for all method and analyte combinations. No significant analytical deficiencies were identified in the fourth quarter 2006 monitoring data. With minor exceptions (noted below), the analyses and data quality met the laboratory method quality control acceptance criteria. Overall, the analytical data collected in fourth quarter 2006 are considered acceptable for the purpose of monitoring groundwater and surface water conditions at the site.

Matrix Interference: Matrix interference was encountered in groundwater samples from some of the monitoring wells, which affected the sensitivity for Cr(VI) when using Method SW 7199. Results from 17 wells reflect adjusted reporting limits (Table 3) as a result of serial dilutions that were required to overcome the matrix interference and provide acceptable matrix spike recoveries. In most cases, the reporting limit was only raised to 1 or 2 µg/L, far below the California drinking water standard for chromium.

Quantitation and Sensitivity: One groundwater sample that underwent nitrate analysis (E300.0) was analyzed at a dilution and the result was reported as non-detect at an elevated reporting limit

With the exception of the matrix interference issue explained above, all other method and analyte combinations met the project reporting limit objectives.

Holding Time Data Qualification: One groundwater sample submitted for Cr(VI) analysis (SW7196) was analyzed outside the recommended holding time. The detected result was flagged "J" as estimated concentration. All other holding times were met.

Method Blanks: All method blank criteria were met.

Field Blanks: All field blank criteria were met, with the following exception: one equipment blank was outside acceptance criteria and the associated sample result was qualified as estimated (J flagged).

Calibration: All initial and continuing instrument calibration criteria were met.

Matrix Spike Sample: All matrix spike acceptance criteria were met.

Chain of Custody: Each sample was documented in a completed chain-of-custody form and received at the laboratory in good condition. All discrepancies identified in laboratory custody were promptly resolved.

Field Duplicates: Three field duplicate pairs had results that exceeded the relative percent-difference criteria for chromium (SW6010B). Five detected results were qualified as estimated and flagged "J." One non-detected result was qualified as estimated and flagged "UJ." Two field duplicate pairs had results that exceeded the relative percent-difference criteria for hexavalent chromium (SW7199). The detected results were qualified as estimated and flagged "J." All other field duplicate acceptance criteria were met.

Laboratory Control and Duplicate Samples: All laboratory duplicate criteria were met. All laboratory control sample criteria were met with the following exception: the laboratory control samples associated with potassium analyses for MW-31-60, R-27, and R-28 were outside acceptance criteria, and the results were qualified as estimated (J flagged).

Miscellaneous: Data were reviewed against historical results. Two Cr(VI) (SW7199) results differed significantly from the historical data and the current field duplicate result (MW-23 and MW-33-90). No re-analysis was performed due to the fact that some validation occurs well after the holding-time criteria have expired. Accordingly, the Cr(VI) results for these December samples were rejected and flagged "R."

3.4 Water Level Monitoring

Table 7 presents the water level measurements and groundwater and surface water elevations from December 2005 through December 2006 from wells in the GMP, as well as additional wells useful for construction of a groundwater elevation contour map for the shallow, upper depth interval of the Alluvial Aquifer. Table 7 also lists salinity data for the wells where water levels were measured. Groundwater salinity during fourth quarter 2006 ranged from 0.14 percent (MW-19) to 2.64 percent (well MW-49-365)—a range that is consistent with results of prior monitoring. Due to the variation in groundwater salinity at the site, the groundwater elevations measured in the monitoring wells have been adjusted (normalized) to an equivalent freshwater head (Fetter, 1994).

Beginning in June 2005 at DTSC's direction (DTSC, 2005c), a sitewide water level data set has been collected quarterly as part of the GMP to construct a groundwater elevation contour map for the shallow, upper depth interval of the Alluvial Aquifer. A sitewide water level survey was conducted during fourth quarter 2006 on December 18, 2006 that involved the manual collection of groundwater level data at 33 shallow wells within a 4-hour period. Figure 5 presents the groundwater elevation contours for the upper depth interval of the Alluvial Aquifer (shallow monitoring wells). Because groundwater levels at the site fluctuate continuously in response to changes in the river stage, these groundwater elevation contours reflect transient conditions at the time of measurement and may not be representative of the average groundwater flow directions.

Water level contours for the floodplain are not shown in Figure 5. Since inception of the IM activities at the site in March 2004, a network of pressure transducers has been used to collect continuous records of water elevation data in the Alluvial Aquifer (floodplain and IM No. 3 injection areas) and the Colorado River for the analysis and assessment of hydraulic data in the active extraction and injection areas of the site. This network currently includes over 80 transducers. This monitoring is ongoing and is reported as part of the IM activities, rather than in GMP reports. The groundwater elevation data and hydraulic gradients measured in the floodplain area are evaluated monthly and presented in the IM performance monitoring program reports (CH2M HILL 2005i). The groundwater elevation data in the injection area are evaluated and presented in the IM compliance monitoring program reports (CH2M HILL, 2005j).

3.5 Field Parameter Data

A field water quality meter and flow-through cell were used to measure parameters during well purging and groundwater sampling (CH2M HILL, 2005b). Water quality field measurements were also recorded during surface water sampling. Table 8 summarizes the field water quality data collected (specific conductance, temperature, pH, oxidation-reduction potential, and dissolved oxygen) from December 2005 through December 2006. Field data sheets and chain-of-custody records for the December quarterly event are presented in Appendix A.

4.0 Summary of 2006 GMP Monitoring Results

This section summarizes the results of the monitoring events completed for the Topock GMP in 2006. Key observations and data trends for the 2006 monitoring period are presented. Additional discussion and interpretation and analysis of groundwater and surface water data collected under the GMP will be provided in the PG&E's final Groundwater RFI/RI report for the Topock site.

In addition to the fourth quarter monitoring data contained in this report, monitoring data collected under the GMP in 2006 have been reported in the:

- *Groundwater and Surface Water Monitoring Report, First Quarter 2006,* dated June 1, 2006 (CH2M HILL, 2006c).
- *Groundwater and Surface Water Monitoring Report, Second Quarter 2006,* dated September 11, 2006 (CH2M HILL, 2006d).
- *Groundwater and Surface Water Monitoring Report, Third Quarter 2006*, dated December 22, 2006 (CH2M HILL, 2006b).

Table 9 presents a summary of the 2006 GMP quarterly monitoring activities, including the number of wells sampled for site COCs, and Title 22 metals for the quarterly monitoring events in 2006. During 2006, the quarterly events occurred in March, May, October and December. Quarterly events in May and October are timed to occur before and after summer bird nesting season, in order to minimize biological impacts to potential nesting habitat from the field activities during these larger-scale sampling events.

Discussion of IM monitoring activities and assessment of trends in the floodplain area are not repeated in this report and are reported separately under IM performance monitoring program (CH2M HILL, 2005i). Discussion of IM monitoring activities in the IM injection area are reported separately under the IM compliance monitoring program (CH2M HILL, 2005j).

4.1 Site COC Analytical Results

4.1.1 Groundwater

Table 3 presents the results for chromium and other site COCs in groundwater samples collected from December 2005 to December 2006. The maximum detected Cr(T) concentration in GMP monitoring events in 2006 was 16,400 µg/L at well MW-20-130 (third quarter), and the maximum detected Cr(VI) concentration was 12,000 µg/L at well MW-20-130 (second and fourth quarters) (Table 3). The Cr(VI) groundwater plume limits (delineated by the 50 µg/L isoconcentration line) have remained generally stable over the course of 2006, as indicated in Table 3. The December 2006 results are shown on Figures 4A, 4B, and 4C. Figure 6 is a generalized site cross-section that presents the groundwater sampling results from the October 2006 semiannual monitoring event (cross-section location shown on the

inset map on Figure 6). This hydrogeologic section illustrates the elevations of the upper, middle, and lower depth intervals of the Alluvial Aquifer, the screened intervals of monitoring wells cluster and other key wells, and the Cr(VI) results from the October 2006 monitoring event. The cross-section view shows that Cr(VI) concentrations vary laterally and vertically for the sampling locations and depths within the Alluvial Aquifer. More detailed cross-sections showing Cr(VI) sampling results from monitoring wells in the floodplain area are presented in the IM performance monitoring program reports (CH2M HILL, 2005i). For the three wells screened in the bedrock formations, Cr(VI) was not detected in groundwater samples from well MW-24BR (November 2006) or in wells PGE-7 and PGE-8 (December 2005 sampling).

Analytical results for Cr(VI) near the active pumping system of TW-3D and PE-1 are also addressed in detail in monthly and quarterly monitoring reports under the IM performance monitoring program (CH2M HILL, 2005i). Wells with notable decreases in Cr(VI) concentrations over 2006 were: MW-20-70, MW-20-100, MW-25, MW-31-60, MW-31-135, MW-36-90, MW-37D, MW-39-60, MW-39-70, MW-39-80, and MW-39-100 (Table 3). The majority of the wells with decreasing Cr(VI) concentration trends are located in the floodplain, and the decreasing trend is likely a result of the groundwater extraction for the interim measures. The concentration trend for MW-34-100 has shown both short-term declines and increasing concentrations since PE-1 pumping commenced on January 25, 2006. However, since June 2006, concentrations at this well have generally trended downwards (Table 3). Since the initiation of PE-1 pumping, the Cr(VI) concentrations at MW-36-90 have consistently decreased, while concentrations have increased in the deeper well MW-36-100 (from 287 µg/L in January 2006 to 586 µg/L in December 2006). The Park Moabi drinking water production well had maximum detections of 9.6 µg/L for Cr(VI) and 11.0 µg/L for Cr(T) in 2006. The Cr(T) detection was below the California drinking water standard of 50 µg/L.

4.1.2 Surface Water

Cr(VI) and Cr(T) were not detected in any of the water samples collected at the nine shoreline surface water stations or the nine in-channel surface water stations collected during 2006 (Tables 4 and 5).

4.2 Additional Analytes Results

4.2.1 Additional Surface Water Analytes

In addition to site COCs, in-channel surface water samples are analyzed for hardness, TDS, and TSS (Table 5). During the 2006 monitoring period, hardness was consistently in the range of 297 to 422 milligrams per liter (mg/L) for all stations. TDS was detected in a range of 570 to 765 mg/L, and TSS was non-detect in all stations, with the exception of the C-MAR station. TDS at C-MAR was 1,410 mg/L in December 2006, and TSS was detected in a range of 20 mg/L to 72 mg/L. The C-MAR location is at the mouth of the Topock Marina where the water is shallow and silty, resulting in the elevated TDS and TSS results (Figure 3). These results are consistent with the 2005 monitoring period.

4.2.2 Additional Water Quality Characterization

To supplement the water quality site characterization, groundwater samples were collected from all monitoring wells and analyzed for additional parameters during the March 2006 monitoring event. The samples were analyzed by Emax Laboratories for additional parameters that are not part of the routine GMP These include TDS (USEPA Method 160.1); chloride, sulfate, nitrate, and bromide (anions; USEPA Method 300.0); calcium, magnesium potassium, sodium, and boron (cations; Method SW 6010B or SW 6020A); alkalinity (USEPA Method 310.1), stable isotopes oxygen 18 and deuterium (CF-IRMS methods); ammonia (USEPA Method 350.2); total organic carbon (USEPA Method 415.2); dissolved silica (USEPA Method 370.1); iron (USEPA Method 6010B or 6020A); and manganese (USEPA Method 6010B or 6020A). The results of these additional analyte results are presented in Appendix B.

4.2.3 CCR Title 22 Metals

Besides Cr(T), the trace Title 22 metals detected in the GMP monitoring wells in 2006 were arsenic, barium, cobalt, copper, lead, molybdenum, nickel, selenium, thallium, vanadium, and zinc (Table 6). With the exception of Cr(T) and arsenic, all of the trace metal detections in 2006 were below the respective California drinking water standards. In 2006, arsenic was detected above the maximum contaminant level in two wells, MW-10 and MW-12. The concentration of Title 22 metals that were consistently detected in monitoring wells remained fairly stable overall during the annual monitoring period.

4.3 Water Level Monitoring

The range of groundwater salinities measured in GMP wells during 2006 water level monitoring remained stable, ranging from 0.05 percent (MW-27-20; May and June) to 3.65 percent (MW-30-30; October) (Table 7).

Appendix C contains groundwater hydrographs for four representative wells in different regions of the site during 2006. Appendix Figures C1 through C4 present hydrographs from wells MW-20-70, MW-26, MW-10, and OW-1S, respectively (all wells equipped with pressure transducers). The 2006 hydrograph for the Colorado River gage station I-3 is also shown on the groundwater hydrographs for the selected wells.

The hydrographs presented on Figures C1 through C4 represent well locations from east to west, moving away from the river. The four selected monitoring wells are all screened in the upper depth interval of the Alluvial Aquifer. The groundwater levels in each of the selected site areas show the seasonal trends of increasing and decreasing water levels associated with the river stage. Additionally, wells that are close to the river, such as MW-20-70, show pronounced groundwater elevation fluctuations in response to the daily river water elevation changes. In contrast, wells that are distant from the river, such as MW-10 and OW-1S, show more muted water level responses to the daily river stage fluctuations. The IM compliance monitoring program reports provide hydrographs for groundwater wells in the injection well field area (CH2M HILL, 2005j), while the IM performance monitoring program reports (CH2M HILL, 2005i) provide assessment of the hydraulic gradients for groundwater wells in the floodplain area.

4.4 MAROS Results

The Monitoring and Remediation Optimization System (MAROS) software was used to evaluate the sampling frequency of monitoring wells in the GMP network for the period of January 2005 to December 2006. MAROS is a modular set of tools that uses simple statistical and heuristic methods to evaluate appropriate sampling frequencies for wells based on past sampling data. MAROS had previously been used to evaluate sampling frequencies at Topock in from second quarter 2002 through first quarter 2006 (CH2M HILL, 2006e). Some new wells installed in 2005 and 2006 were not included in the previous evaluation due to insufficient number of data points. The evaluation performed for this annual report encompasses the new 2005 wells and some 2006 wells that now have sufficient data points to allow evaluation using MAROS. Below is a summary of changes based on the MAROS evaluation and the monitoring needs of the interim measures program. The methodology and details of the evaluation are described in Appendix D.

- Twenty-one wells would have a biennial sampling frequency.
- Twenty-seven wells would have an annual sampling frequency.
- Four wells would have a semiannual sampling frequency.
- Thirty wells would have a quarterly sampling frequency.
- Six wells would have a quarterly sampling frequency.
- One well would have a biweekly sampling frequency.

These recommendations, combined with the monitoring needs of the interim measures program and the current monitoring frequencies for wells without sufficient data for MAROS analysis and bedrock wells, yield the following sampling schedule:

- Biennial sampling events would include 95 wells.
- Annual sampling events would include 71 wells.
- Semiannual sampling events would include 44 wells.
- Quarterly sampling events would include 40 wells.
- Monthly sampling events would include seven wells.
- Biweekly sampling events would include one well.

5.0 Status of GMP Monitoring Activities and Proposed Changes to Future GMP Monitoring Activities

As discussed in Section 1.0, the purpose of the Topock GMP is to collect groundwater and surface water monitoring information for the Groundwater RFI to identify and evaluate the nature and extent of hazardous waste and constituent releases at the compressor station. A substantial groundwater and surface water dataset is currently available. The Final Groundwater RFI/RI will be prepared in 2007 that will present groundwater and surface water monitoring data collected between 1997 and 2007 from over 100 wells at the site. Therefore, the objectives of the Topock GMP, as currently defined, will be met in 2007. The purpose and objectives for the GMP following completion of the Groundwater RFI must be defined if future GMP activities are needed.

Also, as discussed in Section 1.0, PG&E is implementing an IM at the Topock site that consists of groundwater extraction for hydraulic control of the groundwater plume boundaries in the Colorado River floodplain and management of extracted groundwater. Robust monitoring and reporting programs to monitor the effectiveness and regulatory compliance of the IM operations will continue throughout 2007 and thereafter, as long as the IM is in effect. Recommendations for changes to the GMP, as documented herein, do not apply to the IM monitoring programs.

5.1 Recommended GMP Changes for 2007

The following are recommended changes to the Topock GMP in 2007:

- Hardness, TDS, and TSS have been collected during 10 in-channel surface water monitoring events since July 2005. Data have been consistent for these analytes and have adequately established water quality conditions in the river throughout various stages of the annual river cycle. Therefore, it is recommended that the analysis of hardness, TDS, and TSS at the river channel stations be discontinued in future GMP monitoring events.
- As shown in Table 7, Title 22 metals have been analyzed for eight quarters in nine wells from September 2004 through December 2007. There is a substantive body of data for these metals that show consistent concentrations. No apparent non-chromium metallic constituent trends with time have been identified over this period; therefore, it is recommended that the analysis of Title 22 metals be discontinued in future GMP monitoring events.
- Modify the well sampling frequencies as indicated by the MAROS program (Section 4.4, Appendix D). The sampling program can be optimized by reducing the sampling frequency at many GMP monitoring wells, while still tracking plume movement

efficiently. Based on results of the updated MAROS analysis, several revisions to the current sampling frequencies are warranted, as described in Appendix D.

- Modify the reporting frequency for future Topock GMP reports from quarterly to semiannually. As the groundwater RFI nears completion, quarterly data reports have become less necessary. Also, more frequent monitoring and reporting programs to monitor the effectiveness of the IM operations will continue throughout 2007 and thereafter, as long as the IM is in effect.
- Incorporate the additional slant monitoring wells to be installed in California floodplain in early 2007 into the GMP after construction. In addition, incorporate the vertical and slant wells planned to be installed in Arizona in mid 2007 into the GMP after construction.
- Revise the *Monitoring Plan for Groundwater and Surface Water Monitoring Program, PG&E Topock Compressor Station,* dated April 11, 2005. The monitoring plan should be updated to reflect the objectives of the GMP following completion of the Groundwater RFI/RI (site groundwater characterization). In addition, the Monitoring Plan revision will incorporate additional wells that have been installed at the site since April 2005 and numerous objectives (see Table 1) that have been issued since April 2005, if appropriate, given revised objectives of the GMP.
- In addition, as the objectives of the GMP will change with the completion of the site characterization for groundwater and surface water, the *Quality Assurance Project Plan for Water Quality Sampling and Analysis,* dated March 31, 2005, should be updated to reflect the revised project objectives upon completion of groundwater characterization.
- There are two water supply wells at the Moabi Regional Park; one that has been monitored under the GMP since 1997 and another that was newly installed in late 2006. DTSC's required sampling frequency for the first well is biennial, and the second well has not yet been incorporated into the GMP. It is recommended that both Park Moabi wells be monitored as part of the GMP on an annual frequency beginning in 2007.

5.2 Upcoming GMP Events

The first quarter 2007 monitoring event is scheduled to be conducted in March 2007. This quarterly event will also serve as a semiannual event and include 68 monitoring wells as directed by DTSC (DTSC, 2006). Quarterly surface water sampling, including nine shoreline and nine in-channel locations, will be also conducted in March 2007. The groundwater and surface water monitoring report for the first quarter 2007 GMP event will be submitted approximately 10 to 12 weeks after sampling completion.

The first two monthly events of 2007 occurred on January 9 and 10 and February 5 through 8, 2007. Monthly GMP monitoring events include 10 monitoring wells, not including the two active extraction wells PE-1 and TW-3D that are routinely sampled for IM No. 3 compliance reporting (DTSC, 2006). The sampling results of the IM extraction wells and floodplain wells that are monitored on monthly and biweekly schedules are presented monthly in the IM performance monitoring program reports (CH2M HILL, 2005i).

Samples were collected from nine river channel and nine shoreline locations during the January 2007 monthly event (a low-water level month). After the January sampling event, the river locations will be sampled quarterly in 2007 until the river is at low-river stage again (anticipated to begin in November 2007).

Biweekly sampling of floodplain well MW-34-100 will continue through the first quarter 2007 as directed by DTSC (DTSC, 2006).

6.0 References

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Tables

TABLE 2
Well Construction and Sampling Summary, December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft MSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft bgs)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Remarks
GMP Monitoring Wells										
MW-09	Bat Cave Wash	536.56	77 - 87	4 in PVC	89.4	80.8	CD pump	3	11	
MW-10	Bat Cave Wash	530.65	74 - 94	4 in PVC	96.9	75.1	CD pump	5	40	
MW-11	Bat Cave Wash	522.61	62.5 - 82.5	4 in PVC	86.1	67.3	CD pump	5	30	
MW-12	East of Station	484.01	27.5 - 47.5	4 in PVC	50.4	29.4	Temp. pump	3	40	
MW-13	Bat Cave Wash	488.64	28.5 - 48.5	4 in PVC	52.0	32.7	CD pump	4	30	
MW-14	East Mesa	570.99	111 - 131	4 in PVC	133.8	115.5	CD pump	4	30	
MW-15	East of New Ponds	641.52	180.5 - 200.5	4 in PVC	203.0	185.3	CD pump	5	30	
MW-16	Near New Ponds	657.31	198 - 218	4 in PVC	218.1	200.4	Temp. pump	7	35	
MW-17	West of Mesa Area	589.96	130 - 150	4 in PVC	153.6	133.3	CD pump	5	32	
MW-18	West Mesa	545.32	85 - 105	4 in PVC	106.7	89.3	Temp. pump	5	30	
MW-19	Route 66	499.92	46 - 66	4 in PVC	65.8	46.0	CD pump	7	41	
MW-20-070	MW-20 bench	500.15	50 - 70	4 in PVC	69.6	47.5	CD pump	10	53	
MW-20-100	MW-20 bench	500.58	89.5 - 99.5	4 in PVC	101.4	---	CD pump	10	110	
MW-20-130	MW-20 bench	500.66	121 - 131	4 in PVC	132.3	---	Temp. pump	10	180	
MW-21	Route 66	505.55	39 - 59	4 in PVC	58.5	54.7	Temp. pump	10	10	low recharge well; purges dry at 1 casing volume
MW-22	Floodplain	460.72	5.5 - 10.5	2 in PVC	12.4	---	Peristaltic	0.2	4	
MW-23	East of Station	507.33	60 - 80	4 in PVC	81.4	---	CD Pump	5	20	low recharge well; purges dry at 1 casing volume
MW-24A	MW-24 Bench	567.16	104 - 124	4 in PVC	127.5	111.9	CD pump	3	30	
MW-24B	MW-24 Bench	564.76	193 - 213	4 in PVC	214.8	---	CD pump	7	210	
MW-24BR	MW-24 Bench	563.95	378 - 437	4 in PVC	441.0	---	Temp. pump	8	185	low recharge well; purges dry at 1 casing volume
MW-25	Near Bat Cave Wash	542.90	84.5 - 104.5	4 in PVC	106.5	88.9	CD pump	5	32	
MW-26	Route 66	502.22	51.5 - 71.5	2 in PVC	70.1	48.0	CD pump	7	50	
MW-27-020	Floodplain	460.56	7 - 17	2 in PVC	14.4	---	Temp. pump	1	7	
MW-27-060	Floodplain	461.38	47.3 - 57.3	2 in PVC	59.0	---	Temp. pump	2	25	
MW-27-085	Floodplain	460.99	77.5 - 87.5	2 in PVC	80.0	---	Ded. Redi-Flo AR	2	36	
MW-28-025	Floodplain	466.85	13 - 23	2 in PVC	21.1	---	Ded. Redi-Flo AR	1	5	
MW-28-090	Floodplain	467.51	70 - 90	2 in PVC	98.4	---	Temp. pump	2	50	
MW-29	Floodplain	485.21	29.5 - 39.5	2 in PVC	41.5	---	Temp. pump	0.5	6	
MW-30-030	Floodplain	468.12	12 - 32	2 in PVC	26.9	---	Ded. Redi-Flo AR	1	10	
MW-30-050	Floodplain	468.81	40 - 50	4 in PVC	52.6	---	Ded. Redi-Flo AR	2	75	
MW-31-060	MW-20 Bench	496.81	41.5 - 61.5	4 in PVC	64.0	43.9	CD pump	10	40	
MW-31-135	MW-20 Bench	498.11	113 - 133	2 in PVC	135.4	---	Redi-Flo AR	3	60	
MW-32-020	Floodplain	461.51	10 - 20	2 in PVC	19.6	---	Ded. Redi-Flo AR	1.5	6	

TABLE 2
Well Construction and Sampling Summary, December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft MSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft bgs)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Remarks
GMP Monitoring Wells										
MW-32-035	Floodplain	461.63	27.5 - 35	4 in PVC	37.2	---	Ded. Redi-Flo AR	2	60	
MW-33-040	Floodplain	487.38	29 - 39	4 in PVC	41.8	---	Temp. pump	0.5	4	
MW-33-090	Floodplain	487.55	69 - 89	4 in PVC	88.3	---	Temp. pump	2	110	
MW-33-150	Floodplain	487.77	132 - 152	2 in PVC	155.4	---	Temp. pump	3	60	
MW-33-210	Floodplain	487.25	190 - 210	2 in PVC	223.0	---	Ded. Redi-Flo AR	3	90	
MW-34-055	Floodplain	460.94	45 - 55	4 in PVC	56.6	---	Ded. Redi-Flo AR	2	100	
MW-34-080	Floodplain	461.20	73 - 83	4 in PVC	84.3	---	Ded. Redi-Flo AR	3	150	
MW-34-100	Floodplain	460.96	89.5 - 99.5	2 in PVC	117.0	---	Ded. Redi-Flo AR	2	55	
MW-35-060	Route 66	484.19	41 - 61	2 in PVC	56.8	30.6	Temp. pump	2	18	
MW-35-135	Route 66	483.57	116 - 136	2 in PVC	158.7	---	Temp. pump	3	66	
MW-36-020	Floodplain	469.26	10 - 20	1 in PVC	22.7	---	Peristaltic	0.5	4	
MW-36-040	Floodplain	469.61	30 - 40	1 in PVC	42.8	---	Peristaltic	0.5	4	
MW-36-050	Floodplain	469.60	46 - 51	1 in PVC	53.3	---	Peristaltic	0.75	5	
MW-36-070	Floodplain	469.25	60 - 70	1 in PVC	72.5	---	Peristaltic	0.5	7	
MW-36-090	Floodplain	469.61	80 - 90	1 in PVC	92.5	---	Peristaltic	0.4	10	
MW-36-100	Floodplain	469.64	88 - 98	2 in PVC	110.2	---	Ded. Redi-Flo AR	2	45	
MW-37D	Bat Cave Wash	486.19	180 - 200	2 in PVC	226.7	---	Temp. pump	3	100	
MW-37S	Bat Cave Wash	485.97	64 - 84	2 in PVC	87.0	---	Temp. pump	2	30	
MW-38D	Bat Cave Wash	525.31	163 - 183	2 in PVC	190.9	---	Temp. pump	3	60	
MW-38S	Bat Cave Wash	525.51	75 - 95	2 in PVC	98.1	70.8	Temp. pump	1	13	
MW-39-040	Floodplain	468.02	30 - 40	1 in PVC	42.1	---	Peristaltic	0.5	3.5	
MW-39-050	Floodplain	467.93	47 - 52	1 in PVC	54.6	---	Peristaltic	0.5	5	
MW-39-060	Floodplain	468.00	49 - 59	1 in PVC	66.3	---	Peristaltic	0.5	6	
MW-39-070	Floodplain	468.02	60 - 70	1 in PVC	71.7	---	Peristaltic	0.5	7	
MW-39-080	Floodplain	467.92	70 - 80	1 in PVC	82.6	---	Peristaltic	0.5	9	
MW-39-100	Floodplain	468.01	80 - 100	2 in PVC	117.7	---	Ded. Redi-Flo AR	2	45	
MW-40D	I-40 Median	566.08	240 - 260	2 in PVC	266.0	---	Temp. pump	3	75	
MW-40S	I-40 Median	566.04	115 - 135	2 in PVC	134.0	110.9	Temp. pump	2	13	
MW-41D	Bat Cave Wash	479.42	271 - 291	2 in PVC	313.0	---	Temp. pump	3	145	
MW-41M	Bat Cave Wash	479.83	170 - 190	2 in PVC	192.4	---	Temp. pump	3	85	
MW-41S	Bat Cave Wash	480.07	40 - 60	2 in PVC	61.6	25.4	Temp. pump	2	42	
MW-42-030	Floodplain	463.81	9.8 - 29.8	2 in PVC	32.0	---	Temp. pump	2	28	
MW-42-055	Floodplain	463.87	42.5 - 52.5	2 in PVC	56.0	---	Temp. pump	3	21	

TABLE 2
Well Construction and Sampling Summary, December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft MSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft bgs)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Remarks
GMP Monitoring Wells										
MW-42-065	Floodplain	463.37	56.2 - 66.2	2 in PVC	80.0	---	Temp. pump	3	36	
MW-43-025	Floodplain	462.54	15 - 25	2 in PVC	27.0	---	Temp. pump	1	9	
MW-43-075	Floodplain	462.71	65 - 75	2 in PVC	77.0	---	Ded. Redi-Flo AR	2	28	
MW-43-090	Floodplain	462.76	80 - 90	2 in PVC	102.0	---	Ded. Redi-Flo AR	2	47	
MW-44-070	Floodplain	471.90	61 - 71	2 in PVC	70.0	---	Temp pump	1.5	38	
MW-44-115	Floodplain	472.01	103 - 113	2 in PVC	113.5	---	Ded. Redi-Flo AR	3	60	
MW-44-125	Floodplain	472.04	116 - 125	2 in PVC	128.8	---	Temp pump	0.35	57	
MW-46-175	Floodplain	482.16	165 - 175	2 in PVC	181.8	---	Ded. Redi-Flo AR	1.5	100	
MW-46-205	Floodplain	482.23	196.5 - 206.5	2 in PVC	224.7	---	Temp pump	2	90	
MW-47-055	Floodplain	483.87	45 - 55	2 in PVC	55.0	---	Temp pump	2	30	
MW-47-115	Floodplain	484.06	105 - 115	2 in PVC	115.0	---	Temp pump	1.5	55	
MW-48	East of Station	486.22	124 - 134	2 in PVC	138.0	---	Temp pump	0.5	22	low recharge well; purges dry at 1 casing volume
MW-49-135	Floodplain	484.02	125 - 135	1.5 in PVC	136.6	---	Temp pump	0.6	30	
MW-49-275	Floodplain	483.95	255 - 275	2 in PVC	274.7	---	Temp pump	3	126	
MW-49-365	Floodplain	484.01	345 - 365	2 in PVC	367.4	---	Temp pump	2	180	
MW-50-095	Route 66	496.55	85 - 95	2 in PVC	96.4	---	Temp pump	2	36	
MW-50-200	Route 66	496.48	190 - 200	2 in PVC	204.5	---	Temp pump	3	85	
MW-51	Route 66	501.56	97 - 112	4 in PVC	113.3	---	Temp pump	2	180	
OW-03D	West Mesa	558.63	242 - 262	2 in PVC	274.0	---	Temp. pump	3	90	
OW-03M	West Mesa	558.89	180 - 200	2 in PVC	202.0	---	Temp. pump	3	54	
OW-03S	West Mesa	558.58	86 - 116	2 in PVC	118.0	102.5	Temp. pump	2	30	
Other Site Wells not in GMP										
MW-01	New Ponds	661.76	201 - 211	4 in PVC	217.0	205.9	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-03	New Ponds	650.51	193 - 203	4 in PVC	205.0	---	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-04	New Ponds	625.73	164.5 - 174.5	4 in PVC	176.3	170.0	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-05	New Ponds	635.69	175.9 - 184.9	4 in PVC	186.2	179.6	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-06	New Ponds	642.84	184.5 - 193.5	4 in PVC	194.9	---	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-07	New Ponds	631.91	172.7 - 182.7	4 in PVC	185.0	176.3	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-08	New Ponds	627.54	169 - 178	4 in PVC	179.9	171.1	Ded. Redi-Flo AR	NA	NA	active PG&E pond monitoring well
MW-45-095a	Floodplain	470.03	83 - 93	2 in PVC	97.0	---	Temp pump	1	40	pressure transducer location
MW-45-095b	Floodplain	469.51	83 - 93	1 in PVC	97.0	---	Temp pump	NA	9	groundwater sampling location
MWP-08	Old Ponds	677.48	181 - 211	3 in PVC	213.0	---	---	NA	NA	inactive monitoring well
MWP-10	Old Ponds	675.81	194 - 234	3 in PVC	237.0	---	---	NA	NA	inactive monitoring well

TABLE 2
Well Construction and Sampling Summary, December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft MSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft bgs)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Remarks
Other Site Wells not in GMP										
MWP-12	Old Ponds	663.49	96 - 136	3 in PVC	143.0	---	---	NA	NA	inactive monitoring well
P-2	New Ponds	537.60	238.5 - 248.5	4 in PVC	251.0	---	---	NA	NA	inactive monitoring well
PGE-09N	East of River	462.21	25 - 95	12 in Steel	---	---	---	NA	NA	
PGE-09S	East of River	461.99	30 - 100	12 in Steel	---	---	---	NA	NA	
Test and Extraction Wells										
IW-02	East Mesa	550.11	170 - 330	6 in Steel	343.0	---	---	NA	NA	IM3 injection well
IW-03	East Mesa	554.44	160 - 320	6 in Steel	333.0	---	---	NA	NA	IM3 injection well
PE-01	Floodplain	457.52	79 - 89	6 in Steel	97.0	---	CD pump	3	400	active IM extraction well
TW-01	Plan B Test	620.55	169 - 269	5 in PVC	240.2	---	CD pump	20	200	inactive pilot test well
TW-02D	MW-20 bench	493.29	113 - 148	6 in PVC	150.0	---	CD pump	70.1	160	inactive IM extraction well
TW-02S	MW-20 bench	499.05	42.5 - 92.5	6 in PVC	102.1	34.0	CD pump	6	75	inactive IM extraction well
TW-03D	MW-20 bench	---	111 - 156	8 in PVC	157.0	---	CD pump	NA	NA	active IM extraction well
TW-04	Floodplain	484.11	210 - 250	4 in PVC	255.0	---	Temp pump	NA	NA	
TW-05	Route 66	496.30	110 - 150	4 in PVC	152.5	---	Temp pump	3	150	
Water Supply Wells										
PGE-06	MW-24 Bench	563.32	110 - 180	14 in Steel	181.0	---	CD pump	24	650	inactive supply
PGE-07	MW-24 Bench	563.89	195 - 330	14 in Steel	332.0	---	CD pump	12	600	inactive supply
PGE-08	Station	596.01	405 - 554	6.75 in Steel	564.0	---	CD pump	20	1900	inactive injection
PM-03	Park Moabi	518.55	80 - 200	8 in Steel	252.0	---	active supply well	NA	NA	call Park Ranger to schedule sampling

NOTES:

BGS	below ground surface
MSL	mean sea level
BTOC	below top of casing
NA	not known or available
CD pump	dedicated constant-discharge electric submersible pump
Redi-Flo AR	adjustable-rate electric submersible pump
Temp pump	temporary pump
PVC	polyvinyl chloride casing
Ded	dedicated

Depth to water shown is the most recently measured depth to water.

All GMP wells except low recharge wells, active IM extraction wells, and Park Moabi well are purged and sampled using well-volume method.

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
MW-9	07-Mar-06		298	291	2,650	7.60
	07-Mar-06	FD	301	295	2,630	7.62
	12-Oct-06		308	306	2,820	7.24
MW-10	06-Mar-06		2070	2120	2,730	7.56
	12-Oct-06		2510	2480	2,350	7.52
	14-Dec-06		2380	3040	2,140	7.79
MW-11	06-Mar-06		323	306	2,360	7.47
	12-Oct-06		325	339	2,320	7.39
MW-12	13-Dec-05		626	602	2,930	8.41
	18-Apr-06		1210	1300	3,450	8.19
	01-May-06		1250	1280	3,520	8.52
	04-Oct-06		1740	1790	4,590	7.92
	13-Dec-06		2050	1880	4,490	8.44
MW-13	13-Dec-05		21.4	20.0	1,740	7.51
	13-Dec-05	FD	21.5	22.1	1,750	7.52
	08-Mar-06		21.8	18.9	1,820	7.60
	08-Mar-06	FD	21.8	19.1	1,800	7.53
	02-May-06		21.4	19.2	1,760	7.67
	02-May-06	FD	21.2	20.5	1,750	7.79
	02-Oct-06		24.6	21.4	1,860	7.80
MW-14	15-Dec-05		31.7	30.0	1,440	7.24
	09-Mar-06		32.5	29.1	1,420	7.56
	02-May-06		32.6	27.6	1,440	7.88
	02-Oct-06		31.2	27.0	1,430	7.88
	02-Oct-06	FD	32.6	28.9	1,440	7.84
MW-15	07-Mar-06		15.2	13.8	1,790	7.75
	05-Oct-06		12.1	11.4	1,430	7.93 R
MW-16	07-Mar-06		9.00	7.70	1,050	7.86
	01-Nov-06		7.00	6.30	1,090	8.04
MW-17	09-Mar-06		16.6	14.7	1,710	7.60
	02-Oct-06		11.9	11.9	1,780	7.69
MW-18	09-Mar-06		37.6	31.0	1,140	7.45
	09-Mar-06	FD	38.1	32.3	1,130	7.50
	04-Oct-06		33.5	29.1	1,250	7.46
MW-19	12-Dec-05		1240	1270	2,040	7.52
	09-Mar-06		1090	1080	2,080	7.50
	02-May-06		1130	1120	2,150	7.74
	02-Oct-06		970	1300	2,230	7.86
	15-Dec-06		1070 J	1090	2,250	7.63
MW-20-70	15-Dec-05		4640	4310	2,850	7.72
	10-Mar-06		5170	4510	2,870	7.61
	05-May-06		4100	4440	2,860	7.75
	03-Oct-06		3290	3390	2,840	7.32
	03-Oct-06	FD	3410	3330	2,790	7.38

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-20-70	13-Dec-06		3430	3120	2,850	7.55
MW-20-100	15-Dec-05		9460	9010	3,550	7.68
	10-Mar-06		10100	10200	3,690	7.61
	05-May-06		10400	12100	3,610	7.65
	03-Oct-06		9520	10300	3,570	7.28
	13-Dec-06		9610	9220 J	3,630	7.48
	13-Dec-06	FD	9400	11500 J	3,560	7.54
MW-20-130	16-Dec-05		10500	9340	13,000	7.53
	10-Mar-06		10700	10600	13,600	7.62
	05-May-06		12000	13700	14,200	7.71
	18-Oct-06		11600	16400	17,000	7.61 R
	13-Dec-06		12000	10500	15,100	7.58
	13-Dec-06	FD	11800	10700	15,200	7.56
MW-21	14-Dec-05		ND (1.0)	ND (1.0)	8,960	7.08
	02-May-06		ND (1.0)	ND (1.0)	14,300	7.28
	03-Oct-06		ND (1.0)	ND (1.0)	16,500	7.27
	13-Dec-06		ND (1.0)	ND (1.0)	13,900	7.33
MW-22	16-Dec-05		ND (2.0)	ND (1.0)	34,500	6.89
	15-Mar-06		ND (2.0)	ND (1.0)	36,300	7.25
	03-May-06		ND (1.0) J	ND (1.0)	33,400	6.97
	13-Oct-06		ND (1.0)	ND (1.0)	40,300	6.84
MW-23	14-Dec-05		8.80	10.5	16,400	7.17
	08-Mar-06		11.9	ND (1.0)	18,800	7.27
	02-May-06		16.8	18.2	19,500	7.38
	04-Oct-06		15.2	14.4	19,300	7.07
	12-Dec-06		1920 R	ND (1.0) J	21,200	7.50
	12-Dec-06	FD	14.4 J	8.60 J	19,400	7.47
MW-24A	06-Mar-06		3490	3980	3,100	7.62
	03-Oct-06		4300	4260	3,170	7.66
	14-Dec-06		3310	4250	3,220	7.70
MW-24B	07-Mar-06		5650	5970	15,400	7.92
	03-Oct-06		6120	5830	17,100	7.69
	14-Dec-06		5520	5060	18,800	7.97
MW-24BR	15-Dec-05		ND (1.0)	ND (1.0)	13,600	8.34
	16-Mar-06		ND (1.0)	1.20	15,600	7.92
	10-May-06		1.00 R	ND (1.0)	15,200	8.06
	05-Jun-06		ND (1.0)	---	---	---
	01-Nov-06		ND (1.0)	ND (1.0)	16,700	7.98
	15-Dec-06		ND (2.0)	1.00	16,500	8.56
MW-25	14-Dec-05		1460	1370	1,360	7.39
	14-Dec-05	FD	1450	1350	1,350	7.41
	09-Mar-06		1360	1430	1,400	7.43
	03-May-06		1390	1300	1,400	7.79
	03-May-06	FD	1280	1310	1,420	7.68

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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Well ID	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-25	03-Oct-06	1140	1150	1,400	7.24
MW-26	12-Dec-05	3220	3160	3,850	7.43
	08-Mar-06	3280	3020	3,300	7.54
	01-May-06	3210	3110	3,350	7.66
	03-Oct-06	3590	3850	3,600	7.52
MW-27-20	14-Dec-05	ND (0.2)	ND (1.0)	1,340	7.42
	06-Mar-06	ND (0.2)	ND (1.0)	998	7.66
	01-May-06	ND (0.2)	ND (1.0)	1,490	7.72
	03-Oct-06	ND (0.2)	ND (1.0)	1,090	7.90 R
MW-27-60	15-Dec-05	ND (1.0)	ND (1.0)	13,700	7.28
	07-Mar-06	ND (1.0)	ND (1.0)	13,600	7.39
	01-May-06	ND (1.0)	ND (1.0)	12,800	7.58
	03-Oct-06	ND (1.0)	ND (1.0)	9700 J	7.23
MW-27-85	15-Dec-05	1.20 J	6.60	17,500	7.29
	12-Jan-06	ND (1.0)	ND (1.0)	---	---
	08-Feb-06	ND (1.0)	ND (1.0)	---	---
	06-Mar-06	ND (1.0)	ND (1.0)	20,600	7.23
	03-Apr-06	ND (1.0)	ND (1.0)	---	---
	01-May-06	ND (1.0)	ND (1.0)	17,200	7.56
	14-Jun-06	ND (1.0)	ND (1.0)	---	---
	12-Jul-06	ND (2.0)	ND (1.0)	---	---
	08-Aug-06	ND (1.0)	ND (1.0)	---	---
	06-Sep-06	ND (1.0)	ND (1.0)	---	---
	13-Oct-06	ND (1.0)	ND (1.0)	21,600	7.16
	16-Nov-06	ND (1.0)	ND (1.0)	---	---
	11-Dec-06	ND (1.0)	ND (1.0)	21,600	7.03
MW-28-25	16-Dec-05	ND (0.2)	ND (1.0)	1,430	7.28
	09-Mar-06	ND (0.2)	ND (1.0)	1,040	7.42
	05-May-06	ND (0.2)	ND (1.0)	1,170	7.55
	11-Oct-06	ND (0.2)	ND (1.0)	1,340	7.27
MW-28-90	16-Dec-05	ND (1.0)	ND (1.0)	8,400	7.57
	10-Jan-06	ND (1.0)	ND (1.0)	---	---
	09-Feb-06	ND (0.2) J	ND (1.0)	---	---
	06-Mar-06	ND (1.0)	ND (1.0)	8,970	7.66
	06-Apr-06	ND (1.0)	ND (1.0)	---	---
	05-May-06	ND (1.0)	ND (1.0)	7,680	7.68
	15-Jun-06	ND (1.0)	ND (1.0)	---	---
	13-Jul-06	ND (1.0) J	ND (1.0)	---	---
	11-Aug-06	ND (0.2)	ND (1.0)	---	---
	08-Sep-06	ND (0.2)	ND (1.0)	---	---
	13-Oct-06	ND (0.2)	ND (1.0)	8,510	7.56
	14-Dec-06	ND (1.0)	ND (1.0)	7,740	7.54
MW-29	12-Dec-05	ND (0.2)	ND (1.0)	5,620	7.38
	13-Apr-06	ND (0.2)	ND (1.0)	3,340	7.74
	05-May-06	ND (0.2)	ND (1.0)	2,430	7.57

TABLE 3
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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)	pH
MW-29	13-Oct-06		ND (0.2)	ND (1.0)	4,300	7.39
MW-30-30	15-Dec-05		ND (5.0)	ND (1.0)	61,500	7.05
	13-Mar-06		ND (5.0)	ND (1.0)	65,300	7.04
	02-May-06		ND (2.0)	ND (1.0)	53,300	7.10
	10-Oct-06		ND (2.0)	ND (1.0)	49,300	7.04
MW-30-50	16-Dec-05		ND (1.0)	ND (1.0)	10,200	7.38
	09-Mar-06		ND (1.0)	ND (1.0)	9,650	7.34
	02-May-06		ND (1.0)	ND (1.0)	9,500	7.52
	11-Oct-06		ND (0.2)	ND (1.0)	6,100	7.13
	11-Oct-06	FD	ND (0.2)	ND (1.0)	6,210	7.16
MW-31-60	13-Dec-05		1300	1250	2,570	7.60
	15-Mar-06		1020	1010	2,580	7.62
	15-Mar-06	FD	1000	1010	2,560	7.64
	01-May-06		952	959	2,590	7.80
	05-Oct-06		773	849	2,440	7.60
MW-31-135	14-Dec-05		221	198	9,240	7.62
	15-Mar-06		173	186	11,000	7.91
	09-May-06		154	146 LF	9,830	8.07
	05-Oct-06		85.7	81.7	9,370	7.59
MW-32-20	16-Dec-05		ND (2.0)	ND (1.0)	39,400	6.86
	10-Mar-06		ND (2.0)	ND (1.0)	36,500	6.92
	04-May-06		ND (1.0)	ND (1.0)	27,900	6.83
	02-Oct-06		ND (5.0)	ND (1.0)	65,200	7.03
	11-Dec-06		ND (2.0)	ND (1.0)	57,100	6.85
MW-32-35	16-Dec-05		ND (1.0)	ND (1.0)	12,600	7.19
	10-Mar-06		ND (2.0)	ND (1.0)	14,200	7.26
	04-May-06		ND (1.0)	ND (1.0)	17,000	7.31
	02-Oct-06		ND (1.0)	ND (1.0)	18,400	7.28
	11-Dec-06		ND (1.0)	ND (1.0)	19,200	7.10
MW-33-40	12-Dec-05		ND (1.0)	1.70	9,380	7.78
	09-Mar-06		ND (0.2)	ND (1.0) LF	5,560	8.01
	04-May-06		ND (0.2)	ND (1.0) LF	4,290	8.44
	06-Oct-06		ND (0.2)	ND (1.0)	4,170	8.00 J
	14-Dec-06		ND (0.2)	1.20	6,790	8.20
MW-33-90	13-Dec-05		16.4	21.8 J	8,540	7.50
	13-Dec-05	FD	16.5	14.0 J	8,520	7.55
	08-Mar-06		16.7	14.3	10,000	7.76
	03-May-06		16.1	16.4	8,840	7.76
	03-May-06	FD	19.3	15.3	8,590	7.71
	06-Oct-06		17.3	20.9	8,200	7.40 J
	15-Dec-06		17.8 J	13.8	9,460	7.63
	15-Dec-06	FD	2.30 R	13.5	9,380	7.60
MW-33-150	12-Dec-05		6.60	5.70	15,600	7.60
	10-Jan-06		6.40	5.00	---	---

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
MW-33-150	07-Feb-06		4.30 J	6.40	---	---
	08-Mar-06		4.20	3.20	18,300	7.74
	06-Apr-06		4.50	3.00	---	---
	03-May-06		6.60	5.50	17,500	7.63
	16-Jun-06		5.50	5.40	---	---
	13-Jul-06		7.40 J	6.70	---	---
	11-Aug-06		9.30	8.10	---	---
	08-Sep-06		7.40	4.10	---	---
	06-Oct-06		7.70	5.70	18,400	7.30 J
	13-Dec-06		10.8	9.80	19,500	7.59
MW-33-210	12-Dec-05		6.90	5.60	18,000	7.53
	10-Jan-06		7.60	5.20	---	---
	07-Feb-06		9.00	7.20	---	---
	06-Mar-06		10.7	6.50	21,500	7.50
	13-Apr-06		4.20	ND (4.2)	---	---
	05-May-06		10.0	8.80	17,900	7.55
	16-Jun-06		9.20	8.30	---	---
	13-Jul-06		10.0 J	7.50	---	---
	08-Aug-06		9.80	8.70	---	---
	08-Sep-06		9.20	4.90	---	---
	06-Oct-06		10.2	10.0	20,100	7.25 J
	11-Dec-06		11.1	8.00	22,200	7.46
MW-34-55	14-Dec-05		ND (1.0)	ND (1.0)	7,620	7.39
	08-Mar-06		ND (1.0)	ND (1.0)	8,500	7.62
	03-May-06		ND (0.2)	ND (1.0)	7,550	7.58
	04-Oct-06		ND (0.2)	ND (1.0)	2,410	7.98
MW-34-80	14-Dec-05		ND (1.0)	ND (1.0)	12,500	7.24
	11-Jan-06		ND (1.0)	ND (1.0)	---	---
	08-Feb-06		ND (1.0)	ND (1.0)	---	---
	09-Mar-06		ND (1.0)	ND (1.0)	12,400	7.26
	03-Apr-06		ND (1.0)	ND (1.0)	---	---
	03-May-06		ND (1.0)	ND (1.0)	13,600	7.35
	14-Jun-06		ND (1.0)	ND (1.0)	---	---
	12-Jul-06		ND (1.0)	ND (1.0)	---	---
	08-Aug-06		ND (1.0)	ND (1.0)	---	---
	06-Sep-06		ND (1.0)	ND (1.0)	---	---
	04-Oct-06		ND (1.0)	ND (1.0)	14,200	7.00
	16-Nov-06		ND (1.0)	ND (1.0)	---	---
	12-Dec-06		ND (1.0)	ND (1.0)	11,900	7.39
MW-34-100	14-Dec-05		808	751	15,000	7.52
	14-Dec-05	FD	811	791	15,000	7.50
	28-Dec-05		804	824	---	---
	12-Jan-06		837	771	---	---
	12-Jan-06	FD	856	764	---	---
	23-Jan-06		822	716	---	---
	08-Feb-06		797	706	---	---

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
MW-34-100	08-Feb-06	FD	785	708	---	---
	22-Feb-06		752	831	---	---
	22-Feb-06	FD	748	846	---	---
	08-Mar-06		800	857	17,900	7.59
	08-Mar-06	FD	801	773	17,900	7.65
	23-Mar-06		830	851	---	---
	23-Mar-06	FD	828	855	---	---
	03-Apr-06		858	910	---	---
	21-Apr-06		852	873	---	---
	03-May-06		900	946	18,000	7.70
	03-May-06	FD	920	946	18,000	7.72
	17-May-06		935	1180	---	---
	17-May-06	FD	930	1190	---	---
	31-May-06		960	929	---	---
	14-Jun-06		922	839	---	---
	14-Jun-06	FD	921	864	---	---
	28-Jun-06		976	1130	---	---
	12-Jul-06		823 J	851	---	---
	12-Jul-06	FD	828 J	864	---	---
	26-Jul-06		859	955	---	---
	08-Aug-06		889	982	---	---
	28-Aug-06		922	945	---	---
	06-Sep-06		844	963	---	---
	06-Sep-06	FD	797	907	---	---
	20-Sep-06		872	984	---	---
	04-Oct-06		910	889	19,000	7.28
	18-Oct-06		815	920	---	---
	01-Nov-06		832	752	---	---
	16-Nov-06		777	801	---	---
	30-Nov-06		744	712	---	---
	12-Dec-06		851	625 J	18,500	7.78
	28-Dec-06		723	603	---	---
MW-35-60	14-Dec-05		32.5	32.5	6,350	7.42
	14-Dec-05	FD	33.3	28.6	6,430	7.41
	14-Mar-06		31.6	24.3	7,700	7.53
	01-May-06		25.7	26.4	6,740	7.57
	12-Oct-06		28.6	29.1	8,850	7.43
MW-35-135	14-Dec-05		25.7	22.8	9,550	7.54
	10-Mar-06		28.0	24.0	10,800	7.67
	10-Mar-06	FD	26.5	25.7	10,700	7.68
	02-May-06		21.0	20.7	12,000	7.82
	12-Oct-06		35.4	34.6	9,570	7.43 R
	12-Oct-06	FD	34.0	30.8	8,640	7.60
MW-36-20	15-Dec-05		ND (2.0)	ND (1.0)	3260 R	7.14
	07-Mar-06		ND (1.0)	ND (1.0)	15,100	7.58
	01-May-06		ND (1.0)	ND (1.0)	20,000	7.52

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
MW-36-20	02-Oct-06		ND (1.0)	ND (1.0)	20,500	7.33
MW-36-40	15-Dec-05		ND (1.0)	ND (1.0)	12,300	7.38
	07-Mar-06		ND (1.0)	ND (1.0)	13,800	7.51
	01-May-06		ND (1.0)	ND (1.0)	13,000	7.64
	05-Oct-06		ND (1.0)	ND (1.0)	11,600	7.30
MW-36-50	15-Dec-05		ND (1.0)	ND (1.0)	11,000	7.28
	07-Mar-06		ND (1.0)	ND (1.0)	7,850	7.63
	07-Mar-06	FD	ND (1.0)	ND (1.0)	7,650	7.46
	01-May-06		ND (0.2)	ND (1.0)	6,970	7.64
	05-Oct-06		ND (0.2)	ND (1.0)	3240 J	7.37
MW-36-70	15-Dec-05		ND (1.0)	ND (1.0)	8,220	7.40
	10-Feb-06		ND (10)	ND (1.0)	---	---
	07-Mar-06		ND (1.0)	ND (1.0)	9,120	7.55
	06-Apr-06		ND (1.0)	ND (1.0)	---	---
	01-May-06		ND (1.0)	ND (1.0)	8,410	7.60
	13-Jun-06		ND (0.2) J	ND (1.0)	---	---
	11-Jul-06		ND (1.0)	ND (1.0)	---	---
	09-Aug-06		ND (0.2)	ND (1.0)	---	---
	07-Sep-06		ND (0.2)	ND (1.0)	---	---
	02-Oct-06		ND (0.2)	ND (1.0)	4,900	7.81
	14-Dec-06		ND (0.2)	ND (1.0) LF	3,580	7.75
MW-36-90	15-Dec-05		240	219	13,900	7.27
	12-Jan-06		245	223	---	---
	10-Feb-06		71.8	71.4	---	---
	07-Mar-06		33.0	27.5	11,800	7.49
	04-Apr-06		23.5	15.7	---	---
	01-May-06		22.8	18.3	11,200	7.61
	13-Jun-06		10.9	9.00	---	---
	11-Jul-06		12.2	11.1	---	---
	09-Aug-06		9.00	8.20	---	---
	07-Sep-06		8.80	7.70	---	---
	02-Oct-06		9.00	8.50	7,960	7.58
	02-Oct-06	FD	8.90	10.8	7,880	7.54
	15-Nov-06		ND (1.0)	2.40	---	---
	14-Dec-06		3.80 J	5.80 J	7,340	7.49
	14-Dec-06	FD	4.00	3.00 J	7,420	7.51
MW-36-100	13-Dec-05		306	333	15,800	7.25
	12-Jan-06		287	288	---	---
	09-Feb-06		307	288	---	---
	13-Mar-06		540	531	18,100	7.36
	05-Apr-06		554	492	---	---
	02-May-06		532	517	16,600	7.45
	15-Jun-06		496 J	465	---	---
	13-Jul-06		528	497	---	---
	09-Aug-06		551	474	---	---

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-36-100	08-Sep-06		556	561	---	---
	11-Oct-06		556	629	17500 J	7.16
	14-Nov-06		657	764	---	---
	11-Dec-06		586	513	16,400	7.22
MW-37D	14-Dec-05		1680	1610	13,300	7.67
	13-Mar-06		1950	1860	16,000	7.64
	03-May-06		1970	1880	16,200	7.87
	13-Oct-06		1330	1160	15,900	7.68
	14-Dec-06		1310	1130	17,000	7.85
MW-37S	14-Dec-05		8.00	7.10	4,220	7.60
	14-Dec-05	FD	7.60	7.00	4,230	7.62
	13-Mar-06		7.70	7.00	4,280	7.70
	04-May-06		8.30	9.30	4,260	7.85
	04-May-06	FD	8.00	---	4,250	7.81
	13-Oct-06		7.60	6.10	4,580	7.73
MW-38D	10-Mar-06		111	106	23,500	7.85
	12-Oct-06		104	104	27,100	7.38
MW-38S	10-Mar-06		824	788	3,700	7.53
	12-Oct-06		846	905	3480 J	7.49
MW-39-40	16-Dec-05		ND (0.2)	ND (1.0)	6,010	7.45
	07-Mar-06		ND (1.0)	ND (1.0)	7,780	7.55
	02-May-06		ND (1.0)	ND (1.0)	8,490	7.59
	05-Oct-06		ND (0.2)	ND (1.0)	7,890	7.18
	14-Dec-06		ND (1.0)	ND (1.0)	9,940	7.08
MW-39-50	12-Jan-06		ND (10)	ND (1.0)	---	---
	08-Mar-06		ND (1.0)	ND (1.0)	12,200	7.49
	02-May-06		ND (1.0)	ND (1.0)	10,300	7.61
	05-Oct-06		ND (0.2)	ND (1.0)	7,370	7.31
MW-39-60	16-Dec-05		20.4	20.4	14,400	7.16
	08-Mar-06		7.10	2.70	15,700	7.42
	08-Mar-06	FD	6.90	2.40	15,300	7.47
	02-May-06		1.10	1.40	13,200	7.49
	05-Oct-06		ND (1.0)	ND (1.0)	7,180	7.34
	05-Oct-06	FD	ND (2.0)	ND (1.0)	7,800	7.38
MW-39-70	16-Dec-05		1240	1080	12,800	7.24
	10-Feb-06		338	340	---	---
	08-Mar-06		200	169	12,300	7.46
	06-Apr-06		223	204	---	---
	02-May-06		137	123	11,500	7.48
	14-Jun-06		107 J	94.6	---	---
	12-Jul-06		77.0 J	66.7	---	---
	10-Aug-06		89.6	86.2	---	---
	07-Sep-06		155	153	---	---
	05-Oct-06		112	103	8,020	7.23
	14-Dec-06		101	94.0	8,250	7.27

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-39-80	15-Dec-05		2740	2570	12,600	7.34
	12-Jan-06		2280	2060	---	---
	10-Feb-06		1750	1610	---	---
	08-Mar-06		1420	1400	15,900	7.48
	06-Apr-06		1200	1120	---	---
	02-May-06		1410	1450	15,400	7.27
	14-Jun-06		1000 J	934	---	---
	12-Jul-06		830 J	750	---	---
	10-Aug-06		481	447	---	---
	07-Sep-06		1160	1160	---	---
	05-Oct-06		580	594	16,600	7.09
	15-Nov-06		339	422	---	---
	14-Dec-06		326	272	18,000	7.12
MW-39-100	13-Dec-05		3640	3440	16,700	7.22
	12-Jan-06		4720	4280	---	---
	09-Feb-06		4500	4310	---	---
	13-Mar-06		4070	4640	20,700	7.20
	05-Apr-06		4470	4050	---	---
	05-Apr-06	FD	4460	4330	---	---
	02-May-06		3680	3480	20,500	7.22
	14-Jun-06		3270	3250	---	---
	13-Jul-06		3790	3470	---	---
	10-Aug-06		3230	3440	---	---
	10-Aug-06	FD	3170	3410	---	---
	08-Sep-06		3290	3780	---	---
	11-Oct-06		3370	3500	20,000	7.02
	15-Nov-06		2850	3190	---	---
	15-Nov-06	FD	2960	3060	---	---
	12-Dec-06		3820	3350	21,300	7.27
MW-40D	13-Dec-05		83.5	78.1	14,600	7.43
	08-Mar-06		89.9	76.7	17,200	7.59
	03-May-06		79.8	85.3	14,700	7.75
	05-Oct-06		104	86.1	18,600	7.37
	13-Dec-06		110	99.0	17,900	7.54
MW-40S	13-Dec-05		5.10 J	5.10	1,850	7.54
	08-Mar-06		5.20	3.90	1,960	7.69
	03-May-06		5.70	6.70	1,950	7.85
	03-May-06	FD	5.60	7.20	1,930	7.85
	05-Oct-06		5.20	5.10	2,120	7.53
MW-41D	16-Dec-05		ND (1.0)	ND (1.0)	19,600	7.59
	15-Mar-06		ND (1.0)	ND (1.0)	23,500	7.84
	05-May-06		ND (1.0)	1.40	19,500	7.99
	04-Oct-06		ND (1.0)	ND (1.0)	22,300	7.54 R
MW-41M	16-Dec-05		8.90	6.50	15,900	7.64
	13-Mar-06		8.50	7.40	16,300	7.64

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Groundwater COC Sampling Results, December 2005 through December 2006
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Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-41M	05-May-06		8.80	9.80	12,000	7.84
	05-Oct-06		10.2	9.70	15,200	7.66
	05-Oct-06	FD	10.5	10.4	16,400	7.54
MW-41S	16-Dec-05		18.2	15.8	4,620	7.74
	16-Dec-05	FD	18.4	16.1	4,650	7.77
	13-Mar-06		17.6	18.0	5,170	7.82
	05-May-06		19.2	18.3	4,450	7.98
	05-May-06	FD	19.2	17.2	4,550	8.00
	05-Oct-06		19.6	19.0	4,780	7.69
MW-42-30	15-Dec-05		ND (1.0)	ND (1.0)	17,800	7.14
	07-Mar-06		ND (1.0)	ND (1.0)	11,100	7.42
	02-May-06		ND (1.0)	ND (1.0)	13,900	7.34
	03-Oct-06		ND (1.0)	ND (1.0)	19,400	7.14
MW-42-55	15-Dec-05		ND (1.0)	ND (1.0)	12,100	7.28
	07-Mar-06		ND (1.0)	ND (1.0)	15,600	7.36
	02-May-06		ND (1.0)	ND (1.0)	17,000	7.32
	03-Oct-06		ND (1.0)	ND (1.0)	17,500	7.16
	14-Dec-06		ND (2.0)	ND (1.0)	18,500	7.21
MW-42-65	15-Dec-05		ND (1.0)	ND (1.0)	16,100	7.10
	07-Mar-06		ND (1.0)	ND (1.0)	18,000	7.12
	02-May-06		ND (1.0)	ND (1.0)	20,000	7.05
	03-Oct-06		ND (1.0)	ND (1.0)	19,900	7.02
	14-Dec-06		ND (2.0)	ND (1.0)	22,300	7.12
MW-43-25	16-Dec-05		ND (0.2)	ND (1.0)	1,340	7.20
	10-Mar-06		ND (0.2)	ND (1.0)	1,240	7.23
	04-May-06		ND (0.2)	ND (1.0)	1,210	7.31
	02-Oct-06		ND (0.2)	ND (1.0)	1,190	7.46
MW-43-75	16-Dec-05		ND (1.0)	ND (1.0)	13,100	7.37
	11-Jan-06		ND (1.0)	ND (1.0)	---	---
	10-Feb-06		ND (1.0)	ND (1.0)	---	---
	10-Mar-06		ND (1.0)	ND (1.0)	15,900	7.36
	03-Apr-06		ND (1.0)	ND (1.0)	---	---
	04-May-06		ND (1.0)	ND (1.0)	13,000	7.37
	02-Oct-06		ND (1.0)	ND (1.0)	17,400	7.49
	12-Dec-06		ND (1.0)	ND (1.0)	16,300	7.48
MW-43-90	16-Dec-05		ND (1.0)	ND (1.0)	19,900	6.93
	11-Jan-06		ND (1.0)	ND (1.0)	---	---
	10-Feb-06		ND (1.0)	ND (1.0)	---	---
	10-Mar-06		ND (2.0)	ND (1.0)	24,300	7.01
	03-Apr-06		ND (1.0)	ND (1.0)	---	---
	04-May-06		ND (1.0)	ND (1.0)	12,600	6.91
	02-Oct-06		ND (1.0)	ND (1.0)	26,000	7.14
	12-Dec-06		ND (1.0)	ND (1.0)	24,300	6.97
MW-44-70	09-Mar-06		ND (1.0)	ND (1.0)	---	---
	23-Mar-06		ND (1.0) J	ND (1.0)	7,960	7.23

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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Well ID	Sample Date		Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
MW-44-70	04-Apr-06		ND (1.0)	ND (1.0)	---	---
	04-May-06		ND (1.0)	ND (1.0)	7,270	7.55
	13-Jun-06		ND (1.0)	ND (1.0)	---	---
	13-Jun-06	FD	ND (1.0)	ND (1.0)	---	---
	15-Jun-06		ND (1.0)	ND (1.0)	---	---
	04-Oct-06		ND (1.0)	ND (1.0)	8,220	7.16
	14-Dec-06		ND (1.0)	ND (1.0)	6,640	7.48
MW-44-115	14-Mar-06		735 J	730	13,900	7.76
	22-Mar-06		1440	1970	14,400	7.88
	04-Apr-06		1550	1620	---	---
	04-Apr-06	FD	1570	1570	---	---
	20-Apr-06		1680	1650	---	---
	20-Apr-06	FD	1680	1610	---	---
	26-Apr-06		1560	1580	---	---
	04-May-06		1710	1870	12,600	7.90
	10-May-06		1490	1550	---	---
	17-May-06		1560	1880	---	---
	31-May-06		1610	1580	---	---
	31-May-06	FD	1610	1600	---	---
	13-Jun-06		1420	1350	---	---
	28-Jun-06		1600	1830	---	---
	12-Jul-06		1700 J	1430	---	---
	26-Jul-06		1290	1530	---	---
	09-Aug-06		1230	1460 LF	---	---
	23-Aug-06		1370	1440	---	---
	07-Sep-06		1380	1340	---	---
	21-Sep-06		911	1180	---	---
	05-Oct-06		1300	1310	13,800	7.55
	18-Oct-06		1250	1380	---	---
	15-Nov-06		1210	1480	---	---
	12-Dec-06		1310	1090	15,200	7.89
MW-44-125	09-Mar-06		66.6 R	67.5 R	---	---
	22-Mar-06		362	430	12,200	8.41
	04-Apr-06		372	374	---	---
	20-Apr-06		461	504	---	---
	26-Apr-06		480	485	---	---
	26-Apr-06	FD	479	493	---	---
	04-May-06		584	592	12,700	8.51
	10-May-06		634 J	667	---	---
	17-May-06		612	740	---	---
	31-May-06		413	398	---	---
	28-Jun-06		---	---	---	---
	11-Jul-06		373	395	---	---
	11-Jul-06	FD	365	335	---	---
	26-Jul-06		155	177	---	---
	26-Jul-06	FD	157	180	---	---

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
MW-44-125	09-Aug-06		218	227 LF	---	---
	28-Aug-06		468	486	---	---
	28-Aug-06	FD	462	540	---	---
	07-Sep-06		314	297	---	---
	07-Sep-06	FD	311	275	---	---
	20-Sep-06		224	262	---	---
	20-Sep-06	FD	226	261	---	---
	05-Oct-06		284	280	15,300	7.82
	18-Oct-06		304	327	---	---
	18-Oct-06	FD	308	272	---	---
	15-Nov-06		320	363	---	---
	13-Dec-06		300	321	17,700	8.19
MW-45-095a	24-Mar-06		259	216	14,000	7.86
	13-Jul-06		197	202	---	---
MW-45-095b	24-Mar-06		332	327	15,000	7.92
MW-46-175	14-Mar-06		287	279	17,700	8.30
	24-Mar-06		213	173	17,800	8.57
	07-Apr-06		208 J	186	---	---
	04-May-06		222	237	15,600	8.43
	18-May-06		227	268	---	---
	31-May-06		139 J	169	---	---
	15-Jun-06		233	211	---	---
	30-Jun-06		112	160	---	---
	30-Jun-06	FD	111	164	---	---
	12-Jul-06		135 J	85.8	---	---
	27-Jul-06		174	206	---	---
	09-Aug-06		210	186	---	---
	09-Aug-06	FD	223	214	---	---
	25-Aug-06		137	136	---	---
	07-Sep-06		183	170	---	---
	21-Sep-06		190	244	---	---
	05-Oct-06		194	192	15,700	7.92
	05-Oct-06	FD	195	187	17,700	7.82
	18-Oct-06		204	253	---	---
	15-Nov-06		163	147	---	---
	13-Dec-06		187	174	21,900	8.36
MW-46-205	14-Mar-06		ND (1.0)	ND (1.0)	22,000	8.15
	24-Mar-06		ND (1.0)	ND (1.0)	21,900	8.44
	07-Apr-06		ND (1.0) J	ND (1.0)	---	---
	04-May-06		ND (1.0)	ND (1.0)	18,900	8.38
	15-Jun-06		ND (1.0)	1.80	---	---
	13-Jul-06		ND (1.0)	3.50	---	---
	10-Aug-06		ND (1.0)	ND (1.0)	---	---
	07-Sep-06		2.00	2.30	---	---
	05-Oct-06		2.10	2.30	18,000	7.94
	13-Dec-06		3.20	3.00	23,400	8.26

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
MW-47-55	23-Mar-06	10.9 J	7.90	3,650	7.50
	16-May-06	24.0	27.3	---	---
	10-Oct-06	56.9	56.8	3,670	7.56
	14-Dec-06	61.2	82.0	3,960	7.69
MW-47-115	23-Mar-06	ND (2.0) J	ND (1.0)	14,200	7.65
	16-May-06	1.40	5.10	---	---
	10-Oct-06	ND (3.5)	6.90	14,600	7.46
	14-Dec-06	7.90	6.10	17,400	7.76
MW-48	18-May-06	ND (1.0)	ND (1.0)	16,800	7.57
	06-Jun-06	ND (1.0)	ND (1.0)	---	---
	06-Oct-06	ND (1.0)	ND (1.0)	17,600	7.19 J
	15-Dec-06	ND (2.0)	ND (1.0)	22,300	7.60
MW-49-135	25-Apr-06	ND (1.0) J	ND (1.0)	16,100	5.50 R
	18-May-06	ND (1.0)	ND (1.0)	---	---
	12-Oct-06	ND (1.0)	ND (1.0)	17,000	7.24
	15-Dec-06	ND (1.0)	ND (1.0)	15,700	7.55
MW-49-275	25-Apr-06	ND (1.0)	ND (1.0)	27,700	7.25
	18-May-06	ND (1.0)	ND (1.0)	---	---
	12-Oct-06	ND (1.0)	ND (1.0)	30,300	7.71
	15-Dec-06	ND (1.0)	ND (1.0)	31,500	8.05
MW-49-365	26-Apr-06	ND (2.0)	ND (1.0)	43,200	7.36
	16-May-06	ND (2.0)	ND (1.0)	---	---
	12-Oct-06	ND (2.0)	ND (1.0)	46,000	7.05 R
	15-Dec-06	ND (2.0)	1.10	45,700	7.91
MW-50-095	09-May-06	199	194	5,530	7.95
	24-May-06	218	221	---	---
	10-Oct-06	278	277	4,660	7.53
	12-Dec-06	273	262	4,790	7.85
MW-50-200	09-May-06	7750	7360	22,800	8.13
	24-May-06	5810	5910	---	---
	10-Oct-06	9660	11800	18,400	7.34
	12-Dec-06	10100	9250	23,400	7.90
MW-51	12-May-06	4370	4630	10,900	7.68
	30-May-06	4130	4530	---	---
	06-Oct-06	4560	4590	11,800	7.40 J
	12-Dec-06	4620	5360	9,980	7.66
OW-3D	09-Mar-06	2.50	2.20	8,240	7.82
	06-Oct-06	2.70	3.60	7,630	7.70 J
OW-3M	09-Mar-06	17.0	15.7	5,420	7.77
	12-Oct-06	17.8	20.0 J	5,100	7.40
	12-Oct-06 FD	17.9	15.3 J	4,960	7.49
OW-3S	09-Mar-06	21.2	18.2	1,700	7.53
	12-Oct-06	22.1	20.7	1,640	7.37

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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)	pH
PE-1	13-Dec-05	ND (1.0)	ND (1.0) LF	11,800	7.21
	08-Feb-06	136	136 LF	13,200	7.57
	08-Mar-06	136	125	12,000	7.52
	06-Apr-06	133	117	13,000	7.18
	11-May-06	118	109	11,200	7.55
	15-Jun-06	101	87.3	10,600	7.53
	12-Jul-06	95.9	72.4	10,600	7.49
	09-Aug-06	95.9	83.4	9,650	7.33
	07-Sep-06	85.4	90.5	10,600	7.37
	04-Oct-06	90.1	83.9	10,300	7.18
	01-Nov-06	92.5	83.3	10,800	7.56
	06-Dec-06	97.2	85.8	10,000	7.48
Park Moabi	16-Dec-05	ND (0.2)	ND (1.0)	2,100	7.38
	06-Mar-06	9.50	7.80	1,260	7.69
	03-May-06	9.60	11.8 UF	1,300	7.92
	04-Oct-06	2.00	6.30 LF	1,150	7.25
TW-2D	18-Jan-06	2180	1980 LF	11,400	7.32
	15-Mar-06	1360	1360	8,960	7.41
	03-May-06	1120	1120	7,190	7.44
	04-Oct-06	872	910	9,320	7.23
TW-2S	15-Mar-06	2720	2870	2,680	7.78
	03-May-06	2400	2600	2,520	7.76
	04-Oct-06	1920	2130	2,690	7.55
TW-3D	18-Jan-06	4330	4720 LF	8,740	7.49
	08-Feb-06	3250	2880 LF	9,760	7.52
	08-Mar-06	3040	3210	9,640	7.54
	06-Apr-06	2950	2710	10,900	7.30
	11-May-06	2740	2690	9,900	7.52
	15-Jun-06	2610	2450	9,900	7.63
	12-Jul-06	2590	2440	9,570	7.35
	09-Aug-06	2660	3060	9,280	7.35
	07-Sep-06	2380	2440	9,990	7.40
	04-Oct-06	2470	2460	10,500	7.02
	01-Nov-06	2490	3180	10,600	7.34
	06-Dec-06	2500	2090	10,000	7.38
TW-4	18-May-06	1.00	6.40	21,900	7.71
	05-Jun-06	ND (1.0)	4.10	---	---
	09-Oct-06	28.5	26.6	21,900	7.25
TW-5	10-May-06	1.10 J	1.30	13,600	8.05
	01-Jun-06	ND (1.0) J	ND (1.0)	---	---
	09-Oct-06	3.60	3.20	14,900	7.67

TABLE 3
Groundwater COC Sampling Results, December 2005 through December 2006
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
R	result exceeded analytical criteria for precision and accuracy; should not be used for project decision-making
(---)	not collected or not available
FD	field duplicate sample
LF	lab filtered
UF	unfiltered

Hexavalent chromium analysis methods: SW 7196A (reporting limit 10 µg/L) and SW 7199 (reporting limit 0.2 µg/L for undiluted samples).

Other analysis methods: total chromium (dissolved concentrations, Methods SW 6020A and SW 6010B), specific conductance (SW 9050), pH (SW 9040).

Groundwater samples were not collected from MW-39-50 in December 2005 due to a field sampling error. Extraction well TW-2S was not sampled in December 2005 due to concurrent plumbing work for TW-3D and PE-1.

Pumping from converted extraction well PE-1 was initiated on Jan 25, 2006.

Monitoring well MW-21 was not sampled in March 2006 due to the well being purged dry and not recharging.

Monitoring wells MW-12 and MW-29 were sampled in April rather than March 2006 due to inaccessibility to the wells from drilling operations in March.

The field duplicate for monitoring well MW-37S in May 2006 was not analyzed for dissolved total chromium due to a documentation error.

TABLE 4
Shoreline Surface Water COC Sampling Results, December 2005 through December 2006
PG&&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
CON	15-Dec-05	ND (0.2)	ND (1.0)	1,000	8.07
	11-Jan-06	ND (0.2)	ND (1.0)	---	---
	09-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.13
	07-Apr-06	ND (0.2)	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	997	8.38
	15-Jun-06	ND (0.2)	ND (1.0)	---	---
	12-Jul-06	ND (0.2) J	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	06-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,010	8.01 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	927	8.17
I-3	15-Dec-05	ND (0.2)	ND (1.0)	1,000	8.08
	11-Jan-06	ND (0.2)	ND (1.0)	---	---
	10-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.15
	07-Apr-06	ND (0.2)	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	968	8.41
	15-Jun-06	ND (0.2)	ND (1.0)	---	---
	12-Jul-06	ND (0.2)	ND (1.0)	---	---
	10-Aug-06	ND (0.2)	ND (1.0)	---	---
	06-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,040	8.37 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	987	8.28
NR-1	15-Dec-05	ND (0.2)	ND (1.0)	1,010	8.13
	10-Jan-06	ND (0.2)	ND (1.0)	---	---
	07-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.05
	07-Apr-06	ND (0.2) J	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	986	8.39
	16-Jun-06	ND (0.2)	ND (1.0)	---	---
	13-Jul-06	ND (0.2)	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	06-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,020	7.79 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	947	8.18
NR-2	15-Dec-05	ND (0.2)	ND (1.0)	1,000	8.18
	10-Jan-06	ND (0.2)	ND (1.0)	---	---
	07-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.11
	07-Apr-06	ND (0.2) J	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	992	8.36
	16-Jun-06	ND (0.2)	ND (1.0)	---	---

TABLE 4
Shoreline Surface Water COC Sampling Results, December 2005 through December 2006
PG&&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
NR-2	13-Jul-06	ND (0.2)	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	06-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,020	8.03 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	922	8.36
NR-3	15-Dec-05	ND (0.2)	ND (1.0)	1,000	8.18
	10-Jan-06	ND (0.2)	ND (1.0)	---	---
	07-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.02
	07-Apr-06	ND (0.2) J	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	830	8.32
	16-Jun-06	ND (0.2)	ND (1.0)	---	---
	13-Jul-06	ND (0.2)	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	06-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,020	8.11 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	925	8.35
R-22	16-Dec-05	ND (0.2)	ND (1.0)	1,020	8.13
	11-Jan-06	ND (0.2)	ND (1.0)	---	---
	08-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.01
	07-Apr-06	ND (0.2)	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	998	8.41
	15-Jun-06	ND (0.2)	ND (1.0)	---	---
	12-Jul-06	ND (0.2)	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	07-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (1.0)	ND (1.0)	1,020	7.68
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	928	8.19
R-27	16-Dec-05	ND (0.2)	ND (1.0)	1,010	8.11
	12-Jan-06	ND (0.2)	ND (1.0)	---	---
	08-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.09
	07-Apr-06	ND (0.2) J	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	1,010	8.38
	15-Jun-06	ND (0.2)	ND (1.0)	---	---
	12-Jul-06	ND (0.2) J	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	07-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,020	8.45 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	911	8.21
R-28	16-Dec-05	ND (0.2)	ND (1.0)	1,010	8.16

TABLE 4
Shoreline Surface Water COC Sampling Results, December 2005 through December 2006
PG&&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH
R-28	10-Jan-06	ND (0.2)	ND (1.0)	---	---
	08-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,010	8.15
	07-Apr-06	ND (0.2) J	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	877	8.36
	15-Jun-06	ND (0.2)	ND (1.0)	---	---
	13-Jul-06	ND (0.2)	ND (1.0)	---	---
	08-Aug-06	ND (0.2)	ND (1.0)	---	---
	07-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,010	8.25 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (0.2)	ND (1.0)	896	8.16
RRB	08-Feb-06	ND (0.2)	ND (1.0)	---	---
	06-Mar-06	ND (0.2)	ND (1.0)	1,040	8.05
	07-Apr-06	ND (0.2)	ND (1.0)	---	---
	03-May-06	ND (0.2)	ND (1.0)	920	8.40
	16-Jun-06	ND (0.2)	ND (1.0)	---	---
	12-Jul-06	ND (0.2) J	ND (1.0)	---	---
	10-Aug-06	ND (0.2)	ND (1.0)	---	---
	06-Sep-06	ND (0.2)	ND (1.0)	---	---
	04-Oct-06	ND (0.2)	ND (1.0)	1,070	7.90 R
	15-Nov-06	ND (0.2)	ND (1.0)	---	---
	20-Dec-06	ND (1.0)	ND (1.0)	3,870	7.73

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
R result exceeded analytical criteria for precision and accuracy; should not be used for project decision-making

Hexavalent chromium analysis method: SW7199 (reporting limit 0.2 µg/L)

Other analysis methods: total chromium (Methods SW 6020A and SW 6010B), specific conductance (EPA120.1), pH (EPA150.1)

Surface water station RRB was not sampled in January 2006 due to the location being dry.

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-CON-S	13-Dec-05	ND (0.2)	ND (1.0)	1,060	8.17	328	720	ND (10)
C-CON-M	13-Dec-05	ND (0.2)	ND (1.0)	1,060	8.17	332	730	ND (10)
C-CON-D	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.14	340	710	ND (10)
C-CON-S	18-Jan-06	ND (0.2)	ND (1.0)	---	---	334	---	---
C-CON-M	18-Jan-06	ND (0.2)	ND (1.0)	---	---	328	---	---
C-CON-D	18-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-CON-S	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.23	344	740	ND (10)
C-CON-M	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.23	349	740	ND (10)
C-CON-D	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.24	340	730	ND (10)
C-CON-S	15-Jun-06	ND (0.2)	ND (1.0)	987	8.12	340	695	ND (10)
C-CON-M	15-Jun-06	ND (0.2)	ND (1.0)	979	8.13	340	710	ND (10)
C-CON-D	15-Jun-06	ND (0.2)	ND (1.0)	964	8.13	336	710	ND (10)
C-CON-S	03-Oct-06	ND (0.2)	ND (1.0)	955	8.00	325	570	ND (10)
C-CON-M	03-Oct-06	ND (0.2)	ND (1.0)	953	8.02	313	615	ND (10)
C-CON-D	03-Oct-06	ND (0.2)	ND (1.0)	956	8.04	313	580	ND (10)
C-CON-S	16-Nov-06	ND (0.2)	ND (1.0)	---	---	380	---	---
C-CON-M	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-CON-D	16-Nov-06	ND (0.2)	ND (1.0)	---	---	345	---	---
C-CON-S	19-Dec-06	ND (0.2)	ND (1.0)	912	8.14	324	705	ND (10)
C-CON-M	19-Dec-06	ND (0.2)	ND (1.0)	903	8.24	332	730	ND (10)
C-CON-D	19-Dec-06	ND (0.2)	ND (1.0)	892	8.14	432	720	ND (10)
C-I-3-S	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.20	332	750	ND (10)
C-I-3-M	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.16	328	705	ND (10)
C-I-3-D	13-Dec-05	ND (0.2)	ND (1.0)	1,060	8.18	336	730	ND (10)
C-I-3-S	19-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-I-3-M	19-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-I-3-D	19-Jan-06	ND (0.2)	ND (1.0)	---	---	332	---	---
C-I-3-S	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.30	336	735	ND (10)
C-I-3-M	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.29	336	725	ND (10)
C-I-3-D	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.29	344	720	ND (10)
C-I-3-S	15-Jun-06	ND (0.2)	ND (1.0)	950	8.06	340	715	ND (10)

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-I-3-M	15-Jun-06	ND (0.2)	ND (1.0)	956	8.08	340	710	ND (10)
C-I-3-D	15-Jun-06	ND (0.2)	ND (1.0)	954	8.09	370	675	ND (10)
C-I-3-S	03-Oct-06	ND (0.2)	ND (1.0)	962	8.11	337	630	ND (10)
C-I-3-M	03-Oct-06	ND (0.2)	ND (1.0)	953	8.12	297	615	ND (10)
C-I-3-D	03-Oct-06	ND (0.2)	ND (1.0)	943	8.12	309	660	ND (10)
C-I-3-S	15-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-I-3-M	15-Nov-06	ND (0.2)	ND (1.0)	---	---	340	---	---
C-I-3-D	15-Nov-06	ND (0.2)	ND (1.0)	---	---	370	---	---
C-I-3-S	19-Dec-06	ND (0.2)	ND (1.0)	942	8.22	332	685	ND (10)
C-I-3-M	19-Dec-06	ND (0.2)	ND (1.0)	905	8.29	332	720	ND (10)
C-I-3-D	19-Dec-06	ND (0.2)	ND (1.0)	901	8.23	324	715	ND (10)
C-MAR-M	13-Dec-05	ND (0.2)	ND (1.0)	1,380	7.95	422	950	20.0
C-MAR-M	19-Jan-06	ND (0.2)	ND (1.0)	---	---	368	---	---
C-MAR-M	23-Mar-06	ND (0.2)	ND (1.0)	1,170	7.97	392	830	46.0
C-MAR-S	15-Jun-06	ND (0.2)	ND (1.0)	987	7.86	353	685	32.0
C-MAR-D	15-Jun-06	ND (0.2)	ND (1.0)	1,000	7.87	366	705	31.0
C-MAR-M	03-Oct-06	ND (0.2)	ND (1.0)	985	7.84	325	660	72.0
C-MAR-M	16-Nov-06	ND (0.2)	ND (1.0)	---	---	620	---	---
C-MAR-M	19-Dec-06	ND (0.2)	ND (1.0)	1,830	7.85	616	1410	71.0
C-NR1-S	14-Dec-05	ND (0.2)	ND (1.0)	1,070	8.18	336	705	ND (10)
C-NR1-M	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.21	340	695	ND (10)
C-NR1-D	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.11	332	700	ND (10)
C-NR1-S	18-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-NR1-M	18-Jan-06	ND (0.2)	ND (1.0)	---	---	328	---	---
C-NR1-D	18-Jan-06	ND (0.2)	ND (1.0)	---	---	326	---	---
C-NR1-S	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.24	344	730	ND (10)
C-NR1-M	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.23	349	720	ND (10)
C-NR1-D	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.23	344	765	ND (10)
C-NR1-S	16-Jun-06	ND (0.2)	ND (1.0)	950	9.56	328	690	ND (10)
C-NR1-M	16-Jun-06	ND (0.2)	ND (1.0)	938	9.62	328	700	ND (10)
C-NR1-D	16-Jun-06	ND (0.2)	ND (1.0)	931	9.60	340	725	ND (10)

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-NR1-S	04-Oct-06	ND (0.2)	ND (1.0)	1,000	8.20	335	740	ND (10)
C-NR1-M	04-Oct-06	ND (0.2)	ND (1.0)	995	8.18	323	750	ND (10)
C-NR1-D	04-Oct-06	ND (0.2)	ND (1.0)	986	8.19	315	750	ND (10)
C-NR1-S	16-Nov-06	ND (0.2)	ND (1.0)	---	---	370	---	---
C-NR1-M	16-Nov-06	ND (0.2)	ND (1.0)	---	---	365	---	---
C-NR1-D	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-NR1-S	19-Dec-06	ND (0.2)	ND (1.0)	909	8.04	324	720	ND (10)
C-NR1-M	19-Dec-06	ND (0.2)	ND (1.0)	911	8.24	316	715	ND (10)
C-NR1-D	19-Dec-06	ND (0.2)	ND (1.0)	923	8.20	316	665	ND (10)
C-NR3-S	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.15	336	730	ND (10)
C-NR3-M	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.20	332	690	ND (10)
C-NR3-D	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.18	336	665	ND (10)
C-NR3-S	18-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-NR3-M	18-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-NR3-D	18-Jan-06	ND (0.2)	ND (1.0)	---	---	340	---	---
C-NR3-S	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.23	349	790	ND (10)
C-NR3-M	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.21	349	745	ND (10)
C-NR3-D	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.20	336	715	ND (10)
C-NR3-S	16-Jun-06	ND (0.2)	ND (1.0)	915	9.88	340	715	ND (10)
C-NR3-M	16-Jun-06	ND (0.2)	ND (1.0)	934	9.92	340	690	ND (10)
C-NR3-D	16-Jun-06	ND (0.2)	ND (1.0)	957	9.82	345	715	ND (10)
C-NR3-S	04-Oct-06	ND (0.2)	ND (1.0)	975	8.17	323	715	ND (10)
C-NR3-M	04-Oct-06	ND (0.2)	ND (1.0)	981	8.19	327	705	ND (10)
C-NR3-D	04-Oct-06	ND (0.2)	ND (1.0)	987	8.16	331	735	ND (10)
C-NR3-S	16-Nov-06	ND (0.2)	ND (1.0)	---	---	370	---	---
C-NR3-M	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-NR3-D	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-NR3-S	19-Dec-06	ND (0.2)	ND (1.0)	935	8.03	340	715	ND (10)
C-NR3-M	19-Dec-06	ND (0.2)	ND (1.0)	906	8.08	320	735	ND (10)
C-NR3-D	19-Dec-06	ND (0.2)	ND (1.0)	901	8.15	304	685	ND (10)
C-NR4-S	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.04	336	715	ND (10)

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-NR4-M	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.17	340	690	ND (10)
C-NR4-D	14-Dec-05	ND (0.2)	ND (1.0)	1,060	8.15	336	680	ND (10)
C-NR4-S	18-Jan-06	ND (0.2)	ND (1.0)	---	---	320	---	---
C-NR4-M	18-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-NR4-D	18-Jan-06	ND (0.2)	ND (1.0)	---	---	328	---	---
C-NR4-S	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.21	344	725	ND (10)
C-NR4-M	22-Mar-06	ND (0.2)	ND (1.0)	1,020	8.10	340	745	ND (10)
C-NR4-D	22-Mar-06	ND (0.2)	ND (1.0)	1,030	8.22	344	730	ND (10)
C-NR4-S	16-Jun-06	ND (0.2)	ND (1.0)	931	9.88	366	685	ND (10)
C-NR4-M	16-Jun-06	ND (0.2)	ND (1.0)	922	9.86	345	655	ND (10)
C-NR4-D	16-Jun-06	ND (0.2)	ND (1.0)	902	9.92	332	685	ND (10)
C-NR4-S	04-Oct-06	ND (0.2)	ND (1.0)	995	8.09	343	740	ND (10)
C-NR4-M	04-Oct-06	ND (0.2)	ND (1.0)	983	8.16	335	730	ND (10)
C-NR4-D	04-Oct-06	ND (0.2)	ND (1.0)	970	8.17	323	710	ND (10)
C-NR4-S	16-Nov-06	ND (0.2)	ND (1.0)	---	---	370	---	---
C-NR4-M	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-NR4-D	16-Nov-06	ND (0.2)	ND (1.0)	---	---	380	---	---
C-NR4-S	20-Dec-06	ND (0.2)	ND (1.0)	915	8.29	300	670	ND (10)
C-NR4-M	20-Dec-06	ND (0.2)	ND (1.0)	915	8.25	328	645	ND (10)
C-NR4-D	20-Dec-06	ND (0.2)	ND (1.0)	922	8.15	324	660	ND (10)
C-R22-S	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.18	332	710	ND (10)
C-R22-M	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.17	336	705	ND (10)
C-R22-D	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.21	336	720	ND (10)
C-R22-S	19-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-R22-M	19-Jan-06	ND (0.2)	ND (1.0)	---	---	330	---	---
C-R22-D	19-Jan-06	ND (0.2)	ND (1.0)	---	---	336	---	---
C-R22-S	23-Mar-06	ND (0.2)	ND (1.0)	1,040	8.26	340	735	ND (10)
C-R22-M	23-Mar-06	ND (0.2)	ND (1.0)	1,040	8.29	340	725	ND (10)
C-R22-D	23-Mar-06	ND (0.2)	ND (1.0)	1,020	8.28	344	725	ND (10)
C-R22-S	15-Jun-06	ND (0.2)	ND (1.0)	966	8.14	349	680	ND (10)
C-R22-M	15-Jun-06	ND (0.2)	ND (1.0)	988	8.14	332	700	ND (10)

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-R22-D	15-Jun-06	ND (0.2)	ND (1.0)	954	8.02	375	700	ND (10)
C-R22-S	03-Oct-06	ND (0.2)	ND (1.0)	946	8.16	309	705	ND (10)
C-R22-M	03-Oct-06	ND (0.2)	ND (1.0)	975	8.16	313	690	ND (10)
C-R22-D	03-Oct-06	ND (0.2)	ND (1.0)	964	8.15	305	720	ND (10)
C-R22-S	15-Nov-06	ND (0.2)	ND (1.0)	---	---	325	---	---
C-R22-M	15-Nov-06	ND (0.2)	ND (1.0)	---	---	340	---	---
C-R22-D	15-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-R22-S	19-Dec-06	ND (0.2)	ND (1.0)	940	8.15	332	730	ND (10)
C-R22-M	19-Dec-06	ND (0.2)	ND (1.0)	892	8.03	312	675	ND (10)
C-R22-D	19-Dec-06	ND (0.2)	ND (1.0)	927	8.31	356	750	ND (10)
C-R27-S	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.18	340	715	ND (10)
C-R27-M	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.18	357	700	ND (10)
C-R27-D	13-Dec-05	ND (0.2)	ND (1.0)	1,060	8.14	340	710	ND (10)
C-R27-S	19-Jan-06	ND (0.2)	ND (1.0)	---	---	338	---	---
C-R27-M	19-Jan-06	ND (0.2)	ND (1.0)	---	---	328	---	---
C-R27-D	19-Jan-06	ND (0.2)	ND (1.0)	---	---	316	---	---
C-R27-M	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.29	353	730	ND (10)
C-R27-S	15-Jun-06	ND (0.2)	ND (1.0)	965	8.14	340	690	ND (10)
C-R27-M	15-Jun-06	ND (0.2)	ND (1.0)	980	8.14	336	715	ND (10)
C-R27-D	15-Jun-06	ND (0.2)	ND (1.0)	976	8.14	328	665	ND (10)
C-R27-S	03-Oct-06	ND (0.2)	ND (1.0)	931	8.10	333	615	ND (10)
C-R27-M	03-Oct-06	ND (0.2)	ND (1.0)	944	8.11	297	630	ND (10)
C-R27-D	03-Oct-06	ND (0.2)	ND (1.0)	946	8.11	297	615	ND (10)
C-R27-S	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-R27-D	16-Nov-06	ND (0.2)	ND (1.0)	---	---	350	---	---
C-R27-M	19-Dec-06	ND (0.2)	ND (1.0)	873	8.25	320	695	ND (10)
C-TAZ-S	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.15	344	715	ND (10)
C-TAZ-M	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.20	340	705	ND (10)
C-TAZ-D	13-Dec-05	ND (0.2)	ND (1.0)	1,070	8.21	340	730	ND (10)
C-TAZ-S	19-Jan-06	NA	ND (1.0)	---	---	324	---	---
C-TAZ-M	19-Jan-06	NA	ND (1.0)	---	---	332	---	---

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Hexavalent Chromium (µg/L)	Dissolved Total Chromium (µg/L)	Specific Conductance (µS/cm)	pH	Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L
C-TAZ-D	19-Jan-06	NA	ND (1.0)	---	---	340	---	---
C-TAZ-S	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.31	344	745	ND (10)
C-TAZ-M	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.31	344	715	ND (10)
C-TAZ-D	23-Mar-06	ND (0.2)	ND (1.0)	1,030	8.30	340	745	ND (10)
C-TAZ-S	15-Jun-06	ND (0.2)	ND (1.0)	958	8.08	340	680	ND (10)
C-TAZ-M	15-Jun-06	ND (0.2)	ND (1.0)	962	8.09	345	695	ND (10)
C-TAZ-D	15-Jun-06	ND (0.2)	ND (1.0)	972	8.11	353	730	ND (10)
C-TAZ-S	03-Oct-06	ND (0.2)	ND (1.0)	956	8.14	309	665	ND (10)
C-TAZ-M	03-Oct-06	ND (0.2)	ND (1.0)	955	8.15	309	680	ND (10)
C-TAZ-D	03-Oct-06	ND (0.2)	ND (1.0)	926	8.15	329	640	ND (10)
C-TAZ-S	15-Nov-06	ND (0.2)	ND (1.0)	---	---	340	---	---
C-TAZ-M	15-Nov-06	ND (0.2)	ND (1.0)	---	---	345	---	---
C-TAZ-D	15-Nov-06	ND (0.2)	ND (1.0)	---	---	380	---	---
C-TAZ-S	19-Dec-06	ND (0.2)	ND (1.0)	897	8.30	316	700	ND (10)
C-TAZ-M	19-Dec-06	ND (0.2)	ND (1.0)	886	8.24	316	700	ND (10)
C-TAZ-D	19-Dec-06	ND (0.2)	ND (1.0)	920	8.13	312	695	ND (10)

TABLE 5
In-Channel Surface Water COC and Additional Parameters Sampling Results, December 2005 through December 2006
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NOTES:

µg/L micrograms per liter
µS/cm microSiemens per centimeter
ND not detected at listed reporting limit
(---) data not collected or not available
NA not analyzed

Hexavalent chromium analysis method: SW 7199 (reporting limit 0.2 µg/L)

Other analysis methods: total chromium (dissolved concentrations, Methods SW 6020A and SW 6010B, reporting limit 1 µg/L for undiluted samples), specific conductance (EPA120.1), pH (EPA150.1), hardness (EPA130.2), total dissolved solids (EPA160.1), and total suspended solids (EPA160.2).

The sample ID's for the depth-specific surface water samples are:
S = shallow (1 foot from water surface)
M = middle (mid-point of water column)
D = deep (1 foot from river bottom)

In January 2006, river samples from C-TAZ were not analyzed for hexavalent chromium due to holding time being exceeded from sudden illness of the courier. River samples were not collected at C-MAR-S and C-MAR-D due to shallow water column at location.

In March 2006, river samples were not collected at C-MAR-S, C-MAR-D, C-R27-S and C-R27-D due to shallow water column at locations.

In June 2006, river sample was not collected at C-MAR-M due to a shallow water column at the location.

In October 2006 river samples C-MAR-S and C-MAR-D were not collected due to a shallow water column at the location.

In November 2006, river samples were not collected at C-MAR-S, C-MAR-D, and C-R27-M due to shallow water column at locations.

In December 2006, river samples were not collected at C-MAR-S, C-MAR-D, C-R27-S and C-R27-D due to shallow water column at locations.

TABLE 6
Title 22 Metal Results, September 2004 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Well ID		Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
California MCL:			6	10 ^	1000	4	5	NE	50	1000 *	NE	2	NE	100	50	100*	2	NE	5000 *
MW-10		9/21/2004	ND (5.0)	ND (10)	45.8	ND (3.0)	ND (3.0)	ND (3.0)	**1960**	6.40	ND (5.0)	ND (0.2)	115	ND (5.0)	ND (10)	ND (3.0)	ND (15)	25.2	22.7
MW-10		12/17/2004	ND (5.0)	ND (10)	44.9	ND (3.1)	ND (3.1)	ND (3.1)	**1300**	ND (5.0)	ND (2.1)	ND (0.2)	100	ND (5.0)	ND (10)	61.8	ND (15)	40.0	54.9
MW-10		3/8/2005	ND (5.0)	ND (10)	42.0	ND (3.1)	ND (3.1)	ND (3.1)	**1110**	ND (5.0)	ND (2.1)	ND (0.2)	83.3	ND (5.0)	ND (10)	ND (3.1)	ND (15)	141	56.2
MW-10	FD	3/8/2005	ND (5.0)	ND (10)	49.3	ND (3.1)	ND (3.1)	ND (3.1)	**1100**	ND (5.0)	ND (2.1)	ND (0.2)	81.1	ND (5.0)	ND (10)	ND (3.1)	ND (15)	165	65.6
MW-10		6/16/2005	ND (2.0)	6.39	45.5	ND (1.0)	ND (1.0)	ND (1.0)	**1400**	ND (1.0)	1.53	ND (0.2)	114	1.70	4.90	ND (1.0)	ND (1.0)	33.5	ND (10)
MW-10		10/3/2005	ND (2.0)	14.3	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**4900**	ND (10)	1.53	ND (0.2)	301	ND (20)	1.93	ND (1.0)	ND (1.0)	49.7	79.4
MW-10		12/12/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**3040**	ND (10)	ND (2.0)	ND (0.2)	168	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	40.2	ND (20)
MW-10		3/6/2006	ND (2.0)	8.45	59.5	ND (1.0)	ND (1.0)	ND (1.0)	**2120**	1.21	ND (1.0)	ND (0.2)	142	2.31	3.64	ND (1.0)	ND (1.0) J	41.3	10.1
MW-10		5/4/2006	ND (2.0)	8.31	58.1	ND (1.0)	ND (1.0)	ND (1.0)	**1780**	1.18	1.06	ND (0.2)	122	1.96	3.91	ND (1.0)	ND (1.0)	37.9	ND (10)
MW-10		10/12/2006	ND (2.0)	9.20	58.4	ND (1.0)	ND (1.0)	ND (1.0)	**2480**	ND (1.0)	ND (1.0)	ND (0.2)	169	2.31	3.64	ND (1.0)	ND (1.0)	42.1	ND (10)
MW-10		12/14/2006	ND (2.0)	**11.7**	53.4	ND (1.0)	ND (1.0)	ND (1.0)	**3040**	1.30	1.26	ND (0.2)	245	2.05	3.25	ND (1.0)	ND (1.0)	51.4	ND (10)
MW-11		9/21/2004	ND (5.0)	ND (10)	45.1	ND (3.0)	ND (3.0)	ND (3.0)	**431**	ND (5.0)	ND (5.0)	ND (0.2)	8.80	ND (5.0)	ND (10)	ND (3.0)	ND (15)	5.80	ND (10)
MW-11		12/17/2004	ND (5.0)	ND (10)	38.8	ND (3.1)	ND (3.1)	ND (3.1)	**393**	ND (5.0)	ND (2.1)	ND (0.2)	9.40	ND (5.0)	13.6	ND (3.1)	ND (15)	9.90	27.4
MW-11		3/8/2005	ND (5.0)	ND (10)	38.3	ND (3.1)	ND (3.1)	ND (3.1)	**357**	ND (5.0)	ND (2.1)	ND (0.2)	9.00	ND (5.0)	ND (10)	ND (3.1)	ND (15)	85.9	56.7
MW-11		6/16/2005	ND (2.0)	1.53	42.1	ND (1.0)	ND (1.0)	ND (1.0)	**379**	ND (1.0)	ND (1.0)	ND (0.2)	11.5	1.03	4.50	ND (1.0)	ND (1.0)	8.31	13.4
MW-11		10/3/2005	ND (2.0)	1.68	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**617**	ND (10)	ND (1.0)	ND (0.2)	16.4	ND (20)	5.31	ND (1.0)	ND (1.0)	6.30	ND (20)
MW-11		12/12/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**449**	ND (10)	ND (2.0)	ND (0.2)	9.40	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	8.30	ND (20)
MW-11		3/6/2006	ND (2.0)	1.64	39.8	ND (1.0)	ND (1.0)	ND (1.0)	**306**	1.22	ND (1.0)	ND (0.2)	8.08	ND (1.0)	5.79	ND (1.0)	ND (1.0)	8.94	12.1
MW-11		5/9/2006	ND (2.0)	1.72	39.5	ND (1.0)	ND (1.0)	ND (1.0)	**348 J**	ND (1.0)	ND (1.0)	ND (0.2)	9.28	ND (1.0)	5.73	ND (1.0)	ND (1.0)	8.76	ND (10)
MW-11		10/12/2006	ND (2.0)	1.65	41.4	ND (1.0)	ND (1.0)	ND (1.0)	**339**	ND (1.0)	ND (1.0)	ND (0.2)	8.81	ND (1.0)	6.17	ND (1.0)	ND (1.0)	8.71	ND (10)
MW-12		9/20/2004	**20.9**	**68.6**	62.8	ND (3.0)	ND (3.0)	ND (3.0)	**1490**	ND (5.0)	ND (5.0)	ND (0.2)	41.2	ND (5.0)	ND (10)	ND (3.0)	ND (15)	24.6	19.2
MW-12		3/10/2005	ND (5.0)	**53.4**	38.9	ND (3.1)	ND (3.1)	ND (3.1)	**945**	ND (5.0)	ND (2.1)	ND (0.2)	36.1	ND (5.0)	ND (10)	ND (3.1)	ND (15)	218	37.5
MW-12	FD	3/10/2005	ND (5.0)	**64.2**	39.9	ND (3.1)	ND (3.1)	ND (3.1)	**912**	ND (5.0)	ND (2.1)	ND (0.2)	40.7	ND (5.0)	ND (10)	ND (3.1)	ND (15)	202	54.6
MW-12		6/13/2005	ND (2.0)	**110**	44.1	ND (1.0)	ND (1.0)	ND (1.0)	**957**	ND (1.0)	ND (1.0)	ND (0.2)	77.3	11.7	5.73	ND (1.0)	1.11	34.2	24.4
MW-12		9/16/2005	ND (5.0)	**103**	110	ND (3.0)	ND (3.0)	ND (3.0)	**618**	ND (5.0)	5.70	ND (0.2)	63.5	17.9	ND (10)	ND (3.0)	ND (15)	52.2	75.5
MW-12		10/4/2005	ND (2.0)	**146**	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**644**	ND (10)	ND (1.0)	ND (0.2)	76.9	ND (20)	3.92	ND (1.0)	ND (1.0)	41.6	ND (20)
MW-12	FD	10/4/2005	ND (2.0)	**151**	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**613**	ND (10)	ND (1.0)	ND (0.2)	79.1	ND (20)	4.06	ND (1.0)	ND (1.0)	39.7	ND (20)
MW-12		12/13/2005	ND (3.0)	**157**	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**602**	ND (10)	ND (2.0)	ND (0.2)	62.8	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	45.9	ND (20)
MW-12		4/18/2006	ND (2.0)	**127**	48.2	ND (1.0)	ND (1.0)	ND (1.0)	**1300**	ND (1.0)	ND (1.0)	ND (0.2)	52.8	3.91	4.30	ND (1.0) J	ND (1.0)	40.8	ND (10)
MW-12		5/1/2006	ND (2.0)	**126**	49.3	ND (1.0)	ND (1.0)	ND (1.0)	**1280**	ND (1.0)	ND (1.0)	ND (0.2)	50.1	2.31	4.42	ND (1.0)	ND (1.0)	39.7	ND (10)
MW-12		10/4/2006	ND (2.0)	**84.8**	81.1	ND (1.0)	ND (1.0)	ND (1.0)	**1790**	4.24	ND (1.0)	ND (0.2)	35.9	1.72	4.56	ND (1.0)	ND (1.0)	30.4	ND (10)
MW-12		12/13/2006	ND (2.0)	**88.7**	72.0	ND (1.0)	ND (1.0)	ND (1.0)	**1880**	ND (1.0)	ND (1.0)	ND (0.2)	32.2	2.40	5.54	ND (1.0)	ND (1.0)	31.2	22.4
MW-20-70		9/24/2004	ND (5.0)	ND (10)	59.1	ND (3.0)	ND (3.0)	ND (3.0)	**7550**	10.8	ND (5.0)	ND (0.2)	20.6	ND (5.0)	18.1	ND (3.0)	ND (15)	ND (3.0)	24.8
MW-20-70		12/16/2004	ND (5.0)	ND (10)	36.6	ND (3.1)	ND (3.1)	ND (3.1)	**7230**	ND (5.0)	ND (2.1)	ND (0.2)	18.1	ND (5.0)	ND (10)	ND (3.1)	ND (15)	9.40	25.6
MW-20-70		3/10/2005	ND (5.0)	ND (10)	51.0	ND (3.1)	ND (3.1)	ND (3.1)	**8120**	ND (5.0)	ND (2.1)	ND (0.2)	13.0	5.20	ND (10)	ND (3.1)	ND (15)	91.6	136
MW-20-70		6/15/2005	ND (2.0)	1.59	47.4	ND (1.0)	ND (1.0)	ND (1.0)	**6430**	ND (1.0)	ND (1.0)	ND (0.2)	17.5	2.41	7.36	ND (1.0)	ND (1.0)	7.46	43.1 J
MW-20-70	FD	6/15/2005	ND (2.0)	1.62	51.8	ND (1.0)	ND (1.0)	ND (1.0)	**7130**	1.86	1.37	ND (0.2)	17.9	2.28	7.83	ND (1.0)	ND (1.0)	8.24	159 J
MW-20-70		10/11/2005	ND (2.0)	2.04	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**5930**	ND (10)	ND (1.0)	ND (0.2)	23.0	ND (20)	8.81	ND (1.0)	ND (1.0)	117	ND (20)
MW-20-70		12/15/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**4310**	ND (10)	ND (2.0)	ND (0.2)	21.8	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	10.2	ND (20)

TABLE 6
Title 22 Metal Results, September 2004 through December 2006
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	California MCL:	6	10 ^	1000	4	5	NE	50	1000 *	NE	2	NE	100	50	100*	2	NE	5000 *
Well ID	**Sample Date**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Cobalt**	**Chromium**	**Copper**	**Lead**	**Mercury**	**Molybdenum**	**Nickel**	**Selenium**	**Silver**	**Thallium**	**Vanadium**	**Zinc**
MW-20-70	3/10/2006	ND (2.0)	2.20	36.5	ND (1.0)	ND (1.0)	ND (1.0)	**4510**	1.07	ND (1.0)	ND (0.2)	21.8	ND (1.0)	9.15	ND (1.0)	ND (1.0)	10.7	11.2
MW-20-70	5/5/2006	ND (2.0)	2.01	39.9	ND (1.0)	ND (1.0)	ND (1.0)	**4670**	ND (1.0)	ND (1.0)	ND (0.2)	22.4	ND (1.0)	10.1	ND (1.0)	ND (1.0)	9.66	ND (10) J
MW-20-70	10/3/2006	ND (2.0)	1.92	37.8	ND (1.0)	ND (1.0)	ND (1.0)	**3390**	ND (1.0)	ND (1.0)	ND (0.2)	28.9	ND (1.0)	11.1	ND (1.0)	ND (1.0)	9.61	ND (10)
MW-20-70 FD	10/3/2006	ND (2.0)	1.79	37.3	ND (1.0)	ND (1.0)	ND (1.0)	**3330**	ND (1.0)	ND (1.0)	ND (0.2)	27.1	ND (1.0)	10.9	ND (1.0)	ND (1.0)	9.26	ND (10)
MW-20-70	12/13/2006	ND (2.0)	1.78	35.4	ND (1.0)	ND (1.0)	ND (1.0)	**3120**	ND (1.0)	ND (1.0)	ND (0.2)	23.6	ND (1.0)	12.2	ND (1.0)	ND (1.0)	8.89	ND (10)
MW-20-130	9/24/2004	ND (5.0)	ND (10)	40.3	ND (3.0)	ND (3.0)	ND (3.0)	**7000**	15.0	ND (5.0)	ND (0.2)	47.2	ND (5.0)	23.0	ND (3.0)	ND (15)	ND (3.0)	43.7
MW-20-130	1/27/2005	ND (5.0)	ND (10)	26.8	ND (3.0)	ND (3.0)	ND (3.0)	**8410**	ND (5.0)	ND (2.1)	ND (0.2)	44.4	ND (5.0)	13.0	ND (3.0)	ND (15)	11.6	24.6
MW-20-130	3/9/2005	ND (5.0)	ND (10)	21.5	ND (3.1)	ND (3.1)	ND (3.1)	**8170**	ND (5.0)	ND (2.1)	ND (0.2)	33.6	ND (5.0)	ND (10)	ND (3.1)	ND (15)	172	84.5 J
MW-20-130 FD	3/9/2005	ND (5.0)	ND (10)	20.0	ND (3.1)	ND (3.1)	ND (3.1)	**7050**	ND (5.0)	ND (2.1)	ND (0.2)	29.0	5.30	ND (10)	ND (3.1)	ND (15)	162	173 J
MW-20-130	6/15/2005	ND (2.0)	7.42	26.5	ND (1.0)	ND (1.0)	ND (1.0)	**11300**	1.62	ND (1.0)	ND (0.2)	57.6	ND (1.0)	10.7	ND (1.0)	ND (1.0)	4.13	31.9
MW-20-130	10/7/2005	ND (2.0)	6.58	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**10700**	ND (5.0)	ND (1.0)	ND (0.2)	41.3	ND (21)	10.8	ND (1.0)	ND (1.0)	ND (3.0)	ND (20)
MW-20-130	12/16/2005	ND (3.0)	5.80	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**9340**	ND (10)	ND (2.0)	ND (0.2)	32.6	ND (20)	18.4	ND (5.0)	ND (1.0)	10.1	445
MW-20-130	3/10/2006	ND (2.0)	6.68	24.9	ND (1.0)	ND (1.0)	ND (1.0)	**10600**	3.73	ND (1.0)	ND (0.2)	46.7	ND (1.0)	12.0	ND (1.0)	ND (1.0)	5.32	ND (10)
MW-20-130	5/5/2006	ND (2.0)	6.32	26.3	ND (1.0)	ND (1.0)	ND (1.0)	**13700**	ND (1.0)	ND (1.0)	ND (0.2)	47.7	ND (1.0)	11.8	ND (1.0)	ND (1.0)	3.91	14.7 J
MW-20-130	10/18/2006	ND (2.0)	6.20	26.8	ND (1.0)	ND (1.0)	ND (1.0)	**16400**	ND (1.0)	ND (1.0)	ND (0.2)	45.5	ND (1.0)	13.6	ND (1.0)	ND (1.0)	3.87	10.2
MW-20-130	12/13/2006	ND (2.0)	5.56	25.5	ND (1.0)	ND (1.0)	ND (1.0)	**10500**	ND (1.0)	ND (1.0)	ND (0.2)	44.5	ND (1.0)	13.9	ND (1.0)	ND (1.0)	3.42	ND (10)
MW-20-130 FD	12/13/2006	ND (2.0)	5.53	25.1	ND (1.0)	ND (1.0)	ND (1.0)	**10700**	ND (1.0)	ND (1.0)	ND (0.2)	44.0	ND (1.0)	13.6	ND (1.0)	ND (1.0)	3.40	ND (10)
MW-25	9/22/2004	ND (5.0)	ND (10)	40.7	ND (3.0)	ND (3.0)	ND (3.0)	**1930**	7.10	ND (5.0)	ND (0.2)	ND (5.0)	ND (5.0)	13.1	ND (3.0)	ND (15)	ND (3.0)	22.7
MW-25	3/9/2005	ND (5.0)	ND (10)	39.5	ND (3.1)	ND (3.1)	ND (3.1)	**1700**	ND (5.0)	ND (2.1)	ND (0.2)	ND (5.0)	ND (5.0)	ND (10)	ND (3.1)	ND (15)	73.3	94.6
MW-25	6/14/2005	ND (2.0)	1.81	45.5	ND (1.0)	ND (1.0)	ND (1.0)	**1790**	ND (1.0)	ND (1.0)	ND (0.2)	3.85	2.26	2.72	ND (1.0)	ND (1.0)	11.1	119 J
MW-25 FD	6/14/2005	ND (2.0)	1.93	48.9	ND (1.0)	ND (1.0)	ND (1.0)	**1930**	1.34	ND (1.0)	ND (0.2)	4.13	1.68	2.65	ND (1.0)	ND (1.0)	11.8	16.1 J
MW-25	10/4/2005	ND (2.0)	1.94	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**1470**	ND (10)	ND (1.0)	ND (0.2)	3.49	ND (20)	2.38	ND (1.0)	ND (1.0)	6.00	ND (20)
MW-25 FD	10/4/2005	ND (2.0)	2.15	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**1480**	ND (10)	ND (1.0)	ND (0.2)	3.53	ND (20)	2.35	ND (1.0)	ND (1.0)	6.60	ND (20)
MW-25	12/14/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**1370**	ND (10)	ND (2.0)	ND (0.2)	ND (5.0)	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	9.70	ND (20)
MW-25 FD	12/14/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**1350**	ND (10)	ND (2.0)	ND (0.2)	ND (5.0)	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	9.40	ND (20)
MW-25	3/9/2006	ND (2.0)	2.39	40.8	ND (1.0)	ND (1.0)	ND (1.0)	**1430**	ND (1.0)	ND (1.0)	ND (0.2)	3.34	1.58	2.38	ND (1.0)	ND (1.0)	11.8	ND (10)
MW-25	5/3/2006	ND (2.0)	2.12	42.0	ND (1.0)	ND (1.0)	ND (1.0)	**1310**	ND (1.0)	ND (1.0)	ND (0.2)	3.35	1.25	2.64	ND (1.0)	ND (1.0)	11.6	ND (10)
MW-25 FD	5/3/2006	ND (2.0)	2.07	43.2	ND (1.0) J	ND (1.0)	ND (1.0)	**1310**	ND (1.0)	ND (1.0)	ND (0.2)	3.39	1.36	2.57	ND (1.0)	ND (1.0)	12.0	ND (10)
MW-25	10/3/2006	ND (2.0)	2.08	39.6	ND (1.0)	ND (1.0)	ND (1.0)	**1150**	ND (1.0)	ND (1.0)	ND (0.2)	3.50	3.62	2.37	ND (1.0)	ND (1.0)	11.2	ND (10)
MW-34-55	9/22/2004	ND (5.0)	ND (10)	87.6	ND (3.0)	ND (3.0)	ND (3.0)	ND (1.0)	12.0	ND (5.0)	ND (0.2)	13.0	ND (5.0)	12.5	ND (3.0)	ND (15)	ND (3.0)	22.7
MW-34-55	12/15/2004	ND (5.0)	ND (10)	71.8	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	6.60	12.2	ND (0.2)	13.7	ND (5.0)	ND (10)	40.4	ND (15)	6.50	25.1
MW-34-55	3/10/2005	ND (5.0)	ND (10)	66.9	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	ND (5.0)	ND (2.1)	ND (0.2)	12.4	9.10	ND (10)	ND (3.1)	ND (15)	227	87.7
MW-34-55	10/5/2005	ND (2.0)	2.01	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)	ND (1.0)	ND (0.2)	15.7	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)	ND (5.0)	22.7
MW-34-55	12/14/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	ND (1.0)	ND (10)	ND (2.0)	ND (0.2)	12.7	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	7.00	ND (20)
MW-34-55	3/8/2006	ND (2.0)	2.08	59.2	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.2)	16.3	4.77	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (10)
MW-34-55	5/3/2006	ND (2.0)	2.43	46.5	ND (1.0) J	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.2)	16.8	2.74	ND (1.0)	ND (1.0)	ND (1.0)	1.15	14.1
MW-34-55	10/4/2006	ND (2.0)	4.83	18.6	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.2)	25.2	1.22	ND (1.0)	ND (1.0)	ND (1.0)	2.37	ND (10)
MW-34-80	9/23/2004	ND (5.0)	ND (10)	54.1	ND (3.0)	ND (3.0)	ND (3.0)	ND (1.0)	10.1	ND (5.0)	ND (0.2)	14.9	ND (5.0)	ND (10)	ND (3.0)	ND (15)	ND (3.0)	23.2
MW-34-80 FD	9/23/2004	ND (5.0)	ND (10)	52.8	ND (3.0)	ND (3.0)	ND (3.0)	ND (1.0)	10.6	ND (5.0)	ND (0.2)	14.4	ND (5.0)	ND (10)	ND (3.0)	ND (15)	ND (3.0)	22.0

TABLE 6
Title 22 Metal Results, September 2004 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

	California MCL:	6	10 ^	1000	4	5	NE	50	1000 *	NE	2	NE	100	50	100*	2	NE	5000 *
Well ID	**Sample Date**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Cobalt**	**Chromium**	**Copper**	**Lead**	**Mercury**	**Molybdenum**	**Nickel**	**Selenium**	**Silver**	**Thallium**	**Vanadium**	**Zinc**
MW-34-80	12/13/2004	ND (5.0)	ND (10)	42.0	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	ND (5.0)	ND (2.1)	ND (0.2)	14.7	8.60	ND (10)	ND (3.1)	ND (15)	15.3	29.7
MW-34-80	3/8/2005	ND (5.0)	ND (10)	51.8	ND (3.1)	ND (3.1)	ND (3.1)	ND (1.0)	ND (5.0)	ND (2.1)	ND (0.2)	13.3	15.5	ND (10)	ND (3.1)	ND (15)	238	41.7
MW-34-80	6/30/2005	ND (2.0)	2.09	46.4	ND (1.0)	ND (1.0)	1.39	ND (1.0)	2.25	ND (1.0)	ND (0.2)	11.1	2.23	ND (1.0)	ND (1.0)	ND (1.0)	2.74	37.0
MW-34-80	10/5/2005	ND (2.0)	2.06	ND (300)	ND (1.0)	ND (1.0)	1.23	ND (1.0)	ND (10)	ND (1.0)	ND (0.2)	10.8	ND (20)	ND (1.0)	ND (1.0)	ND (1.0)	ND (5.0)	ND (20)
MW-34-80	12/14/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	ND (1.0)	ND (10)	ND (2.0)	ND (0.2)	10.2	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	13.5	ND (20)
MW-34-80	3/9/2006	ND (2.0)	2.19	39.6	ND (1.0)	ND (1.0)	1.08	ND (1.0)	7.27	ND (1.0)	ND (0.2)	11.4	1.58	ND (1.0)	ND (1.0)	ND (1.0)	2.94	ND (10)
MW-34-80	5/3/2006	ND (2.0)	1.91	39.6	ND (1.0) J	ND (1.0)	1.34	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.2)	12.2	1.25	ND (1.0)	ND (1.0)	ND (1.0)	2.44	31.0
MW-34-80	10/4/2006	ND (2.0)	1.68	33.3	ND (1.0)	ND (1.0)	1.22	ND (1.0)	1.10	ND (1.0)	ND (0.2)	13.0	1.66	ND (1.0)	ND (1.0)	ND (1.0)	2.34	ND (10)
MW-34-80	12/12/2006	ND (2.0)	1.39	30.4	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.2)	13.0	1.00	ND (1.0)	ND (1.0)	ND (1.0)	1.60	ND (10)
MW-37D	9/24/2004	ND (5.0)	ND (10)	65.0	ND (3.0)	ND (3.0)	ND (3.0)	**1220**	8.50	ND (5.0)	ND (0.2)	47.3	ND (5.0)	ND (10)	ND (3.0)	ND (15)	ND (3.0)	17.2
MW-37D FD	9/24/2004	ND (5.0)	ND (10)	65.9	ND (3.0)	ND (3.0)	ND (3.0)	**1160**	9.60	ND (5.0)	ND (0.2)	46.3	ND (5.0)	10.0	ND (3.0)	ND (15)	ND (3.0)	24.8
MW-37D	12/14/2004	ND (5.0)	ND (10)	46.4	ND (3.1)	ND (3.1)	ND (3.1)	**1490**	ND (5.0)	ND (2.1)	ND (0.2)	43.3	ND (5.0)	ND (10)	ND (3.1)	ND (15)	31.4 J	33.0 J
MW-37D FD	12/14/2004	ND (5.0)	ND (10)	49.9	ND (3.1)	ND (3.1)	ND (3.1)	**1440**	ND (5.0)	ND (2.1)	ND (0.2)	44.6	8.30	ND (10)	ND (3.1)	ND (15)	20.5 J	91.8 J
MW-37D	3/11/2005	ND (5.0)	ND (10)	53.9	ND (3.1)	ND (3.1)	ND (3.1)	**1540**	ND (5.0)	ND (2.1)	ND (0.2)	34.1	9.20	ND (10)	ND (3.1)	ND (15)	326	38.7
MW-37D	6/15/2005	ND (2.0)	3.63	54.9	ND (1.0)	ND (1.0)	ND (1.0)	**1420**	ND (1.0)	ND (1.0)	ND (0.2)	51.8	25.4	3.10	ND (1.0)	ND (1.0)	4.00	11.0
MW-37D	10/4/2005	ND (2.0)	3.42	ND (300)	ND (1.0)	ND (1.0)	ND (1.0)	**1970**	ND (10)	ND (1.0)	ND (0.2)	45.5	ND (20)	3.24	ND (1.0)	ND (1.0)	6.00	ND (20)
MW-37D	12/14/2005	ND (3.0)	ND (5.0)	ND (300)	ND (1.0)	ND (2.0)	ND (5.0)	**1610**	ND (10)	ND (2.0)	ND (0.2)	36.6	ND (20)	ND (5.0)	ND (5.0)	ND (1.0)	14.5	ND (20)
MW-37D	3/13/2006	ND (2.0)	3.97	41.0	ND (1.0)	ND (1.0)	ND (1.0)	**1860**	2.12	ND (1.0)	ND (0.2)	34.0	ND (1.0)	3.32	ND (1.0)	ND (1.0)	7.17	ND (10)
MW-37D	5/3/2006	ND (2.0)	3.79	44.0	ND (1.0)	ND (1.0)	1.06	**1750 J**	ND (1.0)	ND (1.0)	ND (0.2)	47.5	ND (1.0)	3.66	ND (1.0)	ND (1.0)	6.25	ND (10)
MW-37D	10/13/2006	ND (2.0)	3.67	42.2	ND (1.0)	ND (1.0)	ND (1.0)	**1160**	ND (1.0)	ND (1.0)	ND (0.2)	48.3	ND (1.0)	3.00	ND (1.0)	ND (1.0)	6.08	ND (10)
MW-37D	12/14/2006	ND (2.0)	3.17	39.8	ND (1.0)	ND (1.0)	ND (1.0)	**1130**	ND (1.0)	ND (1.0)	ND (0.2)	44.3	ND (1.0)	2.86	ND (1.0)	ND (1.0)	6.14	26.6

NOTES:

ND not detected at listed reporting limit
FD field duplicate sample
J concentration or reporting limit estimated by laboratory or data validation
^ U.S. Environmental Protection Agency (USEPA) MCL as of January 23, 2006
NE not established

The USEPA MCL for arsenic has been lowered to 10 ug/L as of January 2006. The California MCL of 50 ug/L is currently under review as of the writing of this monitoring report. California Division of Drinking Water and Environmental Management is proceeding the regulatory and adoption process."

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, or California secondary MCLs, where noted * .

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

Metals analyzed by Methods SW6010B, SW6020A, and SW7470A.

Analytes detected above MCL are in bold.

Groundwater samples from MW-34-55 in June 2005 were not analyzed for Title 22 metals due to a chain of custody error.

Monitoring well MW-12 was sampled in April rather than March 2006 due to inaccessibility from drilling operations in March.

TABLE 7
Manual Water Level Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL)[1]	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-9	89	536.56	07-Mar-06	11:17 AM	81.00	0.20	455.54
			12-Oct-06	7:54 AM	80.05	0.20	456.48
MW-10	97	530.65	12-Dec-05	10:39 AM	75.09	0.21	455.51
			06-Mar-06	11:30 AM	75.28	0.21	455.32
			04-May-06	9:12 AM	74.36	0.18	456.23
			12-Oct-06	9:05 AM	74.35	0.20	456.24
			14-Dec-06	1:19 PM	75.10	0.20	455.49
MW-11	86	522.61	12-Dec-05	9:56 AM	67.30	0.15	455.25
			06-Mar-06	12:25 PM	67.34	0.15	455.21
			09-May-06	12:47 PM	66.31	0.16	456.24
			12-Oct-06	1:14 PM	66.37	0.16	456.18
MW-12	50	484.01	13-Dec-05	11:00 AM	29.09	0.23	454.87
			18-Apr-06	11:30 AM	28.76	0.19	455.20
			01-May-06	8:05 AM	28.46	0.19	455.50
			04-Oct-06	7:35 AM	28.46	0.19	455.50
			13-Dec-06	9:45 AM	29.45	0.19	454.51
MW-13	52	488.64	13-Dec-05	1:26 PM	33.10	0.13	455.48
			08-Mar-06	2:10 PM	32.78	0.13	455.80
			02-May-06	7:52 AM	32.38	0.13	456.20
			02-Oct-06	12:33 PM	32.74	0.13	455.84
MW-14	134	570.99	15-Dec-05	11:55 AM	115.58	0.10	455.35
			09-Mar-06	12:14 PM	115.16	0.10	455.77
			02-May-06	9:32 AM	114.41	0.10	456.52
			02-Oct-06	11:48 AM	114.58	0.10	456.35
MW-15	203	641.52	07-Mar-06	1:15 PM	185.35	0.10	456.11
			05-Oct-06	11:26 AM	184.51	0.10	456.95
MW-16	218	657.31	07-Mar-06	2:08 PM	200.80	0.09	456.45
			01-Nov-06	11:30 AM	200.05	0.10	457.20
MW-17	154	589.96	02-Oct-06	8:23 AM	132.68	0.12	457.21
MW-18	107	545.32	09-Mar-06	11:35 AM	89.06	0.09	456.20
			04-Oct-06	10:53 AM	88.41	0.09	456.85
MW-19	66	499.92	12-Dec-05	2:03 PM	45.97	0.13	453.89
			09-Mar-06	2:05 PM	44.97	0.13	454.89
			02-May-06	2:20 PM	44.19	0.13	455.67
			02-Oct-06	1:15 PM	44.75	0.14	455.11
			15-Dec-06	7:40 AM	45.80	0.14	454.06
MW-20-70	70	500.15	15-Dec-05	1:29 PM	47.29	0.20	452.80
			10-Mar-06	12:53 PM	46.53	0.20	453.56
			05-May-06	8:41 AM	45.60	0.24	454.50
			03-Oct-06	9:15 AM	46.30	0.15	453.78
			13-Dec-06	1:12 PM	47.12	0.15	452.96
MW-20-100	101	500.58	15-Dec-05	12:53 PM	48.13	0.25	452.33
			10-Mar-06	10:42 AM	46.27	0.25	454.19
			05-May-06	9:59 AM	46.40	0.23	454.05

TABLE 7
Manual Water Level Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL)[1]	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-20-100	101	500.58	03-Oct-06	8:15 AM	46.90	0.21	453.55
			13-Dec-06	11:16 AM	47.95	0.21	452.49
MW-20-130	132	500.66	16-Dec-05	8:38 AM	49.11	0.60	451.60
			10-Mar-06	11:45 AM	47.91	0.56	452.75
			05-May-06	10:15 AM	47.00	0.66	453.70
			18-Oct-06	12:15 PM	48.09	0.78	452.70
			13-Dec-06	1:27 PM	48.62	0.78	452.15
MW-21	58	505.55	13-Dec-05	12:24 PM	50.65	0.75	454.91
			09-Mar-06	2:37 PM	50.51	0.70	455.05
			01-May-06	10:13 AM	50.14	0.83	455.43
			03-Oct-06	2:02 PM	49.80	0.83	455.77
			12-Dec-06	8:44 AM	51.12	0.83	454.45
MW-22	12	460.72	16-Dec-05	12:17 PM	6.93	2.20	453.86
			15-Mar-06	9:13 AM	6.45	2.20	454.35
			03-May-06	12:34 PM	5.62	2.20	455.19
			13-Oct-06	12:03 PM	6.20	2.12	454.59
MW-23	81	507.33	14-Dec-05	11:58 AM	52.64	1.16	454.82
			08-Mar-06	1:38 PM	52.77	1.16	454.69
			01-May-06	9:31 AM	51.83	1.22	455.64
			04-Oct-06	6:36 AM	52.10	1.22	455.37
			12-Dec-06	7:47 AM	53.25	1.22	454.22
MW-24A	127	567.16	06-Mar-06	1:18 PM	111.24	0.22	455.88
			03-Oct-06	12:15 PM	111.00	0.24	456.12
			14-Dec-06	12:21 AM	111.82	0.24	455.30
MW-24B	215	564.76	07-Mar-06	11:05 AM	109.53	0.83	455.40
			03-Oct-06	11:14 AM	108.67	0.96	456.35
			14-Dec-06	10:47 AM	109.60	0.96	455.42
MW-24BR	441	563.95	15-Dec-05	2:25 PM	108.20	0.93	456.41
			16-Mar-06	9:00 AM	114.53	0.94	450.15
			09-May-06	2:16 PM	103.33	1.00	461.50
			01-Jun-06	7:20 AM	102.10	1.00	462.67
			01-Nov-06	7:50 AM	107.65	0.95	456.96
			14-Dec-06	8:17 AM	108.33	0.95	456.28
MW-25	107	542.90	14-Dec-05	1:07 PM	88.30	0.11	454.54
			09-Mar-06	12:52 PM	87.97	0.09	454.87
			03-May-06	1:28 PM	87.30	0.11	455.54
			03-Oct-06	7:24 AM	87.27	0.11	455.57
MW-26	70	502.22	12-Dec-05	1:16 PM	47.85	0.23	454.32
			08-Mar-06	12:29 PM	47.65	0.23	454.52
			01-May-06	10:15 AM	46.81	0.23	455.35
			03-Oct-06	2:07 PM	47.00	0.21	455.16
MW-27-20	14	460.56	14-Dec-05	2:12 PM	7.40	0.06	453.15
			06-Mar-06	10:19 AM	5.59	0.07	454.96
			01-May-06	2:09 PM	5.15	0.05	455.40
			14-Jun-06	10:30 AM	4.11	0.05	456.44

TABLE 7
Manual Water Level Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL)[1]	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-27-20	14	460.56	03-Oct-06	7:30 AM	5.59	0.07	454.96
MW-27-60	59	461.38	15-Dec-05	10:59 AM	8.80	0.87	452.79
			07-Mar-06	10:24 AM	6.74	0.77	454.83
			01-May-06	9:29 AM	5.81	0.80	455.74
			03-Oct-06	8:44 AM	6.60	0.83	454.99
MW-27-85	80	460.99	15-Dec-05	10:20 AM	8.58	1.20	452.89
			12-Jan-06	1:48 PM	8.12	1.20	453.36
			08-Feb-06	12:41 PM	7.60	1.20	453.91
			06-Mar-06	11:12 AM	6.68	1.20	454.84
			03-Apr-06	1:50 PM	6.95	1.10	454.51
			01-May-06	12:51 PM	6.32	1.10	455.14
			14-Jun-06	9:29 AM	5.08	1.10	456.38
			12-Jul-06	5:50 AM	5.15	1.10	456.23
			08-Aug-06	5:48 AM	6.65	1.10	454.78
			06-Sep-06	10:30 AM	6.70	1.10	454.67
			13-Oct-06	10:55 AM	7.56	1.35	453.98
			16-Nov-06	9:18 AM	8.44	1.35	453.12
			11-Dec-06	10:44 AM	6.60	1.35	454.91
MW-28-25	21	466.85	16-Dec-05	10:00 AM	13.56	0.08	453.27
			09-Mar-06	9:19 AM	11.65	0.09	455.19
			05-May-06	9:07 AM	10.55	0.06	456.28
			11-Oct-06	11:33 AM	12.39	0.07	454.44
MW-28-90	98	467.51	16-Dec-05	9:15 AM	14.33	0.58	453.32
			10-Jan-06	10:39 AM	14.08	0.58	453.58
			09-Feb-06	12:28 PM	13.92	0.58	453.75
			06-Mar-06	2:02 PM	13.24	0.58	454.44
			06-Apr-06	11:14 AM	12.04	0.41	455.54
			05-May-06	8:33 AM	11.67	0.41	455.92
			15-Jun-06	8:33 AM	11.18	0.41	456.42
			13-Jul-06	7:15 AM	10.93	0.41	456.62
			11-Aug-06	5:29 AM	11.53	0.41	456.07
			08-Sep-06	7:34 AM	13.40	0.41	454.15
			13-Oct-06	8:14 AM	12.82	0.57	454.87
			14-Dec-06	8:07 AM	13.98	0.57	453.67
MW-29	42	485.21	12-Dec-05	10:19 AM	31.23	0.32	453.97
			13-Apr-06	9:47 AM	29.47	0.31	455.73
			05-May-06	9:55 AM	29.21	0.31	455.99
			13-Oct-06	7:10 AM	30.25	0.27	454.95
MW-30-30	27	468.12	15-Dec-05	2:23 PM	14.73	3.00	453.61
			13-Mar-06	11:55 AM	14.27	3.00	454.08
			02-May-06	8:56 AM	13.07	3.65	455.36
			10-Oct-06	12:51 PM	14.09	3.65	454.32
MW-30-50	53	468.81	16-Dec-05	11:47 AM	15.82	0.77	453.07
			09-Mar-06	12:35 PM	14.72	0.67	454.15
			02-May-06	8:05 AM	13.30	0.61	455.56

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Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL)[1]	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-30-50	53	468.81	11-Oct-06	7:17 AM	14.40	0.62	454.46
MW-31-60	64	496.81	13-Dec-05	2:15 PM	43.20	0.16	453.55
			15-Mar-06	2:52 PM	42.43	0.16	454.32
			01-May-06	11:13 AM	41.42	0.15	455.33
			05-Oct-06	2:20 PM	42.18	0.19	454.58
MW-31-135	135	498.11	14-Dec-05	8:26 AM	45.21	0.53	452.90
			15-Mar-06	9:43 AM	44.34	0.56	453.78
			08-May-06	9:02 AM	43.00	0.59	455.14
			05-Oct-06	1:10 PM	44.38	0.64	453.79
MW-32-20	20	461.51	16-Dec-05	2:59 PM	8.31	1.50	453.29
			10-Mar-06	10:42 AM	7.32	2.25	454.35
			04-May-06	11:39 AM	6.29	0.55	455.24
			02-Oct-06	11:56 AM	7.28	1.80	454.34
			11-Dec-06	1:51 PM	7.98	1.80	453.64
MW-32-35	37	461.63	16-Dec-05	2:16 PM	8.57	0.73	453.12
			10-Mar-06	11:08 AM	7.03	0.73	454.67
			04-May-06	10:37 AM	6.13	0.56	455.54
			02-Oct-06	12:55 PM	7.31	1.01	454.45
			11-Dec-06	1:01 PM	7.58	1.01	454.17
MW-33-40	42	487.38	12-Dec-05	2:10 PM	33.80	0.37	453.57
			09-Mar-06	11:22 AM	32.60	0.70	454.79
			04-May-06	2:50 PM	31.90	0.70	455.49
			06-Oct-06	7:26 AM	32.15	0.35	455.22
			14-Dec-06	2:23 PM	33.36	0.35	454.01
MW-33-90	88	487.55	13-Dec-05	12:09 PM	33.85	0.58	453.74
			08-Mar-06	9:45 AM	32.70	0.58	454.89
			03-May-06	2:30 PM	32.13	0.62	455.47
			06-Oct-06	7:06 AM	32.34	0.57	455.23
			15-Dec-06	7:57 AM	33.75	0.57	453.82
MW-33-150	155	487.77	12-Dec-05	1:33 PM	34.57	1.08	453.72
			10-Jan-06	12:10 PM	34.63	1.11	453.69
			07-Feb-06	11:50 AM	33.10	1.11	455.22
			08-Mar-06	8:50 AM	33.50	1.15	454.86
			06-Apr-06	1:06 PM	32.82	1.15	455.54
			03-May-06	1:20 PM	32.85	1.09	455.44
			16-Jun-06	5:35 AM	31.63	1.09	456.62
			13-Jul-06	8:39 AM	32.04	1.09	456.21
			11-Aug-06	6:23 AM	32.30	1.09	456.01
			08-Sep-06	5:46 AM	33.45	1.09	454.79
			06-Oct-06	11:58 AM	33.43	1.16	454.93
			13-Dec-06	1:50 PM	34.22	1.16	454.08
MW-33-210	223	487.25	12-Dec-05	11:29 AM	34.13	1.25	454.14
			10-Jan-06	1:10 PM	34.41	1.35	453.97
			07-Feb-06	10:40 AM	33.78	1.35	454.60
			06-Mar-06	12:25 PM	33.31	1.35	455.07

TABLE 7
Manual Water Level Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL)[1]	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-33-210	223	487.25	13-Apr-06	12:30 PM	32.68	1.34	455.69
			05-May-06	6:43 AM	31.93	1.34	456.44
			16-Jun-06	6:22 AM	31.64	1.34	456.68
			13-Jul-06	8:15 AM	31.78	1.34	456.54
			08-Aug-06	10:30 AM	32.62	1.34	455.76
			08-Sep-06	5:00 AM	33.07	1.34	455.25
			06-Oct-06	10:31 AM	33.06	1.34	455.31
			11-Dec-06	8:53 AM	33.40	1.34	454.91
MW-34-55	57	460.95	14-Dec-05	10:15 AM	7.84	0.55	453.19
			08-Mar-06	12:04 PM	6.56	0.45	454.45
			03-May-06	7:05 AM	4.75	0.55	456.31
			04-Oct-06	8:13 AM	6.01	0.55	455.05
MW-34-80	84	461.20	14-Dec-05	9:10 AM	7.83	0.73	453.58
			11-Jan-06	1:13 PM	7.89	0.93	453.65
			08-Feb-06	9:58 AM	7.43	0.93	454.12
			09-Mar-06	9:58 AM	6.63	0.75	454.84
			03-Apr-06	11:25 AM	7.12	0.75	454.35
			03-May-06	8:28 AM	5.15	0.75	456.32
			14-Jun-06	6:59 AM	4.57	0.75	456.90
			12-Jul-06	7:33 AM	5.27	0.75	456.14
			08-Aug-06	8:27 AM	5.88	0.75	455.53
			06-Sep-06	8:24 AM	6.65	0.75	454.75
			04-Oct-06	11:32 AM	7.79	0.95	453.72
			16-Nov-06	10:10 AM	8.50	0.95	453.02
			12-Dec-06	10:06 AM	7.02	0.95	454.49
MW-34-100	117	460.96	14-Dec-05	12:48 PM	8.24	1.01	453.25
			28-Dec-05	8:30 AM	8.78	1.01	452.72
			12-Jan-06	8:58 AM	7.66	1.14	453.96
			23-Jan-06	9:45 AM	7.65	1.14	453.99
			08-Feb-06	11:45 AM	7.81	1.14	453.84
			08-Mar-06	1:35 PM	7.43	1.05	454.17
			23-Mar-06	9:04 AM	7.39	1.05	454.08
			03-Apr-06	12:53 PM	7.48	1.05	454.12
			03-May-06	10:37 AM	6.40	1.05	455.20
			17-May-06	12:22 PM	6.24	1.05	455.23
			31-May-06	7:49 AM	5.03	1.05	456.55
			14-Jun-06	8:23 AM	5.09	1.05	456.50
			28-Jun-06	8:20 AM	5.40	1.05	456.16
			12-Jul-06	6:50 AM	5.53	1.05	455.94
			26-Jul-06	6:00 AM	5.31	1.05	456.22
			08-Aug-06	7:07 AM	6.05	1.05	455.46
			28-Aug-06	2:12 PM	7.80	1.05	453.65
			06-Sep-06	7:00 AM	6.65	1.05	454.81
			20-Sep-06	9:16 AM	7.39	1.30	454.28
			04-Oct-06	8:50 AM	7.11	1.30	454.56
			18-Oct-06	12:15 PM	7.65	1.30	454.03

TABLE 7
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Monitoring Wells							
MW-34-100	117	460.96	01-Nov-06	11:06 AM	7.65	1.30	454.04
			16-Nov-06	8:30 AM	8.75	1.30	452.96
			30-Nov-06	10:17 AM	9.25	1.30	452.47
			12-Dec-06	12:24 AM	7.53	1.30	454.13
			28-Dec-06	9:45 AM	8.50	1.30	453.26
MW-35-60	57	484.19	14-Dec-05	9:45 AM	30.47	0.44	453.71
			14-Mar-06	1:46 PM	29.22	0.41	454.96
			01-May-06	12:05 PM	28.25	0.44	455.93
			12-Oct-06	1:21 PM	29.60	0.42	454.58
MW-35-135	159	483.57	14-Dec-05	10:26 AM	30.02	0.70	454.28
			10-Mar-06	12:27 PM	29.70	0.59	454.47
			02-May-06	3:12 PM	28.14	0.73	456.14
			12-Oct-06	12:25 PM	29.05	0.76	455.28
MW-36-20	23	469.26	15-Dec-05	12:27 PM	16.56	0.71	452.71
			01-May-06	8:23 AM	13.77	1.16	455.54
			02-Oct-06	8:24 AM	14.68	1.21	454.62
MW-36-40	43	469.61	15-Dec-05	10:42 AM	17.00	0.64	452.65
			07-Mar-06	11:42 AM	15.34	0.83	454.35
			01-May-06	11:24 AM	14.35	1.05	455.39
			05-Oct-06	12:01 PM	15.46	0.84	454.24
MW-36-50	53	469.60	15-Dec-05	9:57 AM	17.01	0.44	452.59
			07-Mar-06	10:50 AM	15.14	0.60	454.51
			01-May-06	2:21 PM	14.85	0.50	454.77
			05-Oct-06	7:19 AM	14.76	0.51	454.86
MW-36-70	72	469.25	15-Dec-05	1:07 PM	16.64	0.53	452.65
			09-Feb-06	12:30 PM	15.78	0.58	453.53
			07-Mar-06	9:54 AM	14.75	0.58	454.57
			06-Apr-06	10:18 AM	13.78	0.58	455.54
			01-May-06	8:23 AM	13.65	0.58	455.66
			13-Jun-06	7:36 AM	13.21	0.58	456.10
			11-Jul-06	10:07 AM	13.91	0.58	455.39
			09-Aug-06	8:21 AM	14.02	0.58	455.31
			07-Sep-06	5:45 AM	14.25	0.58	455.05
			02-Oct-06	9:27 AM	14.75	0.37	454.47
			14-Dec-06	10:48 AM	16.00	0.37	453.22
MW-36-90	92	469.61	15-Dec-05	11:13 AM	17.45	0.98	452.47
			12-Jan-06	12:10 PM	17.12	0.98	452.78
			09-Feb-06	12:13 PM	16.92	0.98	453.00
			07-Mar-06	12:25 PM	16.22	0.98	453.71
			04-Apr-06	2:05 PM	14.53	0.90	455.36
			01-May-06	12:19 PM	15.50	0.90	454.35
			13-Jun-06	6:53 AM	14.22	0.90	455.65
			11-Jul-06	8:35 AM	15.50	0.90	454.36
			09-Aug-06	6:30 AM	15.00	0.90	454.90
			07-Sep-06	6:52 AM	15.01	0.90	454.85

TABLE 7
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Location	Well Depth (feet BMP)	Measuring Point Elevation (feet AMSL)[1]	Monitoring Date & Time		Water Level Measurement (feet BMP)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
Monitoring Wells							
MW-36-90	92	469.61	02-Oct-06	12:00 PM	16.10	0.50	453.55
			14-Nov-06	10:04 AM	17.24	0.50	452.44
			14-Dec-06	9:30 AM	16.08	0.50	453.56
MW-36-100	110	469.64	13-Dec-05	2:02 PM	17.06	1.10	453.03
			12-Jan-06	12:56 PM	17.28	1.10	452.78
			08-Feb-06	1:12 PM	17.20	1.10	452.89
			13-Mar-06	2:05 PM	16.94	1.10	453.15
			05-Apr-06	11:01 AM	16.36	1.07	453.72
			02-May-06	3:00 PM	15.64	1.07	454.43
			15-Jun-06	9:28 AM	14.64	1.07	455.41
			13-Jul-06	4:55 AM	14.35	1.07	455.70
			09-Aug-06	5:39 AM	15.04	1.07	455.06
			08-Sep-06	8:20 AM	16.62	1.07	453.42
			11-Oct-06	9:53 AM	16.29	1.00	453.71
			14-Nov-06	12:45 PM	17.50	1.00	452.50
			11-Dec-06	11:30 AM	16.24	1.00	453.75
MW-37D	227	486.19	14-Dec-05	1:40 PM	31.92	0.89	454.64
			13-Mar-06	10:40 AM	31.70	0.89	454.86
			03-May-06	2:40 PM	30.68	1.15	456.24
			13-Oct-06	9:19 AM	31.02	1.04	455.73
			14-Dec-06	2:09 PM	31.90	1.04	454.85
MW-37S	87	485.97	14-Dec-05	2:26 PM	31.83	0.25	454.00
			13-Mar-06	10:39 AM	31.50	0.25	454.33
			04-May-06	1:22 PM	30.38	0.30	455.47
			13-Oct-06	10:57 AM	38.20	0.27	447.65
MW-38D	191	525.31	10-Mar-06	8:40 AM	70.95	1.40	455.01
			12-Oct-06	10:40 AM	70.14	1.52	455.93
MW-38S	98	525.51	10-Mar-06	9:18 AM	70.70	0.24	454.74
			12-Oct-06	12:26 PM	69.79	0.24	455.65
MW-39-40	42	468.02	16-Dec-05	10:30 AM	15.33	0.38	452.67
			07-Mar-06	2:28 PM	13.94	0.34	454.06
			02-May-06	7:10 AM	12.36	0.41	455.65
			05-Oct-06	11:55 AM	13.98	0.52	454.05
			14-Dec-06	2:08 PM	14.65	0.52	453.38
MW-39-50	55	467.93	16-Dec-05	9:36 AM	15.33	0.85	452.79
			12-Jan-06	9:57 AM	15.04	0.85	453.00
			08-Mar-06	9:50 AM	13.74	0.85	454.30
			02-May-06	8:27 AM	12.65	0.90	455.41
			05-Oct-06	9:59 AM	13.80	0.74	454.20
MW-39-60	66	468.00	16-Dec-05	8:52 AM	15.51	0.90	452.65
			08-Mar-06	1:12 PM	14.31	0.80	453.82
			02-May-06	8:30 AM	12.95	1.01	455.26
			05-Oct-06	9:07 AM	14.00	0.88	454.16
MW-39-70	72	468.02	16-Dec-05	11:02 AM	15.79	0.85	452.38
			10-Feb-06	10:57 AM	15.20	0.66	452.91

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Monitoring Wells							
MW-39-70	72	468.02	08-Mar-06	12:25 PM	14.59	0.66	453.52
			06-Apr-06	8:37 AM	13.40	0.90	454.81
			02-May-06	7:00 AM	13.20	0.90	455.02
			14-Jun-06	5:47 AM	12.35	0.90	455.87
			12-Jul-06	6:40 AM	13.08	0.90	455.12
			10-Aug-06	7:54 AM	13.53	0.90	454.69
			07-Sep-06	10:40 AM	13.23	0.90	454.96
			05-Oct-06	11:55 AM	14.50	0.72	453.63
			14-Dec-06	1:15 PM	14.35	0.72	453.77
MW-39-80	83	467.92	15-Dec-05	2:02 PM	15.74	1.03	452.46
			12-Jan-06	10:35 AM	15.79	1.03	452.41
			10-Feb-06	11:18 AM	15.18	1.03	453.02
			08-Mar-06	10:53 AM	14.48	1.03	453.73
			06-Apr-06	8:35 AM	13.40	1.03	454.82
			02-May-06	8:28 AM	13.33	1.03	454.88
			14-Jun-06	6:10 AM	12.35	1.03	455.88
			12-Jul-06	5:43 AM	12.99	1.03	455.20
			10-Aug-06	9:35 AM	13.73	1.03	454.50
			07-Sep-06	9:11 AM	13.03	1.03	455.16
			05-Oct-06	9:59 AM	13.94	0.95	454.22
			14-Nov-06	11:51 AM	15.52	0.95	452.64
			14-Dec-06	12:10 AM	14.37	0.95	453.78
MW-39-100	118	468.01	13-Dec-05	2:50 PM	15.66	1.20	452.89
			12-Jan-06	11:25 AM	16.01	1.30	452.62
			08-Feb-06	2:05 PM	15.52	1.30	453.12
			13-Mar-06	1:18 PM	15.70	1.30	452.93
			05-Apr-06	11:51 AM	14.40	1.20	454.17
			02-May-06	1:41 PM	14.16	1.20	454.42
			14-Jun-06	11:00 AM	12.83	1.20	455.76
			13-Jul-06	5:41 AM	13.03	1.20	455.50
			10-Aug-06	7:11 AM	13.69	1.20	454.89
			08-Sep-06	9:00 AM	14.92	1.20	453.60
			11-Oct-06	8:53 AM	14.25	1.30	454.39
			15-Nov-06	11:44 AM	15.74	1.30	452.89
			12-Dec-06	1:12 PM	15.15	1.30	453.44
MW-40D	266	566.08	13-Dec-05	9:36 AM	111.25	0.95	455.12
			08-Mar-06	11:31 AM	107.73	0.99	458.69
			02-May-06	7:41 AM	110.42	1.11	456.12
			05-Oct-06	9:05 AM	110.50	1.11	456.04
			13-Dec-06	8:12 AM	111.45	1.11	455.09
MW-40S	134	566.04	13-Dec-05	8:38 AM	110.86	0.12	455.10
			08-Mar-06	9:54 AM	108.36	0.12	457.59
			03-May-06	9:50 AM	109.86	0.13	456.09
			05-Oct-06	10:05 AM	109.97	0.13	455.98
MW-41D	313	479.42	16-Dec-05	10:34 AM	25.08	1.35	455.84
			15-Mar-06	11:15 AM	24.70	1.25	456.01

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Monitoring Wells							
MW-41D	313	479.42	05-May-06	7:24 AM	23.82	1.30	456.99
			04-Oct-06	12:17 PM	24.24	1.36	456.67
MW-41M	192	479.83	16-Dec-05	11:44 AM	25.14	0.98	455.17
			13-Mar-06	1:35 PM	24.66	0.90	455.55
			05-May-06	12:23 PM	23.70	1.12	456.77
			05-Oct-06	6:28 AM	24.08	0.97	456.21
MW-41S	62	480.07	16-Dec-05	12:30 PM	25.57	0.28	454.43
			13-Mar-06	2:36 PM	24.72	0.25	455.27
			05-May-06	1:39 PM	23.70	0.50	456.35
			05-Oct-06	7:30 AM	24.28	0.29	455.72
MW-42-30	32	463.81	15-Dec-05	1:07 PM	11.28	1.04	452.62
			07-Mar-06	12:14 PM	9.63	0.98	454.27
			02-May-06	10:14 AM	8.64	0.70	455.20
			03-Oct-06	10:54 AM	9.53	0.88	454.35
MW-42-55	56	463.87	15-Dec-05	12:43 PM	11.25	1.08	452.83
			07-Mar-06	1:07 PM	9.78	0.92	454.26
			02-May-06	11:07 AM	8.03	1.02	456.05
			03-Oct-06	11:40 AM	9.68	1.05	454.40
			14-Dec-06	10:56 AM	10.43	1.05	453.62
MW-42-65	80	463.37	15-Dec-05	12:11 PM	10.77	1.04	452.92
			07-Mar-06	2:35 PM	9.38	1.17	454.38
			02-May-06	11:47 AM	8.42	1.17	455.32
			03-Oct-06	12:20 PM	9.32	1.21	454.45
			14-Dec-06	10:15 AM	9.99	1.21	453.75
MW-43-25	27	462.54	16-Dec-05	2:17 PM	9.56	0.07	452.96
			10-Mar-06	8:34 AM	7.26	0.09	455.26
			04-May-06	9:11 AM	6.36	0.09	456.16
			02-Oct-06	9:23 AM	7.70	0.08	454.81
MW-43-75	77	462.71	16-Dec-05	2:07 PM	9.89	0.93	453.09
			11-Jan-06	11:00 AM	9.32	0.96	453.73
			10-Feb-06	9:20 AM	8.65	0.96	454.41
			10-Mar-06	9:16 AM	7.69	0.96	455.38
			03-Apr-06	10:17 AM	8.13	0.89	454.90
			04-May-06	7:45 AM	6.45	0.89	456.59
			02-Oct-06	7:46 AM	8.81	0.91	454.19
			12-Dec-06	8:09 AM	8.39	0.91	454.59
MW-43-90	102	462.76	16-Dec-05	1:00 PM	10.05	1.20	453.24
			11-Jan-06	9:07 AM	9.43	1.42	454.09
			10-Feb-06	9:47 AM	9.68	1.42	453.85
			10-Mar-06	9:48 AM	8.05	1.42	455.50
			03-Apr-06	9:32 AM	8.30	1.27	455.15
			04-May-06	8:29 AM	6.90	1.27	456.57
			02-Oct-06	8:45 AM	8.22	1.37	455.24
			12-Dec-06	8:47 AM	8.66	1.37	454.77
MW-44-70	70	471.88	09-Mar-06	2:47 AM	18.70	0.48	453.21

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Monitoring Wells							
MW-44-70	70	471.88	23-Mar-06	10:56 AM	17.80	0.48	454.11
			05-Apr-06	2:03 PM	16.58	0.48	455.33
			04-May-06	9:50 AM	16.33	0.48	455.58
			13-Jun-06	6:57 AM	15.60	0.48	456.30
			15-Jun-06	7:44 AM	15.55	0.48	456.35
		471.90	04-Oct-06	2:49 PM	17.95	0.65	454.05
			14-Dec-06	9:06 AM	18.32	0.65	453.67
MW-44-115	114	471.99	14-Mar-06	12:55 PM	19.39	0.80	452.85
			22-Mar-06	1:35 PM	18.82	0.80	453.40
			04-Apr-06	1:15 PM	16.89	0.80	455.36
			20-Apr-06	12:55 PM	17.30	0.80	454.96
			26-Apr-06	11:06 AM	16.21	0.80	456.06
			04-May-06	11:40 AM	17.36	0.80	454.90
			10-May-06	12:25 PM	17.37	0.80	454.90
			17-May-06	9:46 AM	16.74	0.80	455.48
			31-May-06	11:27 AM	17.28	0.80	454.99
			13-Jun-06	9:34 AM	16.69	0.80	455.58
			28-Jun-06	10:08 AM	16.70	0.80	455.57
			12-Jul-06	9:19 AM	17.00	0.80	455.19
			26-Jul-06	9:17 AM	16.90	0.80	455.38
			09-Aug-06	8:56 AM	17.30	0.80	454.97
			23-Aug-06	9:40 AM	17.68	0.80	454.59
			07-Sep-06	5:57 AM	17.51	0.80	454.68
			21-Sep-06	10:19 AM	17.94	1.02	454.40
		472.01	05-Oct-06	7:04 AM	17.72	1.02	454.71
			18-Oct-06	9:53 AM	18.30	1.02	454.12
			15-Nov-06	10:48 AM	19.29	1.02	453.13
			12-Dec-06	2:23 PM	18.63	1.02	453.74
MW-44-125	129	471.99	09-Mar-06	1:48 PM	19.10	0.59	453.03
			22-Mar-06	12:20 PM	18.20	0.59	453.92
			05-Apr-06	9:38 AM	16.29	0.59	455.85
			20-Apr-06	8:56 AM	16.80	0.59	455.32
			26-Apr-06	8:33 AM	15.75	0.59	456.38
			04-May-06	6:48 AM	16.39	0.59	455.74
			10-May-06	9:03 AM	16.61	0.59	455.49
			17-May-06	8:15 AM	16.15	0.59	455.91
			31-May-06	8:58 AM	16.53	0.59	455.59
			28-Jun-06	9:15 AM	16.25	0.59	455.89
			11-Jul-06	8:45 AM	16.97	0.59	455.05
			26-Jul-06	7:18 AM	16.38	0.59	455.75
			09-Aug-06	6:40 AM	16.73	0.59	455.40
			28-Aug-06	9:50 AM	17.70	0.59	454.37
			07-Sep-06	6:30 AM	17.41	0.59	454.61
			20-Sep-06	12:36 PM	18.53	0.96	453.78
		472.04	05-Oct-06	7:20 AM	17.38	0.96	455.07
			18-Oct-06	8:24 AM	17.84	0.96	454.66
			15-Nov-06	9:25 AM	18.95	0.96	453.55

TABLE 7
Manual Water Level Measurements, December 2005 through December 2006
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Monitoring Wells							
MW-44-125	129	472.04	13-Dec-06	8:23 AM	18.43	0.96	453.95
MW-45-095a	97	470.16	24-Mar-06	8:48 AM	17.12	0.86	453.32
MW-45-095b	97	469.65	24-Mar-06	10:36 AM	17.93	0.86	452.01
MW-46-175	182	482.20	14-Mar-06	11:42 AM	29.45	1.09	455.15
			24-Mar-06	8:50 AM	28.20	1.09	456.42
			07-Apr-06	8:55 AM	27.22	1.09	455.78
		482.16	04-May-06	1:18 PM	27.62	1.02	455.24
			18-May-06	12:19 PM	27.36	1.02	455.41
			31-May-06	12:43 PM	27.23	1.02	455.65
			15-Jun-06	6:29 AM	26.41	1.02	456.51
			30-Jun-06	12:48 PM	26.75	1.02	455.98
			12-Jul-06	10:15 AM	26.78	1.02	455.95
			27-Jul-06	7:00 AM	26.75	1.02	456.16
			09-Aug-06	10:31 AM	27.60	1.02	455.30
			25-Aug-06	12:10 PM	27.75	1.02	455.15
			07-Sep-06	9:30 AM	27.97	1.02	454.75
			21-Sep-06	8:35 AM	27.70	1.32	455.36
			05-Oct-06	11:40 AM	28.33	1.32	454.89
			18-Oct-06	10:50 AM	28.40	1.32	454.81
			15-Nov-06	1:23 PM	29.34	1.32	453.85
			13-Dec-06	12:46 AM	28.85	1.32	454.22
MW-46-205	225	482.25	14-Mar-06	10:25 AM	29.94	1.33	455.13
			24-Mar-06	10:23 AM	28.58	1.33	456.49
			07-Apr-06	8:35 AM	23.40	1.33	460.24
		482.23	04-May-06	2:45 PM	27.95	1.25	455.53
			15-Jun-06	5:30 AM	26.72	1.25	456.79
			13-Jul-06	6:24 AM	26.93	1.25	456.39
			10-Aug-06	8:14 AM	27.62	1.25	455.87
			07-Sep-06	10:39 AM	28.11	1.25	455.19
			05-Oct-06	1:25 PM	28.62	1.48	455.19
			13-Dec-06	11:04 AM	29.08	1.48	454.54
MW-47-55	55	483.87	23-Mar-06	1:30 PM	29.12	0.26	454.69
			16-May-06	9:20 AM	27.45	0.26	456.36
			10-Oct-06	11:50 AM	28.90	0.24	454.92
			14-Dec-06	11:59 AM	29.59	0.24	454.22
MW-47-115	115	484.06	23-Mar-06	12:31 PM	30.16	0.94	454.11
			16-May-06	9:20 AM	27.94	0.94	456.33
			10-Oct-06	10:45 AM	29.25	0.99	455.10
			14-Dec-06	12:39 AM	29.98	0.99	454.34
MW-48	138	486.22	05-Jun-06	10:03 AM	29.10	0.95	457.26
			06-Oct-06	11:30 AM	59.39	1.09	427.01
			13-Dec-06	3:07 PM	31.85	1.09	454.65
MW-49-135	137	484.02	25-Apr-06	10:55 AM	28.43	0.70	455.79
			18-May-06	8:50 AM	27.93	1.11	456.59
			12-Oct-06	7:57 AM	29.22	1.05	455.29

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Monitoring Wells							
MW-49-135	137	484.02	15-Dec-06	10:10 AM	29.98	1.05	454.50
MW-49-275	275	483.95	25-Apr-06	1:30 PM	29.37	1.03	455.37
			18-May-06	10:05 AM	29.32	1.61	456.40
			12-Oct-06	8:10 AM	30.24	1.70	455.90
			15-Dec-06	9:59 AM	31.01	1.70	454.87
MW-49-365	367	484.01	26-Apr-06	12:45 PM	30.85	2.60	458.00
			16-May-06	9:50 AM	30.86	2.59	458.33
			12-Oct-06	8:06 AM	31.83	2.64	457.28
			15-Dec-06	11:51 AM	32.61	2.64	456.21
MW-50-095	96	496.55	09-May-06	7:14 AM	40.50	0.35	455.92
			24-May-06	1:49 PM	39.65	0.35	456.81
			10-Oct-06	9:07 AM	41.52	0.36	454.95
			12-Dec-06	12:01 AM	42.25	0.36	454.21
MW-50-200	205	496.45	09-May-06	7:16 AM	41.02	1.48	456.27
			24-May-06	1:08 PM	41.47	1.48	456.03
		496.48	10-Oct-06	7:32 AM	42.02	1.48	455.53
			12-Dec-06	11:58 AM	42.75	1.48	454.67
MW-51	113	501.56	30-May-06	10:48 AM	44.98	0.79	456.61
			06-Oct-06	6:30 AM	46.58	0.64	455.02
			12-Dec-06	9:16 AM	47.58	0.64	453.96
OW-3D	274	558.63	09-Mar-06	8:30 AM	102.41	0.45	456.00
			06-Oct-06	9:30 AM	101.74	0.47	456.69
OW-3M	202	558.90	09-Mar-06	9:17 AM	102.61	0.33	456.09
			12-Oct-06	9:28 AM	102.08	0.35	456.62
OW-3S	118	558.58	09-Mar-06	9:55 AM	102.33	0.11	456.20
			12-Oct-06	11:20 AM	101.65	0.11	456.87
PE-1	97	469.65	13-Dec-05	8:50 AM	16.42	0.75	453.43
TW-4	255	484.11	18-May-06	8:49 AM	28.71	1.12	456.02
			05-Jun-06	11:30 AM	28.67	1.12	455.95
			09-Oct-06	6:59 AM	29.42	1.12	455.30
TW-5	153	496.30	10-May-06	11:12 AM	41.20	0.70	455.08
			01-Jun-06	9:14 AM	40.43	0.70	455.94
			09-Oct-06	11:36 AM	41.32	0.70	454.96
Site Wide Water Levels							
MW-1	217	661.76	20-Dec-05	1:13 PM	206.00	0.04	455.72
			14-Jun-06	8:35 AM	205.16	0.04	456.56
			19-Oct-06	10:29 AM	206.52	0.04	455.20
			18-Dec-06	12:32 PM	205.90	0.04	455.82
MW-3	205	650.51	20-Dec-05	1:35 PM	195.46	0.09	455.02
			08-Mar-06	8:19 AM	193.80	0.09	456.67
MW-4	176	625.73	20-Dec-05	1:23 PM	170.05	0.07	455.66
			08-Mar-06	8:29 AM	170.05	0.07	455.66
			14-Jun-06	8:51 AM	168.76	0.07	456.94

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Site Wide Water Levels							
MW-4	176	625.73	19-Oct-06	10:47 AM	169.36	0.07	456.35
			18-Dec-06	12:45 PM	170.00	0.07	455.71
MW-5	186	635.69	20-Dec-05	1:30 PM	180.02	0.09	455.65
			08-Mar-06	8:23 AM	179.68	0.09	455.99
			14-Jun-06	8:41 AM	178.41	0.09	457.25
			19-Oct-06	10:58 AM	178.98	0.09	456.69
			18-Dec-06	12:51 PM	179.60	0.09	456.07
MW-6	195	642.84	20-Dec-05	1:17 PM	186.78	0.04	456.03
			08-Mar-06	8:36 AM	186.74	0.04	456.07
			14-Jun-06	8:56 AM	185.54	0.04	457.26
			19-Oct-06	10:36 AM	186.01	0.06	456.80
MW-7	185	631.91	20-Dec-05	1:21 PM	175.96	0.06	455.92
			08-Mar-06	8:33 AM	176.48	0.07	455.40
			14-Jun-06	8:47 AM	175.20	0.07	456.67
			19-Oct-06	10:43 AM	175.94	0.07	455.94
			18-Dec-06	12:40 PM	176.26	0.07	455.62
MW-8	180	627.54	20-Dec-05	1:26 PM	171.50	0.07	456.01
			08-Mar-06	8:26 AM	171.37	0.07	456.14
			14-Jun-06	8:46 AM	170.10	0.07	457.40
			19-Oct-06	10:54 AM	170.87	0.07	456.64
			18-Dec-06	12:48 PM	171.15	0.07	456.36
MW-9	89	536.56	20-Dec-05	12:55 PM	80.92	0.20	455.62
			07-Mar-06	8:06 AM	81.01	0.20	455.53
			14-Jun-06	5:20 AM	79.61	0.20	456.92
			19-Oct-06	12:25 PM	79.97	0.20	456.56
			18-Dec-06	1:50 PM	80.82	0.20	455.72
MW-10	97	530.65	20-Dec-05	12:53 PM	75.35	0.21	455.25
			07-Mar-06	8:01 AM	75.29	0.18	455.30
			14-Jun-06	5:16 AM	73.90	0.18	456.69
			19-Oct-06	12:15 PM	74.37	0.20	456.22
			18-Dec-06	1:53 PM	75.14	0.20	455.45
MW-11	86	522.61	20-Dec-05	1:00 PM	67.00	0.15	455.55
			07-Mar-06	8:13 AM	67.33	0.16	455.23
			14-Jun-06	5:08 AM	65.90	0.16	456.65
			19-Oct-06	12:35 PM	66.83	0.16	455.72
			18-Dec-06	1:59 PM	67.33	0.16	455.22
MW-12	50	484.01	20-Dec-05	2:45 PM	28.13	0.23	455.83
			14-Jun-06	5:42 AM	27.92	0.19	456.03
			19-Oct-06	11:56 AM	28.57	0.19	455.39
			18-Dec-06	12:25 PM	29.40	0.19	454.56
MW-13	52	488.64	20-Dec-05	2:04 PM	32.38	0.13	456.20
			08-Mar-06	8:45 AM	33.35	0.13	455.23
			14-Jun-06	6:04 AM	32.03	0.13	456.55
			19-Oct-06	9:25 AM	33.05	0.13	455.53
			18-Dec-06	2:15 PM	32.70	0.13	455.88

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Site Wide Water Levels							
MW-14	134	570.99	20-Dec-05	2:01 PM	115.82	0.10	455.11
			08-Mar-06	8:28 AM	115.33	0.10	455.60
			14-Jun-06	6:23 AM	114.00	0.10	456.92
			19-Oct-06	9:38 AM	114.85	0.10	456.08
			18-Dec-06	2:20 PM	115.53	0.10	455.40
MW-15	203	641.52	20-Dec-05	1:06 PM	186.20	0.10	455.26
			08-Mar-06	8:45 AM	185.52	0.10	455.94
			14-Jun-06	8:03 AM	184.18	0.10	457.27
			19-Oct-06	11:20 AM	184.62	0.10	456.84
			18-Dec-06	1:02 PM	185.32	0.10	456.14
MW-16	218	657.31	20-Dec-05	1:42 PM	201.98	0.09	455.27
			08-Mar-06	8:52 AM	200.98	0.10	456.27
			14-Jun-06	7:53 AM	199.94	0.10	457.31
			19-Oct-06	10:22 AM	200.06	0.10	457.19
			18-Dec-06	1:09 PM	200.40	0.10	456.85
MW-17	154	589.96	14-Jun-06	6:45 AM	132.49	0.12	457.40
			19-Oct-06	2:15 PM	132.60	0.12	457.29
			18-Dec-06	12:50 PM	133.25	0.12	456.64
MW-18	107	545.32	20-Dec-05	1:52 PM	89.60	0.09	455.66
			08-Mar-06	7:59 AM	89.33	0.09	455.93
			14-Jun-06	6:38 AM	88.03	0.09	457.23
			19-Oct-06	9:59 AM	88.66	0.09	456.60
			18-Dec-06	1:24 PM	89.26	0.09	456.00
MW-19	66	499.92	20-Dec-05	2:18 PM	45.65	0.13	454.21
			08-Mar-06	8:59 AM	45.16	0.13	454.70
			14-Jun-06	6:02 AM	43.64	0.13	456.24
			19-Oct-06	9:10 AM	46.34	0.14	453.53
			18-Dec-06	1:12 PM	46.00	0.14	453.86
MW-20-70	70	500.15	20-Dec-05	2:31 PM	45.70	0.20	454.39
			13-Jun-06	9:00 AM	44.92	0.24	455.17
			19-Oct-06	11:47 AM	46.48	0.15	453.61
			18-Dec-06	1:48 PM	47.51	0.15	452.57
MW-21	58	505.55	20-Dec-05	2:41 PM	49.51	0.75	456.05
			08-Mar-06	9:21 AM	50.01	0.83	455.56
			14-Jun-06	5:45 AM	49.61	0.83	455.96
			19-Oct-06	1:50 PM	50.22	0.83	455.35
			18-Dec-06	2:10 PM	54.71	0.83	450.85
MW-24A	127	567.16	20-Dec-05	12:45 PM	112.09	0.22	455.03
			14-Jun-06	5:00 AM	110.51	0.23	456.61
			18-Dec-06	1:45 PM	111.89	0.24	455.23
MW-25	107	542.90	20-Dec-05	2:15 PM	86.50	0.11	456.34
			08-Mar-06	8:53 AM	88.07	0.11	454.77
			14-Jun-06	6:07 AM	86.71	0.11	456.13
			19-Oct-06	9:18 AM	87.62	0.11	455.22
			18-Dec-06	1:21 PM	88.93	0.11	453.91

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Site Wide Water Levels							
MW-26	70	502.22	08-Mar-06	8:16 AM	47.72	0.23	454.45
			14-Jun-06	5:48 AM	46.33	0.23	455.83
			19-Oct-06	1:45 PM	47.15	0.21	455.01
			18-Dec-06	1:57 PM	48.01	0.21	454.15
MW-31-60	64	496.81	20-Dec-05	2:22 PM	45.86	0.16	450.90
			08-Mar-06	9:10 AM	42.31	0.15	454.44
			14-Jun-06	5:50 AM	40.74	0.15	456.01
			19-Oct-06	11:41 AM	42.23	0.19	454.53
			18-Dec-06	1:05 PM	43.92	0.19	452.84
MW-35-60	57	484.19	20-Dec-05	2:26 PM	31.24	0.44	452.94
			08-Mar-06	9:05 AM	28.84	0.44	455.34
			14-Jun-06	5:52 AM	27.23	0.44	456.95
			19-Oct-06	11:33 AM	29.19	0.42	454.99
			18-Dec-06	12:55 PM	30.61	0.42	453.56
MW-38S	98	525.51	20-Dec-05	12:50 PM	70.90	0.24	454.54
			07-Mar-06	8:10 AM	70.84	0.24	454.60
			14-Jun-06	5:12 AM	69.43	0.24	456.01
			19-Oct-06	12:12 PM	69.96	0.24	455.48
			18-Dec-06	1:57 PM	70.75	0.24	454.69
MW-40D	266	566.08	08-Mar-06	9:03 AM	107.73	1.11	458.82
MW-40S	134	566.04	20-Dec-05	3:00 PM	111.02	0.12	454.94
			08-Mar-06	9:03 AM	108.36	0.13	457.59
			14-Jun-06	6:59 AM	109.43	0.13	456.52
			18-Dec-06	12:40 PM	110.88	0.13	455.08
MW-41S	62	480.07	20-Dec-05	2:10 PM	25.42	0.28	454.58
			08-Mar-06	8:37 AM	24.75	0.50	455.31
			14-Jun-06	6:18 AM	23.34	0.50	456.71
			19-Oct-06	9:32 AM	28.50	0.29	451.51
			18-Dec-06	1:36 PM	25.42	0.29	454.58
OW-1S	114	550.15	20-Dec-05	1:54 PM	94.82	0.14	455.27
			08-Mar-06	8:17 AM	94.28	0.14	455.83
			14-Jun-06	6:30 AM	92.85	0.16	457.23
			19-Oct-06	9:54 AM	93.78	0.15	456.31
			18-Dec-06	1:28 PM	94.40	0.15	455.69
OW-2S	121	548.75	29-Dec-05	1:56 PM	93.50	0.13	455.17
			08-Mar-06	8:15 AM	92.96	0.12	455.71
			14-Jun-06	6:31 AM	91.55	0.13	457.11
			19-Oct-06	9:49 AM	92.45	0.11	456.21
			18-Dec-06	1:31 PM	93.10	0.11	455.56
OW-3S	118	558.58	29-Dec-05	1:49 PM	102.88	0.13	455.65
			08-Mar-06	8:07 AM	102.53	0.11	456.00
			14-Jun-06	6:41 AM	101.18	0.11	457.34
			19-Oct-06	10:06 AM	101.87	0.11	456.65
			18-Dec-06	1:18 PM	102.51	0.11	456.01
OW-5S	110	551.75	29-Dec-05	1:58 PM	96.24	0.11	455.45

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Site Wide Water Levels							
OW-5S	110	551.75	08-Mar-06	8:20 AM	95.78	0.11	455.91
			14-Jun-06	6:33 AM	94.49	0.13	457.20
			19-Oct-06	9:44 AM	95.23	0.11	456.46
			18-Dec-06	1:34 PM	95.86	0.11	455.84
TW-2S	102	499.05	29-Dec-05	2:54 PM	41.40	0.21	457.54
			14-Jun-06	8:30 AM	38.88	0.28	460.08
			19-Oct-06	1:35 PM	46.36	0.16	452.56
			18-Dec-06	2:30 PM	34.00	0.16	464.89
Surface Water Stations							
I-3	---	460.30	11-Jan-06	12:10 PM	6.85	0.00	453.45
			06-Mar-06	9:15 AM	5.21	0.00	455.09
			01-May-06	8:19 AM	4.07 T	0.00	456.23 T
			06-Sep-06	12:00 PM	6.18	0.00	454.12
			04-Oct-06	1:28 PM	6.58	0.00	453.72
RRB	---	476.63	06-Mar-06	1:40 PM	21.90	0.00	454.73
			03-May-06	6:40 AM	19.60	0.00	457.03
			06-Sep-06	1:15 PM	22.58	0.00	454.05
			04-Oct-06	1:00 PM	22.73	0.00	453.90

NOTES:

BGS below ground surface
AMSL above mean sea level
BMP below well measure point
(---) data not collected or available.
T Results from transducers presented to fill water level data gaps

[1] Measuring Point Elevations were re-surveyed in Febuary 2004.

Well depths rounded off to whole foot.

Salinity used to adjust water level to freshwater equivalent. Salinity values have been averaged in accordance with the Performance Monitoring Program.

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-9	07-Mar-06	3,180	28.01	6.96	227	6.63
	12-Oct-06	3,490	28.69	7.24	166	11.39
MW-10	12-Dec-05	2,470	28.20	7.46	165	5.94
	06-Mar-06	2,720	27.03	7.18	227	4.90
	04-May-06	4,500	29.01	7.48	146	4.98
	12-Oct-06	3,090	28.61	7.43	113	7.59
	14-Dec-06	2,900	29.43	7.57	122	5.67
MW-11	12-Dec-05	2,460	27.80	7.16	181	8.10
	06-Mar-06	2,600	28.66	7.26	235	6.98
	09-May-06	3,530	32.20	7.35	116	7.69
	12-Oct-06	2,930	29.66	7.27	90	9.58
MW-12	13-Dec-05	3,260	27.74	9.49	97	6.99
	18-Apr-06	3,460	28.60	---	91	7.28
	01-May-06	3,840	28.10	8.05	---	---
	04-Oct-06	---	29.26	8.40	128	5.22
	13-Dec-06	4,660	27.53	8.24	155	6.20
MW-13	13-Dec-05	2,000	28.05	8.43	76	6.73
	08-Mar-06	---	28.67	7.45	163	6.90
	02-May-06	1,990	28.70	7.18	80	4.17
	02-Oct-06	2,020	28.02	7.23	44	---
MW-14	15-Dec-05	1,640	27.60	7.74	106	7.54
	09-Mar-06	1,990	28.63	7.43	183	7.58
	02-May-06	1,610	29.20	7.36	49	3.92
	02-Oct-06	1,580	28.55	7.29	15	---
MW-15	07-Mar-06	2,590	29.84	7.53	81	7.73
	05-Oct-06	2,110	29.69	7.50	16	8.93
MW-16	07-Mar-06	1,360	29.26	7.80	62	7.44
	01-Nov-06	1,640	32.89	7.72	52	5.34
MW-17	09-Mar-06	2,440	30.94	7.44	133	6.52
	02-Oct-06	1,870	30.12	7.26	79	---
MW-18	09-Mar-06	1,860	28.92	7.36	152	8.08
	04-Oct-06	1,820	30.81	7.69	30	7.72
MW-19	12-Dec-05	2,140	26.90	7.51	153	7.68
	09-Mar-06	3,850	28.42	7.33	227	7.43
	02-May-06	2,450	29.00	7.33	38	3.30
	02-Oct-06	2,450	28.59	7.26	44	---
	15-Dec-06	2,360	28.20	7.53	76	6.64
MW-20-70	15-Dec-05	3,210	27.60	7.59	149	7.97
	10-Mar-06	5,830	28.01	7.49	228	7.32
	05-May-06	3,050	29.32	7.74	97	7.21
	03-Oct-06	3,460	28.69	7.48	117	7.47
	13-Dec-06	2,890	29.10	7.45	203	7.93
MW-20-100	15-Dec-05	3,980	28.00	7.62	140	3.03

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-20-100	10-Mar-06	4,360	28.46	7.33	198	3.77
	05-May-06	3,760	29.80	7.72	98	5.20
	03-Oct-06	4,340	29.09	7.42	106	3.46
	13-Dec-06	5,200	29.11	7.36	188	2.19
MW-20-130	16-Dec-05	11,700	27.35	7.99	123	3.32
	10-Mar-06	14,500	28.67	7.48	213	3.49
	05-May-06	12,400	30.76	7.74	97	2.21
	18-Oct-06	19,500	30.41	7.91	78	2.68
	13-Dec-06	---	30.09	7.36	181	0.80
MW-21	14-Dec-05	12,100	26.22	7.94	-90	5.35
	09-Mar-06	15,100	26.71	6.81	---	4.20
	02-May-06	11,500	30.20	6.94	-77	---
	03-Oct-06	15,900	28.50	6.91	-67	6.90
	13-Dec-06	13,000	19.80	6.98	-68	1.22
MW-22	16-Dec-05	31,200	24.64	6.65	-90	2.31
	15-Mar-06	34,800	19.89	6.12	---	8.54
	03-May-06	34,200	23.52	7.05	-88	4.14
	13-Oct-06	42,200	28.07	6.62	-105	0.97
MW-23	14-Dec-05	15,800	26.35	8.13	94	8.54
	08-Mar-06	21,100	27.87	7.15	199	5.47
	02-May-06	16,200	29.60	6.85	-13	---
	04-Oct-06	21,200	30.34	7.62	40	6.14
	12-Dec-06	17,600	23.60	6.67	127	1.81
MW-24A	06-Mar-06	3,140	28.11	7.47	239	5.17
	03-Oct-06	3,910	29.14	7.42	101	2.87
	14-Dec-06	---	29.73	7.44	76	0.33
MW-24B	07-Mar-06	17,200	30.96	7.73	199	2.59
	03-Oct-06	18,700	30.38	7.85	85	2.72
	14-Dec-06	---	29.67	7.78	4	0.51
MW-24BR	15-Dec-05	18,500	28.20	7.71	-291	2.25
	16-Mar-06	16,400	24.96	7.05	-230	3.75
	10-May-06	20,700	33.73	7.64	-325	2.40
	05-Jun-06	12,700	41.92	6.81	-287	---
	01-Nov-06	17,300	36.40	7.39	-183	1.20
	14-Dec-06	20,400	31.29	7.95	-209	0.31
MW-25	14-Dec-05	1,220	28.85	8.40	156	7.97
	09-Mar-06	2,750	29.19	7.28	210	7.40
	03-May-06	2,110	30.70	7.06	98	7.72
	03-Oct-06	1,720	28.62	7.39	81	6.88
MW-26	12-Dec-05	3,440	29.00	7.33	161	9.93
	08-Mar-06	3,840	29.14	7.98	170	9.16
	01-May-06	3,290	30.30	7.14	---	---
	03-Oct-06	4,140	29.74	7.20	104	---
MW-27-20	14-Dec-05	1,120	18.69	7.58	-171	2.19

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-27-20	06-Mar-06	910	18.16	8.01	-153	0.38
	01-May-06	1,510	50.00	7.00	---	2.51
	14-Jun-06	2,730	23.79	7.53	-178	4.57
	03-Oct-06	1,240	22.78	7.49	-176	0.48
MW-27-60	15-Dec-05	10,000	20.71	6.52	-134	2.89
	07-Mar-06	13,700	21.55	7.76	-118	2.46
	01-May-06	12,100	40.96	6.91	-140	1.02
	03-Oct-06	14,300	22.07	7.47	-122	0.76
MW-27-85	15-Dec-05	14,300	21.18	6.34	-124	2.76
	12-Jan-06	22,600	21.36	7.57	-91	2.78
	08-Feb-06	21,100	22.00	7.09	-82	2.58
	06-Mar-06	15,800	21.67	7.62	-92	0.16
	03-Apr-06	18,200	23.12	6.88	-102	2.50
	01-May-06	18,300	39.90	6.70	-104	0.94
	14-Jun-06	22,400	23.89	6.89	-98	3.32
	12-Jul-06	21,400	22.80	6.62	-71	2.18
	08-Aug-06	22,900	23.15	6.75	-33	2.69
	06-Sep-06	23,200	27.30	7.56	-87	2.44
	13-Oct-06	24,100	21.27	6.93	-78	1.07
	16-Nov-06	23,400	20.40	6.96	-87	1.21
	11-Dec-06	26,700	24.39	7.56	-82	1.26
MW-28-25	16-Dec-05	1,390	23.10	7.16	-69	2.52
	09-Mar-06	1,140	21.53	7.67	-54	3.52
	05-May-06	1,260	23.90	6.75	-126	0.75
	11-Oct-06	1,860	24.13	7.05	-111	1.54
MW-28-90	16-Dec-05	8,430	21.80	7.42	-176	2.47
	10-Jan-06	11,000	21.90	8.01	-140	3.32
	09-Feb-06	8,830	22.07	7.55	-156	2.76
	06-Mar-06	6,830	21.76	8.22	-151	0.26
	06-Apr-06	8,160	23.01	7.77	---	2.09
	05-May-06	8,690	25.14	7.05	-150	0.78
	15-Jun-06	7,980	23.15	7.34	-153	3.93
	13-Jul-06	---	23.49	7.33	-150	1.59
	11-Aug-06	12,300	23.03	6.66	-159	0.58
	08-Sep-06	7,830	21.78	7.50	-133	3.17
	13-Oct-06	9,700	20.54	7.46	-156	1.00
	14-Dec-06	7,590	20.00	7.44	-160	0.27
MW-29	12-Dec-05	4,280	24.07	7.89	-40	5.49
	13-Apr-06	4,220	24.93	7.77	-142	4.15
	05-May-06	4,430	30.90	6.75	-128	1.26
	13-Oct-06	4,770	25.18	7.14	-56	5.26
MW-30-30	15-Dec-05	38,900	26.41	6.29	-100	2.95
	13-Mar-06	55,600	25.61	7.39	-99	1.15
	02-May-06	54,600	29.60	6.57	-104	2.38
	10-Oct-06	56,500	27.42	6.91	-129	1.39

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-30-50	16-Dec-05	8,840	25.10	7.16	-263	2.49
	09-Mar-06	8,800	25.55	7.52	-81	2.42
	02-May-06	14,300	27.80	6.84	-102	2.82
	11-Oct-06	8,280	24.85	7.16	-113	0.75
MW-31-60	13-Dec-05	2,870	27.95	8.46	119	6.75
	15-Mar-06	2,750	28.69	7.68	217	7.01
	01-May-06	2,740	29.40	7.40	---	---
	05-Oct-06	3,440	28.30	7.46	82	7.77
MW-31-135	14-Dec-05	7,980	27.90	8.77	124	4.13
	15-Mar-06	13,400	28.84	7.75	33	3.05
	09-May-06	15,900	31.92	7.58	82	2.75
	05-Oct-06	13,600	29.48	7.73	65	2.91
MW-32-20	16-Dec-05	33,900	24.50	7.19	-107	2.65
	10-Mar-06	---	24.08	7.36	-125	0.44
	04-May-06	25,500	29.70	6.11	-120	0.40
	02-Oct-06	59,800	30.32	6.72	-122	0.91
	11-Dec-06	61,300	29.37	7.34	-110	1.83
MW-32-35	16-Dec-05	11,200	24.68	7.71	-141	2.43
	10-Mar-06	9,570	25.23	7.90	-161	0.09
	04-May-06	16,500	28.70	6.57	-171	0.26
	02-Oct-06	20,000	26.19	7.69	-162	0.69
	11-Dec-06	23,700	27.95	7.85	-149	1.47
MW-33-40	12-Dec-05	---	22.02	8.23	45	4.85
	04-May-06	4,580	33.10	7.15	12	5.25
	06-Oct-06	6,710	23.80	8.07	167	
	14-Dec-06	7,080	26.20	7.92	31	2.80
MW-33-90	13-Dec-05	9,310	26.60	7.66	-43	2.29
	08-Mar-06	10,200	26.82	8.17	-42	0.26
	03-May-06	10,400	32.20	6.75	-44	0.40
	06-Oct-06	12,500	27.28	7.47	110	0.95
	15-Dec-06	14,600	28.59	7.65	110	1.74
MW-33-150	12-Dec-05	19,200	27.24	8.15	21	3.88
	10-Jan-06	21,800	26.81	8.01	27	3.70
	07-Feb-06	20,400	27.30	7.59	-61	2.69
	08-Mar-06	20,400	26.59	8.06	-55	0.26
	06-Apr-06	18,300	27.88	7.78	39	2.13
	03-May-06	17,100	34.40	6.75	-23	1.02
	16-Jun-06	21,300	27.84	6.98	38	2.82
	13-Jul-06	22,400	29.07	7.32	-14	1.09
	11-Aug-06	20,200	28.92	6.85	-19	1.79
	08-Sep-06	17,900	27.22	7.61	28	1.79
	06-Oct-06	20,500	28.10	7.45	15	0.91
	13-Dec-06	17,500	27.20	7.47	-5	0.39
MW-33-210	12-Dec-05	21,900	27.15	7.90	40	3.60

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-33-210	10-Jan-06	24,200	27.49	7.77	13	3.17
	07-Feb-06	22,800	27.50	7.40	-14	2.70
	06-Mar-06	16,600	27.64	7.98	-37	0.21
	13-Apr-06	18,100	31.85	8.15	21	6.81
	05-May-06	20,100	28.30	6.50	34	0.39
	16-Jun-06	23,600	27.86	7.03	-27	2.86
	13-Jul-06	27,100	28.50	7.15	36	2.24
	08-Aug-06	23,900	29.27	7.25	70	3.12
	08-Sep-06	21,000	26.90	7.40	59	1.68
	06-Oct-06	24,000	27.36	7.27	28	0.94
	11-Dec-06	27,600	30.26	7.43	157	1.17
MW-34-55	14-Dec-05	6,610	20.28	7.30	-124	2.08
	08-Mar-06	8,460	20.41	7.94	-106	---
	03-May-06	7,580	27.40	6.64	-117	0.33
	04-Oct-06	3,080	20.03	7.24	-178	2.17
MW-34-80	14-Dec-05	10,400	22.47	7.02	-88	2.28
	11-Jan-06	18,100	22.16	7.50	-38	3.08
	08-Feb-06	16,400	27.25	7.17	-22	2.63
	09-Mar-06	15,100	21.51	7.38	-12	2.20
	03-Apr-06	13,500	23.30	7.03	-38	2.40
	03-May-06	13,800	27.30	6.37	-68	0.15
	14-Jun-06	15,600	23.00	6.96	-99	2.65
	12-Jul-06	14,800	23.93	6.96	-75	1.58
	08-Aug-06	16,200	23.11	7.05	-33	0.59
	06-Sep-06	16,000	24.62	7.75	-84	0.95
	04-Oct-06	14,400	20.88	6.91	-111	2.12
	16-Nov-06	13,200	20.40	7.18	-86	1.09
	12-Dec-06	15,000	21.11	7.18	-23	0.26
MW-34-100	14-Dec-05	12,400	21.75	7.38	-26	2.33
	28-Dec-05	19,300	22.40	7.22	-28	2.38
	12-Jan-06	21,000	22.00	7.77	104	3.17
	23-Jan-06	23,300	22.30	7.38	136	2.57
	08-Feb-06	20,100	22.83	7.54	65	2.50
	22-Feb-06	21,900	22.88	7.61	225	3.01
	08-Mar-06	18,600	22.62	8.13	-8	---
	23-Mar-06	18,400	22.54	7.50	113	2.21
	03-Apr-06	16,800	24.50	7.39	42	2.81
	03-May-06	18,200	32.90	6.71	-10	0.33
	17-May-06	23,800	27.80	7.41	44	3.11
	31-May-06	16,100	29.17	6.53	104	3.13
	14-Jun-06	20,800	24.24	7.42	-2	3.21
	28-Jun-06	21,800	25.77	7.09	132	4.98
	12-Jul-06	19,300	24.05	7.35	27	1.48
	26-Jul-06	---	23.55	7.48	36	2.20
	08-Aug-06	20,600	24.55	7.44	64	0.48
	28-Aug-06	28,900	26.40	7.45	69	1.29

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Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-34-100	06-Sep-06	22,500	25.55	7.99	117	1.93
	20-Sep-06	19,600	25.45	7.83	181	1.52
	04-Oct-06	20,700	21.89	7.40	0	2.03
	18-Oct-06	21,700	23.91	8.14	52	0.76
	01-Nov-06	20,200	25.12	7.48	33	1.56
	16-Nov-06	20,500	21.00	7.56	146	1.35
	30-Nov-06	21,900	25.62	7.72	115	0.93
	12-Dec-06	21,000	21.95	7.62	-16	0.25
	28-Dec-06	16,760	---	7.68	115	
MW-35-60	14-Dec-05	5,800	25.95	8.34	95	3.97
	14-Mar-06	---	26.87	7.23	42	2.92
	01-May-06	6,770	29.80	7.15	-37	---
	12-Oct-06	12,200	29.89	8.01	112	1.26
MW-35-135	14-Dec-05	8,480	26.27	8.76	38	3.17
	10-Mar-06	12,400	25.96	7.98	103	2.44
	02-May-06	13,000	28.00	7.39	0	2.70
	12-Oct-06	14,400	31.03	8.19	113	1.20
MW-36-20	15-Dec-05	---	24.89	7.39	-112	2.36
	07-Mar-06	18,900	24.38	7.82	-148	2.50
	01-May-06	20,100	25.42	7.78	-180	5.28
	02-Oct-06	24,000	25.27	7.19	-177	1.84
MW-36-40	15-Dec-05	15,400	24.70	7.87	-190	2.68
	07-Mar-06	17,000	24.57	7.71	-166	3.30
	01-May-06	13,500	26.08	7.83	-179	5.10
	05-Oct-06	16,000	23.94	7.30	-194	1.37
MW-36-50	15-Dec-05	13,700	24.70	7.61	-136	2.80
	07-Mar-06	8,400	24.34	7.66	-110	2.72
	01-May-06	6,810	25.96	7.90	-162	3.60
	05-Oct-06	4,200	23.35	7.48	-165	1.39
MW-36-70	15-Dec-05	9,310	24.43	7.73	-108	2.27
	10-Feb-06	12,600	25.21	7.39	-91	2.66
	07-Mar-06	9,720	24.15	7.64	-67	2.51
	06-Apr-06	7,740	24.51	7.57	---	1.79
	01-May-06	8,180	25.24	7.79	-130	4.64
	13-Jun-06	7,840	33.60	5.95	---	---
	11-Jul-06	7,320	26.10	7.21	-108	0.64
	09-Aug-06	6,920	27.97	7.22	-149	0.72
	07-Sep-06	5,930	23.60	7.34	-105	1.70
	02-Oct-06	5,220	25.77	7.40	-122	1.43
	14-Dec-06	3,440	25.80	7.62	-112	1.76
MW-36-90	15-Dec-05	18,000	24.62	7.54	34	2.48
	12-Jan-06	19,500	24.75	7.48	13	2.78
	10-Feb-06	16,100	25.15	7.35	37	3.43
	07-Mar-06	14,700	24.51	7.60	42	3.09
	04-Apr-06	12,700	25.58	7.12	5	2.42

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-36-90	01-May-06	11,400	25.83	7.71	24	4.39
	13-Jun-06	10,300	32.50	5.84	---	---
	11-Jul-06	14,000	26.47	7.11	-34	0.77
	09-Aug-06	9,190	26.55	7.13	-96	0.82
	07-Sep-06	8,400	24.34	7.34	-55	1.67
	02-Oct-06	8,270	25.23	7.22	-20	1.04
	15-Nov-06	11,700	27.59	7.77	-64	1.04
	14-Dec-06	7,250	27.04	7.19	-39	1.68
MW-36-100	13-Dec-05	16,500	25.18	7.22	5	2.20
	12-Jan-06	21,600	25.43	7.45	28	2.91
	09-Feb-06	19,700	26.32	7.25	18	2.56
	13-Mar-06	17,400	25.95	7.79	-16	0.16
	05-Apr-06	15,300	24.66	8.31	24	0.09
	02-May-06	21,900	29.01	6.86	23	2.72
	15-Jun-06	18,200	26.71	7.13	7	3.60
	13-Jul-06	19,600	25.93	6.89	37	1.04
	09-Aug-06	14,600	25.86	7.11	67	1.60
	08-Sep-06	16,200	25.93	7.34	-10	2.61
	11-Oct-06	16,500	25.40	7.07	17	0.91
	14-Nov-06	17,900	27.60	7.78	13	1.04
	11-Dec-06	21,700	28.08	7.94	-64	1.08
MW-37D	14-Dec-05	13,100	28.94	8.70	71	4.03
	13-Mar-06	18,600	29.56	7.68	118	3.37
	03-May-06	33,000	31.44	7.11	96	3.23
	13-Oct-06	30,600	31.67	7.93	2	1.92
	14-Dec-06	---	30.57	7.66	92	0.67
MW-37S	14-Dec-05	3,860	27.67	8.78	69	4.20
	13-Mar-06	6,000	28.44	7.73	106	3.81
	04-May-06	6,080	29.99	7.61	116	3.53
	13-Oct-06	---	31.70	8.01	-12	2.48
MW-38D	10-Mar-06	23,800	28.47	7.48	112	2.09
	12-Oct-06	26,300	30.83	7.69	-31	1.25
MW-38S	10-Mar-06	4,750	28.69	7.19	158	3.44
	12-Oct-06	4,490	30.54	7.25	48	4.64
MW-39-40	16-Dec-05	5,680	25.94	7.34	-177	2.07
	07-Mar-06	8,450	25.57	7.76	-162	3.03
	02-May-06	8,150	27.41	6.89	-188	0.13
	05-Oct-06	12,500	25.72	7.21	-198	1.35
	14-Dec-06	13,200	27.53	7.13	-174	1.72
MW-39-50	16-Dec-05	11,300	25.97	7.07	-57	2.01
	12-Jan-06	18,300	25.53	7.54	-9	2.84
	08-Mar-06	16,000	25.31	7.76	71	2.31
	02-May-06	9,380	32.00	6.56	-45	0.18
	05-Oct-06	11,200	25.79	7.19	-77	1.38
MW-39-60	16-Dec-05	11,200	25.15	6.83	-40	2.34

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-39-60	08-Mar-06	---	25.50	7.50	12	2.10
	02-May-06	12,000	32.40	6.43	-39	0.19
	05-Oct-06	11,300	25.74	7.14	-54	1.24
MW-39-70	16-Dec-05	10,000	25.97	7.10	22	2.19
	10-Feb-06	15,500	25.88	7.20	48	2.81
	08-Mar-06	16,300	25.40	7.56	201	2.79
	06-Apr-06	12,300	25.64	7.24	88	2.13
	02-May-06	11,200	28.60	6.32	31	0.15
	14-Jun-06	10,300	27.24	5.92	197	0.02
	12-Jul-06	9,570	29.67	5.35	74	0.88
	10-Aug-06	---	26.45	7.00	67	0.60
	07-Sep-06	9,760	27.36	7.22	21	1.67
	05-Oct-06	12,200	25.78	7.01	-1	1.24
	14-Dec-06	8,190	27.15	7.27	2	1.79
MW-39-80	15-Dec-05	15,400	25.72	7.55	78	2.24
	12-Jan-06	18,200	25.51	7.43	58	2.91
	10-Feb-06	18,900	26.04	7.16	66	2.60
	08-Mar-06	20,900	25.40	7.51	154	2.23
	06-Apr-06	15,800	25.57	7.24	86	2.00
	02-May-06	14,900	30.10	6.22	61	0.19
	14-Jun-06	15,100	27.08	5.80	184	0.00
	12-Jul-06	14,600	28.11	5.20	69	1.07
	10-Aug-06	15,800	28.08	6.73	78	0.63
	07-Sep-06	17,500	26.29	7.08	47	1.63
	05-Oct-06	19,500	25.92	6.82	76	1.20
	15-Nov-06	17,600	28.75	7.41	52	0.95
	14-Dec-06	17,300	27.69	6.94	44	1.70
MW-39-100	13-Dec-05	20,100	26.70	7.06	139	3.00
	12-Jan-06	22,900	26.44	7.42	121	3.56
	09-Feb-06	21,700	27.38	7.18	120	2.88
	13-Mar-06	20,400	26.93	7.59	51	0.70
	05-Apr-06	18,300	26.63	8.17	73	0.91
	02-May-06	---	28.20	6.64	67	3.48
	14-Jun-06	23,100	27.37	6.93	79	3.44
	13-Jul-06	26,200	27.57	6.81	80	1.46
	10-Aug-06	23,000	27.63	6.94	141	1.63
	08-Sep-06	20,700	27.34	7.14	46	2.75
	11-Oct-06	23,100	26.32	6.87	87	1.24
	15-Nov-06	23,000	26.30	6.97	96	2.48
	12-Dec-06	24,200	26.61	7.04	95	0.43
MW-40D	13-Dec-05	18,300	30.39	8.39	-6	2.80
	08-Mar-06	18,900	31.56	7.42	45	2.13
	03-May-06	---	32.36	6.77	66	2.53
	05-Oct-06	20,900	32.05	7.57	84	2.14
	13-Dec-06	---	30.86	7.40	150	0.26

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-40S	13-Dec-05	2,130	28.79	8.34	157	8.02
	08-Mar-06	2,670	30.87	7.50	233	7.85
	03-May-06	3,080	31.39	6.98	92	8.47
	05-Oct-06	2,680	32.32	7.52	92	7.32
MW-41D	16-Dec-05	20,200	29.05	8.31	-163	2.15
	15-Mar-06	24,700	30.92	7.71	-115	2.10
	05-May-06	20,700	30.67	7.88	-136	0.33
	04-Oct-06	24,000	31.93	7.90	-117	0.64
MW-41M	16-Dec-05	14,400	28.50	8.14	-38	2.08
	13-Mar-06	17,900	29.77	7.66	18	2.22
	05-May-06	15,000	30.59	7.88	88	3.47
	05-Oct-06	19,500	29.53	7.67	87	1.91
MW-41S	16-Dec-05	4,420	27.86	8.37	-3	2.86
	13-Mar-06	9,600	27.22	7.85	48	3.36
	05-May-06	4,760	31.33	8.09	80	2.31
	05-Oct-06	6,000	28.65	7.83	65	3.11
MW-42-30	15-Dec-05	14,500	25.01	6.43	-129	2.39
	07-Mar-06	11,400	25.22	7.93	-154	0.36
	02-May-06	18,500	36.30	6.90	-160	2.29
	03-Oct-06	19,700	27.77	7.29	-160	0.89
MW-42-55	15-Dec-05	11,100	24.44	6.50	-143	2.38
	07-Mar-06	16,500	25.12	7.76	-122	0.27
	02-May-06	21,400	37.00	6.76	-138	2.17
	03-Oct-06	19,100	26.35	7.30	-126	0.76
	14-Dec-06	16,500	24.30	7.15	-132	0.50
MW-42-65	15-Dec-05	13,200	23.43	6.29	-78	2.49
	07-Mar-06	20,100	24.66	7.37	-58	0.39
	02-May-06	25,400	36.60	6.47	-76	2.15
	03-Oct-06	20,400	26.39	7.05	-50	0.70
	14-Dec-06	18,300	23.40	6.84	-42	0.64
MW-43-25	16-Dec-05	1,420	20.00	7.25	-184	2.53
	10-Mar-06	1,350	20.50	7.88	-153	0.29
	04-May-06	1,280	30.00	6.74	-176	0.45
	02-Oct-06	1,310	22.84	8.04	-172	0.61
MW-43-75	16-Dec-05	15,900	20.90	7.19	-179	2.40
	11-Jan-06	18,400	21.04	7.73	-134	3.16
	10-Feb-06	18,500	21.30	7.29	-154	3.00
	10-Mar-06	14,400	21.03	8.05	-149	0.11
	03-Apr-06	15,000	21.35	7.12	-148	2.33
	04-May-06	15,400	26.60	6.83	-167	0.34
	02-Oct-06	17,900	22.33	7.68	-128	1.18
	12-Dec-06	17,400	21.05	7.34	-109	1.18
MW-43-90	16-Dec-05	22,300	21.30	6.72	-127	2.51
	11-Jan-06	26,500	21.57	7.16	-89	3.28

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-43-90	10-Feb-06	25,900	21.70	6.89	-112	2.81
	10-Mar-06	21,100	21.41	7.48	-116	0.01
	03-Apr-06	21,100	21.56	6.58	-97	2.32
	04-May-06	22,400	29.40	6.27	-124	0.38
	02-Oct-06	23,600	22.65	7.22	-108	0.39
	12-Dec-06	25,200	21.62	6.76	-85	0.46
MW-44-70	09-Mar-06	6,970	24.05	7.98	-393	2.38
	23-Mar-06	7,600	25.55	7.48	-166	2.41
	04-Apr-06	9,200	25.30	8.16	-96	1.60
	04-May-06	10,000	25.50	7.93	-156	4.49
	13-Jun-06	12,200	25.21	7.09	-131	4.33
	15-Jun-06	14,900	25.66	7.27	-118	5.38
	04-Oct-06	8,910	24.27	7.09	-181	2.33
	14-Dec-06	6,730	22.50	7.35	-129	1.69
MW-44-115	14-Mar-06	16,500	25.36	7.54	-11	1.49
	22-Mar-06	---	25.88	8.52	-74	2.98
	04-Apr-06	15,800	26.68	8.62	37	1.76
	20-Apr-06	11,400	26.70	6.87	-38	0.45
	26-Apr-06	15,800	25.76	7.72	-27	2.52
	04-May-06	17,300	26.40	8.32	-21	4.89
	10-May-06	22,700	26.99	7.56	7	2.23
	17-May-06	19,600	26.66	7.74	-10	1.85
	31-May-06	13,100	34.75	6.85	-11	0.23
	13-Jun-06	17,700	25.87	7.42	-26	3.25
	28-Jun-06	16,800	32.60	7.50	-37	4.00
	12-Jul-06	17,300	25.98	7.51	14	1.23
	26-Jul-06	---	26.06	7.72	-31	0.56
	09-Aug-06	17,700	28.92	7.50	63	2.93
	23-Aug-06	16,800	29.02	7.31	93	0.55
	07-Sep-06	15,600	24.54	7.74	139	1.70
	21-Sep-06	14,600	24.77	7.64	57	2.65
	05-Oct-06	18,400	24.61	8.14	3	2.87
	18-Oct-06	18,300	26.40	8.25	23	0.75
	15-Nov-06	14,000	24.00	7.72	19	1.52
	12-Dec-06	18,300	24.21	7.71	116	0.64
MW-44-125	09-Mar-06	13,500	24.66	8.68	-419	2.58
	22-Mar-06	15,000	26.03	9.11	-280	1.53
	04-Apr-06	15,600	28.90	9.16	10	1.91
	20-Apr-06	11,400	26.80	7.84	-138	0.00
	26-Apr-06	16,200	26.95	8.23	-147	2.45
	04-May-06	17,200	27.70	8.97	-144	4.41
	10-May-06	23,000	29.69	8.13	-96	2.18
	17-May-06	19,700	27.62	8.13	-103	1.74
	31-May-06	13,600	34.55	7.26	-95	0.44
	28-Jun-06	13,000	27.71	7.30	-186	4.25
	11-Jul-06	12,100	37.10	6.90	-16	0.74

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-44-125	26-Jul-06	---	28.31	7.87	-140	1.86
	09-Aug-06	16,800	29.13	7.70	-93	0.55
	28-Aug-06	17,700	28.38	8.00	-188	1.12
	07-Sep-06	14,600	24.30	8.14	-39	4.06
	20-Sep-06	16,700	25.31	8.92	-130	0.40
	05-Oct-06	18,000	26.46	8.39	-97	2.57
	18-Oct-06	18,900	25.97	8.51	-112	0.76
	15-Nov-06	14,200	24.50	7.98	-119	1.26
	13-Dec-06	14,200	24.00	8.07	-67	0.76
MW-45-095a	24-Mar-06	16,100	23.78	7.46	-20	2.32
	13-Jul-06	22,200	25.43	7.25	45	1.39
MW-45-095b	24-Mar-06	16,700	22.91	7.53	-12	2.10
MW-46-175	14-Mar-06	19,500	26.33	8.13	-44	2.19
	24-Mar-06	19,900	25.60	9.19	-93	1.87
	07-Apr-06	18,500	23.39	8.78	-116	2.10
	04-May-06	20,800	27.40	8.92	-27	4.81
	18-May-06	20,500	28.20	8.11	-17	2.62
	31-May-06	15,900	36.28	7.31	37	1.23
	15-Jun-06	19,900	26.09	8.07	-16	3.16
	30-Jun-06	21,800	24.80	7.91	56	6.19
	12-Jul-06	19,500	26.79	7.97	38	1.48
	27-Jul-06	---	25.91	8.21	16	0.67
	09-Aug-06	21,900	28.49	8.02	65	0.72
	25-Aug-06	19,800	27.99	7.85	-24	1.14
	07-Sep-06	26,400	27.50	8.31	90	2.23
	21-Sep-06	18,300	25.54	8.26	43	2.32
	05-Oct-06	22,200	25.29	8.75	0	2.83
	18-Oct-06	21,900	26.74	8.86	15	0.86
	15-Nov-06	17,100	24.40	8.28	-118	1.11
	13-Dec-06	17,700	24.60	8.31	-33	0.28
MW-46-205	14-Mar-06	22,600	26.27	8.02	-117	2.27
	24-Mar-06	24,000	26.40	9.05	-202	1.68
	07-Apr-06	22,400	26.16	8.66	-200	1.93
	04-May-06	25,900	27.46	8.76	-177	4.60
	15-Jun-06	24,100	25.98	7.69	-147	2.88
	13-Jul-06	24,900	27.02	7.85	-152	1.03
	10-Aug-06	22,900	27.13	7.98	-88	1.29
	07-Sep-06	26,000	28.00	8.21	-37	1.62
	05-Oct-06	27,500	26.98	8.65	-96	2.41
	13-Dec-06	21,000	25.10	8.21	10	0.97
MW-47-55	23-Mar-06	5,800	28.82	7.67	-94	2.98
	16-May-06	4,430	29.50	7.31	22	2.89
	10-Oct-06	5,300	27.85	7.48	6	2.83
	14-Dec-06	3,970	27.60	7.64	28	2.19
MW-47-115	23-Mar-06	15,600	29.46	7.79	-161	2.32

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
MW-47-115	16-May-06	18,400	29.60	7.22	-67	1.93
	10-Oct-06	16,800	28.45	7.59	-80	1.13
	14-Dec-06	14,800	27.80	7.63	-25	0.36
MW-48	18-May-06	12,300	34.53	7.02	-39	1.53
	06-Jun-06	15,000	41.55	6.37	-128	0.63
	06-Oct-06	21,600	33.61	7.01	-65	1.49
	13-Dec-06	58,200	25.46	7.39	-8	3.51
MW-49-135	25-Apr-06	18,800	25.69	7.55	-167	2.42
	18-May-06	17,100	26.68	7.21	-178	2.29
	12-Oct-06	21,200	24.94	7.73	-200	1.90
	15-Dec-06	27,700	25.30	7.50	-157	0.26
MW-49-275	25-Apr-06	29,400	29.06	7.88	-143	3.35
	18-May-06	26,700	29.92	7.68	-214	2.17
	12-Oct-06	31,100	28.34	8.21	-252	1.82
	15-Dec-06	30,000	29.51	8.29	-213	1.68
MW-49-365	26-Apr-06	37,600	28.97	7.85	-244	2.19
	16-May-06	44,900	32.14	7.68	-192	1.80
	12-Oct-06	47,700	28.83	8.07	-275	1.43
	15-Dec-06	44,400	30.09	8.31	-172	1.72
MW-50-095	09-May-06	5,480	31.23	7.20	30	3.00
	24-May-06	---	31.08	7.36	50	3.42
	10-Oct-06	7,120	28.57	7.72	24	2.85
	12-Dec-06	4,590	28.30	7.79	112	2.40
MW-50-200	09-May-06	20,200	33.28	7.29	-11	1.91
	24-May-06	37,000	32.25	7.10	60	4.11
	10-Oct-06	28,100	28.96	7.70	93	2.99
	12-Dec-06	20,600	29.50	7.77	123	3.17
MW-51	12-May-06	12,100	34.29	6.35	92	2.51
	30-May-06	10,600	33.16	7.40	17	1.53
	06-Oct-06	13,800	29.21	7.41	119	3.79
	12-Dec-06	10,800	30.00	7.40	129	3.07
OW-3D	09-Mar-06	7,840	29.71	7.66	-1	2.00
	06-Oct-06	11,500	30.78	8.96	52	2.05
OW-3M	09-Mar-06	5,550	29.72	7.70	-41	2.38
	12-Oct-06	6,320	31.85	8.42	75	1.30
OW-3S	09-Mar-06	2,480	29.23	7.43	57	6.77
	12-Oct-06	2,840	31.80	8.18	85	6.01
PE-1	13-Dec-05	12,400	23.07	7.21	-148	2.19
Park Moabi	16-Dec-05	2,860	28.83	7.96	-26	3.67
	06-Mar-06	1,110	29.10	8.01	275	4.67
	03-May-06	1,510	29.30	8.28	112	---
	04-Oct-06	1,630	30.03	7.74	69	
TW-2D	15-Mar-06	8,470	26.30	7.46	5	5.20

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Monitoring Wells						
TW-2D	03-May-06	8,490	28.70	8.35	82	6.10
	04-Oct-06	11,900	29.06	7.38	162	4.91
TW-2S	15-Mar-06	3,200	27.97	7.84	-38	7.53
	03-May-06	3,150	28.80	8.20	80	6.75
	04-Oct-06	3,470	28.95	7.60	224	6.70
TW-4	18-May-06	15,600	32.70	7.05	-97	0.56
	05-Jun-06	18,300	35.62	6.35	-131	0.00
	09-Oct-06	24,700	30.04	7.55	12	1.11
TW-5	10-May-06	15,100	32.57	7.09	-161	0.60
	01-Jun-06	10,600	34.87	6.72	17	1.51
	09-Oct-06	15,800	29.90	7.79	60	1.12
Shoreline Surface Water Station						
CON	15-Dec-05	1,160	11.30	8.02	186	13.61
	11-Jan-06	1,330	11.80	8.76	66	12.86
	09-Feb-06	1,180	12.06	8.59	163	10.94
	06-Mar-06	---	12.70	8.51	299	10.69
	07-Apr-06	1,560	20.59	8.77	---	9.36
	03-May-06	913	19.48	8.76	216	8.83
	15-Jun-06	960	19.10	6.80	147	7.99
	12-Jul-06	760	29.75	5.67	82	6.68
	08-Aug-06	---	22.33	8.00	118	9.77
	06-Sep-06	1,310	23.80	8.70	58	7.98
	04-Oct-06	1,290	20.95	8.02	184	9.18
	15-Nov-06	1,470	20.03	8.64	134	7.26
	19-Dec-06	1,200	11.69	8.36	190	10.75
I-3	15-Dec-05	1,160	11.40	8.18	182	11.33
	11-Jan-06	1,330	11.50	8.82	21	12.11
	10-Feb-06	1,170	11.57	7.68	258	11.10
	06-Mar-06	930	12.84	7.40	217	12.20
	07-Apr-06	1,250	20.11	8.53	---	9.57
	03-May-06	920	18.20	8.60	182	10.63
	15-Jun-06	920	21.28	7.11	151	6.88
	12-Jul-06	900	36.93	---	76	6.69
	10-Aug-06	1,430	22.47	7.88	102	8.62
	06-Sep-06	1,500	23.90	8.72	60	8.00
	04-Oct-06	1,300	22.31	8.03	177	
	15-Nov-06	1,180	20.03	8.59	191	7.01
	19-Dec-06	1,190	11.68	8.26	231	10.71
NR-1	15-Dec-05	1,160	11.20	6.52	222	11.52
	10-Jan-06	1,390	12.80	8.84	92	14.09
	07-Feb-06	1,130	12.10	8.62	102	12.47
	06-Mar-06	---	12.35	8.38	296	11.18
	07-Apr-06	1,140	15.10	8.87	80	11.79
	03-May-06	904	18.02	8.83	230	10.24
	16-Jun-06	970	21.34	6.86	152	7.67

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Shoreline Surface Water Station						
NR-1	13-Jul-06	900	30.13	5.74	78	6.61
	08-Aug-06	1,530	21.93	7.95	105	10.44
	06-Sep-06	1,320	23.90	8.74	59	8.05
	04-Oct-06	1,290	20.53	8.01	180	9.17
	15-Nov-06	1,540	19.62	8.69	132	7.58
	19-Dec-06	1,180	11.87	8.34	187	10.90
NR-2	15-Dec-05	1,130	11.40	7.23	199	11.28
	10-Jan-06	1,310	11.75	8.48	113	12.86
	07-Feb-06	1,140	11.60	8.13	101	11.97
	06-Mar-06	---	12.76	8.50	296	11.08
	07-Apr-06	913	13.72	8.40	83	13.27
	03-May-06	910	17.81	8.84	230	9.91
	16-Jun-06	950	22.13	6.85	149	7.42
	13-Jul-06	999	24.17	5.83	79	6.77
	08-Aug-06	1,890	21.91	7.98	106	9.85
	06-Sep-06	1,320	24.50	8.75	56	8.23
	04-Oct-06	1,290	20.46	8.00	179	9.21
	15-Nov-06	1,510	20.15	8.72	127	7.22
	20-Dec-06	1,200	11.86	8.35	183	10.76
NR-3	15-Dec-05	1,120	11.50	7.62	194	11.44
	10-Jan-06	1,300	12.01	8.57	116	13.37
	07-Feb-06	1,150	11.60	8.06	96	12.03
	06-Mar-06	---	12.16	8.40	294	11.49
	07-Apr-06	912	14.82	8.41	93	10.82
	03-May-06	1,140	17.50	8.84	225	9.91
	16-Jun-06	900	24.31	6.85	145	6.91
	13-Jul-06	930	22.40	5.83	83	7.92
	08-Aug-06	---	21.90	7.95	131	9.43
	06-Sep-06	1,400	26.00	8.84	62	8.71
	04-Oct-06	1,290	20.41	8.01	178	9.20
	15-Nov-06	1,530	20.18	8.69	125	7.18
	20-Dec-06	1,200	11.82	8.40	176	10.79
R-22	16-Dec-05	919	12.10	8.15	-28	10.95
	11-Jan-06	1,200	11.83	8.81	---	12.64
	08-Feb-06	831	12.24	8.36	207	11.83
	06-Mar-06	---	12.48	8.09	290	11.83
	03-May-06	918	17.97	8.74	184	9.45
	15-Jun-06	940	20.16	6.97	147	7.82
	12-Jul-06	900	29.35	5.65	82	6.74
	08-Aug-06	---	22.01	7.41	162	10.28
	07-Sep-06	1,320	23.40	7.89	90	9.49
	04-Oct-06	1,300	22.32	8.11	190	
	15-Nov-06	1,360	20.20	8.49	161	6.98
	20-Dec-06	1,170	11.10	8.42	226	10.75
R-27	16-Dec-05	1,020	11.50	8.09	---	10.99
	12-Jan-06	822	12.61	8.57	85	12.34

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
Shoreline Surface Water Station						
R-27	08-Feb-06	838	12.43	8.26	199	11.87
	06-Mar-06	900	12.69	8.19	287	11.47
	07-Apr-06	990	19.36	8.41	17	9.28
	03-May-06	901	18.48	8.81	205	10.23
	15-Jun-06	950	19.42	6.88	149	7.59
	12-Jul-06	940	24.20	5.60	82	8.56
	08-Aug-06	---	21.98	7.90	143	9.78
	07-Sep-06	1,220	23.70	8.09	80	9.47
	04-Oct-06	1,300	21.61	8.11	177	
	15-Nov-06	1,330	20.11	8.52	151	7.09
	20-Dec-06	1,130	11.11	8.61	226	10.93
R-28	16-Dec-05	914	11.10	8.08	28	11.20
	10-Jan-06	1,260	12.14	8.49	223	12.75
	08-Feb-06	1,150	12.00	8.41	185	12.57
	06-Mar-06	900	12.53	8.17	287	12.39
	07-Apr-06	937	17.48	8.47	26	9.88
	03-May-06	921	18.36	8.85	212	9.89
	15-Jun-06	950	19.85	6.85	149	8.41
	13-Jul-06	990	24.75	5.90	83	5.96
	08-Aug-06	---	22.26	7.95	115	9.80
	07-Sep-06	1,240	24.10	8.08	82	9.52
	04-Oct-06	1,300	21.37	8.10	175	
	15-Nov-06	1,430	20.09	8.58	143	7.20
	20-Dec-06	1,260	11.92	8.29	224	11.01
RRB	08-Feb-06	1,630	13.84	8.54	142	11.51
	06-Mar-06	920	15.04	8.41	275	11.68
	07-Apr-06	1,270	20.08	8.28	12	9.46
	03-May-06	1,170	23.33	8.28	190	9.73
	16-Jun-06	900	25.76	6.90	162	7.19
	12-Jul-06	950	27.35	5.73	78	7.48
	10-Aug-06	1,440	24.53	8.26	129	7.31
	06-Sep-06	1,440	27.70	8.62	69	5.84
	04-Oct-06	1,350	24.04	7.93	202	
	15-Nov-06	1,470	19.93	8.60	137	7.09
	20-Dec-06	5,350	9.78	7.80	2.34	---
In-Channel Surface Water Station						
C-CON-D	13-Dec-05	1,060	13.00	8.24	160	11.61
C-CON-M	13-Dec-05	1,060	13.00	8.25	159	11.15
C-CON-S	13-Dec-05	1,060	12.80	8.26	158	11.15
C-CON-D	18-Jan-06	891	12.33	8.75	238	11.55
C-CON-M	18-Jan-06	896	12.19	8.81	236	10.40
C-CON-S	18-Jan-06	1,100	12.11	8.89	235	10.55
C-CON-D	22-Mar-06	1,130	14.23	8.25	191	11.51
C-CON-M	22-Mar-06	1,140	14.10	8.25	202	11.08
C-CON-S	22-Mar-06	1,130	14.26	8.27	205	11.03
C-CON-D	15-Jun-06	1,010	19.32	6.61	116	8.81

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
In-Channel Surface Water Station						
C-CON-M	15-Jun-06	970	19.33	6.71	110	8.57
C-CON-S	15-Jun-06	960	19.26	6.76	133	7.22
C-CON-D	03-Oct-06	1,160	22.04	7.95	167	10.21
C-CON-M	03-Oct-06	1,160	21.65	7.93	168	9.30
C-CON-S	03-Oct-06	1,170	21.49	7.94	168	9.45
C-CON-D	16-Nov-06	1,910	21.52	7.33	112	9.68
C-CON-M	16-Nov-06	1,920	20.18	7.30	136	8.60
C-CON-S	16-Nov-06	1,840	19.55	7.28	139	9.14
C-CON-D	19-Dec-06	---	13.00	8.27	194	11.98
C-CON-M	19-Dec-06	1,210	12.47	8.51	192	12.53
C-CON-S	19-Dec-06	1,120	12.92	8.36	193	12.18
C-I-3-D	13-Dec-05	1,070	12.70	8.10	171	11.29
C-I-3-M	13-Dec-05	1,070	12.60	8.11	174	10.99
C-I-3-S	13-Dec-05	1,070	12.60	8.16	171	10.86
C-I-3-D	18-Jan-06	1,160	11.86	8.73	212	10.68
C-I-3-M	18-Jan-06	934	11.55	8.78	208	9.75
C-I-3-S	18-Jan-06	935	11.71	8.81	211	10.04
C-I-3-D	23-Mar-06	835	14.40	8.71	137	10.94
C-I-3-M	23-Mar-06	836	14.28	8.71	137	10.32
C-I-3-S	23-Mar-06	833	14.41	3.99	138	10.56
C-I-3-D	15-Jun-06	930	21.80	7.12	131	6.61
C-I-3-M	15-Jun-06	930	21.13	7.12	133	7.11
C-I-3-S	15-Jun-06	910	21.00	7.12	133	6.81
C-I-3-D	03-Oct-06	1,210	20.36	7.92	168	9.91
C-I-3-M	03-Oct-06	1,160	20.39	7.94	169	9.43
C-I-3-S	03-Oct-06	1,150	20.54	7.93	175	9.44
C-I-3-D	15-Nov-06	1,960	20.61	8.69	99	9.13
C-I-3-M	15-Nov-06	2,780	19.94	8.75	96	9.20
C-I-3-S	15-Nov-06	2,860	20.50	8.74	97	8.63
C-I-3-D	19-Dec-06	1,200	11.77	8.31	211	11.10
C-I-3-M	19-Dec-06	1,200	11.98	8.32	213	11.34
C-I-3-S	19-Dec-06	1,130	12.04	8.33	213	11.11
C-MAR-M	13-Dec-05	1,340	11.60	8.09	165	11.06
C-MAR-D	19-Jan-06	1,350	11.31	8.55	224	10.20
C-MAR-M	19-Jan-06	1,390	11.31	8.54	223	9.77
C-MAR-S	19-Jan-06	1,390	11.35	8.54	224	10.08
C-MAR-M	23-Mar-06	972	13.86	7.22	157	12.39
C-MAR-D	15-Jun-06	900	29.32	7.18	143	4.95
C-MAR-S	15-Jun-06	900	29.75	7.05	144	6.05
C-MAR-M	03-Oct-06	1,210	23.66	7.76	166	9.73
	16-Nov-06	3,240	18.21	7.02	124	8.52
	19-Dec-06	2,700	10.64	8.22	205	11.30
C-NR1-D	14-Dec-05	980	12.60	7.24	212	11.55
C-NR1-M	14-Dec-05	908	12.60	7.91	211	11.39
C-NR1-S	14-Dec-05	896	12.60	8.13	204	11.46
C-NR1-D	18-Jan-06	1,100	12.35	8.67	241	12.00

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
In-Channel Surface Water Station						
C-NR1-M	18-Jan-06	896	12.63	8.73	238	10.35
C-NR1-S	18-Jan-06	890	12.92	8.84	235	11.45
C-NR1-D	22-Mar-06	1,120	13.94	8.26	200	11.20
C-NR1-M	22-Mar-06	1,140	14.10	8.25	205	11.00
C-NR1-S	22-Mar-06	1,140	14.23	8.25	206	11.01
C-NR1-D	16-Jun-06	920	25.67	6.93	118	6.65
C-NR1-M	16-Jun-06	910	25.90	6.91	117	6.50
C-NR1-S	16-Jun-06	900	26.90	6.90	117	4.32
C-NR1-D	04-Oct-06	1,300	20.28	7.64	190	9.58
C-NR1-M	04-Oct-06	1,290	20.26	7.84	170	9.13
C-NR1-S	04-Oct-06	1,290	20.39	7.89	170	9.26
C-NR1-D	16-Nov-06	1,520	19.33	7.21	149	9.10
C-NR1-M	16-Nov-06	1,700	19.23	7.25	145	8.98
C-NR1-S	16-Nov-06	1,720	19.67	7.27	142	8.67
C-NR1-D	19-Dec-06	1,770	12.55	8.32	198	12.31
C-NR1-M	19-Dec-06	2,330	12.24	8.37	196	12.61
C-NR1-S	19-Dec-06	1,920	12.13	8.38	197	12.31
C-NR3-D	14-Dec-05	908	12.50	8.26	192	11.59
C-NR3-M	14-Dec-05	878	12.60	8.31	189	11.46
C-NR3-S	14-Dec-05	860	12.60	8.34	188	11.54
C-NR3-D	18-Jan-06	1,100	12.37	8.69	235	12.24
C-NR3-M	18-Jan-06	1,100	12.35	8.69	236	10.76
C-NR3-S	18-Jan-06	1,100	12.35	8.85	234	10.69
C-NR3-D	22-Mar-06	1,140	13.56	8.22	188	11.04
C-NR3-M	22-Mar-06	1,160	13.65	8.19	199	10.97
C-NR3-S	22-Mar-06	1,120	13.71	8.23	205	10.96
C-NR3-D	16-Jun-06	940	25.54	6.85	123	6.84
C-NR3-M	16-Jun-06	910	24.94	6.85	118	6.90
C-NR3-S	16-Jun-06	920	25.43	6.86	118	6.11
C-NR3-D	04-Oct-06	1,290	20.49	7.93	166	9.77
C-NR3-M	04-Oct-06	1,290	20.42	7.99	169	9.35
C-NR3-S	04-Oct-06	1,300	20.46	7.99	171	9.41
C-NR3-D	16-Nov-06	1,530	19.38	7.21	153	9.23
C-NR3-M	16-Nov-06	1,380	19.19	7.14	160	9.01
C-NR3-S	16-Nov-06	1,490	19.10	7.17	156	8.82
C-NR3-D	19-Dec-06	2,010	12.27	8.32	204	12.68
C-NR3-M	19-Dec-06	1,690	12.16	8.35	204	12.70
C-NR3-S	19-Dec-06	1,170	12.40	8.36	204	12.15
C-NR4-D	14-Dec-05	873	12.50	8.33	181	11.60
C-NR4-M	14-Dec-05	862	12.50	8.34	180	11.40
C-NR4-S	14-Dec-05	857	12.50	8.35	179	11.42
C-NR4-D	18-Jan-06	915	13.12	8.26	216	10.27
C-NR4-M	18-Jan-06	1,130	12.14	8.60	214	10.35
C-NR4-S	18-Jan-06	1,100	12.31	8.78	222	11.00
C-NR4-D	22-Mar-06	1,100	12.81	8.14	192	10.92
C-NR4-M	22-Mar-06	1,130	13.23	8.28	182	10.87

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Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
In-Channel Surface Water Station						
C-NR4-S	22-Mar-06	1,130	13.30	8.29	185	10.92
C-NR4-D	16-Jun-06	1,110	25.28	6.31	161	7.09
C-NR4-M	16-Jun-06	960	22.92	6.64	121	6.91
C-NR4-S	16-Jun-06	950	22.78	6.78	112	6.77
C-NR4-D	04-Oct-06	1,300	20.52	8.06	168	9.68
C-NR4-M	04-Oct-06	1,330	20.62	8.02	169	9.48
C-NR4-S	04-Oct-06	1,340	20.73	8.09	171	9.49
C-NR4-D	16-Nov-06	1,280	18.88	7.10	213	8.54
C-NR4-M	16-Nov-06	1,310	19.51	7.11	175	8.67
C-NR4-S	16-Nov-06	1,310	19.00	7.12	184	8.68
C-NR4-D	20-Dec-06	1,260	11.38	7.70	243	10.59
C-NR4-M	20-Dec-06	1,220	11.61	7.88	243	10.51
C-NR4-S	20-Dec-06	1,210	11.63	8.09	240	10.52
C-R22-D	13-Dec-05	1,060	12.70	8.24	164	10.98
C-R22-M	13-Dec-05	1,060	12.70	8.24	163	10.96
C-R22-S	13-Dec-05	1,060	12.70	8.25	163	10.85
C-R22-D	19-Jan-06	946	11.87	8.76	216	10.39
C-R22-M	19-Jan-06	944	11.65	8.80	214	9.52
C-R22-S	19-Jan-06	938	11.58	8.80	217	10.53
C-R22-D	23-Mar-06	835	14.24	8.65	131	10.96
C-R22-M	23-Mar-06	838	14.10	8.67	131	10.16
C-R22-S	23-Mar-06	840	14.35	8.68	133	10.56
C-R22-D	15-Jun-06	950	20.23	7.03	137	8.60
C-R22-M	15-Jun-06	940	20.03	7.03	138	7.82
C-R22-S	15-Jun-06	940	19.95	7.04	138	6.72
C-R22-D	03-Oct-06	1,250	20.15	7.23	163	9.16
C-R22-M	03-Oct-06	1,170	20.24	7.66	150	9.33
C-R22-S	03-Oct-06	1,160	20.12	7.80	158	9.07
C-R22-D	15-Nov-06	2,150	20.70	8.77	98	9.18
C-R22-M	15-Nov-06	3,390	20.34	8.83	95	9.24
C-R22-S	15-Nov-06	3,210	21.01	8.77	97	8.59
C-R22-D	19-Dec-06	1,190	11.95	8.36	209	11.28
C-R22-M	19-Dec-06	1,160	11.93	8.35	211	11.20
C-R22-S	19-Dec-06	1,150	11.97	8.40	211	11.22
C-R27-D	13-Dec-05	1,070	13.00	8.26	156	12.38
C-R27-M	13-Dec-05	1,060	12.90	8.26	155	11.12
C-R27-S	13-Dec-05	1,070	13.00	8.27	155	10.89
C-R27-D	19-Jan-06	1,180	12.25	8.60	226	10.28
C-R27-M	19-Jan-06	941	12.05	8.67	222	9.83
C-R27-S	19-Jan-06	939	12.20	8.78	219	10.70
C-R27-M	23-Mar-06	848	14.28	8.47	126	11.69
C-R27-D	15-Jun-06	950	19.75	6.93	138	8.46
C-R27-M	15-Jun-06	940	19.85	6.94	139	9.48
C-R27-S	15-Jun-06	950	19.85	6.96	140	7.51
C-R27-D	03-Oct-06	1,210	21.31	7.94	174	9.76
C-R27-M	03-Oct-06	1,140	21.49	8.00	168	9.07

TABLE 8
Field Water Quality Measurements, December 2005 through December 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH	ORP (mV)	Dissolved Oxygen (mg/L)
In-Channel Surface Water Station						
C-R27-S	03-Oct-06	1,150	21.45	7.95	165	9.54
C-R27-D	15-Nov-06	1,760	20.88	7.32	116	9.99
C-R27-S	15-Nov-06	2,080	19.77	7.34	117	9.56
C-R27-M	19-Dec-06	1,180	12.02	8.36	216	11.36
C-TAZ-D	13-Dec-05	1,090	12.60	7.57	190	11.11
C-TAZ-M	13-Dec-05	1,060	12.50	8.04	186	11.03
C-TAZ-S	13-Dec-05	1,060	12.50	8.13	181	11.04
C-TAZ-D	19-Jan-06	1,220	12.18	8.08	212	10.60
C-TAZ-M	19-Jan-06	1,190	11.86	8.46	203	9.98
C-TAZ-S	19-Jan-06	1,160	11.64	8.71	204	10.13
C-TAZ-D	23-Mar-06	834	14.60	8.72	138	11.60
C-TAZ-M	23-Mar-06	835	14.76	8.70	139	11.54
C-TAZ-S	23-Mar-06	833	15.10	8.71	140	11.61
C-TAZ-D	15-Jun-06	900	28.71	7.19	135	5.22
C-TAZ-M	15-Jun-06	910	28.18	7.13	137	3.46
C-TAZ-S	15-Jun-06	910	28.53	7.11	143	3.37
C-TAZ-D	03-Oct-06	1,190	20.38	7.86	164	10.12
C-TAZ-M	03-Oct-06	1,170	20.36	7.93	165	9.72
C-TAZ-S	03-Oct-06	1,170	20.38	7.94	168	9.21
C-TAZ-D	15-Nov-06	2,350	20.63	8.68	99	8.60
C-TAZ-M	15-Nov-06	2,100	19.96	8.66	101	8.84
C-TAZ-S	15-Nov-06	1,900	19.89	8.56	107	8.82
C-TAZ-D	19-Dec-06	1,140	11.78	8.15	210	10.94
C-TAZ-M	19-Dec-06	1,120	11.79	8.31	215	11.08
C-TAZ-S	19-Dec-06	1,120	11.83	8.35	217	11.07

NOTES:

µS/cm microSiemens per centimeter
ORP oxidation reduction potential, results rounded off to whole point
mV millivolts
mg/L milligrams per liter
(---) data not collected, not available, or rejected

All field measurements were collected during groundwater / surface water sampling using a Horiba U-22 water quality meter and/or Orion pH/ORP meter.

Surface water station RRB was not sampled inJanuary 2006 due to the location being dry.

Field parameters from MW-33-40 in March 2006 were not available due to the well being purged dry before readings could be collected.

Specific conductance values for some of the shoreline surface water samples in March 2006 were not available due to a malfunctioning instrument.

Monitoring wells MW-12 and MW-29 were sampled in April rather than March 2006 due to inaccessibility to the wells from drilling operations in March.

TABLE 9

Summary of 2006 Quarterly Monitoring Activities

Topock Groundwater and Surface Water Monitoring Program

PG&E Topock Compressor Station

Analytical Parameters **Sampling Dates**	**1st Quarter Event** **March 6-16, 2006**	**2nd Quarter Event** **May 1-9, 2006**	**3rd Quarter Event** **October 2-13, 2006**	**4th Quarter Event** **December 11-15, 2006**
COCs	74 monitoring wells 9 shoreline surface water locations 9 in-channel surface water stations	69 monitoring wells 9 shoreline surface water locations 9 in-channel surface water stations	92 monitoring wells 9 shoreline surface water locations 9 in-channel surface water stations	48 monitoring wells 9 shoreline surface water locations 9 in-channel surface water stations
Title 22 Metals	9 monitoring wells	9 monitoring wells	9 monitoring wells	6 monitoring wells

Notes:

Constituents of Concern include hexavalent chromium, total chromium, pH, and specific conductance.

Figures

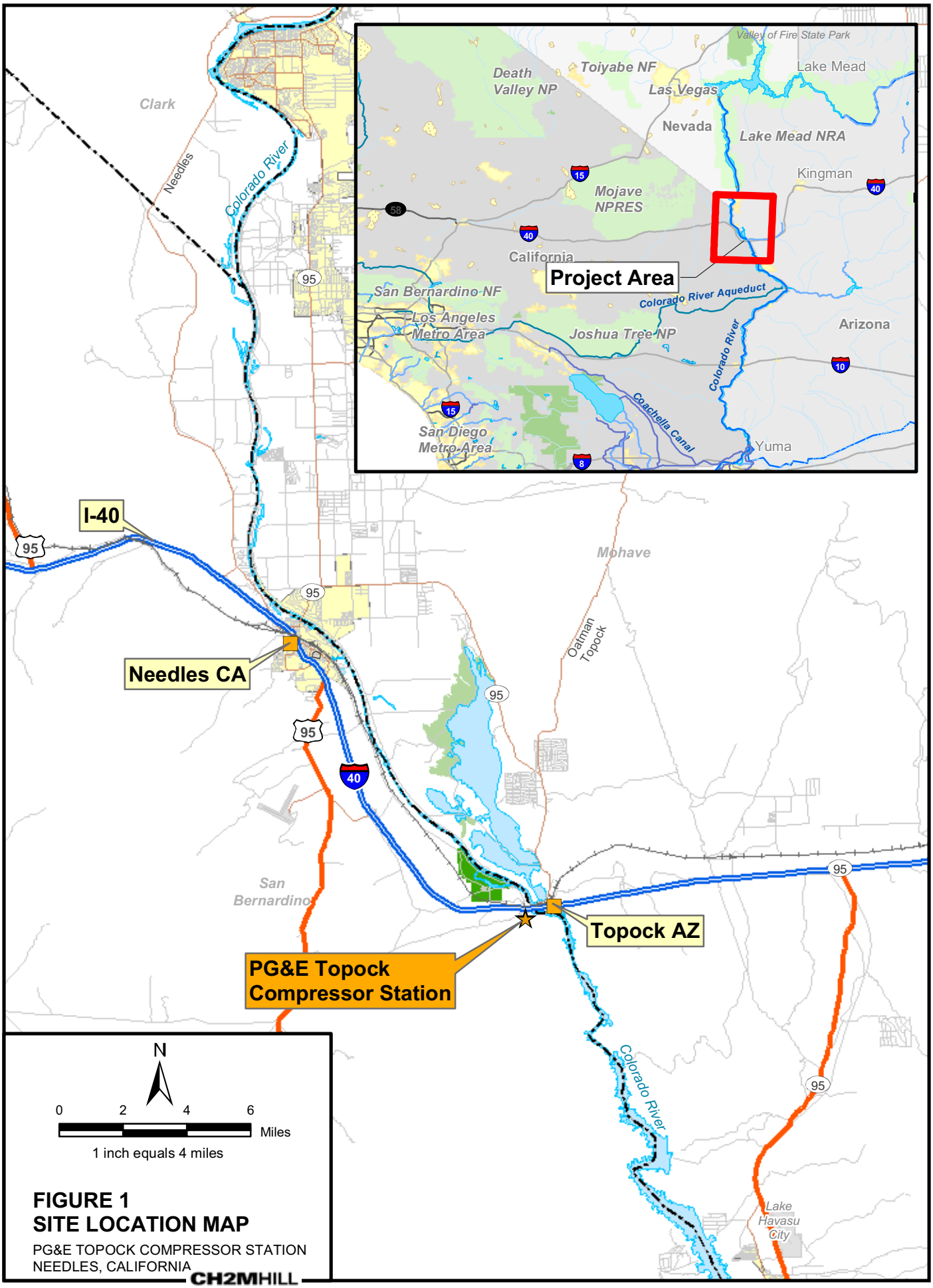
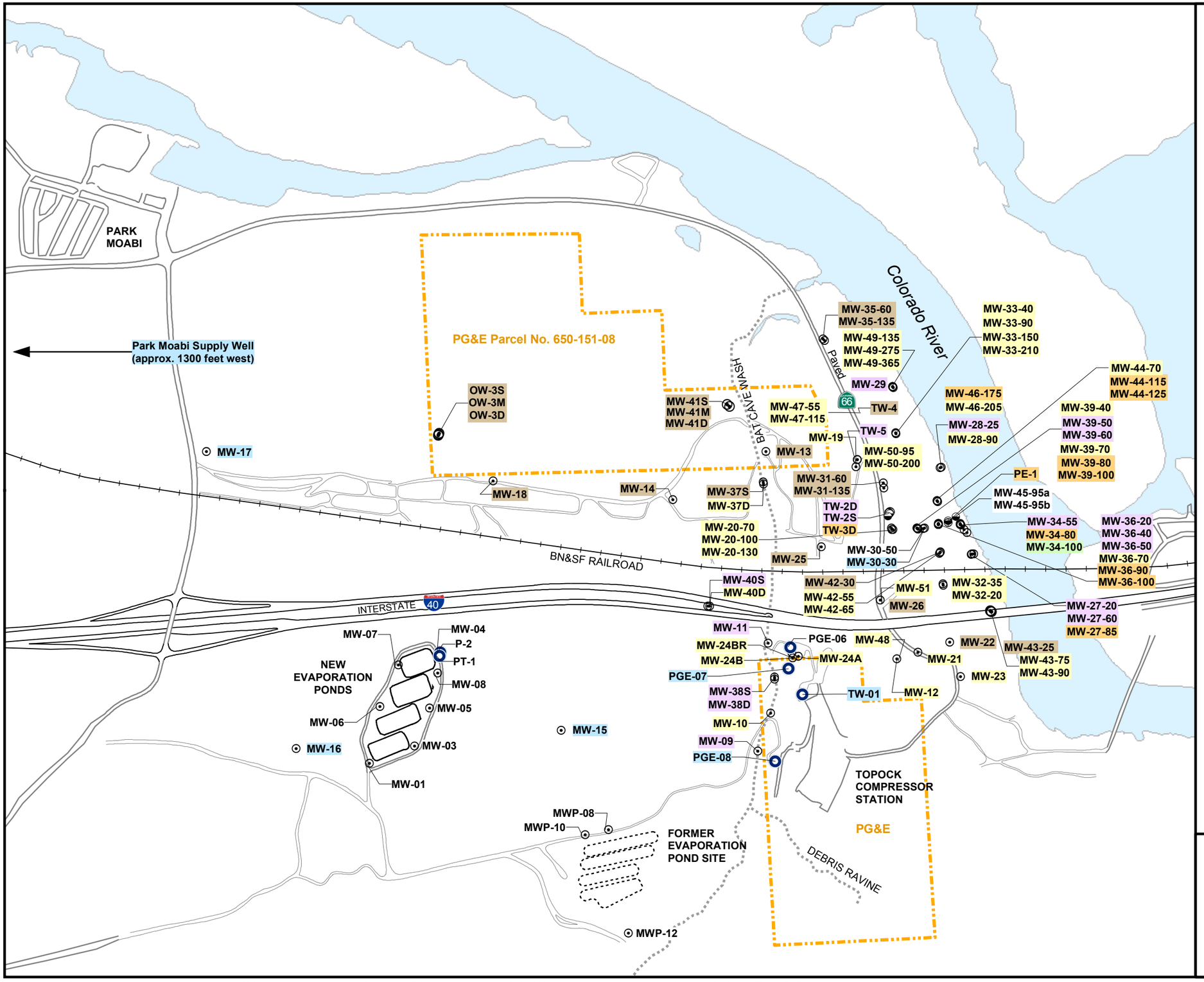


FIGURE 1
SITE LOCATION MAP

PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

RDD \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MXD\2005\LOCATION_MAP_PORTRAIT.MXD 12/13/2005 16:33:49



LEGEND

- Groundwater Monitoring Well
- Test Well or Supply Well (Inactive)
- Extraction Well
- PG&E Property Boundary

Sampling Frequency for Groundwater and Surface Water Monitoring Program (GMP) - December 2006

PGE-06	Biennial Sampling
MW-09	Annual Sampling
MW-10	Semi-Annual Sampling
MW-29	Quarterly Sampling
R-27	Monthly Sampling
MW-34-100	Bi-Weekly Sampling

N

0 800 1,600 Feet

California State Plane NAD83 Zone 5 US Feet

FIGURE 2
MONITORING LOCATIONS AND SAMPLING FREQUENCY FOR GMP DECEMBER 2006
GROUNDWATER AND SURFACE WATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

BAO \\ZINFANDEL\PROJ\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GIS\MAPFILES\2007\GMP_LOCATIONS_DEC2006.MXD GMP_LOCATIONS_DEC2006.PDF 4/2/2007 11:05:05

N

0 1,000 2,000 Feet

1 inch equals 1,000 feet

LEGEND

River Channel Surface Water Monitoring Location

Shoreline Surface Water Monitoring Location

C-NR4
C-NR3
NR-3
NR-2
C-NR1
NR-1
C-CON
CON
RRB
R-28
MW-34 Cluster
C-R27
R-27
C-MAR
C-R22
R-22
C-I3
I-3
C-TAZ

Park Moabi

PG&E Parcel No. 650-151-08

Colorado River

Topock Marsh

Topock Marina

BN & SF RAILROAD

INTERSTATE 40

BAT CAVE WASH

NEW EVAPORATION PONDS

FORMER EVAPORATION POND SITE

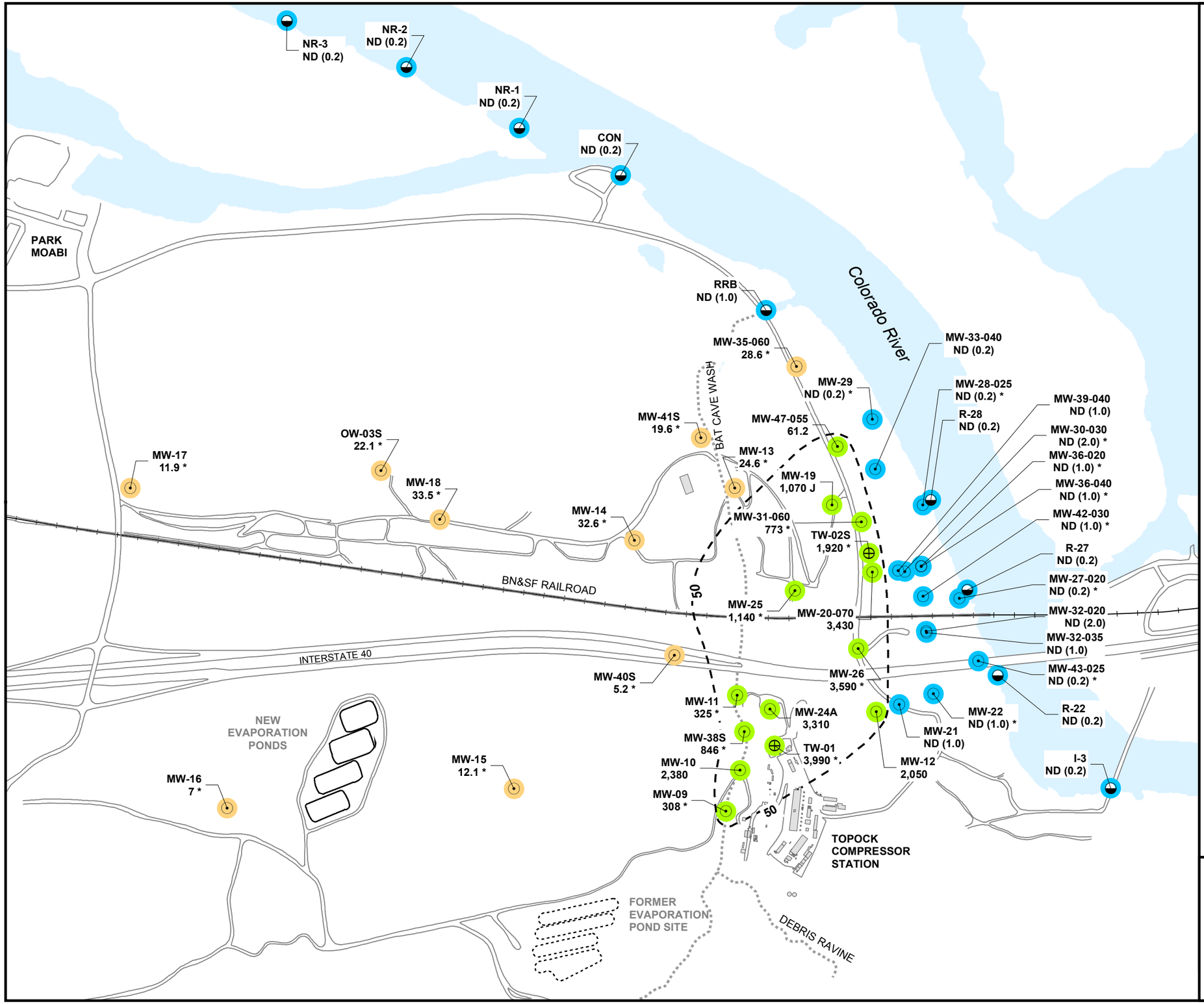
TOPOCK COMPRESSOR STATION

PG&E

DEBRIS RAVINE

FIGURE 3
SURFACE WATER MONITORING LOCATIONS DECEMBER 2006
GROUNDWATER AND SURFACE WATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



LEGEND

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

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

Results shown are maximum concentrations detected in primary and duplicate samples from wells completed in **Upper** Depth Interval of Alluvial Aquifer, December 2006 monitoring event. See Table 3 for complete results.

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

* Result from most recent sampling event prior to December 2006.

Cr(VI) Concentrations in Water Samples

- Not detected at analytical reporting limit
- Concentration between reporting limit and 50 µg/L
- Concentration greater than 50 µg/L

50 Approximate outline of monitoring wells with Cr(VI) concentrations >= 50 µg/L (California drinking water standard for Total Chromium)

N

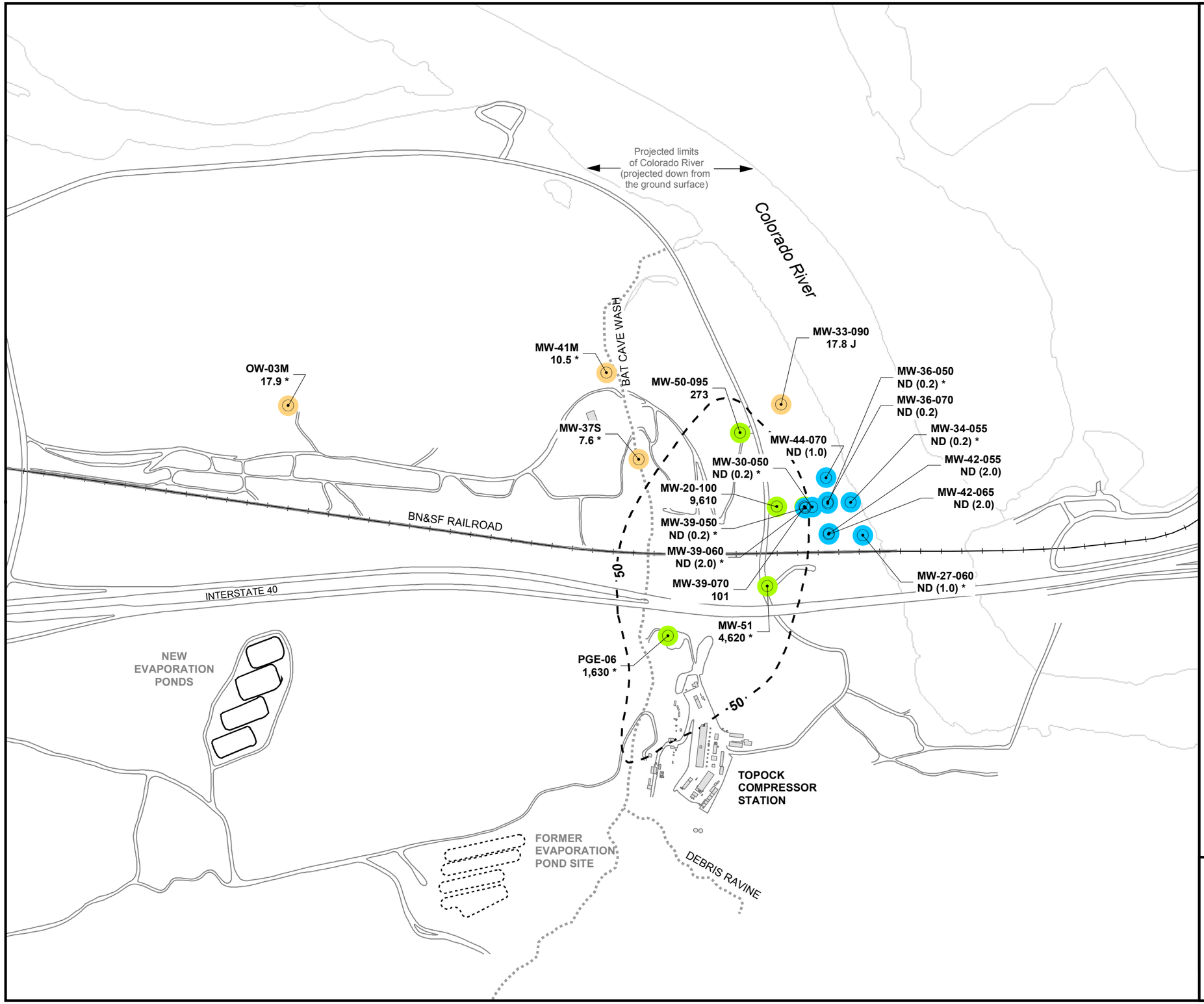
0 750 1,500 Feet

1 inch equals 750 feet

FIGURE 4A
CR(VI) SAMPLING RESULTS
UPPER DEPTH INTERVAL OF AQUIFER
4TH QUARTER 2006 MONITORING EVENT

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

CH2MHILL



LEGEND

- Monitoring, Test, or Supply Well
- Extraction Well

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

Results shown are maximum concentrations detected in primary and duplicate samples from wells completed in **Middle** Depth Interval of Alluvial Aquifer, December 2006 monitoring event. See Table 3 for complete results.

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

* Result from most recent sampling event prior to December 2006.

Cr(VI) Concentrations in Groundwater Samples

- Not detected at analytical reporting limit
- Concentration between reporting limit and 50 µg/L
- Concentration greater than 50 µg/L

50 Approximate outline of monitoring wells with Cr(VI) concentrations >= 50 µg/L (California drinking water standard for Total Chromium)

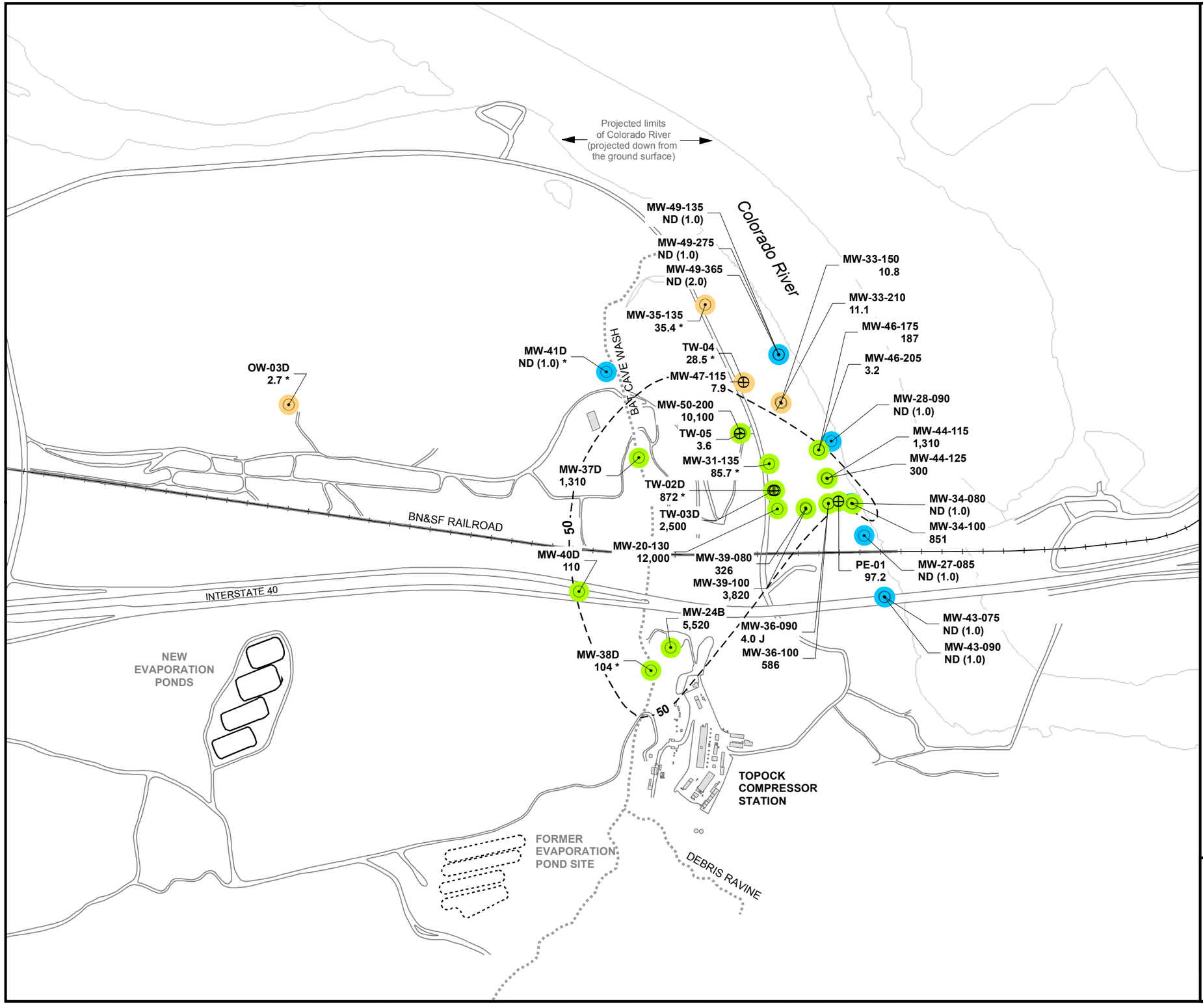
N

0 750 1,500 Feet

1 inch equals 750 feet

FIGURE 4B
CR(VI) SAMPLING RESULTS
MIDDLE DEPTH INTERVAL OF AQUIFER
4TH QUARTER 2006 MONITORING EVENT
GROUNDWATER AND SURFACE WATER
MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



LEGEND

- Monitoring, Test, or Supply Well
- Extraction Well

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

Results shown are maximum concentrations detected in primary and duplicate samples from wells completed in **Lower** Depth Interval of Alluvial Aquifer, December 2006 monitoring event. See Table 3 for complete results.

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

*Result from most recent sampling event prior to December 2006.

Cr(VI) Concentrations in Groundwater Samples

- Not detected at analytical reporting limit
- Concentration between reporting limit and 50 µg/L
- Concentration greater than 50 µg/L

50 Approximate outline of monitoring wells with Cr(VI) concentrations >= 50 µg/L (California drinking water standard for Total Chromium)

Refer to the Performance Monitoring Report for December 2006 (CH2M Hill 2006c) Figure 2-2 for the basis of the 50 µg/L outline shown in the floodplain area. 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 2005-2006 site monitoring. There is no data confirming the existence of Cr(VI) under the Colorado River.

N

0 750 1,500 Feet

1 inch equals 750 feet

FIGURE 4C
CR(VI) SAMPLING RESULTS
LOWER DEPTH INTERVAL OF AQUIFER
4TH QUARTER 2006 MONITORING EVENT

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

CH2MHILL

PARK MOABI

Colorado River

BN & SF RAILROAD

BAT CAVE WASH

40 INTERSTATE

66

456.5

456.0

455.5

455.0

454.5

454.0

455.5

456.0

456.5

MW-17
456.64

OW-03S
456.01

OW-02S
455.56

OW-05S
455.84

OW-01S
455.69

MW-18
456.00

MW-14
455.40

MW-41S
454.58

MW-13
455.88

MW-35-060
453.56

MW-33-040*
453.32

MW-19
453.86

MW-28-025*
452.93

MW-31-060
452.84

MW-25
453.91

TW-2D
TW-3D

PE-01

MW-27-020*
453.06

MW-20-070
452.57

MW-26
454.15

MW-43-025*
452.80

MW-07
(455.62)

MW-04
(455.71)

NEW
EVAPORATION
PONDS

MW-08
456.36

MW-16
456.85

MW-06
NA

MW-05
456.07

MW-01
(455.82)

MW-03
NA

MW-15
456.14

MW-11
455.22

MW-24A
455.23

MW-22
NA

MW-21
(450.85)

MW-38S
(454.69)

MW-10
455.45

MW-12
454.56

MW-09
455.72

TOPOCK
COMPRESSOR
STATION

FORMER
EVAPORATION
POND SITE

DEBRIS RAVINE

N

0 700 1,400
Feet

1 inch equals 700 feet

LEGEND

- Extraction well
- Groundwater monitoring / observation well
- MW-20-100 454.75 — Well name with water level elevation (ft MSL)
- MW-20-100 (454.75) — Well name with water level elevation (ft MSL) not used in contouring
- MW-20-100* 454.75 — Groundwater Elevation from Transducer
- Groundwater Elevation Contour 0.5 ft
- Approximate Bedrock Contact at 455 ft
- NA — Data not available

Notes:
1. Water level contours for the floodplain area are presented in IM Performance Monitoring Reports.
2. Extraction wells TW-3D and PE-1 are pumping from lower portion of the aquifer.
3. Floodplain well data taken from pressure transducers at the time of manual measurements (approximately 12:30 PM).
4. Gradients shown on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average groundwater flow directions.

FIGURE 5
GROUNDWATER ELEVATION MAP
FOR UPPER INTERVAL (WATER TABLE)
DECEMBER 18, 2006 WATER LEVEL SURVEY

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

CH2MHILL

SOUTHWEST
A

EAST
A'

Elevation (feet above msl)

Distance (feet)

Bend in Section

Bend in Section

Bat Cave Wash

Interstate 40

Colorado River

PGE-8 proj: 120'

MW-9 proj: 40'

MW-10 proj: 30'

TW-1 proj: 150'

PGE-7

MW-24 cluster

MW-26 proj: 300'

MW-20 cluster

TW-2S
TW-2D proj: 140'

MW-39 cluster proj: 20'

MW-36 cluster

PE-01 proj: 20'

MW-34 cluster

Fluvial Deposits

Alluvial Fan Deposits

Metamorphic and Igneous Bedrock (pTbr)

Miocene Conglomerate (Tmc)

pTbr

ALLUVIAL AQUIFER

UPPER DEPTH INTERVAL

MIDDLE DEPTH INTERVAL

LOWER DEPTH INTERVAL

308	2,510	3,990*	4,300	6,120	3,590	3,410	9,520	11,600	1,920	872	ND (0.2)	ND (1.0)	910
89	99	312	330	442	71	180			132		118.3	108	105	116

ND (0.2)	ND (1.0)	90.1
ND (0.2)	ND (1.0)	
ND (2.0)	ND (0.2)	
112	ND (0.2)	
580	9	
3,370	556	

ND (1.0)*

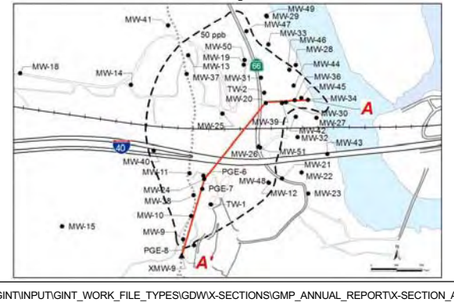
ND (1.0)^

perforated casing
former injection well

ND (1.0)J*

562

geologic contact inferred location - actual depth uncertain



well ID **MW-26**

water level

well screen 5,240

total depth of boring 71

Hexavalent Chromium [Cr(VI)] Sampling Results, October 2006
Groundwater concentrations in micrograms per liter (ug/L)

Maximum Cr(VI) concentrations detected in October 2006 primary and duplicate samples

ND = Not detected at listed reporting limit
* = December 2005 sampling result presented when October 2006 data not available
^ = Sampling results presented from November 2006

NOTE:
Cross section prepared at approximate 3 times vertical exaggeration.
Revision Date: 2/2/2007

FIGURE 6
CR(VI) SAMPLING RESULTS
HYDROGEOLOGIC SECTION A
OCTOBER 2006

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

CH2MHILL

F:\PACIFICGASELECTRICCO\TOPOCKPROGRAM\GINT\INPUT\GINT_WORK_FILE_TYPES\GDW\X-SECTIONS\GMP_ANNUAL_REPORT\X-SECTION_A_NINA.GDW;

Appendix A
Field Data Sheets and Chain of Custody Records, December 2006

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1
Field Conditions Sunny, Calm, 60°F

Sampling Event 2006-GMP-111
Date 12/14/06
Page 1 of

Well/Sample Number MW-10-115
QC Sample ID NA
QC Sample Time
Purge Start Time 1319
Purge Method
Ded. Pump ✓
Flow Cell: (Y) / N
Min. Purge Volume (gal)/(L) 50
Purge Rate (gpm)/(mLpm) 5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
75.10	1319	0	7.67	2.88	2.20	4.89	27.99	0.1	2.0	117	Greenish
75.65	1321	10	7.64	2.53	3.38	4.91	29.07	0.1	1.6	113	
75.65	1323	20	7.62	2.66	5.85	5.29	29.12	0.1	1.7	114	
75.65	1325	30	7.59	2.84	2.27	5.35	29.35	0.1	1.8	117	
75.60	1327	40	7.57	2.86	2.13	5.57	29.38	0.1	1.8	120	
75.58	1329	50	7.57	2.88	2.54	5.62	29.39	0.1	1.8	121	
75.58	1331	60	7.57	2.90	2.36	5.67	29.43	0.1	1.9	122	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement ()											
Are measurements consistent with previous?							NA				

Sample Time 1340 Sample Location: pump tubing ✓ well port spigot bailer other

Comments:

Initial Depth to Water (ft BTOC): 75.10
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc
SWH (Standing Water Height) = WD-Initial Depth
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041
One Casing Volume = D*SWH
Three Casing Volumes = 50

Measure Point: (Well TOC) Steel Casing

PAGE 2005-02
WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	
				Time of Reinstallation	
Comments:					

Color: (clear), grey, yellow, brown, black, cloudy, (green)

Odor: (none), sulphur, organic, other

Solids: (Trace), Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP — Sampling Event 2006 GMP - 115 - Q4
Job Number — Date 12/13/2006
Field Team 1 — Field Conditions Sunny, windy, 55F — Page 1 of

Well/Sample Number MW-12-115 — QC Sample ID NA — QC Sample Time
Purge Start Time 0945 — Purge Method Mobile ready flow — Ded. Pump N/A
Flow Cell (Y) / N — Min. Purge Volume (gal)/(L) 42 — Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
~~29.45~~ 29.45	0945	0	8.20	4.87	~~2.94~~ 2.94	6	26.06	0.3	3.1	157	
29.78	0947	7	8.26	4.69	~~77.5~~ 77.5	6.28	27.13	0.2	3	155	
29.75	0950	14	8.25	4.61	53.9	6.2	27.35	0.2	3	154	
29.75	0952	21	8.23	4.61	~~111~~ 111	6.24	27.47	0.2	3	154	
29.75	0955	28	8.24	4.65	53.2	6.23	27.40	0.2	3	154	
29.76	0957	35	8.24	4.64	20.4	6.19	27.57	0.2	3	154	
29.76	1000	42	8.24	4.66	12.8	6.2	27.53	0.2	3	155	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when > 10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?			✓	N/A	✓	✓	NA	✓	N/A	✓	

Sample Time 10:05 — Sample Location: MW-12-115 — pump tubing ✓ — well port — spigot — bailer — other
Comments:

PGE-2005-02

Initial Depth to Water (ft BTOC): 29.45
WD (Well Depth - from table) ft btc 50.4
SWH (Standing Water Height) = WD-Initial Depth 20.95
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)
One Casing Volume = D*SWH 13.83
Three Casing Volumes = 41.48

Measure Point: (Well TOC) Steel Casing — WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		N/A If Transducer
Time	Initial DTW	Time	Final DTW	Time of Removal
9:45	29.45			Time of Reinstallation
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green
Odor: (none), sulphur, organic, other
Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions Calm, 45°F, hazy

Sampling Event 2006-GMP-115-Q4
Date 12/15/06
Page 1 of

Well/Sample Number MW-19-115 **QC Sample ID** NA QC Sample Time
Purge Start Time 0740 Purge Method Ded. Pump ✓
Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 39 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
45.80	0740	0	6.55	2.65	5.74	6.73	24.6	0.1	1.7	201	
46.38	0744	8	7.12	2.52	3.73	5.81	27.1	0.1	1.6	181	
46.77	0748	16	7.39	2.41	0.56	6.25	28.1	0.1	1.5	154	
46.78	0752	24	7.46	2.39	1.84	6.27	28.2	0.1	1.5	126	
46.81	0756	32	7.50	2.40	0.50	6.71	28.2	0.1	1.5	95	
46.82	0800	40	7.51	2.39	0.62	7.21	28.2	0.1	1.5	82	
46.85	0804	48	7.53	2.39	1.13	6.78	28.1	0.1	1.5	76	
46.86	0808	56	7.53	2.38	0.65	6.47	28.3	0.1	1.5	75	
46.87	0812	64	7.53	2.36	0.21	6.64	28.2	0.1	1.5	76	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/2/2006)			7.26	2450	2.99		28.59	0.1		44	
Are measurements consistent with previous?			N	✓	N	?	NA	✓	✓	N	

Sample Time 0820 Sample Location: pump tubing ✓ well port ____ spigot ____ bailer ____ other ____

Comments: ____

PGE 2005-02

Initial Depth to Water (ft BTOC): 45.80'
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (65.77)
SWH (Standing Water Height) = WD-Initial Depth 19.97
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)
One Casing Volume = D*SWH 13
Three Casing Volumes = 39

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		NA If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green **Odor** (none) sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name PGE Topock GMP — Sampling Event 2006 GMP - 115 - Q4
Job Number — Date 12/13/06
Field Team — Field Conditions Cloudy — Page 1 of —

Well/Sample Number MW-20-070-115 — QC Sample ID NA — QC Sample Time —
Purge Start Time 13:12 — Purge Method Dedicated pump — Ded. Pump ✓
Flow Cell (Y) / N — Min. Purge Volume (gal)/(L) 44 — Purge Rate (gpm)/(mLpm) 9

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
47.12	13:12	0	7.52	2.868	5.73	7.84	28.53	0.1	1.8	199	Groundwater
58.2	13:13	9	7.47	2.87	39.4	7.88	28.71	0.1	1.8	200	
59.2	~~13:14~~	1.8	7.45	2.86	~~39~~ 19.9	7.63	28.72	0.1	1.8	201	
59.87	13:15	27	7.45	2.87	10.4	7.56	28.73	0.1	1.8	201	
60.53	13:16	36	7.45	2.88	6.90	7.56	28.78	0.1	1.8	201	
~~63.65~~ 63	13:17	45	7.45	2.89	~~63~~ 5.17	7.93	29.10	0.1	1.9	203	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when > 10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?			✓	N	✓	✓	NA	✓	✓	✓	

Sample Time 13:20 — Sample Location: MW-20-070 (pump tubing) — well port — spigot — bailer — other
Comments:

Initial Depth to Water (ft BTOC): 47.12
WD (Well Depth - from table) ft btc 69.55
SWH (Standing Water Height) = WD-Initial Depth 22.43
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 0.66
One Casing Volume = D*SWH ~~46.46~~ 14.8 (14 closer)
Three Casing Volumes = 44.4

Color: clear, grey, yellow, brown, black, cloudy, (green)

Measure Point: (Well TOC) Steel Casing — WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		If Transducer	
Time	Initial DTW	Time	Final DTW	Time of Removal	
13:12	47.12			Time of Reinstallation	
Comments:					

N/A

Odor: (none), sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name PGE Topock GMP — Sampling Event 2006 GMP - 115 - Q4
Job Number — Date 12/13/2006
Field Team — Field Conditions Sunny, 60 F — Page 1 of

Well/Sample Number MW-20-100-115 — QC Sample ID MW-90-115 — QC Sample Time 11:50
Purge Start Time 11:33 — Purge Method Dedicated pump — Ded. Pump ✓
Flow Cell (Y) N — Min. Purge Volume (gal)/(L) 106 — Purge Rate (gpm)/(mLpm) 9

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
47.95	11:33	0	7.29	3.49	10.8	4.21	28.28	0.2	2.2	196	
69.3	11:35	20	7.54	3.47	2.45	3.25	28.43	0.2	2.2	197	green water
72.6	11:37	40	7.47	3.49	2.58	3.29	28.54	0.2	2.2	197	
75.8	11:39	60	7.42	3.57	5.19	3.24	28.84	0.2	2.3	195	
77.22	11:41	80	7.39	3.95	7.29	2.93	28.77	0.2	2.6	192	
78.00	11:43	90	7.39	4.40	19.6	2.73	29.14	0.2	2.8	191	
78.30	11:43	100	7.38	4.68	50.4	2.61	29.23	0.3	3.1	190	
78.60	11:44	110	7.37	5.01	31.8	2.43	29.14	0.3	3.2	189	
78.8	11:45	120	7.36	5.2	24.3	2.19	29.11	0.3	3.3	188	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA				
Are measurements consistent with previous?							NA				

Sample Time 11:45 Sample Location: MW20-100-115 (pump tubing) well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 47.95
WD (Well Depth - from table) ft btc 101.4
SWH (Standing Water Height) = WD-Initial Depth 53.45
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)
One Casing Volume = D*SWH 35.27
Three Casing Volumes = 105.83

Measure Point: Well TOC Steel Casing — WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		N/A	If Transducer
Time	Initial DTW	Approx. 5 min After Reinstallation: Time	Final DTW
11:16	47.95	?	

Time of Removal ____ Time of Reinstallation ____
Comments:

Color: clear, grey, yellow, brown, black, cloudy, green — Odor: (none) sulphur, organic, other — Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Topock Sampling Log

Project Name PGE Topock GMP — Sampling Event 2006 GMP - 115 - Q4
Job Number — Date 12/13/06
Field Team — Field Conditions Sunny, 65 — Page 1 of

Well/Sample Number MW-20-130-115 — QC Sample ID MW-95-115 — QC Sample Time 14:45
Purge Start Time 13:37 — Purge Method Mobile ready slow — Ded. Pump —
Flow Cell (Y) N — Min. Purge Volume (gal)/(L) ~~99~~ 165 — Purge Rate (gpm)/(mL/m) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
48.62	13:37	0	7.37	43.7	8.17	1.75	29.22	3	29	211	
~~55.40~~	13:47	~~30~~ 30	7.32	~~>99.9~~	2.05	0.88	29.71	>4	58	201	
55.36	13:57	~~42~~ 60	7.36	>99.9	0.73	0.91	29.62	>4	>99	192	
55.00	14:07	~~53~~ 90	7.36	>99.9	0.73	0.89	30	>4	>99	188	green water
55.95	14:17	~~64~~ 120	7.36	>99.9	0.92	0.85	30.07	>4	>99	185	
56.10	14:27	~~7~~ 150	7.36	>99.9	0.27	0.86	30.07	>4	>99	183	
56.04	14:32	165	7.36	>99.9	0.28	0.8	30.09	>4	>99	181	Shin on water
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when > 10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Are measurements consistent with previous?			N	N/A	✓	N	NA	N/A	N/A	N	

Sample Time 14:40 — Sample Location: MW-20-130-115 (pump tubing) — well port — spigot — bailer — other
Comments:

PGPE 2005_02

Initial Depth to Water (ft BTOC): ~~82.62~~ 48.62 — Measure Point: (Well TOC) Steel Casing — WATER LEVEL METER SERIAL NUMBER:
V/D (Well Depth - from table) ft btc 132.34
SWH (Standing Water Height) = WD-Initial Depth ~~49.72~~ 83.72
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.04 (4 in)
One Casing Volume = D*SWH ~~32.82~~ 55.26
Three Casing Volumes = ~~98.45~~ 165

If Transducer				
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal 13:28
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 14:49
13:27	48.62	14:54	48.72	

Comments:

Color: clear, grey, yellow, brown, black, cloudy, (green) — Odor: none, sulphur, organic, other — Solids: (Trace) Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1   Field Conditions Sunny, 50F

Sampling Event 2006-GMP-115-Q4
Date 12:12:06
Page 1 of

Well/Sample Number MW-21-115   **QC Sample ID** NA   QC Sample Time

Purge Start Time 0844   Purge Method Mobile Ready Stock   Ded. Pump

Flow Cell (Y) / N   Min. Purge Volume (gal)/(L) 5   Purge Rate (gpm)/(mLpm) 0.5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
51.12	8:44	0	7.43	13.6	0.19	11.18	7.4	0.8	9	147	
51.9	8:45	0.5	7.46	13.8	0.15	7.31	7.3	0.8	9	149	
52.25	8:46	1	7.43	13.8	0.2	6.19	7.2	0.8	9	150	
52.70	8:47	1.5	7.42	13.9	—	5.79	7.2	0.8	9	150	
53.30	8:48	2	7.41	13.9	0.46	5.4	7.4	0.8	9	150	
54.00	8:49	2.5	7.40	13.9	1.55	7.39	9	0.8	8	136	
54.60	8:51	3.5	7.01	14.1	145	4.72	12.3	0.8	9	-90	
55.40	8:52	4.5	6.98	13.6	30.9	1.35	17.7	0.8	8	-96	
55.90	8:53	5.0	6.98	13.0	12.6	1.22	19.8	0.7	8	-68	DRY
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	N	Y	NA	Y	Y	N	
Previous Field measurement	(10/3/2006)		6.91	15900		6.9	28.5	0.9		-67	
Are measurements consistent with previous?			Y	N	N/A	N	NA	Y	Y	Y	

Sample Time ~~8:55~~   Sample Location: MW-21 ~~pump tubing~~   well port   spigot   (bailer)   other

Comments: Well went dry after ~~sampling~~ will return 12/13/06 to collect Sample
Sample Collected 12/13/06 at 10:40, DTW = 56.17 at 10:40 w/ Bailer
PGRE 2005-02

Initial Depth to Water (ft BTOC): 51.12

Measure Point: (Well TOC) Steel Casing   WATER LEVEL METER SERIAL NUMBER:

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (58.45) ~~7.33'~~

SWH (Standing Water Height) = WD-Initial Depth 7.33'

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)

One Casing Volume = D*SWH 4.84

Three Casing Volumes = 14.51

Initial DTW / Before Removal		If Transducer NA			
		Approx. 5 min After Reinstallation		Time of Removal	
Time	Initial DTW	Time	Final DTW	Time of Reinstallation	
~~8:36~~	~~51.12~~				

Comments:

Color: clear, grey, yellow, brown, black, cloudy, (green)   **Odor:** (none) sulphur, organic, other   **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 **Field Conditions** sunny, slightly overcast, 40F

Sampling Event 2006-GMP-115-Q4
Date 12.12.06
Page 1 of ____

Well/Sample Number MW-23-115 **QC Sample ID** MW-91-115 **QC Sample Time** 11:00
Purge Start Time 8:16 **Purge Method** Dedicated pump **Ded. Pump** V
Flow Cell (Y) / N **Min. Purge Volume (gal)/(L)** 19 **Purge Rate (gpm)/(mLpm)** 6

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
53.25	8:16	0	6.27	17.3	0.93	2.19	24.4	1	10	185	
68.8	8:17	6	6.48	16.9	1.32	24.9 1.32	24.2	1	11	155	
71.07	8:18	12	6.61	17	1.09	1.27	23.9	1	11	149	
—	8:19:	18	6.67	17.6	0.65	1.81	23.6	1.1	11	127	dry/recharge/return to sample

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?	V	V	N	N	NA	V	V	N	
Previous Field measurement (10/4/2006)	7.62	21200	142	6.14	30.34	1.28		40	
Are measurements consistent with previous?	N	N	N	N	NA	V	N/A	N	

Sample Time 10:50 Sample Location: MW-23 pump tubing ✓ well port ____ spigot ____ bailer ____ other ____
Comments: Dry/recharge/return to sample

PG&E 20050208

Initial Depth to Water (ft BTOC): 53.25'
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (81.45)
SWH (Standing Water Height) = WD-Initial Depth 28.2
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)
One Casing Volume = D*SWH 18.612
Three Casing Volumes = 55.84

Measure Point: Well TOC / Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

N/A **If Transducer**

Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal ____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation ____
7:47	53.25			

Comments:

Color: (clear), grey, yellow, brown, black, cloudy, green
Odor: (none), sulphur, organic, other
Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/14/06
Page 1 of

Well/Sample Number MW-24A-115 **QC Sample ID** NA QC Sample Time

Purge Start Time 1221 Purge Method Ded. Pump ✓

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 30 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
111.82 ~~15.66~~	1221	0	7.90	5.27	2.05	4.95	27.14	0.3	4.0	102	Greenish
112.10	1223	5	7.58	22.2	0.67	2.09	27.60	1.7	18	100	
112.07	1226	10	7.48	>99.9	1.28	0.54	28.47	>4.0	799	91	
112.07	1228	15	7.45	>99.9	0.58	0.33	30.06	>4.0	>99	87	
112.12	1230	20	7.45	>99.9	0.52	0.32	29.71	>4.0	>99	83	Sheen
112.13	1232	25	7.44	>99.9	0.22	0.33	29.59	>4.0	>99	79	
112.15	1234	30	7.44	> 99.9	0.14	0.33	25.73	74.0	>99	76	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/3/2006)			7.42	3910	1.26	2.87	29.14	0.2		101	
Are measurements consistent with previous?			✓	?	N	N	NA	?	?	N	

Sample Time 1245 Sample Location: pump tubing ✓ well port spigot bailer other

Comments:

PGE 2005-02

Initial Depth to Water (ft BTOC): 111.82

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (127.48)

SWH (Standing Water Height) = WD-Initial Depth 15.66

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)

One Casing Volume = D*SWH 10

Three Casing Volumes = 30

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		NA If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 **Field Conditions** Breezy, overcast, 55°F

Sampling Event 2006-GMP-115-Q4
Date 12/14/06
Page 1 of

Well/Sample Number MW-24B-115 **QC Sample ID** NA **QC Sample Time**

Purge Start Time 1047 **Purge Method** **Ded. Pump** ✓

Flow Cell (Y) / N **Min. Purge Volume (gal)/(L)** 208 **Purge Rate (gpm)/(mLpm)** 5-6

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
109.60	1047	0	8.02	16.6	5.21	3.97	28.71	1.0	10	25	
117.10	1049	10	7.84	35.2	1.06	0.47	25.72	3.1	30	11	
117.10	1051	20	7.80	>99.9	1.00	0.39	29.80	>4.0	>99	7	
117.48	1057	50	7.79	>99.9	3.16	0.46	29.87	>4.0	>99	0	
116.20	1101	100	7.78	>99.9	2.06	0.49	29.71	>4.0	>99	-0	
115.45	1107	150	7.78	>99.9	1.70	0.51	29.61	>4.0	>99	1	
115.45	1120	175	7.78	>99.9	2.36	0.51	29.79	>4.0	>99	2	
115.45	1128	200	7.78	>99.9	1.13	0.51	29.67	>4.0	>99	4	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/3/2006)			7.85	18700	3.98	2.72	30.38	1.1		85	
Are measurements consistent with previous?			✓	?	N	N	NA	N	?	N	

Sample Time 1120 Sample Location: pump tubing ✓ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 109.60

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (214.84)

SWH (Standing Water Height) = WD-Initial Depth 105.24

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)

One Casing Volume = D*SWH 69

Three Casing Volumes = 208

Measure Point: (Well TOC) Steel Casing

Page 2005-02

WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		NA Approx. 5 min After Reinstallation		If Transducer
Time	Initial DTW	Time	Final DTW	Time of Removal ____
				Time of Reinstallation ____
Comments:				

Color: (clear) grey, yellow, brown, black, cloudy, (green)

Odor: (none), sulphur, organic, other

Solids: (Trace) Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name: PGE Topock GMP
Job Number: 338234.GM.02.00
Field Team: 1
Field Conditions: Partly overcast, 50°F, calm

Sampling Event: 2006-GMP-115-Q4
Date: 12/14/06
Page: 1 of

Well/Sample Number: MW-24BR-115
QC Sample ID: NA
QC Sample Time:
Purge Start Time: 0817
Purge Method: MOBILE Redi-Flo Ded. Pump:
Flow Cell: (Y) / N
Min. Purge Volume (gal)/(L): 660
Purge Rate (gpm)/(mLpm): 3 → 1.5 → .5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
108.33	0817	0	6.96	15.2	6.57	5.46	20.41	0.9	10	34	Organic odor 3 gpm
140.00	0825	250	7.78	>99.9	5.43	0.15	25.83	74.0	>99	-83	
162.80	0834	~~500~~ 475	7.91	31.2	5.24	0.34	29.90	1.9	19	-140	1.5-2 gpm
183.52	0845	~~750~~ 775	7.94	26.7	7.82	0.34	30.31	1.7	17	-166	1-1.5 gpm
200.00	0855	~~1000~~ 980	7.93	23.1	4.90	0.31	31.30	1.4	14	-185	1 gpm
215.63	0909	~~1250~~ 1180	7.97	26.2	6.32	0.48	31.04	1.6	16	-191	Pump @ 250' 1 gpm
224.5	0929	~~1500~~ 1250	7.95	21.1	4.02	0.33	32.20	1.3	13	-204	1 gpm
226.0	1000	~~1750~~ 1500	7.95	20.4	1.71	0.31	31.29	1.2	13	-209	1 ~~.5~~ gpm
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (11/1/2006)			7.39	17300	6.84	1.2	36.4	1.02		-183	
Are measurements consistent with previous?							NA				

Sample Time: 0850 (1450) Sample Location: pump tubing ✓ well port ____ spigot ____ bailer ____ other ____

Comments: Will Purge until Redi flo no longer can pump - Return end of day to Sample 0840
TOTAL Purged = 150gal. pump rate at 2 & .5gpm & 150gals Pump at 250' (0850 12/14/06 DTW=123.84)
PG42.2005-02

Initial Depth to Water (ft BTOC): 108.33'
Measure Point: (Well TOC) Steel Casing
WATER LEVEL METER SERIAL NUMBER:

Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (441)
SWH (Standing Water Height) = WD-Initial Depth 332.07
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)
One Casing Volume = D*SWH 220
Three Casing Volumes = 660

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal / Time of Reinstallation

Comments:

Color: (clear), grey, yellow, brown, black, cloudy, green
Odor: none, sulphur, (organic), other
Solids: (Trace), Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/11/06
Page _____ of _____

Well/Sample Number MW-27-085-115 **QC Sample ID** NA QC Sample Time _____

Purge Start Time 1050 Purge Method 3CV Ded. Pump BF-2

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 37 Purge Rate (gpm)/(mLpm) _____

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
7.72	1053	6	7.49	25.3	7.52	2.16	25.14	1.56	16	-66	
7.68	1056	12	7.49	25.7	17.9	1.70	25.00	1.61	17	-74	
7.68	1058	16	7.50	26.3	6.92	1.66	24.64	1.63	17	-73	
7.68	1100	20	7.52	26.6	2.62	1.50	24.59	1.64	17	-76	
7.68	1102	24	7.53	26.6	1.44	1.43	24.51	1.64	17	-78	
7.67	1104	28	7.54	26.7	1.03	1.37	24.43	1.64	17	-79	
7.67	1106	32	7.55	26.7	0.84	1.33	24.49	1.65	17	-80	
7.67	1109	38	7.56	26.7	0.69	1.26	24.39	1.65	17	-82	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (11/16/2006)			6.96	23400	1.9	1.21	20.4	1.4		-87	
Are measurements consistent with previous?							NA				

Sample Time 1110 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 6.60

Field measured confirmation of Well Depth (ft btoc): NA

WD (Well Depth - from database) ft btoc (80)

SWH (Standing Water Height) = WD-Initial Depth 73.4

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 12.48

Three Casing Volumes = 37.43

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal 1045
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 1115
1044	6.60	1120	6.64	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP	**Sampling Event**	2006-GMP-115-Q4
Job Number	338234.GM.02.00	**Date**	12.14.06
Field Team	2	Field Conditions	Sunny, 65F
		Page	1 of

Well/Sample Number MW-28-090-115 **QC Sample ID** NA QC Sample Time —

Purge Start Time 8:13 Purge Method Mobile Ready flow Ded. Pump —

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 43 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
15.28	8:18	0	6.93	7.09	0.61	0.71	18.7	0.4	4.5	-141	
15.28	8:21	7	7.27	7.35	0.28	0.42	19.8	0.4	4.6	-153	
15.28	8:25	14	7.37	7.55	0.27	0.35	20.1	0.4	4.8	-157	
15.28	8:28	21	7.38	7.56	0.22	0.35	19.8	0.4	4.8	-157	
15.29	8:32	28	7.40	7.58	0.50	0.33	20	0.4	4.8	-158	
15.29	8:35	35	7.42	7.59	0.32	0.29	20.1	0.4	4.8	-160	
15.29	8:39	42	7.43	7.59	0.32	0.3	20.1	0.4	4.8	-160	
15.29	8:40	43	7.44	7.59	0.23	0.27	20	0.4	4.8	-160	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement	(10/13/2006)		7.46	9700	1.88	1	20.54	0.54		-156	
Are measurements consistent with previous?			✓	N	✓	N	NA	✓	✓	✓	

Sample Time 8:41 Sample Location: (pump tubing) well port ___ spigot ___ bailer ___ other ___

Comments:

PG&E 2005-C-3

Initial Depth to Water (ft BTOC): 13.98 Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (98.36)

SWH (Standing Water Height) = WD-Initial Depth 84.38

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 14.35

Three Casing Volumes = 43

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	
807	13.98	8:54	14.02	Time of Removal 8:07 Time of Reinstallation 8:49
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/11/06
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Well/Sample Number MW-32-020-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1353 Purge Method 3 CV Ded. Pump RF-2

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 6 Purge Rate (gpm)/(mLpm) 1

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity † NTU	Diss. Oxygen mg/L	Temp. oC	Salinity * %	TDS g/L	Eh/ORP mv	Comments (See description below
	1356	3	7.42	61.8	278	3.69	29.31	—	40	-104	
	1358	5	7.37	61.1	247	2.34	29.53	—	40	-110	
10.31	1400	7	7.36	61.3	200	1.65	29.37	—	40	-115	
10.31	1402	9	7.35	61.3	141	1.69	29.41	—	40	-113	
10.31	1404	11	7.35	61.2	70.9	1.76	29.40	—	40	-112	
10.34	1406	13	7.34	61.3	46.3	1.83	29.37	—	40	-110	

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV
Did Parameters Stablize prior to sampling?	Y	Y	N	Y	NA	—	—	Y
Previous Field measurement (10/2/2006)	6.72		150	0.91	30.32			-122
Are measurements consistent with previous?	√	√	Y	N	NA	—	—	Y

Sample Time 1410 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: * Out of range. † Turbidity is historically high due to damaged screen.

Initial Depth to Water (ft BTOC): 7.98

Field measured confirmation of Well Depth (ft btoc): 11. NA

WD (Well Depth - from database) ft btoc (19.6)

SWH (Standing Water Height) = WD-Initial Depth 11.62

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 1.98

Three Casing Volumes = 5.92

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal ____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation ____
~~1301~~	~~7.58~~	1416	8.05	
Comments:				

1351 7.98

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/11/06
Page ____ of ____

Well/Sample Number MW-32-035-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1307 Purge Method 3 CV Ded. Pump RF-2

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 59 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
10.80 ~~1310~~	1310	6	7.89	23.5	8.87	2.58	29.13	1.44	15	-152	
10.01	1314	14	7.84	23.5	2.96	1.81	28.54	1.43	15	-148	
10.03	1318	22	7.82	23.4	1.67	1.83	28.44	1.43	15	-144	
10.03	1322	30	7.82	23.6	1.52	1.88	28.11	1.44	15	-142	
10.03	1326	38	7.83	23.6	1.74	1.73	28.01	1.44	15	-145	
10.03	1330	46	7.83	23.7	1.42	1.66	27.88	1.45	15	-147	flow rate has dropped below 2 gpm
10.21	1334	54	7.84	23.5	1.25	1.52	27.96	1.43	15	-148	turned back up
10.21	1338	62	7.85	23.7	0.99	1.47	27.95	1.44	15	-149	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA			Y	
Previous Field measurement (10/2/2006)			7.69		0.66	0.69	26.19			-162	
Are measurements consistent with previous?			Y	Y	Y	Y	NA			Y	

Sample Time 1340 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 7.58

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (37.15)

SWH (Standing Water Height) = WD-Initial Depth 29.57

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in) .66

One Casing Volume = D*SWH 19.516

Three Casing Volumes = 58.55

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal ____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation ____
1301	7.58	13:48	7.07	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Sunny 75

Sampling Event 2006-GMP-115-Q4
Date 12.14.06
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Well/Sample Number MW-33-040-115 **QC Sample ID** NA — QC Sample Time —
Purge Start Time 2:30 Purge Method bailer Ded. Pump —
Flow Cell: Y / (N) Min. Purge Volume (gal)/(L) 4.33 Purge Rate (gpm)/(mLpm) —

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
33.36	2:30	0.6	7.78	8.59	49.4	2.98	26.1	0.5	5.4	96	
35.10	2:45	1.2	7.72	8.57	2.38	3.70	26.2	0.5	5.3	88	
35.35	2:55	1.8	7.90	7.64	188	5.65	26.2	0.4	4.8	84	
35.70	3:01	2.4	7.90	7.42	103	3.84	26.2	0.4	4.7	63	
—	3:07	3.0	7.85	7.4	123	2.40	25.9	0.4	4.7	66	
—	3:10	3.6	7.80	7.44	192	4.64	26.3	0.4	4.7	40	
—	3:12	4.2	7.89	7.08	146	4.59	26.3	0.4	4.5	36	
35.81	3:14	4.5	7.92	7.08	104	2.80	26.2	0.4	4.5	31	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (10/6/2006)			8.07	6710			23.8	0.36		167	
Are measurements consistent with previous?							NA				

Sample Time 3:15 Sample Location: MW-33-040-115 pump tubing ____ well port ____ spigot ____ (bailer) ____ other ____
Comments: ____

PG&E 2005-C-3

Initial Depth to Water (ft BTOC): 33.36
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (41.84)
SWH (Standing Water Height) = WD-Initial Depth 8.48
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4in)
One Casing Volume = D*SWH 5.597 ~~4.33~~ 1.44
Three Casing Volumes = 4.33

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 2:25 / Time of Reinstallation 15:20
2:23	33.36	15:25	34.57	
Comments:				

Color: (clear) grey, yellow, brown, black, cloudy, green **Odor:** (none) sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Sunny, 50F

Sampling Event 2006-GMP-115-Q4
Date 12.15.06
Page 1 of

Well/Sample Number MW-33-090-115 **QC Sample ID** MW-94-115 QC Sample Time 9:15
Purge Start Time 7:57 Purge Method Grundfos pump Ded. Pump —
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 108 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
~~33.75~~	~~7:57~~	~~0~~									
	~~8:07~~	~~20~~									
33.75	8:17	40	6.63	9.37	5.42	5.03	27.95	0.52	6.1	177	
34.12	8:27	60	6.98	14.6	3.59	2.30	26.13	0.85	9	160	
34.15	8:37	80	7.19	14.8	2.12 ~~0.72~~	2.06	25.35	0.86	10	146	
34.16	8:47	100	7.40	14.6	2.78	1.74	28.86	0.85	10	129	
34.15	8:57	80	7.55	14.6	2.16	1.75	28.85	0.85	9	119	
34.16	9:07	100	7.61	14.5	2.06	1.74	28.93	0.84	9	114	
34.16	9:12	108	7.65	14.6	1.67	1.74	28.59	0.83	9	110	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/6/2006)			7.47	12500	0.47	0.95	27.28	0.72			
Are measurements consistent with previous?			✓	✓	✓	✓	NA	✓	✓	✓	

Sample Time 9:13 Sample Location: MW-33-090-45 (pump tubing) well port spigot bailer other
Comments:

PGE-2005-01A

Initial Depth to Water (ft BTOC): 33.75
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (88.28)
SWH (Standing Water Height) = WD-Initial Depth 54.53
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)
One Casing Volume = D*SWH 35.99
Three Casing Volumes = 107.97

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 7:58
7:57	33.75	9:30	33.77	Time of Reinstallation 9:25
Comments:				

Color: (clear) grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/13/06
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Well/Sample Number MW-33-150-115 **QC Sample ID** NA QC Sample Time _____

Purge Start Time 1355 Purge Method 3 CV Ded. Pump NA

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 62 Purge Rate (gpm)/(mLpm) 5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
37.18	1401	18	7.50	19.0	1.55	3.68	26.3	1.1	12	102	
37.22	1404	27	7.34	17.6	0.73	2.66	26.4	1.0	11	80	
37.02	1407	36	7.39	17.0	0.57	1.51	26.9	1.0	11	65	
37.13	1410	45	7.46	17.2	0.46	2.00	27.4	1.0	11	28	
37.17	1413	54	7.47	17.5	1.02	0.54	27.5	1.0	11	5	
37.19	1416	63	7.48	17.5	0.56	0.42	27.3	1.0	11	-3	
37.21	1419	72	7.47	17.5	0.52	0.41	27.3	1.0	11	-7	
37.21	1422	81	7.47	17.5	0.43	0.39	27.2	1.0	11	-5	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (10/6/2006)			7.45	20500	0.62	0.91	28.1	1.24		15	
Are measurements consistent with previous?							NA				

Sample Time ~~1420~~ 1424 12/13/06 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): ~~33.49~~ 34.22

Field measured confirmation of Well Depth (ft btoc): NA

WD (Well Depth - from database) ft btoc (155)

SWH (Standing Water Height) = WD-Initial Depth ~~121.51~~ 120.78

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH ~~20.66~~ 20.53

Three Casing Volumes = ~~61.97~~ 61.59

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 1058
Time	Initial DTW	Time	Final DTW	Time of Reinstallation _____
~~956~~ 12/13/06	~~33.49~~ 12/13/06	1433	34.15	
Comments: 34.22				

1350

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 **Field Conditions**

Sampling Event 2006-GMP-115-Q4
Date 12/11/06
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Well/Sample Number MW-33-210-115 **QC Sample ID** NA **QC Sample Time** _____

Purge Start Time 1000 Purge Method 3 CV Ded. Pump RE-2

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 97.0 Purge Rate (gpm)/(mLpm) _____

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
35.23	0904	26	6.95	24.5	0.28	1.55	26.78	1.5	15	241	
35.23	0909	34.4	7.16	29.5	0.20	1.41	27.08	1.9	18	232	
35.22	0914	49	7.28	22.6	0.66	1.11	27.57	1.43	45*	221	
35.25	0919	64	6.90	26.1	0.40	1.18	31.41	1.60	17	198	
35.25	0924	79	7.24	27.1	0.22	1.16	30.59	1.67	18	177	
35.25	0927	88	7.34	27.3	0.21	1.18	30.49	1.69	18	167	
35.25	0930	97	7.42	27.6	0.23	1.19	30.30	1.71	18	158	
35.25	0933	106	~~7.45~~ 7.43	27.6	0.20	1.17	30.26	1.71	18	157	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA			Y	
Previous Field measurement (10/6/2006)			7.27	24000	0.32	0.94	27.36	1.47		28	
Are measurements consistent with previous?			Y	Y	Y	Y	NA			N	

Sample Time 0935 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____

Comments: * (changed Horiba

Initial Depth to Water (ft BTOC): 33.40

Field measured confirmation of Well Depth (ft btoc): NA

WD (Well Depth - from database) ft btoc (223)

SWH (Standing Water Height) = WD-Initial Depth 189.6

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 32.23

Three Casing Volumes = 96.70

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
853	33.40	~~1046~~ 9	33.36	
Comments: PT was raised above TOC upon arrival, set the bracket properly				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
Page ____ of ____

Well/Sample Number MW-34-080-115 **QC Sample ID** NA QC Sample Time ____

Purge Start Time 1010 Purge Method 3 CV Ded. Pump RF-2

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 153 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
9.25	1018	24	7.29	8.47	21.2	1.08	20.02	0.5	5.5	28	
9.29	1025	35	7.18	8.53	7.30	0.38	20.75	0.5	5.6	2	
9.29	1032	66	7.17	15.2	0.56	0.43	21.00	0.9	10	-10	
9.31	1039	877	7.17	15.1	1.40	0.38	21.06	0.9	10	-15	
9.31	1046	98	7.17	15.1	0.61	0.28	21.08	0.9	10	-18	
9.31	1053	119	7.18	15.1	0.53	0.25	21.07	0.9	10	-20	
9.32	1100	140	7.18	15.0	0.89	0.25	21.09	0.9	10	-22	
9.32	1105	155	7.18	15.0	1.10	0.26	21.11	0.9	10	-23	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	*	-	Y	
Previous Field measurement (11/16/2006)			7.18	13200	1.64	1.09	20.4	0.76		-86	
Are measurements consistent with previous?			Y	Y	Y	Y	NA	Y	-	N	

Sample Time 1107 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 7.02

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (84.3)

SWH (Standing Water Height) = WD-Initial Depth 77.28

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in) .66

One Casing Volume = D*SWH 51

Three Casing Volumes = 153

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1006	7.02	1121	7.17	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
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Well/Sample Number MW-34-100-115 **QC Sample ID** NA QC Sample Time ____

Purge Start Time 1225 Purge Method 3 CV Ded. Pump RF-2

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 56 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
8.10	1228	6	7.37	20.0	0.85	1.17	19.65	1.2	13	8	
8.10	1232	14	7.63	20.6	0.47	0.26	20.38	1.2	13	-13	
8.10	1236	22	7.64	20.7	0.73	1.52	21.52	1.2	13	-18	
8.10	1240	30	7.63	20.8	0.46	0.24	21.83	1.3	14	-19	
8.10	1244	38	7.63	20.9	0.49	0.24	21.90	1.3	14	-18	
8:10	1248	46	7.63	20.9	0.41	0.25	22.02	1.3	14	-17	
8:10	1253	56	7.62	21.0		0.25	21.95	1.3	14	-16	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	-	-	Y	
Previous Field measurement (11/30/2006)			7.72	21900	1.83	0.93	25.62	1.33		115	
Are measurements consistent with previous?			Y	Y	Y	Y	NA	Y	-	N	

Sample Time 1255 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 7.53

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (117)

SWH (Standing Water Height) = WD-Initial Depth 109.47

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 18.61

Three Casing Volumes = 55.83

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal ____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation ____
1224	7.53	1304	7.55	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 3 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/14/06
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Well/Sample Number MW-36-070-115 **QC Sample ID** NA QC Sample Time _____

Purge Start Time 1048 Purge Method _____ Ded. Pump _____

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 7 Purge Rate (gpm)/(mLpm) 0.25

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
—	1052	1	7.70	3.09	2.09	2.05	27.86	0.15	2.0	-88	
—	1054	2	7.69	3.01	1.07	1.89	26.86	0.15	2.0	-99	
—	1058	3	7.66	3.18	1.95	1.82	26.38	0.16	2.1	-103	
—	1102	4	7.65	3.31	1.33	1.81	25.97	0.17	2.2	-104	
—	1106	5	7.64	3.34	1.63	1.79	25.88	0.17	2.2	-107	
—	1110	6	7.63	3.42	2.11	1.76	25.88	0.17	2.2	-109	
—	1114	7	7.62	3.44	2.08	1.76	25.80	0.17	2.2	-112	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (10/2/2006)			7.4	5220	0.5	1.43	25.77	0.27		-122	
Are measurements consistent with previous?							NA				

Sample Time 1115 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: * WLI will not fit in well w/ PT. Estimated DTW used.

Initial Depth to Water (ft BTOC): 16*

Field measured confirmation of Well Depth (ft btoc): _____

WD (Well Depth - from database) ft btoc (72.48)

SWH (Standing Water Height) = WD-Initial Depth 56.48

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (1 in)

One Casing Volume = D*SWH 2.31

Three Casing Volumes = 6.9

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal _____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation _____
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name	PGE Topock GMP	**Sampling Event**	2006-GMP-115-Q4
Job Number	338234.GM.02.00	**Date**	12/14/06
Field Team	3	Field Conditions	
		Page ____ of ____	

Well/Sample Number MW-36-090-115 **QC Sample ID** MW-93-115 QC Sample Time 0900

Purge Start Time 940 Purge Method 3CV Ded. Pump Peristaltic

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 9.5 Purge Rate (gpm)/(mLpm) 0.24

Water Level *	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
—	~~10~~ 9.46	1.5	6.89	6.86	3.05	1.56	29.30	0.37	4.5	-78	
—	~~10~~ 951	2.75	6.96	7.16	3.03	1.73	26.99	0.39	4.6	-78	
	~~10~~ 956	4.0	7.02	7.22	1.26	1.74	27.02	0.39	4.7	-69	
	1001	5.25	7.07	7.26	1.64	1.72	26.90	0.39	4.7	-62	
	1006	6.50	7.11	7.27	1.77	1.70	26.87	0.40	4.7	-55	
	1011	7.75	7.14	7.27	1.04	1.69	27.01	0.39	4.7	-48	
	1016	9.0	7.13 ~~7.22~~	7.22	1.59	1.68	27.13	0.39	4.7	-43	
	1021	10.25	7.19	7.25	2.99	1.68	27.04	0.39	4.7	-39	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Previous Field measurement	(11/15/2006)		7.77	11700	1.36	1.04	27.59	0.67		-64	
Are measurements consistent with previous?			Y	N	Y	Y	NA	N	—	Y	

Sample Time 1025 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: * leaving PT in place during purge, so cannot take WL measurement during purge.

Initial Depth to Water (ft BTOC): 16.08

Field measured confirmation of Well Depth (ft btoc): NA

WD (Well Depth - from database) ft btoc (92.48)

SWH (Standing Water Height) = WD-Initial Depth 76.4

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (1 in) 0.041

One Casing Volume = D*SWH 3.13

Three Casing Volumes = 9.4

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
930	16.08	1039	16.05	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/11/06
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Well/Sample Number MW-36-100-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1240 Purge Method _____ Ded. Pump _____

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 48 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
18.02	~~11~~ 1244	8	7.98	14.8	0.61	1.36	32.23	0.94	10	-165	
18.07	~~11~~ 1249	18	7.92	20.4	1.10	1.35	27.93	1.24	13	-119	
18.09	~~11~~ 1254	28	7.93	21.4	0.70	1.19	28.04	1.30	14	-83	
18.09	~~11~~ 1259	38	7.94	21.6	0.54	1.11	28.02	1.31	14	-73	
18.09	1202	44	7.94	21.6	0.73	1.10	28.06	1.31	14	-68	
18.09	1204	48	7.94	21.7	0.82	1.08	28.08	1.31	14	-64	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (11/14/2006)			7.78	17900	0.59	1.04	27.6	1.1		13	
Are measurements consistent with previous?							NA				

Sample Time 1205 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 16.24

Field measured confirmation of Well Depth (ft btoc): _____

WD (Well Depth - from database) ft btoc (110.15)

SWH (Standing Water Height) = WD-Initial Depth 93.76

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 15.94

Three Casing Volumes = 47.82

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1130	16.24	1211	16.24	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1
Field Conditions Sunny, 72°, Slight breeze

Sampling Event 2006-GMP-115-Q4
Date 12/14/06
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Well/Sample Number MW-37D-115
QC Sample ID NA
QC Sample Time
Purge Start Time 1409
Purge Method Mobile Redi fb Ded. Pump
Flow Cell: (Y) / N
Min. Purge Volume (gal)/(L) 99 Purge Rate (gpm)/(mLpm)

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
31.90	1409	0	7.55	15.3	2.05	4.34	27.18	0.9	10	150	
32.42	1414	15	7.67	98.5	0.91	0.31	29.78	>4.0	52	129	
32.40	1419	30	7.65	>99.9	0.88	0.48	30.28	>4.0	>99	118	
32.40	1424	45	7.66	>99.9	0.78	0.67	30.45	>4.0	>99	111	
32.41	1429	60	7.66	>99.9	0.45	0.68	30.51	>4.0	>99	104	
32.41	1433	70	7.66	>99.9	0.65	0.68	30.54	>4.0	>99	99	
32.40	1436	80	7.66	>99.9	0.70	0.68	30.55	>4.0	>99	97	
32.40	1440	90	7.66	>99.9	1.15	0.67	30.55	>4.0	>99	95	
32.40	1443	100	7.66	>99.9	.30	0.67	30.57	>4.0	>99	92	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/13/2006)			7.93	30600	0.96	1.92	31.67	1.9		2	
Are measurements consistent with previous?			N	?	✓	N	NA	?	?	?	

Sample Time ~~1450~~ 1450 Sample Location: pump tubing ✓ well port ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 31.90'
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (226.72)
SWH (Standing Water Height) = WD-Initial Depth 194.82
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 33
Three Casing Volumes = 99

Measure Point: (Well TOC) Steel Casing
PG&E 2005-02
WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		NA		If Transducer
		Approx. 5 min After Reinstallation		Time of Removal ____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation ____
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green
Odor: (none), sulphur, organic, other
Solids: (Trace), Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 3 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/14
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Well/Sample Number MW-39-040-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1414 Purge Method 3 CV Ded. Pump Peristaltic

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 3.4 Purge Rate (gpm)/(mLpm) 0.25

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
—	1417	0.75	7.20	9.64	2.48	2.37	27.58	0.54	6.2	-161	
—	1420	1.50	7.16	13.1	1.93	1.93	27.56	0.75	9	-168	
—	1423	2.25	7.14	13.2	2.03	1.80	27.60	0.76	9	-171	
—	1426	3.0	7.14	13.2	1.44	1.76	27.55	0.76	9	-173	
—	1429	3.75	7.13	13.2	1.39	1.72	27.53	0.76	9	-174	

Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?						NA				
Previous Field measurement	(10/5/2006)	7.21		12.7	1.35	25.72			-198	
Are measurements consistent with previous?						NA				

Sample Time 1430 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 14.65

Field measured confirmation of Well Depth (ft btoc): _____

WD (Well Depth - from database) ft btoc (42.1)

SWH (Standing Water Height) = WD-Initial Depth 27.45

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (1 in) .041

One Casing Volume = D*SWH 1.12

Three Casing Volumes = 3.4

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal _____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation _____
1408	14.65	1244	14.89	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 3 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/14/06
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Well/Sample Number MW-39-070-115 **QC Sample ID** NA QC Sample Time ____

Purge Start Time 1321 Purge Method ____ Ded. Pump ____

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 7 Purge Rate (gpm)/(mLpm) .25

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
—	1323	1	7.52	5.89	1.71	2.47	28.42	0.31	3.8	-60	
—	1327	2	7.50	5.73	2.06	2.09	27.32	0.31	3.7	-69	
—	1331	3	7.42	6.17	1.30	1.97	27.11	0.33	4.0	-64	
—	1335	4	7.31	7.08	1.61	1.91	27.12	0.40	4.8	-45	
—	1339	5	7.29	7.90	2.05	1.85	27.14	0.44	5.2	-29	
—	1344	6	7.28	8.08	2.73	1.85	27.11	0.44	5.2	-13	
—	1348	7	7.28	8.08	1.59	1.82	27.10	0.44	5.3	-6	
—	1351	7.75	7.27	8.16	0.98	1.80	27.12	0.45	5.3	-1	
✓	1354	8.50	7.27	8.19	0.84	1.79	27.15	0.45	5.3	2	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA			Y	
Previous Field measurement (10/5/2006)			7.01	12200	1.92	1.24	25.78	0.7		-1	
Are measurements consistent with previous?				N	N	N	NA	N		Y	

Sample Time 1355 Sample Location: pump tubing X well port ____ spigot ____ bailer ____ other ____

Comments: Extraction system is down.

Initial Depth to Water (ft BTOC): 14.35

Field measured confirmation of Well Depth (ft btoc): NA

WD (Well Depth - from database) ft btoc (71.69)

SWH (Standing Water Height) = WD-Initial Depth 57.34

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (1 in) .041

One Casing Volume = D*SWH 2.35

Three Casing Volumes = 7.05

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1315	14.35	1405	14.97	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 3 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/14/06
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Well/Sample Number MW-39-080-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1215 Purge Method 3 CV Ded. Pump peristaltic

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 8.4 Purge Rate (gpm)/(mLpm) 0.24

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
—	1219 20	1.25	7.10	14.7	2.06	1.95	29.21	0.86	10	-34	
—	1225	2.50	7.05	15.1	2.75	1.77	28.37	0.88	10	-2	
—	1230	3.75	7.00	16.2	2.23	1.75	27.80	0.96	11	17	
—	1235	5.0	6.97	16.8	1.34	1.72	27.74	0.99	11	28	
—	1240	6.25	6.95	16.9	1.26	1.70	27.78	1.00	11	36	
—	1245	7.50	6.95	17.2	1.95	1.70	27.67	1.02	11	42	
—	1250	8.75	6.94	17.3	2.03	1.70	27.69	1.02	11	44	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (11/15/2006)			7.41	17600	0.64	0.95	28.75	1.05		52	
Are measurements consistent with previous?							NA				

Sample Time 1252 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 14.37

Field measured confirmation of Well Depth (ft btoc): NA

WD (Well Depth - from database) ft btoc (82.55)

SWH (Standing Water Height) = WD-Initial Depth 68.25

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (1 in) .041

One Casing Volume = D*SWH 2.80

Three Casing Volumes = 8.39

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1210	14.37	1309	14.48	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
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Well/Sample Number MW-39-100-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1315 Purge Method 3 CV Ded. Pump RP-2

Flow Cell: (Y) N Min. Purge Volume (gal)/(L) 52 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
15.66	1319	8	7.20	20.1	8.23	1.56	26.04	1.2	13	114	
15.68	1323	16	7.14	29.2	4.22	1.57	26.50	1.9	19	102	
15.68	1328	26	7.11	24.0	2.99	0.91	26.58	1.5	16	96	
15.68	1332	34	7.09	24.1	2.26	0.41	26.62	1.5	16	95	
15.68	1336	42	7.06	24.2	1.19	0.43	26.57	1.5	16	94	
15.69	1340	50	7.04	24.2	2.78	0.45	26.57	1.5	16	95	
15.69	1342	54	7.04	24.2	2.56	0.43	26.61	1.5	16	95	

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?	Y	Y	Y	Y	NA	–	–	Y	
Previous Field measurement (11/15/2006)	6.97	23000	1.43	2.48	26.3	1.4		96	
Are measurements consistent with previous?	Y	Y	Y	N	NA	Y	–	Y	

Sample Time 1345 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 15.15

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (117.71)

SWH (Standing Water Height) = WD-Initial Depth 102.56

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 17.44

Three Casing Volumes = 52.3

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE-2005-03

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1312	15.15	1350	15.20	

Comments:

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions Clear, 45F

Sampling Event 2006-GMP-115-Q4
Date 12.13.06
Page 1 of ____

Well/Sample Number MW-40D-115 **QC Sample ID** NA — QC Sample Time —

Purge Start Time 8:20 Purge Method Mobile Grdfos Ded. Pump —

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 79 Purge Rate (gpm)/(mLpm) 3.5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
111.45	8:20	0	6.87	17.0	1.04	0.85	28.5	1	11	267	
112.82	8:26	15	6.91	17.5	0.54	0.61	28.86	1.1	11	262	
112.85	8:32	30	7.27	>99.9	0.34	0.36	30.13	>4	>99	220	
112.85	8:38	45	7.38	>99.9	0.37	0.29	29.19	>4	>99	205	
112.85	8:44	60	7.38	>99.9	0.53	0.32	30.75	>4	>99	183	
112.85	8:50	75	7.39	>99.9	0.27	0.29	30.86	>4	>99	165	
112.85	8:52	80	7.39	>99.9	0.33	0.27	30.85	>4	>99	158	
112.85	8:54	85	7.39	>99.9	0.27	0.27	30.81	>4	>99	154	
112.85	8:56	90	7.40	>99.9		0.26	30.86	>4	>99	150	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/5/2006)			7.57	20900	0.75	2.14	32.05	1.3		84	
Are measurements consistent with previous?			✓	N/A	✓	✓	NA	✓	N/A	✓	

Sample Time 9:00 Sample Location: MW-40D-115 (pump tubing) well port ____ spigot ____ bailer ____ other ____

Comments: ____

PGE 2005-02

Initial Depth to Water (ft BTOC): 111.45

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (266)

SWH (Standing Water Height) = WD-Initial Depth 154.55

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 26.27

Three Casing Volumes = 78.82

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		N/A If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal ____
Time	Initial DTW	Time	Final DTW	Time of Reinstallation ____
8:12	111.45			
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions sunny 65

Sampling Event 2006-GMP-115-Q4
Date 12.14.06
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Well/Sample Number MW-42-055-115 **QC Sample ID** NA — QC Sample Time —

Purge Start Time 11:20 Purge Method Mobile readyflo Ded. Pump —

Flow Cell (Y) N Min. Purge Volume (gal)/(L) 23.24 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
11.39	11:20	0	7.16	16.5	1.59	0.58	23.6	1	10	-130	
11.40	11:21	3	7.16	16.5	1.10	0.60	23.6	1	10	-129	
11.40	11:22	6	7.16	16.5	1.22	0.57	23.4	1	10	-129	
11.41	11:23	9	7.16	16.5	1.11	0.55	23.7	1	10	-129	
11.41	11:24	12	7.15	16.5	1.26	0.54	23.7	1	10	-129	
11.42	11:25	15	7.15	16.6	1.59	0.5	23.8	1	10	-129	
11.43	11:26	18	7.15	16.5	1.85	0.54	24.1	1	10	-130	
11.42	11:27	21	7.15	16.5	2.08	0.52	24.3	1	10	-131	
11.42	11:28	24	7.15	16.5	1.81	0.50	24.3	1	10	-132	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/3/2006)			7.3	19100	0.8	0.76	26.35	1.14		-126	
Are measurements consistent with previous?			✓	✓	✓	✓	NA	✓	✓	✓	

Sample Time 11:30 Sample Location: (pump tubing) well port ____ spigot ____ bailer ____ other ____

Comments: Generator out of fuel before started purging

PGRE 2005-C-3

Initial Depth to Water (ft BTOC): 10.43 Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (56)

SWH (Standing Water Height) = WD-Initial Depth 45.57

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 7.75

Three Casing Volumes = 23.24

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 10:56 / Time of Reinstallation 11:36
10:56	10.43	11:41	10.43	

Comments:

Color: (clear) grey, yellow, brown, black, cloudy, green **Odor** (none) sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions sunny, 65F

Sampling Event 2006-GMP-115-Q4
Date 12.14.06
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Well/Sample Number MW-42-065-115 **QC Sample ID** NA QC Sample Time —
Purge Start Time 10:26 Purge Method Mobile recirc from Ded. Pump —
Flow Cell Y / N Min. Purge Volume (gal)/(L) 36 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
10.84	10:26	0	6.9	17.8	2.43	0.85	23.2	1.1	11	−56	
10.84	10:28	6	6.85	18.2	1.16	0.57	23.6	1.1	11	−47	
10.84	10:30	12	6.85	18.3	0.96	0.47	23.7	1.1	11	−46	
10.84	10:32	18	6.84	18.3	0.83	0.48	23.7	1.1	11	−46	
10.84	10:34	24	6.84	18.3	1.33	0.43	23.6	1.1	11	−46	
10.84	10:36	30	6.84	18.3	1.59	0.41	23.5	1.1	11	−46	
10.84	10:38	36	6.84	18.3	1.08	0.64	23.4	1.1	12	−42	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/3/2006)			7.05	20400	0.86	0.7	26.39	1.23		-50	
Are measurements consistent with previous?			✓	✓	✓	✗	NA	✗	✓	✓	

Sample Time 10:42 Sample Location: MW-42-065 pump tubing well port ____ spigot ____ bailer ____ other ____
Comments: ____

PGE 2005-C-3

Initial Depth to Water (ft BTOC): 9.99
Field measured confirmation of Well Depth (ft btoc): 70.0
WD (Well Depth - from database) ft btoc (80)
SWH (Standing Water Height) = WD-Initial Depth 70.01
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 11.90
Three Casing Volumes = 35.71

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 10:16 / Time of Reinstallation 10:49
10:15	9.99	11:54	10.02	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
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Well/Sample Number MW-43-075-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 813 Purge Method 3CV Ded. Pump 15F-2

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 25 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
8.75	818	10	6.98	13.7	2.78	1.21	20.63	0.8	8	41	
8.76	820	14	7.24	14.0	1.31	1.23	21.05	0.8	9	-29	
8.78	823	20	7.29	15.7	1.88	1.31	21.13	0.9	10	-74	
8.79	826	26	7.23	18.2	1.19	1.28	21.07	1.1	11	-94	
8.80	829	32	7.33	20.8	1.30	1.23	21.03	1.2	13	-101	
8.80	832	38	7.34	>4.5 *	1.09	1.13	21.04	1.5	15	-107	
8.80	836	42	7.34	17.4	1.21	1.18	21.05	>5 ME 10	10	-109	
8.80	838	46		17.7							
8.80	840	50		18.1							
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	-	-	Y	
Previous Field measurement (10/2/2006)			7.68	17900	0.51	1.18	22.33	1.06		-128	
Are measurements consistent with previous?			Y	Y	Y	Y	NA	Y	-	Y	

Sample Time 0842 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: *Cond. continues to rise beyond historic range. Change to different horiba

Initial Depth to Water (ft BTOC): 8.39

Field measured confirmation of Well Depth (ft btoc): _____

WD (Well Depth - from database) ft btoc (77)

SWH (Standing Water Height) = WD-Initial Depth 68.61

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 11.66

Three Casing Volumes = 34.99

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: PGE 2005-C3

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
809	8.39	8:45	8.39	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
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Well/Sample Number MW-43-090-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time ~~9:49~~ 849 Purge Method 3 CV Ded. Pump RF-2

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 48 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
9.69	~~853~~	8	7.20	18.4	2.08	4.94	20.83	1.1	11	-25	
9.69	856	16	6.79	21.7	~~1.13~~ 0.87 NE	1.13	21.63	1.3	14	-63	
9.69	~~1000~~ 900	26	6.77	24.0	0.88	1.01	21.52	1.5	16	-75	
9.69	~~1004~~ 904	34	6.77	24.5	1.73	0.60	21.61	1.5	16	-81	
9.70	~~1008~~ 908	42	6.76	25.1	1.02	0.54	21.61	1.5	16	-83	
9.70	~~1012~~ 912	50	6.76	25.2	0.75	0.48	21.63	1.6	16	-85	
9.70	~~1014~~ 914	54	6.76	25.2	0.71	0.46	21.62	1.6	16	-85	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	—	—	Y	
Previous Field measurement (10/2/2006)			7.22	23600	0.67	0.39	22.65	1.44		-108	
Are measurements consistent with previous?			N	Y	Y	Y	NA	Y	—	Y	

Sample Time 0915 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 8.66

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (102)

SWH (Standing Water Height) = WD-Initial Depth 93.34

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 15.87

Three Casing Volumes = 47.6

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
847	8.66	924	8.73	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions sunny, 70F

Sampling Event 2006-GMP-115-Q4
Date 12.14.06
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Well/Sample Number MW-44-070-115 **QC Sample ID** NA — QC Sample Time —

Purge Start Time 9:20 Purge Method Mobile reely flow Ded. Pump —

Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 27 Purge Rate (gpm)/(mLpm) 1.5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
18.32	9:20	0	7.41	6.66	4.08	2.73	22.3	0.4	4.2	-144	
23.29	9:23	4	7.37	6.75	3.23	2.41	22.4	0.4	4.3	-138	
23.33	9:25	8	7.36	6.78	3.76	2.44	22.4	0.4	4.3	-135	
23.40	9:28	12	7.35	6.78	3.00	2.40	22.5	0.4	4.3	-133	
23.48	9:30	16	7.35	6.78	3.10	2.31	22.5	0.4	4.3	-131	
23.42	9:33	20	7.35	6.74	>1000	1.91	22.6	0.4	4.3	-132	
23.48	9:35	24	7.35	6.75	2.13	1.81	22.6	0.4	4.2	-129	
23.48	9:37	27	7.35	6.73	3.88	1.69	22.5	0.4	4.2	-129	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/4/2006)			7.09	8910	1.1	2.33	24.27	0.5	[illegible]	-181	
Are measurements consistent with previous?			✓	✓	✓	✓	NA	✓	NA	✓	

Sample Time 9:38 Sample Location: (pump tubing) well port spigot bailer other

Comments:

PG&E 2005-C-3

Initial Depth to Water (ft BTOC): 18.32
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (70)
SWH (Standing Water Height) = WD-Initial Depth 51.68
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 8.79
Three Casing Volumes = 26.36

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal 9:05
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 9:48
9:06	18.32	9:53	18.25	

Comments:

Color: (clear) grey, yellow, brown, black, cloudy, green **Odor** (none) sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
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Well/Sample Number MW-44-115-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1429 Purge Method _____ Ded. Pump _____

Flow Cell: (Y) N Min. Purge Volume (gal)/(L) 50 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
20.34	1432	9	7.31	17.9	2.02	1.68	22.47	1.1	12	149	
20.34	1435	18	7.51	18.1	2.46	0.97	22.97	1.1	12	141	
20.34	1438	27	7.64	18.3	1.95	0.61	23.70	1.1	12	130	
20.35	1441	36	7.68	18.3	2.55	0.57	24.11	1.1	12	124	
20.35	1444	45	7.70	18.3	1.30	0.62	24.18	1.1	12	118	
20.35	1446	51	7.71	18.3	1.37	0.64	24.24	1.1	12	116	
	...										

Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?		Y	Y	Y	Y	NA	Y	–	Y	
Previous Field measurement	(11/15/2006)	7.72	14000	1.48	1.52	24	0.81		19	
Are measurements consistent with previous?		Y	Y	Y	Y	NA	Y	–	N	

Sample Time 1450 Sample Location: pump tubing X well port _____ spigot _____ bailer _____ other _____

Comments: _____

Initial Depth to Water (ft BTOC): 18.63
Field measured confirmation of Well Depth (ft btoc): _____
WD (Well Depth - from database) ft btoc (113.5)
SWH (Standing Water Height) = WD-Initial Depth 94.87
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17
One Casing Volume = D*SWH 16.13
Three Casing Volumes = 48.38

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1423	18.63	1455	18.65	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/13/06
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Well/Sample Number MW-44-125-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 850 Purge Method 3 CV Ded. Pump NO

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 57 Purge Rate (gpm)/(mLpm) 1 gpm - 3/4

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
↓	900	restart pump									
36.34	908	8	7.22	6.93	29.5	3.11	21.7	0.4	4.4	-91	*
41.12	917	14.75	7.43	9.10	13.0	1.97	23.0	0.5	6.0	-75	
41.16	926	21.5	7.77	13.1	3.45	1.61	23.6	0.8	8	-68	
41.16	935	28.25	7.90	13.7	2.09	1.36	23.8	0.8	9	-71	
41.16	945	35.75	7.98	14.0	2.29	1.11	23.8	0.8	9	-69	
41.16	955	43.25	8.03	14.2	3.25	0.96	23.7	0.8	9	-72	
41.16	1002	48.5	8.05	14.2	3.15	0.86	24.1	0.8	9	-69	
41.12	1011	56	8.07	14.2	2.27	0.76	24.0	0.8	9	-67	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (11/15/2006)			7.98	14200	3.01	1.26	24.5	0.82		-119	
Are measurements consistent with previous?							NA				

Sample Time 1013 Sample Location: pump tubing _____ well port _____ spigot _____ bailer _____ other _____

Comments: * water level dropping rapidly. Decreased purge rate to 3/4

Initial Depth to Water (ft BTOC): 18.43

Field measured confirmation of Well Depth (ft btoc): 127.6

WD (Well Depth - from database) ft btoc (128.8)

SWH (Standing Water Height) = WD-Initial Depth 110.37

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 18.76

Three Casing Volumes = 56.29

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal 825
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 1024
823	18.43	10:31	19.50	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/13/06
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Well/Sample Number MW-46-175-115 **QC Sample ID** NA QC Sample Time ____

Purge Start Time 1247 Purge Method SCV Ded. Pump RF-2

Flow Cell (Y) N Min. Purge Volume (gal)/(L) 78 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
33.40	1253	12	8.26	17.6	0.43	3.31	22.0	1.0	11	69	
33.40	1258	24	8.27	17.5	0.86	1.76	23.1	1.0	11	18	
33.42	1305	36	8.30	17.8	0.41	2.54	23.8	1.0	11	3	
33.42	1311	48	8.32	17.6	0.43	3.39	24.0	1.0	11	-12	
33.46	1317	60	8.31	17.7	0.91	1.56	24.6	1.1	11	-17	
33.51	1323	72	8.31	17.7	0.64	0.34	24.7	1.0	11	-26	
33.51	1326	78	8.31	17.7	0.41	0.28	24.7	1.0	11	-30	
33.51	1329	84	8.31	17.7	0.87	0.28	24.6	1.0	11	-33	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			Y	Y	Y	Y	NA	-	-	Y	
Previous Field measurement (11/15/2006)			8.28	17100	1.52	1.11	24.4	1		-118	
Are measurements consistent with previous?			Y	Y	Y	N	NA	Y	-	N	

Sample Time 1330 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 28.85

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (181.8)

SWH (Standing Water Height) = WD-Initial Depth 152.95

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 26.0

Three Casing Volumes = 78.0

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal NA
Time	Initial DTW	Time	Final DTW	Time of Reinstallation NA
1246	28.85	1339	28.90	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions

Sampling Event 2006-GMP-115-Q4
Date 12/13/06
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Well/Sample Number MW-46-205-115 **QC Sample ID** NA QC Sample Time NA

Purge Start Time 1214 Purge Method 3CV Ded. Pump No

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 100 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
33.78	1121	14	8.13	21.0	0.29	1.35	22.1	1.3	13	5	
33.83	1127	26	8.14	21.0	0.59	1.14	23.7	1.3	13	8	
33.85	1134	40	8.21	21.2	0.78	1.22	24.1	1.3	13	7	
33.85	1141	54	8.23	21.2	0.89	1.29	23.8	1.3	13	5	
33.90	1148	68	8.22	21.1	0.93	1.28	23.5	1.3	13	14	
33.90	1155	82	8.22	21.1	0.68	1.23	23.6	1.3	13	20	
33.94	1200	92	8.21	21.0	0.66	1.04	25.2	1.3	13	12	
33.94	1205	102	8.21	21.0	0.42	0.97	25.1	1.3	13	10	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?							NA				
Previous Field measurement (10/5/2006)			8.65	27500	1.35	2.41	26.98	1.7		-96	
Are measurements consistent with previous?							NA				

Sample Time 1207 Sample Location: pump tubing ____ well port ____ spigot ____ bailer ____ other ____

Comments: ____

Initial Depth to Water (ft BTOC): 29.08

Field measured confirmation of Well Depth (ft btoc): ____

WD (Well Depth - from database) ft btoc (224.67)

SWH (Standing Water Height) = WD-Initial Depth 195.59

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in) .17

One Casing Volume = D*SWH 33.25

Three Casing Volumes = 99.75

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 1105
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 12 40
1104	29.08	~~1240~~	~~29.08~~	
Comments:		1245	29.05	

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Cloudy 70

Sampling Event 2006-GMP-115-Q4
Date 12.14.06
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Well/Sample Number MW-47-055-115 **QC Sample ID** NA QC Sample Time —
Purge Start Time 12:12 Purge Method Mobile Ready Flow Ded. Pump
Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 13 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
30.20	12:12	0	7.96	4.08	455	4.07	26.3	0.2	2.6	51	
30.20	12:13	2	7.86	4.08	467	2.92	25.9	0.2	2.6	46	
30.20	12:14	4	7.81	4.07	500	2.93	25.9	0.2	2.6	40	
30.20	12:15	6	7.78	4.05	709	3.11	26.3	0.2	2.6	36	
30.21	12:16	8	7.70	4.00	895	3.07	27.5	0.2	2.6	32	
30.21	12:17	10	7.67	3.99	760	2.33	27.6	0.2	2.5	30	
30.21	12:18	12	7.65	3.98	536	2.18	27.6	0.2	2.5	29	
30.21	12:19	14	7.64	3.97	376	2.19	27.6	0.2	2.5	28	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/10/2006)			7.48	5300	12	2.83	27.85	0.28		6	
Are measurements consistent with previous?			✓	✓	✓	✓	NA				

Sample Time 12:20 Sample Location: (pump tubing) well port spigot bailer other
Comments:

PGPE 2005-C-3

Initial Depth to Water (ft BTOC): 29.59 Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (55)
SWH (Standing Water Height) = WD-Initial Depth 25.41
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 4.32
Three Casing Volumes = 12.96

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal 11:59
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 12:25
11:59	29.59	12:30	29.83	
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions ~~Cloudy~~, 70

Sampling Event 2006-GMP-115-Q4
Date 12.14.06
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Well/Sample Number MW-47-115-115 **QC Sample ID** NA — QC Sample Time —
Purge Start Time 12:54 Purge Method Mobile Skady flow Ded. Pump —
Flow Cell (Y) N Min. Purge Volume (gal)/(L) 43 Purge Rate (gpm)/(mLpm) 1.5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
~~29.98~~ 31.63	12:54	0	7.6	14.1	~~3767.6~~	0.50	27.8	0.8	9	36	
31.68	12:58	7	7.64	14.4	92.3	0.40	28.1	0.8	9	3	
31.68	12:01	14	7.65	14.5	186	0.38	28.1	0.8	9	-4	
31.70	12:05	21	7.65	14.7	21.5	0.38	27.9	0.9	9	-20	
31.71	12:08	28	7.65	14.7	9.11	0.39	27.7	0.9	9	-24	
31.71	12:12	35	7.63	14.8	3.91	0.37	28.0	0.9	9	-24	
31.72	12:15	42	7.63	14.8	2.56	0.37	27.8	0.9	9	-25	
31.72	12:17	44	7.63	14.8	2.13	0.36	27.8	0.9	9	-25	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/10/2006)			7.59	16800	44.8	1.13	28.45	0.99		-80	
Are measurements consistent with previous?			✓	✓	✓	✓	NA	✓	NA	✓	

Sample Time 13:25 Sample Location: (pump tubing) well port ____ spigot ____ bailer ____ other ____
Comments: ____

PGE 2005-C-3

Initial Depth to Water (ft BTOC): 29.98
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc (115)
SWH (Standing Water Height) = WD-Initial Depth 85.02
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 14.45
Three Casing Volumes = 43.36

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 12:40
12:39	29.98	13:35	30.02	Time of Reinstallation 13:30
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Sunny, 65

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Date 12/13/06
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Well/Sample Number MW-48-115 **QC Sample ID** NA QC Sample Time —
Purge Start Time 15:07 Purge Method Bailer Ded. Pump —
Flow Cell: ~~Y~~ N Min. Purge Volume (gal)/(L) 54 Purge Rate (gpm)/(mLpm)

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
31.85	15:07	0.3	7.48	18.4	~~18.6~~ 16.9	3.97	25.6	2.2	23	105	
56.00	15:27	5	7.23	>99.9	14.2	1.12	26.24	>4	>99	42	
79.75	15:44	10	7.26	>99.9	15.9	2.89	25.47	>4	>99	-24	
100.21	16:03	15	7.26	>99.9	13.1	2.81	26.13	>4	>99	-51	
117.0	16:30	~~22~~	7.39	58.2	22.9	3.51	25.46	>4	57	-8	DRY
~~121.00~~	~~16:41~~	~~25~~ @									

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?	✓	✓	N	✓	NA	✓	✓	N	
Previous Field measurement (10/6/2006)	7.01	21600	4.66	1.49	33.61	1.3		-65	
Are measurements consistent with previous?	N	N/A	N	N	NA	N/A	NA	N	

Sample Time 0910 Sample Location: pump tubing ____ well port ____ spigot ____ (bailer) other ____
Comments: Could not fit pump in the well / used disposable Bailor
Will return to sample on 12/15/06 / collect sample 12/15/06 0910 DTW= 87.92'

12/15/06

Initial Depth to Water (ft BTOC): 31.85
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (138)
SWH (Standing Water Height) = WD-Initial Depth 106.15
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 18.05
Three Casing Volumes = 54.14

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		N/A If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal
Time	Initial DTW	Time	Final DTW	Time of Reinstallation
15:07	31.85			
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Sunny, 75F

Sampling Event 2006-GMP-115-Q4
Date 12.15.06
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Well/Sample Number MW-49-135-115 **QC Sample ID** NA — QC Sample Time —

Purge Start Time 10:36 Purge Method Wattera pump Ded. Pump —

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 30 Purge Rate (gpm)/(mLpm) 0.5

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
-	10:36	0	7.30	9.99	9.02	0.37	24.91	1.2	15	-16	
—	10:46	5	7.42	>99.9	8.54	0.08	25.05	>4	>99	-65	
—	10:56	10	7.43	84.0	97.7	0.23	25.15	>4	50	-118	
—	11:06	15	7.46	50.7	501	0.26	25.24	3.5	31	-139	
—	11:16	20	7.48	38.8	—	0.27	25.23	2.5	23	-147	
—	11:26	25	7.49	32.7	63.9	0.26	25.20	2	20	-152	
—	11:36	30	7.49	28.4	58.4	0.26	25.31	1.8	18	-156	
—	11:40	35	7.5	27.7	53.7	0.26	25.3	1.7	17	-157	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/12/2006)			7.73	21200	96.2	1.9	24.94	1.3		-200	
Are measurements consistent with previous?			✓	✓	✓	✓	NA	✓	✓ N/A	✓	

Sample Time 11:40 Sample Location: (pump tubing) well port spigot bailer other

Comments: No turbidity reading for 20 gallons since the Bottle Broke, replaced with new one.

Initial Depth to Water (ft BTOC): 29.98

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (136.6)

SWH (Standing Water Height) = WD-Initial Depth 106.62

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (1.5 in) ~~35~~

One Casing Volume = D*SWH —

Three Casing Volumes = 30

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: PG&E 2005-01f

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 10:12
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 11:44
10:10	29.98	11:49	30.34	
Comments:				

Color: clear, grey, yellow, brown, black, (cloudy), green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Sunny, 75

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Date 12.15.07
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Well/Sample Number MW-49-275-115 **QC Sample ID** NA — QC Sample Time —

Purge Start Time 10:26 Purge Method Steady flow Ded. Pump —

Flow Cell: (Y) / N Min. Purge Volume (gal)/(L) 124 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
31.01	10:26	0	7.61	27.8	36.7	4.14	29.37	1.74	18	-164	
48.51	10:33	20	7.77	28.7	7.91	2.33	28.94	1.79	18	-195	
38.75	10:40	40	7.98	30.1	23.5	1.69	29.56	1.89	20	-201	
38.45	10:47	60	8.09	30.1	494	1.65	29.85	1.88	20	-209	
38.39	10:54	80	8.16	29.9	3.58	1.63	29.97	1.87	19	-211	
39.34	11:01	105	8.24	29.9	531	1.66	29.7	1.87	19	-215	
37.57	11:08	126	8.29	30	55.2	1.68	29.51	1.87	20	-213	
	~~11:43~~	~~147~~									

Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?		✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement	(10/12/2006)	8.21	31100	696	1.82	28.34	2		-252	
Are measurements consistent with previous?		✓	✓	✓	✓	NA	✓	N/A	✓	

Sample Time 11:10 Sample Location: (pump tubing) well port spigot bailer other

Comments:

PGE 2005-01A

Initial Depth to Water (ft BTOC): 31.01

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (274.7)

SWH (Standing Water Height) = WD-Initial Depth 243.7

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 41.43

Three Casing Volumes = 124.28

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer			
		Approx. 5 min After Reinstallation		Time of Removal	10:00
Time	Initial DTW	Time	Final DTW	Time of Reinstallation	11:45
9:59	31.01	11:50	31.05		

Comments:

Color: (clear), grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 2 Field Conditions Sunny, 80f

Sampling Event 2006-GMP-115-Q4
Date 12.15.06
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Well/Sample Number MW-49-365-115 **QC Sample ID** NA — QC Sample Time —
Purge Start Time 12:34 Purge Method Mobile rotary flex Ded. Pump —
Flow Cell: Y / N Min. Purge Volume (gal)/(L) 171 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
42.11	12:34	0	8.14	44.3	5.62	2.7	27.18	2.87	29	-150	
42.33	12:44	30 / 8	8.15	43.5	4.66	1.97	28.7	2.81	28	-179	
42.44	12:54	60 / 16	8.18	43.3	319	1.86	29.71	2.8	28	-188	
42.51	13:04	90 / 24	8.21	43.9	38.7	1.80	30.29	2.85	29	-175	
41.69	13:14	120 / 32	8.26	44.1	12.6	1.7	30.25	2.86	29	-170	
41.70	13:24	150 / 40	8.29	44.2	6.48	1.73	30.29	2.89	29	-171	
41.73	13:34	180 / 48	8.31	44.4	7.72	1.72	30.09	2.9	29	-172	
		171									

Parameter Stabilization Criteria	+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?	✓	✓	N	✓	NA	✓	✓	✓	
Previous Field measurement (10/12/2006)	8.07	47700	2.67	1.43	28.83	3.1		-275	
Are measurements consistent with previous?	✓	✓	✓	✓	NA	✓	N/A	✓	

Sample Time 13:45 Sample Location: pump tubing well port spigot bailer other
Comments:

PG&E 2005-01A

Initial Depth to Water (ft BTOC): 32.61
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (367.35)
SWH (Standing Water Height) = WD-Initial Depth 334.74
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 56.91
Three Casing Volumes = 170.72

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 11:51 / Time of Reinstallation 13:38
11:51	32.61	13:43	32.73	

Comments:

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions overcast, 65

Sampling Event 2006-GMP-115-Q4
Date 12.12.06
Page 1 of ____

Well/Sample Number MW-50-095-115 **QC Sample ID** NA QC Sample Time —
Purge Start Time 12:41 Purge Method Mobile rack flow Ded. Pump —
Flow Cell: (Y) N Min. Purge Volume (gal)/(L) 30 Purge Rate (gpm)/(mLpm) 2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
42.25	12:41	0	7.78	4.62	11.2	2.55	28.9	0.2	3	115	
42.90	12:44	5	7.78	4.61	5.21	2.57	28.9	0.2	3	115	
42.90	12:47	10	7.79	4.6	2.90	2.52	29.0	0.2	2.9	114	
42.90	12:50	15	7.79	4.58	2.68	2.48	28.7	0.2	2.9	114	
42.90	12:53	20	7.79	4.59	2.42	2.55	28.5	0.2	2.9	113	
42.90	12:56	25	7.78	4.58	1.01	2.53	28.4	0.2	2.9	113	
42.90	12:59	30	7.79	4.59	1.19	2.40	28.3	0.2	2.9	112	
	3										

Parameter Stabilization Criteria		+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV
Did Parameters Stablize prior to sampling?		✓	✓	✓	✓	NA	✓	✓	✓
Previous Field measurement	(10/10/2006)	7.72	7120	0.91	2.85	28.57	0.39		24
Are measurements consistent with previous?		✓	N	N	N	NA	N	✓	N

Sample Time 13:00 Sample Location: (pump tubing) well port spigot bailer other
Comments:

PGE2005-02

Initial Depth to Water (ft BTOC): 42.25
Field measured confirmation of Well Depth (ft btoc):
WD (Well Depth - from database) ft btoc (96.45)
SWH (Standing Water Height) = WD-Initial Depth 54.2
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)
One Casing Volume = D*SWH 9.214
Three Casing Volumes = 27.64

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER:

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		Time of Removal 12:01
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 13:10
12:01	42.25	~~12:32~~ 13:15	42.25	
Comments:				

Color: (clear), grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions overcast, 65F

Sampling Event 2006-GMP-115-Q4
Date 12.12.06
Page 1 of 2

Well/Sample Number MW-50-200-115 **QC Sample ID** NA QC Sample Time —

Purge Start Time 12:10 Purge Method Mobile ready flow Ded. Pump

Flow Cell: Y / N Min. Purge Volume (gal)/(L) 28 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
42.75	12:10	0	7.28	19.2	1.18	1.18	26.8	1.1	12	146	
49.70	12:13	9	7.20	19	2.59	0.62	27.1	1.2	12	145	
50.09	1214	12	7.16	19.6	1.74	0.56	27.8	1.2	12	144	green water
50.12	1215	15	7.15	19.8	2.03	0.47	28.3	1.2	12	141	
50.17	1216	18	7.15	19.8	1.40	0.46	28.5	1.2	12	139	
50.19	1217	21	7.16	19.8	1.52	0.48	28.6	1.2	12	137	
50.21	1218	24	7.17	19.9	1.21	0.48	28.7	1.2	12	136	
50.25	1219	27	7.17	19.9	1.25	0.45	28.7	1.2	12	135	
50.27	1220	30	7.17	20.3	2.79	0.60	29.0	1.2	13	132	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/10/2006)			7.7	28100	0.7	2.99	28.96	1.75		93	
Are measurements consistent with previous?			✓	N	✓	N	NA	✓	N/A	N	

Sample Time [redacted] Sample Location: pump tubing well port spigot bailer other

Comments: MW-50-095

PG&E 2005-02

Initial Depth to Water (ft BTOC): 42.75 Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER:

Field measured confirmation of Well Depth (ft btoc):

WD (Well Depth - from database) ft btoc (204.5)

SWH (Standing Water Height) = WD-Initial Depth 161.75

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (2 in)

One Casing Volume = D*SWH 27.50

Three Casing Volumes = 82.49

If Transducer				
Initial DTW / Before Removal		Approx. 5 min After Reinstallation		Time of Removal 11:58
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 12:27
11:58	42.75	12:32	42.85	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green

Odor: none, sulphur, organic, other

Solids: Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions Overcast, 65

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
Page 2 of 2

Well/Sample Number MW 50-200-115 **QC Sample ID** NA QC Sample Time —
Purge Start Time 13:15 Purge Method Monsoon Red. flo Ded. Pump 8 ←
Flow Cell Y / N Min. Purge Volume (gal)/(L) 85 Purge Rate (gpm)/(mLpm) 3

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
48.63 ~~47.83~~	13:15 ~~13:15~~	40	7.52	20.2	1.46	3.16	28.1	1.2	12	147	
48.75	13:19	50	7.74	20.7	1.27	2.78	28.8	1.2	13	134	
48.78	13:~~22~~	60	7.76	20.6	~~2.79~~	2.79	29.1	1.2	13	130	
48.78	13:26	70	7.76	20.6	7.10	3.10	29.2	1.2	13	126	
48.79	13:29	80	7.77	20.6	3.84	3.03	29.4	1.2	13	124	
48.80	13:~~33~~	85	7.77	20.6	0.95	3.17	29.5	1.2	13	123	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			V	V	V	V	NA	V	V	V	
Previous Field measurement ()			7.7	28100	0.7	2.99	28.96	1.70		93	
Are measurements consistent with previous?			V	N	V	V	NA	V	N/A	N	

Sample Time 13:35 Sample Location: MW-50-200 pump tubing V ~~well port~~ ____ spigot ____ bailer ____ other ____
Comments: ____

Initial Depth to Water (ft BTOC): 42 see p. 1
Field measured confirmation of Well Depth (ft btoc): ____
WD (Well Depth - from database) ft btoc ____
SWH (Standing Water Height) = WD-Initial Depth ____
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 ____
One Casing Volume = D*SWH ____
Three Casing Volumes = 80

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer: Approx. 5 min After Reinstallation		
Time	Initial DTW	Time	Final DTW	Time of Removal 1303 / Time of Reinstallation 13:40
1302	42.83	13:45	42.83	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy, green **Odor:** none, sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions Sunny, 60F

Sampling Event 2006-GMP-115-Q4
Date 1.2.12.06
Page 1 of 2

Well/Sample Number MW-51-115 **QC Sample ID** NA — QC Sample Time —

Purge Start Time 9:48 Purge Method Mobile Tech flow Ded. Pump —

Flow Cell: Y / N Min. Purge Volume (gal)/(L) ~~44~~/130 Purge Rate (gpm)/(mLpm) 1-2

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
~~47.58~~	~~9:48~~	0	7.89	9.37	3.09	6.09	23.5	0.5	5.9	97	
49.65	9:54	6	7.31	9.49	1.16	2.14	27.9	0.5	6	85	
49.95	10:00	12	7.31	9.53	0.42	2.09	28.1	0.5	6.0	91	
50.00	10:06	18	7.32	9.59	0.24	2.04	27.9	0.5	6.1	96	
49.96	10:12	24	7.32	9.72	0.49	1.59	29.2	0.6	7	98	
49.94	10:18	30	7.42	11.7	0.17	1.04	29.3	0.7	7	92	
50.00	10:24	36	7.44	11.6	0.37	1.23	29.4	0.7	7	91	
50.02	10:30	42	7.43	11.4	0.51	1.52	29.5	0.6	7	94	
50.10	10:36	48	7.44	11.3	0.35	1.73	29.5	0.6	7	96	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	✓	✓	NA	✓	✓	✓	
Previous Field measurement (10/6/2006)			7.41	13800	1.15	3.79	29.21	0.8		119	
Are measurements consistent with previous?			✓	✓	✓	✓	NA	✓	N/A	✓	

Sample Time 10:45 Sample Location: MW-51 (pump tubing) well port ____ spigot ____ bailer ____ other ____

Comments: ____

PGRE 2005-02

Initial Depth to Water (ft BTOC): ~~47.58~~

Field measured confirmation of Well Depth (ft btoc): ~~55.67~~

WD (Well Depth - from database) ft btoc (113.25)

SWH (Standing Water Height) = WD-Initial Depth 65.67

D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)

One Casing Volume = D*SWH 43.34 ~~36.74~~

Three Casing Volumes = ~~110.23~~ 130.03

Measure Point: (Well TOC) Steel Casing WATER LEVEL METER SERIAL NUMBER: ____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 9:16
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 10:43
~~9:16~~	~~47.58~~	10:48	57.51	

Comments:

Color: (clear) grey, yellow, brown, black, cloudy, green **Odor:** (none), sulphur, organic, other **Solids:** Trace, Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

Project Name PGE Topock GMP
Job Number 338234.GM.02.00
Field Team 1 Field Conditions Sunny, 70

Sampling Event 2006-GMP-115-Q4
Date 12/12/06
Page 2 of 2

Well/Sample Number MW-51-115 Continued
QC Sample ID NA — QC Sample Time —
Purge Start Time 14:04 Purge Method Mobile Ready Flo Ded. Pump —
Flow Cell (Y) / N Min. Purge Volume (gal)/(L) 130 Purge Rate (gpm)/(mLpm) 2.

Water Level	Time	Vol. Purged gallons / liters	pH	Conductivity mS/cm	Turbidity NTU	Diss. Oxygen mg/L	Temp. oC	Salinity %	TDS g/L	Eh/ORP mv	Comments (See description below
52.42	14:09	58	7.41	11.2	1.42	2.44	28.7	0.6	7	140	
52.89	14:14	68	7.42	11.1	0.10	2.37	29.7	0.6	7	133	
53.00	14:19	78	7.42	11.0	0.07	2.3	29.9	0.6	7	130	
53.03	14:24	88	7.42	11.0	2.09 0.27	2.09	29.9	0.6	7	128	
53.08	14:29	98	7.42	11.0	0.46	2.58	29.9	0.6	7	128	
53.15	14:34	108	7.41	10.9	0.21	2.49	29.9	0.6	7	128	
53.15	14:39	118	7.41	10.8	0.18	2.80	29.9	0.6	7	128	
53.15	14:44	128	7:40	10.8	0.25	3.01	30.0	0.6	7	128	
53.15	14:49	130	7.40	10.8	296.0	3.07	30.0	0.6	7	129	
Parameter Stabilization Criteria			+/- 0.1 pH units	+/- 3%	+/- 10% NTU units when >10 NTUs	+/- 0.3 mg/L	NA	NA	NA	+/- 10 mV	
Did Parameters Stablize prior to sampling?			✓	✓	N	N	NA	✓	✓	✓	
Previous Field measurement (10/12/2006)			7.43	3090	2.53	7.59	28.61	0.15		113	
Are measurements consistent with previous?			✓	N	N	N	NA	—	—	N	

Sample Time 14:55 Sample Location: MW-51 ✓ pump tubing ✓ well port _____ spigot _____ bailer _____ other _____

Comments: _____

see P. 1

Initial Depth to Water (ft BTOC): _____
Field measured confirmation of Well Depth (ft btoc): _____
WD (Well Depth - from database) ft btoc (96.93)
SWH (Standing Water Height) = WD-Initial Depth _____
D (Volume as per diameter) 2"= 0.17, 4"= 0.66, 1"=0.041 (4 in)
One Casing Volume = D*SWH _____
Three Casing Volumes = 130.03

Measure Point: Well TOC Steel Casing WATER LEVEL METER SERIAL NUMBER: _____

Initial DTW / Before Removal		If Transducer		
		Approx. 5 min After Reinstallation		Time of Removal 13:50
Time	Initial DTW	Time	Final DTW	Time of Reinstallation 14:56
13:55	47.55	15:01	47.51	
Comments:				

Color: clear, grey, yellow, brown, black, cloudy (green)
Odor: (none) sulphur, organic, other
Solids: (Trace) Small Qu, Med Qu, Large Qu, Particulate, Silt, Sand

461457

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/11/06 PAGE ___ OF ___

COMPANY E2
PROJECT NAME PG&E Topock
PHONE (530) 229-3303 FAX (530) 339-3303
ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612
P.O. NUMBER 338234.GM.02.00
SAMPLERS (SIGNATURE

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	Cr6 (7196A) Lab Filtered	Cr6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
7	MW-33-210-115	12/11/06	935	GW		X	X	X		X	3	PH-0
8	MW-27-085-115	12/11/06	1110	GW		X	X	X		X	3	PH-0
9	MW-36-100-115	12/11/06	1205	GW	X		X	X		X	3	PH-0
10	MW-32-035-115	12/11/06	1340	GW		X	X	X	X	X	3	PH-0
11	MW-32-020-115	12/11/06	1410	GW		X	X	X	X	X	3	PH-0

For Sample Conditions See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

	Signature	Printed Name	Company/ Agency	Date/ Time
Relinquished		Matt Bingler	E2	12/11/06 1530
Received	Nicholle Bleuss	Nicholle Bleuss	TLI	12/11/06 8:40
Relinquished				
Received				
Relinquished				
Received				

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

06L139

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

COC Number

TURNAROUND TIME 12 Days

DATE 12/1/06 PAGE 1 OF 1

COMPANY E2

PROJECT NAME PG&E Topock GWM

PHONE (530) 229-3303 FAX (530) 339-3303

ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612

P.O. NUMBER 338234.GM.02.00

SAMPLERS (SIGNATURE)

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	Diss Metals (6010B) Field Filtered Dissolved Ca,Mg,K,Na,B	Diss Metals (6010B) Field Filtered Title 22	Diss Metals (6010B) Field Filtered Title 22 Ca,Mg,K,Na,B	Diss Metals (7470A) Field Filtered	Alkalinity (310.1)	Anions (300) Br,Cl,SO4,NO3N	NUMBER OF CONTAINERS	COMMENTS
7	MW-32-035	12/1/06	1340	GW	X				X	X		
8	MW-32-020	12/1/06	1410	GW	X				X	X		
												TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SIGNATURE RECORD

	Signature	Printed Name	Company/ Agency	Date/ Time
Relinquished		Matt Ringler	E2	12/1/06 15:30
Received		GEORGE Lim	EMAX	12/12/06 16:05
Relinquished		GEORGE Lim	EMAX	12/12/06 17:45
Received		JON LUNA	EMAX	12-12-06 17:45
Relinquished				
Received				

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 3 Days
DATE 12/12/06 PAGE ___ OF ___

961506

RUSH

ALERT!! Level III QC

COMPANY: E2
PROJECT NAME: PG&E Topock
PHONE: (530) 229-3303 FAX: (530) 339-3303
ADDRESS: 155 Grand Ave Ste 1000, Oakland, CA 94612
P.O. NUMBER: 338234.GM.02.00
SAMPLERS (SIGNATURE): [signature]

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium								NUMBER OF CONTAINERS	COMMENTS
1	MW-34-100-115	12/12/06	1251	GW		X				X								2	pH-2
2	MW-44-115-115	12/12/06	1450	GW		X				X								2	pH-2
																		4	TOTAL NUMBER OF CONTAINERS

Rec'd 12/12/06
961506

For Sample Conditions See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

Signature		Printed Name		Company/Agency		Date/Time	
Signature (Relinquished)	[signature]	Printed Name	Matt Thirgier	Company/Agency	E2	Date/Time	12/12/06 1530
Signature (Received)	Mangarova	Printed Name	Mangarova	Company/Agency	T-L-I	Date/Time	12/12/06 20:30
Signature (Relinquished)		Printed Name		Company/Agency		Date/Time	
Signature (Received)		Printed Name		Company/Agency		Date/Time	
Signature (Relinquished)		Printed Name		Company/Agency		Date/Time	
Signature (Received)		Printed Name		Company/Agency		Date/Time	

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ ___ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/12/06 PAGE ___ OF ___

961519

ALERT!!
Level III QC
Rec'd 12/12/06
961519
For Sample Conditions
See Form Attached

COMPANY: E2
PROJECT NAME: PG&E Topock
PHONE: (530) 229-3303 FAX: (530) 339-3303
ADDRESS: 155 Grand Ave Ste 1000, Oakland, CA 94612
P.O. NUMBER: 338234.GM.02.00
SAMPLERS (SIGNATURE): Matt Ringier

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals-6010B Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
1	MW-43-075-115	12/12/06	0842	GW		X	X	X		X	3	pH - 2
2	MW-43-090-115	12/12/06	0915	GW		X	X	X		X	3	pH - 2
3	MW-34-080-115	12/12/06	1107	GW		X	X	X	X	X	3	pH - 2
4	MW-34-100-115	12/12/06	1251	GW			X	X			1	pH - 7
5	MW-39-100-115	12/12/06	1345	GW	X		X	X		X	3	pH - 2
6	MW-44-115-115	12/12/06	1450	GW			X	X			1	pH - 7
											14	TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SIGNATURE RECORD

	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished) Matt Ringier	Matt Ringier	E2	12/12/06 15:30
Signature (Received) Monserrat	Monserrat	E2 I	12/12/06 20:30
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS
RECEIVED COOL ☐ WARM ☐ °F
CUSTODY SEALED YES ☐ NO ☐
SPECIAL REQUIREMENTS:

OGL155

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

COC Number

TURNAROUND TIME 12 Days

DATE 12/12/06 PAGE ___ OF ___

COMPANY E2

PROJECT NAME PG&E Topock GWM

PHONE (530) 229-3303 FAX (530) 339-3303

ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612

P.O. NUMBER 338234.GM.02.00

SAMPLERS (SIGNATURE)

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	Diss Metals (6010B) Field Filtered Dissolved Ca,Mg,K,Na,B	Diss Metals (6010B) Field Filtered Title 22	Diss Metals (6010B) Field Filtered Title 22 Ca,Mg,K,Na,B	Diss Metals (7470A) Field Filtered	Alkalinity (310.1)	Anions (300) Br,Cl,SO4,NO3N	NUMBER OF CONTAINERS	COMMENTS
1	MW-34-080-115	12/12/06	1107	GW			X	X	X	X		
											TOTAL NUMBER OF CONTAINERS	

CHAIN OF CUSTODY SIGNATURE RECORD

	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Matt Ringler	E2	12/12/06 1520
Signature (Received)	A. GALICIA	EMAX	12/13/06 12:00
Signature (Relinquished)	MANGAROLL	T-L-I	12/12/06 12:00
Signature (Received)			
Signature (Relinquished)	A. GALICIA	EMAX	12/13/06 1455
Signature (Received)	A. PUROMA	EMAX	1455

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ T-3.5 °C

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12.12.06 PAGE 1 OF 1

961520

ALERT!! Level 1 & QC

Rec'd 12/12/06
961520

COMPANY	E2
PROJECT NAME	PG&E Topock
PHONE	(530) 229-3303 FAX (530) 339-3303
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612
P.O. NUMBER	338234.GM.02.00
SAMPLERS (SIGNATURE	

SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
MW-23-115	12.12.06	10:50	GW		X	X	X		X	3	pH-2
MW-91-115	12.12.06	11:00	GW		X	X	X		X	3	pH-2
~~MW-21-115~~	~~12.12.06~~	~~13:55~~	~~GW~~		X	X	X		X	~~3~~ DW	
MW-51-115	12.12.06	14:35 10:45	GW	X	X	X	X		X	3	pH-2
MW-50-200	12.12.06	~~12:25~~ 15:25	GW	X	X	X	X		X	3	pH-2
MW-50-095	12.12.06	13:00	GW	X	X	X	X		X	3	pH-2
EB-115-2	12/12/06	1500	GW		X					1	pH-7

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name Nina Knipe	Company/ Agency CH2M HILL	Date/ Time 12.12.06 15:30
Signature (Received)	Printed Name	Company/ Agency T-L-I	Date/ Time 12/12/06 20:30
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

For Sample Conditions See Form Attached

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 3 10 Days
DATE 12/13/06 PAGE ___ OF ___

961564

Rec'd 12/13/06
~~961~~ 961564
ALLKI
Level III QC

COMPANY	E2
PROJECT NAME	PG&E Topock
PHONE	(530) 229-3303 FAX (530) 339-3303
ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612
P.O. NUMBER	338234.GM.02.00
SAMPLERS (SIGNATURE	

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
1	MW-44-125-115	12/13/06	1013	GW		X	X	X		X	3	pH-2
2	MW-46-175-115	12/13/06	1330	GW		X	X	X		X	3	pH-2

RUSH

See Sample Conditions Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Matt Rigdon	E2	12/13/06 1530
Signature (Received)	Monroe	E-L-I	12/13/06 1530
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/13/06 PAGE ___ OF ___

961565

COMPANY E2
PROJECT NAME PG&E Topock
PHONE (530) 229-3303 FAX (530) 339-3303
ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612
P.O. NUMBER 338234.GM.02.00
SAMPLERS (SIGNATURE) [signature]

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
9	MW-46-205=115	12/13/06	1207	GW		X	X	X		X		pH-2
10	MW-33-150-115	12/13/06	1424	GW		X	X	X		X		pH-2

ALERT II
Level III C

or Sample Conditions
See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished) [signature]	Printed Name Matt Rhizor	Company/ Agency E2	Date/ Time 12/13/06 1530	
Signature (Received) [signature]	Printed Name [signature]	Company/ Agency T-2 J	Date/ Time 12/13/06	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/13/06 PAGE ___ OF ___

961565

ERT
Del III

Rec'd 12/13/06
961565

COMPANY	E2
PROJECT NAME	PG&E Topock
PHONE	(530) 229-3303 FAX (530) 339-3303
ADDRESS	155 Grand Ave Ste 1000, Oakland, CA 94612
P.O. NUMBER	338234.GM.02.00
SAMPLERS (SIGNATURE	Bob Tubbs

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
1	MW-12-115	12/13/06	10:05	GW	X		X	X		X	3	pH-2
2	MW-20-070-115	12/13/06	13:20	GW	X		X	X	X	X	3	pH-2
3	MW-20-100-115	12/13/06	11:45	GW	X		X	X	X	X	3	pH-2
4	MW-[illegible]90-115	12/13/06	9:50	GW	X		X	X	X	X	3	pH-2
5	MW-20-130-115	12/13/06	14:40	GW	X		X	X	X	X	3	pH-2
6	MW-95-115	12/13/06	14:45	GW	X		X	X	X	X	3	pH-2
7	MW-21-115	12/13/06	10:40	GW		X	X	X		X	3	pH-2
8	MW-40D-115	12/13/06	9:00	GW		X	X	X		X	3	pH-2

For Sample Condition See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished) Bob Tubbs	Bob Tubbs	Cotton Hill	12/13/06 15:30
Signature (Received) Mongerud	Mongerud	T-L-I	12/12/06 20:20
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

06L177

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

COC Number

TURNAROUND TIME 12 Days

DATE 12/13/06 PAGE • OF

COMPANY E2

PROJECT NAME PG&E Topock GWM

PHONE (530) 229-3303 FAX (530) 339-3303

ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612

P.O. NUMBER 338234.GM.02.00

SAMPLERS (SIGNATURE Bob Tickle

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	Diss Metals (6010B) Field Filtered Dissolved Ca,Mg,K,Na,B	Diss Metals (6010B) Field Filtered Title 22	Diss Metals (6010B) Field Filtered Title 22,Ca,Mg,K,Na,B	Diss Metals (7470A) Field Filtered	Alkalinity (310.1)	Anions (300) Br,Cl,SO4,NO3N	NUMBER OF CONTAINERS	COMMENTS
1	MW-12-115	12/13/06	10:05	GW		X		X			2	
2	MW-20-070-115	12/13/06	13:20	GW			X	X	X	X	3	
3	MW-20-100-115	12/13/06	11:45	GW	X		..	..	X	X	2	
4	MW-90-115	12/13/06	11:50	GW	X		..		X	X	2	
5	MW-20-130-115	12/13/06	14:40	GW			X	X	X	X	3	
6	MW-95-115	12/13/06	14:45	GW			X	X	X	X	3	
												TOTAL NUMBER OF CONTAINERS

T-3.0

CHAIN OF CUSTODY SIGNATURE RECORD

	Signature	Printed Name	Company/ Agency	Date/ Time
Relinquished	Bob Tickle	Bob Tickle	CH2M HILL	12/13/06 15:30
Received	Phil Hatcher	Phil Hatcher	EMAX	12/14/06 14:35
Relinquished	Phil Hatcher	Phil Hatcher	EMAX	12/14/06 15:30
Received	Anthony Fleming	ANTHONY FLEMING	EMAX	12/14/06 15:35
Relinquished		Printed Name	Company/ Agency	Date/ Time
Received		Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ 3.0 °C

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

961613 Sean

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/14/06 PAGE ___ OF ___

COMPANY: E2
PROJECT NAME: PG&E Topock
PHONE: (530) 229-3303 FAX: (530) 339-3303
ADDRESS: 155 Grand Ave Ste 1000, Oakland, CA 94612
P.O. NUMBER: 338234.GM.02.00
SAMPLERS (SIGNATURE): [signature]

Rec'd 12/14/06 961613

ALERT!! Level III QC

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH(150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
1	MW-36-090-115	12/14/06	1024	GW		X	X	X		X		
2	MW-36-070-115	12/14/06	1115	GW		X	X	X		X		
3	MW-93-115	12/14/06	900	GW		X	X	X		X		
4	MW-39-080-115	12/14/06	1252	GW	X		X	X		X		PH=1
5	MW-39-070-115	12/14/06	1355	GW	X		X	X		X		
6	MW-39-040-115	12/14/06	1430	GW		X	X	X		X		

For Sample Conditions See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

Signature	Printed Name	Company/Agency	Date/Time
Signature (Relinquished) [signature]	Matt Bingier	E2	12/14/06 1530
Signature (Received) [signature]	Chad Brown	TLI	12-14-06 2031
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ ___ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

961614 Sean

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12.14.06 PAGE 1 OF

COMPANY: E2
PROJECT NAME: PG&E Topock
PHONE: (530) 229-3303 FAX: (530) 339-3303
ADDRESS: 155 Grand Ave Ste 1000, Oakland, CA 94612
P.O. NUMBER: 338234.GM.02.00
SAMPLERS (SIGNATURE): [signature]

Rec'd 12/14/06
s24c 961614

ALERT!! Level III QC

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
1	MW-28-90-115	12.14.06	8:41	GW		X	X	X		X	3	
2	MW-44-070-115	12.14.06	9:38	GW		X	X	X		X	3	
3	MW-42-065-115	12.14.06	10:42	GW		X	X	X		X	3	
4	MW-42-055-115	12.14.06	11:30	GW		X	X	X		X	3	
5	MW-47-055-115	12.14.06	13:20	GW		X	X	X		X	3	
6	MW-47-115-115	12.14.06	13:25	GW		X	X	X		X	3	
7	MW-33-040-115	12.14.06	15:15	GW		X	X	X		X	3	

TOTAL NUMBER OF CONTAINERS: 21

For Sample Conditions See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

Signature	Printed Name	Company/Agency	Date/Time
Signature (Relinquished) [signature]	Nina Knirek		
Signature (Received) Michelle Bleeker	N.B.	TLI	12/14/06 8:10
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☒ NO ☐

SPECIAL REQUIREMENTS:

961614

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/14/06 PAGE 1 OF

COMPANY E2
PROJECT NAME PG&E Topock
PHONE (530) 229-3303 FAX (530) 339-3303
ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612
P.O. NUMBER 338234.GM.02.00
SAMPLERS (SIGNATURE

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	Cr6 (7196A) Lab Filtered	Cr6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
8	MW-24B-115	12/14/06	1130	GW	X		X	X		X	3	
9	MW-24A-115	12/14/06	1245	GW	X		X	X		X	3	
10	MW-10-115	12/14/06	1340	GW	X		X	X		X	3	
11	MW-370-115	12/14/06	1450	GW	X		X	X		X	3	
12	EB-115-4	12/14/06	1500	GW		X					1	

ALERT!!
Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	Bob Trubble	Chem Hill	12/14/06 15:30
Signature (Received)	N.B.	TLI	12/14/06 8:10
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS
RECEIVED COOL ☐ WARM ☐ °F
CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

06L197

COC Number

EMAX Laboratories, Inc.
1835 W. 205th Street, Torrance, CA 90501
Tel: (310) 618 8889 Ext. 119 Fax: (310) 618 0818
Joe Kelbley jkelbley@emaxlabs.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 12 Days

DATE 12/14/06 PAGE 1 OF ___

COMPANY E2

PROJECT NAME PG&E Topock GWM

PHONE (530) 229-3303 FAX (530) 339-3303

ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612

P.O. NUMBER 338234.GM.02.00

SAMPLERS (SIGNATURE) Bob Trebolb

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	Diss Metals (6010B) Field Filtered Dissolved Ca,Mg,K,Na,B	Diss Metals (6010B) Field Filtered Title 22	Diss Metals (6010B) Field Filtered Title 22 Ca,Mg,K,Na,B	Diss Metals (7470A) Field Filtered	Alkalinity (310.1)	Anions (300) Br,Cl,SO4,NO3N	NUMBER OF CONTAINERS	COMMENTS
1	MW-10-115	12/14/06	1340	GW		X		X			1	
2	MW-37D-115	12/14/06	1450	GW	X			X			2	
												TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SIGNATURE RECORD

	Signature	Printed Name	Company/ Agency	Date/ Time
Relinquished	Bob Trebolb	Bob Trebolb	Chem Hell	12/14/06 1530
Received	Phil Hatcher	Phil Hatcher	EMAX	12 15 06 1200
Relinquished	Phil Hatcher	Phil Hatcher	EMAX	12.15.06 1320
Received	Indra Patel	INDRA PATEL	EMAX	12-15-06 1320
Relinquished				
Received				

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ 2.5 °C °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

Scan

961638

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days

DATE 12.15.06 PAGE ___ OF ___

COMPANY E2

PROJECT NAME PG&E Topock

PHONE (530) 229-3303 FAX (530) 339-3303

ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612

P.O. NUMBER 338234.GM.02.00

SAMPLERS (SIGNATURE

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
1	MW-33-090-115	12.15.06	9:13	GW		X	X	X		X		
2	MW-94-115	12.15.06	9:15	GW		X	X	X		X		
3	MW-49-275-115	12.15.06	11:10	GW		X	X	X		X		PH 1
4	MW-49-135-115	12.15.06	11:40	GW		X	X	X		X		
5	MW-49-365-115	12.15.06	13:45	GW		X	X	X		X		

For Sample Conditions See Form Attached

ALERT!! Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

	Printed Name	Company/ Agency	Date/ Time
Signature (Relinquished)	NINA KNIREC	CH2M/E2	12.15.06 15:30
Signature (Received)	Ana L Brown	TLI	12-15-06 20:00
Signature (Relinquished)			
Signature (Received)			
Signature (Relinquished)			
Signature (Received)			

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

961638

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[2006-GMP-115-Q4]

TURNAROUND TIME 10 Days
DATE 12/15/06 PAGE · OF

COMPANY: E2
PROJECT NAME: PG&E Topock
PHONE: (530) 229-3303 FAX: (530) 339-3303
ADDRESS: 155 Grand Ave Ste 1000, Oakland, CA 94612
P.O. NUMBER: 338234.GM.02.00
SAMPLERS (SIGNATURE): [signature]

Rec'd 12/15/06 961638

	SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (7196A) Lab Filtered	CR6 (7199) Lab Filtered	Specific Conductance (120.1)	pH (150.1)	TDS (160.1)	Diss Metals (6010B) Field Filtered Chromium	NUMBER OF CONTAINERS	COMMENTS
6	MW-19-115	12/15/06	0820	GW	X		X	X		X	3	PH 1
7	MW-24BR-115	12/15/06	0850	GW		X	X	X		X	3	
8	MW-48-115	12/15/06	0910	GW		X	X	X		X	3	
9	EB-115-5	12/15/06	0935	GW		X					1	

For Sample Conditions See Form Attached

ALERT! Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

Signature	Printed Name	Company/Agency	Date/Time
(Relinquished) [signature]	Bob Trebble	CH2M Hill	12/15/06 1530
(Received) [signature]	Ana Braun	TLI	12.15.06 20:00
(Relinquished)			
(Received)			
(Relinquished)			
(Received)			

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

Appendix B
Additional Water Quality Characterization
March 2006

APPENDIX B
Additional Water Quality Characterization, March 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity	Ammonia	Total Organic Carbon	Dissolved Silica	Iron	Manganese
Monitoring Wells																		
MW-9	07-Mar-06	1480	-8	-59.8	665	229	9.53	176	47.8	12	377	0.723	131	ND (0.5)	ND (1)	24	ND (0.5)	ND (0.5)
	07-Mar-06 FD	1560	-9.7	-53.2	665	227	9.39	169	46	11.7	352	0.688	134	ND (0.5)	ND (1)	25.1	ND (0.5)	ND (0.5)
MW-10	06-Mar-06	1750	-7.1	-46.9	474	359	14	68.8	11.5	8.59	562	1.99	298	ND (0.5)	1.31	38.8	ND (0.1)	ND (0.001)
MW-11	06-Mar-06	1640	-7.5	-56.8	498	328	9.21	179	23.8	9.64	345	0.531	97.6	ND (0.5)	ND (1)	23	ND (0.1)	ND (0.001)
MW-12	18-Apr-06	2080	-8.8	-63.0	821	262	4.7	7.57	1.62	3.36	789	0.836	247	ND (0.5)	ND (1)	20.9	ND (0.1)	ND (0.001)
MW-13	08-Mar-06	1100	-9.1	-63.0	424	153	4.68	103	12.9	ND (6.69)	253 J	0.323	89.9	ND (0.5)	ND (1)	22.5	ND (0.5)	ND (0.5)
	08-Mar-06 FD	1110	-9.2	-59.4	419	152	4.6	103	12.9	ND (6.14)	254 J	0.335	84.8	ND (0.5)	ND (1)	21.7	ND (0.5)	ND (0.5)
MW-14	09-Mar-06	887	-8.6	-60.3	302	136	5.18	68.9	9.81	6.54	215	0.324	89.9	ND (0.5)	ND (1)	20.3	ND (0.5)	ND (0.5)
MW-15	07-Mar-06	1080	-9	-58.6	420	138	5.65	139	34.9	11.2	207	0.288	77.1	ND (0.5)	ND (1)	23.2	ND (0.5)	ND (0.5)
MW-16	07-Mar-06	627	-9.2	-60.3	180	126	2.87	29.1	5.4	4.6	192	0.308	110	ND (0.5)	1.11	22.6	ND (0.5)	ND (0.5)
MW-17	09-Mar-06	1320	-7.8	-56.6	101	659	4.25	117	16.3	8.07	239	0.24	56.5	ND (0.5)	ND (1)	17.8	ND (0.5)	ND (0.5)
MW-18	09-Mar-06	746	-8.7	-60.7	248	82.4	3.89	75.4	11.3	5.83	139	ND (0.2)	100	ND (0.5)	ND (1)	21.4	ND (0.5)	ND (0.5)
	09-Mar-06 FD	703	-8.7	-59.2	252	82.5	3.87	76.2	11.3	6.59	138	ND (0.2)	108	ND (0.5)	ND (1)	21.4	ND (0.5)	ND (0.5)
MW-19	09-Mar-06	1270	-8.3	-69.2	484	195	4.88	116	17.8	7.45	332	0.445	92.5	ND (0.5)	ND (1)	21.3	ND (0.5)	ND (0.5)
MW-20-70	10-Mar-06	1940	-7.2	-54.0	679	358	10.5	161	48.6	9.22	424	0.427	82.2	ND (0.5)	ND (1)	21.1	ND (0.1)	ND (0.001)
MW-20-100	10-Mar-06	2500	-5.6	-50.3	861	475	9.94	171	27	7.75	597	0.803	92.5	ND (0.5)	1.56	24.7	ND (0.5)	ND (0.5)
MW-20-130	10-Mar-06	8610	-5.5	-48.8	3370	1250	10.6	312	18.9	27.7	2730	2.03	74.5	ND (0.5)	ND (1)	23.9	ND (0.1)	ND (0.001)
MW-22	15-Mar-06	22600 J	-8.9	-74.0	10800	1880	ND (0.5) J	816	184	45.1	6660	2.84	357	1.97	4.83	18.7	5.49	5.21
MW-23	08-Mar-06	11700	-9.1	-64.5	5590	702	3.53	743	78.5	40.7	3290	0.964	77.1	ND (0.5)	1.78	14.6	ND (0.5)	ND (0.5)
MW-24A	06-Mar-06	1850	-8.3	-60.2	633	316	15.9	57.7	10.6	7.63	618	1.21	288	ND (0.5)	6.75	29.6	ND (0.5)	ND (0.5)
MW-24B	07-Mar-06	8740	-8	-47.5	4080	1210	13.8	311	7.45	36.4	3220	2.7	48.4	ND (0.5)	ND (1)	23.1	ND (0.5)	ND (0.5)
MW-24BR	16-Mar-06	8560	-9.7	-83.4	4430	363	ND (0.5)	109	3.81	25.7	2930	2.18	129	ND (0.5)	2	14.5	ND (0.5)	ND (0.5)
MW-25	09-Mar-06	910	-8.4	-64.1	245	164	3.83	76.4	15.6	6.97	210	0.39	170	ND (0.5)	1.33	21.7	ND (0.1)	ND (0.001)
MW-26	08-Mar-06	2070	-8.6	-60.4	772	324	4.9	155	38.1	11.7	434 J	0.621	121	ND (0.5)	ND (1)	23.7	ND (0.5)	ND (0.5)
MW-27-20	06-Mar-06	664	-12.1	-90.9	89.7	231	ND (0.2)	89.1	28.8	4.9	103	ND (0.2)	385	0.756	2.72	22.2	1.22	ND (0.5)
MW-27-60	07-Mar-06	7570	-9.5	-74.6	3380	985	ND (0.5)	346	107	19.5	2310	1.23	393	ND (0.5)	5.43	23.1	2.62	ND (0.5)
MW-27-85	06-Mar-06	11500	-10	-71.4	5340	1420	ND (0.5)	543	140	37.3	3310	1.68	355	ND (0.5)	7.19	24.1	1.89	0.545
MW-28-25	09-Mar-06	746	-11.5	-93.9	84.4	225	ND (0.5)	98.5	27.5	4.15 J	88.5	ND (0.2)	244	0.893	1.95	20.8	ND (0.5)	ND (0.5)
MW-28-90	06-Mar-06	5000	-11.1	-74.1	2200	688	ND (0.5)	177	27.3	12.3	1590	1.07	213	ND (0.5)	ND (1)	19.4	0.76	ND (0.5)
MW-29	13-Apr-06	2290	-8.9	-61.0	429	481	ND (0.5)	129	98.6	7.02	490	0.644	545	3.59	4.77	31.9	1.63	ND (0.5)
MW-30-30	13-Mar-06	39700 J	-8.8	-70.5	18600	4530	ND (0.5)	1050	892	77.2	11300	4.62	650	6.61	35.7	24.2	5.37	0.844
MW-30-50	09-Mar-06	5380	-9.8	-83.5	2420	651	ND (0.5)	226	66.2	14.6	1640	1.18	275	0.546	2.2	20.7	ND (0.5)	ND (0.5)
MW-31-60	15-Mar-06	1560 J	-8.6	-65.6	661	191	4.37	106	17.5	7.3	403	0.393	89.3	ND (0.5)	ND (1)	20.1	ND (0.5)	ND (0.5)
	15-Mar-06 FD	1640 J	-8.6	-64.9	662	192	4.34	101	16.8	6.94	391	0.383	81.9	ND (0.5)	ND (1)	20	ND (0.5)	ND (0.5)
MW-31-135	15-Mar-06	6310 J	-9.5	-76.1	3070	486	0.8	213	13	17	2010	1.27	44.7	ND (0.5)	ND (1)	18	ND (0.5)	ND (0.5)
MW-32-20	10-Mar-06	20900	-8.3	-65.5	10600	1970	ND (0.5)	1350	530	56.1	6440	3.54	432	8.33	20	31.1	18.9	1.34
MW-32-35	10-Mar-06	9230	-8.6	-74.0	4210	1010	ND (0.5)	654	129	19.2	2360	1.13	234	2.13	3.57	21.2	6.46	1.73
MW-33-40	09-Mar-06	3020	-9.2	-73.8	1340	373	ND (0.5)	15.7	10.9	2.39 J	1180	1.11	262	ND (0.5)	1.72	33 J	ND (0.5)	ND (0.5)

APPENDIX B
Additional Water Quality Characterization, March 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity	Ammonia	Total Organic Carbon	Dissolved Silica	Iron	Manganese
Monitoring Wells																		
MW-33-90	08-Mar-06	5660	-9.8	-70.9	2770	465	1.04	287	31.7	16.1	1580	1.03	54	ND (0.5)	ND (1)	18.8	ND (0.5)	ND (0.5)
MW-33-150	08-Mar-06	10100	-10.3	-75.2	5490	860	1.05	433	47.6	26.5	3210	1.05	59.1	ND (0.5)	ND (1)	17	ND (0.5)	ND (0.5)
MW-33-210	06-Mar-06	12100	-11.2	-82.3	6270	1060	1.86	541	75.3	39.4	3570	1.15	64.2	ND (0.5)	1.56	19.7	ND (0.5)	ND (0.5)
MW-34-55	08-Mar-06	4850	-10.8	-86.8	2080	593	ND (0.5)	256	54.2	13.5	1640	0.956	272	ND (0.5)	1.71	21.3	0.239	0.215
MW-34-80	09-Mar-06	7830	-9.9	-86.8	3520	986	ND (0.5)	383	65.8	24	2420	1.49	313	ND (0.5)	3.35	21.7	ND (0.1)	0.136
MW-34-100	08-Mar-06	10000	-11.4	-75.5 J	4720	1180	1.39	179	12.1	32.5	3580	2.41	152	ND (0.5)	2.61	19.7	ND (0.5)	ND (0.5)
	08-Mar-06 FD	10100	-10.1	-101.9 J	4920	1220	1.39	182	11.9	36.5	3530	2.46	159	ND (0.5)	2.63	19.7	ND (0.5)	ND (0.5)
MW-35-60	14-Mar-06	4480 J	-9.6	-75.5	2070	342	1.93	305	40.6	16.6	1270	0.767	74.5	ND (0.5)	ND (1)	19.7	ND (0.5)	ND (0.5)
MW-35-135	10-Mar-06	6720	-10.5	-76.1	2930	669	2.41	254	30.9	13.6	2050	0.695	64.2	ND (0.5)	1.37	15.9	ND (0.5)	ND (0.5)
	10-Mar-06 FD	6480	-10.1	-79.3	2910	630	2.46	241	29.9	12	1960	0.672	54	ND (0.5)	1.96	16	ND (0.5)	ND (0.5)
MW-36-20	07-Mar-06	8460	-10.3	-73.7	3890	1040	ND (0.5)	372	98.3	14.9	2780	1.57	375	1.71	6.11	26.7	1.83	ND (0.5)
MW-36-40	07-Mar-06	7990	-10.8	-73.9	3440	1050	ND (0.5)	363	86.4	17.6	2430	1.54	370	1.21	5.53	25.4	3.92	0.699
MW-36-50	07-Mar-06	4340	-10.5	-73.2	1870	532	ND (0.5)	200	39.7	11.5	1430	1.12	278	ND (0.5)	1.66	23	0.57	0.517
	07-Mar-06 FD	4470	-11.2	-73.1	1880	533	ND (0.5)	191	38.5	10.9	1370	1.08	275	ND (0.5)	2.04	23	0.553	ND (0.5)
MW-36-70	07-Mar-06	5070	-10.7	-78.9	2190	664	ND (0.5)	223	51.1	15.3	1710	1.19	267	ND (0.5)	2.03	22.5	ND (0.5)	0.508
MW-36-90	07-Mar-06	6670	-10.2	-71.8	2940	871	ND (0.5)	212	16.1	20.6	2240	1.51	244	ND (0.5)	1.96	26.9	ND (0.5)	ND (0.5)
MW-36-100	13-Mar-06	10400 J	-9	-71.1	4660	1180	0.572	413	30.6	24	3050	2.27	196	ND (0.5)	3.13	22.6	ND (0.5)	ND (0.5)
MW-37D	13-Mar-06	1110 J	-9.3	-72.2	4620	766	3.88	341	22.4	19.9	2980	1.89	57.1	ND (0.5)	ND (1)	17.8	ND (0.1)	0.00114
MW-37S	13-Mar-06	2660 J	-9.3	-70.8	1250	236	1.74	135	18.2	9.8	741	0.802	59.6	ND (0.5)	ND (1)	20.1	ND (0.5)	ND (0.5)
MW-38D	10-Mar-06	13600	-10	-75.4	6870	689	0.847	358	7.33	48.6	4950	2.4	36	ND (0.5)	ND (1)	20.6	ND (0.5)	ND (0.5)
MW-38S	10-Mar-06	2540	-5.6	-45.8	775	512	10.3	120	22.7	10.1	710	2.43	193	ND (0.5)	ND (1)	28.3	ND (0.5)	ND (0.5)
MW-39-40	07-Mar-06	4510	-7.5	-60.4	1900	488	ND (0.5)	271	57	14.8	1320	0.926	262	0.538	4	30.6	2.2	0.815
MW-39-50	08-Mar-06	6940	-9.9	-65.3	3190	810	ND (0.5)	270	99.1	17.1	2130	1.3	275	ND (0.5)	3.44	22.1	ND (0.5)	ND (0.5)
MW-39-60	08-Mar-06	9060	-9.7	-67.9	4130	1070	ND (0.5)	479	124	22.5	2540	1.45	288	ND (0.5)	3.96	22.9	ND (0.5)	ND (0.5)
	08-Mar-06 FD	8980	-9.5	-66.4	4270	1090	ND (0.5)	495	127	25.2	2610	1.49	278	ND (0.5)	4.22	22.3	ND (0.5)	ND (0.5)
MW-39-70	08-Mar-06	7060	-9.5	-66.9	3260	919	ND (0.5)	427	66.1	21.2	2070	1.35	254	ND (0.5)	2.17	25.3	ND (0.5)	ND (0.5)
MW-39-80	08-Mar-06	9140	-8.2	-61.2	4320	1140	0.931	592	65	29.5	2430	1.46	211	ND (0.5)	2.76	23.7	ND (0.5)	ND (0.5)
MW-39-100	13-Mar-06	12400 J	-8.1	-62.1	5610	1440	2.68	650	43.4	47.3	3410	2.21	132	ND (0.5)	2.75	24.5	ND (0.5)	ND (0.5)
MW-40D	08-Mar-06	10500	-10.4	-72.4	5080	765	2.35	394	48.2	30.5	3130	1.81	54	ND (0.5)	ND (1)	20.3	ND (0.5)	ND (0.5)
MW-40S	08-Mar-06	1170	-9.7	-66.1	453	143	6.38	102	18.3	ND (7.28)	250 J	0.347	79.7	ND (0.5)	ND (1)	22.6	ND (0.5)	ND (0.5)
MW-41D	15-Mar-06	13600 J	-9.7	-75.6	7120	840	ND (0.5)	404	33.9	34.3	4390	1.79	42.2	ND (0.5)	ND (1)	15.6	ND (0.5)	ND (0.5)
MW-41M	13-Mar-06	9200 J	-9.7	-78.3	4630	615	0.702	440	37.2	24.2	2710	1.32	44.7	ND (0.5)	ND (1)	17.3	ND (0.5)	ND (0.5)
MW-41S	13-Mar-06	2790 J	-9	-65.9	1330	261	1.32	99.7	13.5	10.1	807	0.783	59.6	ND (0.5)	ND (1)	17.8	ND (0.5)	ND (0.5)
MW-42-30	07-Mar-06	6180	-4.6	-41.5	2820	986	ND (0.5)	436	93.4	17.4	1800	1.16	188	2.03	3.37	23.7	2.75	0.672
MW-42-55	07-Mar-06	9540	-9.2	-64.8	4340	1050	ND (0.5)	655	128	29.3	2730	1.31	326	ND (0.5)	4.27	18.3	2.49	0.943
MW-42-65	07-Mar-06	11500	-9.1	-67.2	5260	1410	ND (0.5)	600	189	34.3	3260	1.42	321	ND (0.5)	6.13	23.1	1.09	ND (0.5)
MW-43-25	10-Mar-06	881	-12.3	-94.8	107	298	ND (0.5)	97.5	41	5.7	125	ND (0.2)	252	1.93	3.81	23	3.27	ND (0.5)

APPENDIX B
Additional Water Quality Characterization, March 2006
PG&E Topock Groundwater and Surface Water Monitoring Program

Location	Sample Date	Total Dissolved Solids	Oxygen 18	Deuterium	Chloride	Sulfate	Nitrate	Calcium	Magnesium	Potassium	Sodium	Boron	Alkalinity	Ammonia	Total Organic Carbon	Dissolved Silica	Iron	Manganese
Monitoring Wells																		
MW-43-75	10-Mar-06	9450	-11	-87.3	3710	1630	ND (0.5)	378	66.7	28.8	2910	1.84	455	ND (0.5)	10	24.4	3.01	ND (0.5)
MW-43-90	10-Mar-06	14800	-10.6	-78.6	6700	1950	ND (0.5)	907	347	46.2	3780	1.29	468	ND (0.5)	12.3	25.4	11.9	1.23
OW-3D	09-Mar-06	4450	-9.6	-73.5	2200	359	ND (0.5)	126	11	11	1470	1.27	38.5	ND (0.5)	ND (1)	14.4	ND (0.5)	ND (0.5)
OW-3M	09-Mar-06	2900	-8.8	-73.4	1390	266	1.07	74.2	6.71	6.29	882	0.936	56.5	ND (0.5)	ND (1)	15.8	ND (0.5)	ND (0.5)
OW-3S	09-Mar-06	1030	-8.9	-67.1	445	78.8	2.74	97.8	14.7	7.68	187	ND (0.2)	61.7	ND (0.5)	ND (1)	19.1	ND (0.5)	ND (0.5)
Test Wells																		
TW-2D	15-Mar-06	5220 J	-9.2	-68.8	2250	542	1.42	234	24.3	16.9	1450	1.16	109	ND (0.5)	ND (1)	21.9	ND (0.5)	ND (0.5)
TW-2S	15-Mar-06	1620 J	-8.2	-59.5	731	240	5.3	135	30.7	10.1	411	0.4	79.4	ND (0.5)	ND (1)	21	ND (0.5)	ND (0.5)
Surface Water Stations																		
R-27	06-Mar-06	656	-11.8	-92.1	90.6	268	ND (0.5)	83.5	29.4	5.44 J	101	ND (0.2)	144	ND (0.5)	---	---	ND (0.5)	ND (0.5)
R-28	06-Mar-06	675	-12.3	-93.4	91	270	ND (0.5)	76.6	26.6	5.22 J	91.5	ND (0.2)	146	ND (0.5)	---	---	ND (0.5)	ND (0.5)

NOTES:

FD field duplicate sample
ND parameter not detected at the listed reporting limit.
J concentration or reporting estimated by laboratory or data validation
--- parameter not analyzed

Results in milligrams per liter (mg/L), except Oxygen-18 and Deuterium, which are expressed as differences from global standards in parts per thousand.

Alkalinity reported as carbonate (CaCO3). Nitrate reported as Nitrogen (N).

All metal results are dissolved concentrations except for selected unfiltered parameters noted with ^ (total metals concentration).

Appendix C
Hydrographs
January through December 2006

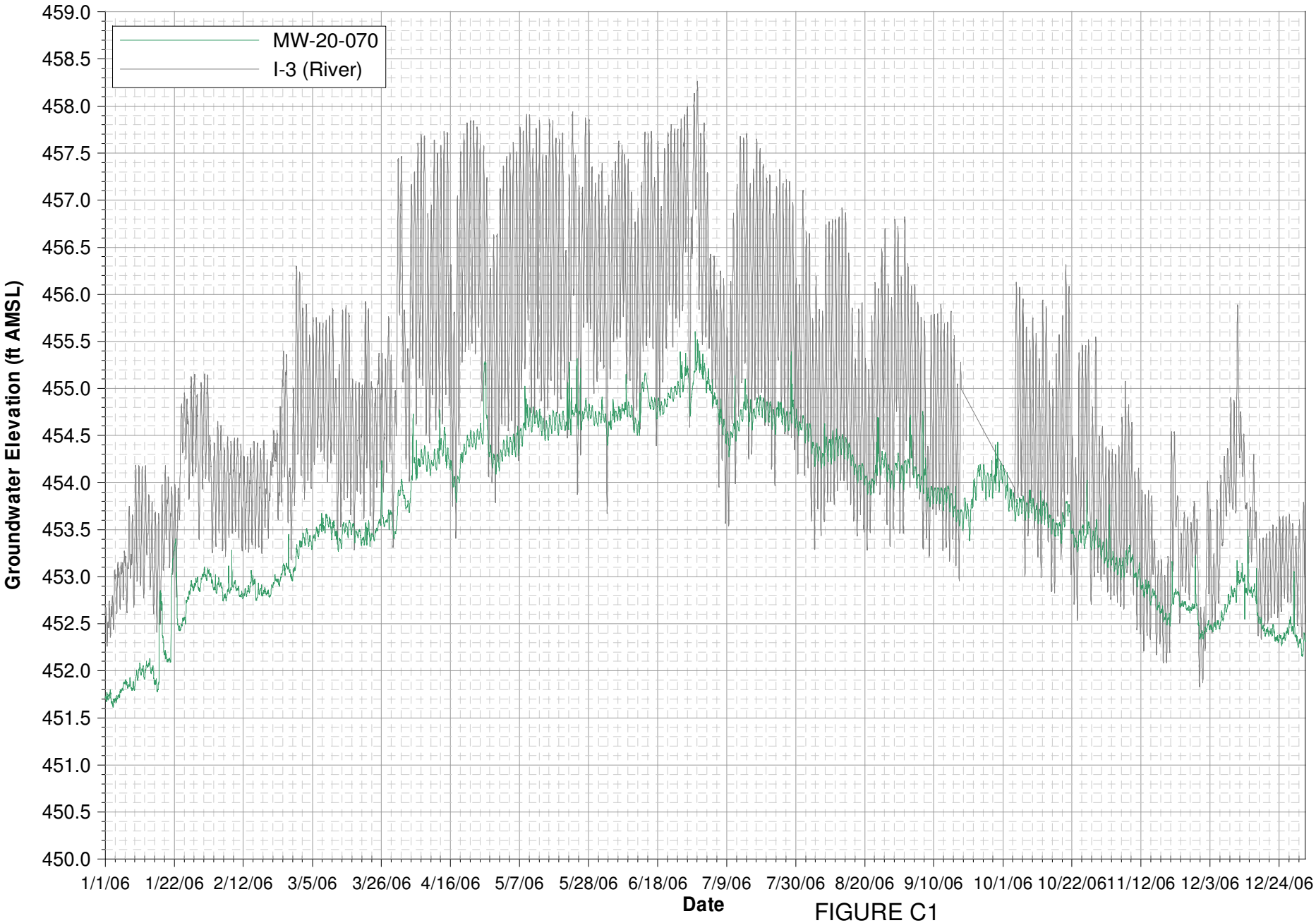

FIGURE C1
MW-20-70 HYDROGRAPH, 2006
GROUNDWATER AND SURFACE WATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.
I-3 data unavailable 9/18/2006 through 10/4/2006.

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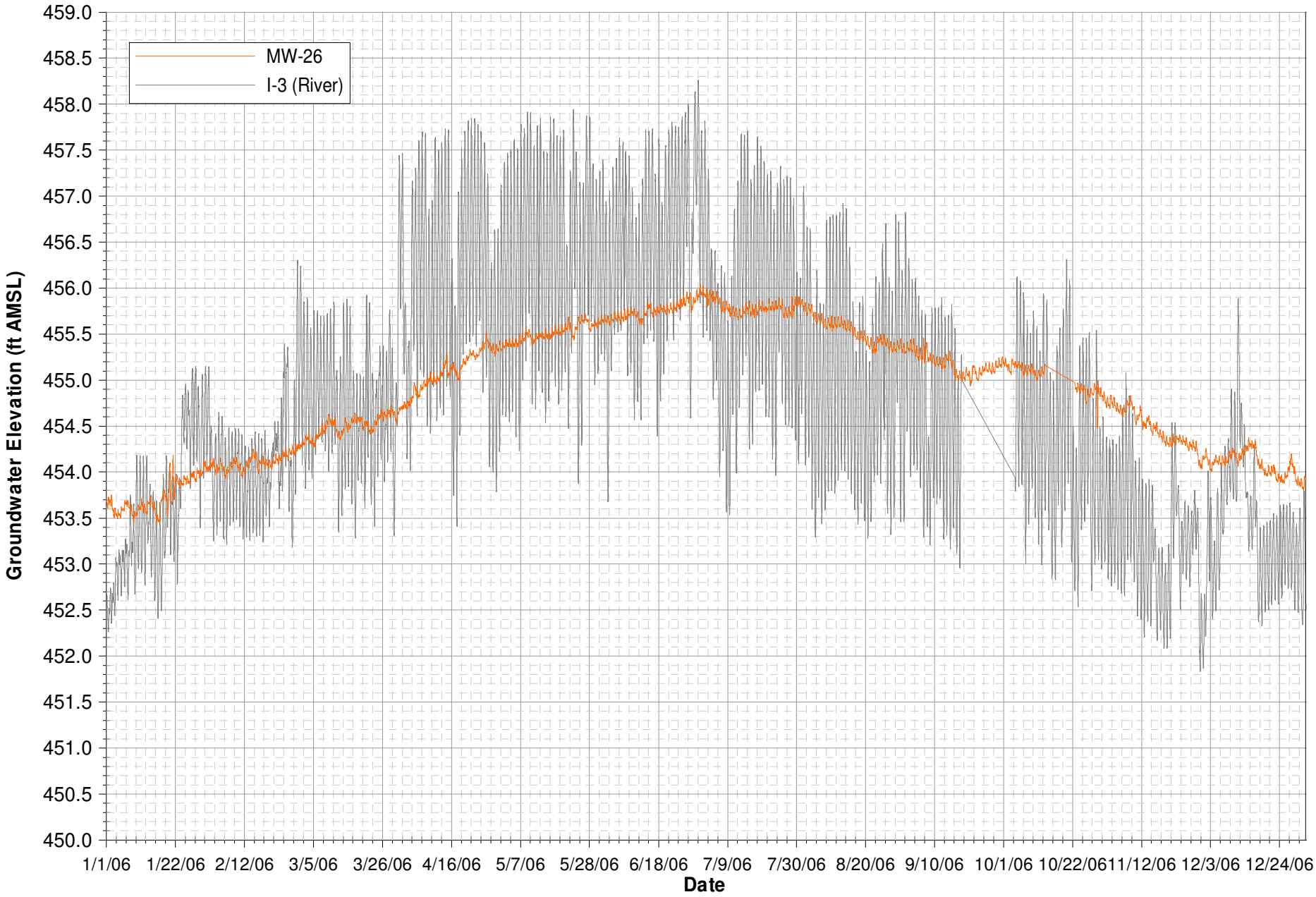


FIGURE C2
MW-26 HYDROGRAPH, 2006
GROUNDWATER AND SURFACE WATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.
I-3 data unavailable 9/18/06 through 10/4/2006.
MW-26 data unavailable 10/13/2006 through 10/22/2006.

CH2MHILL

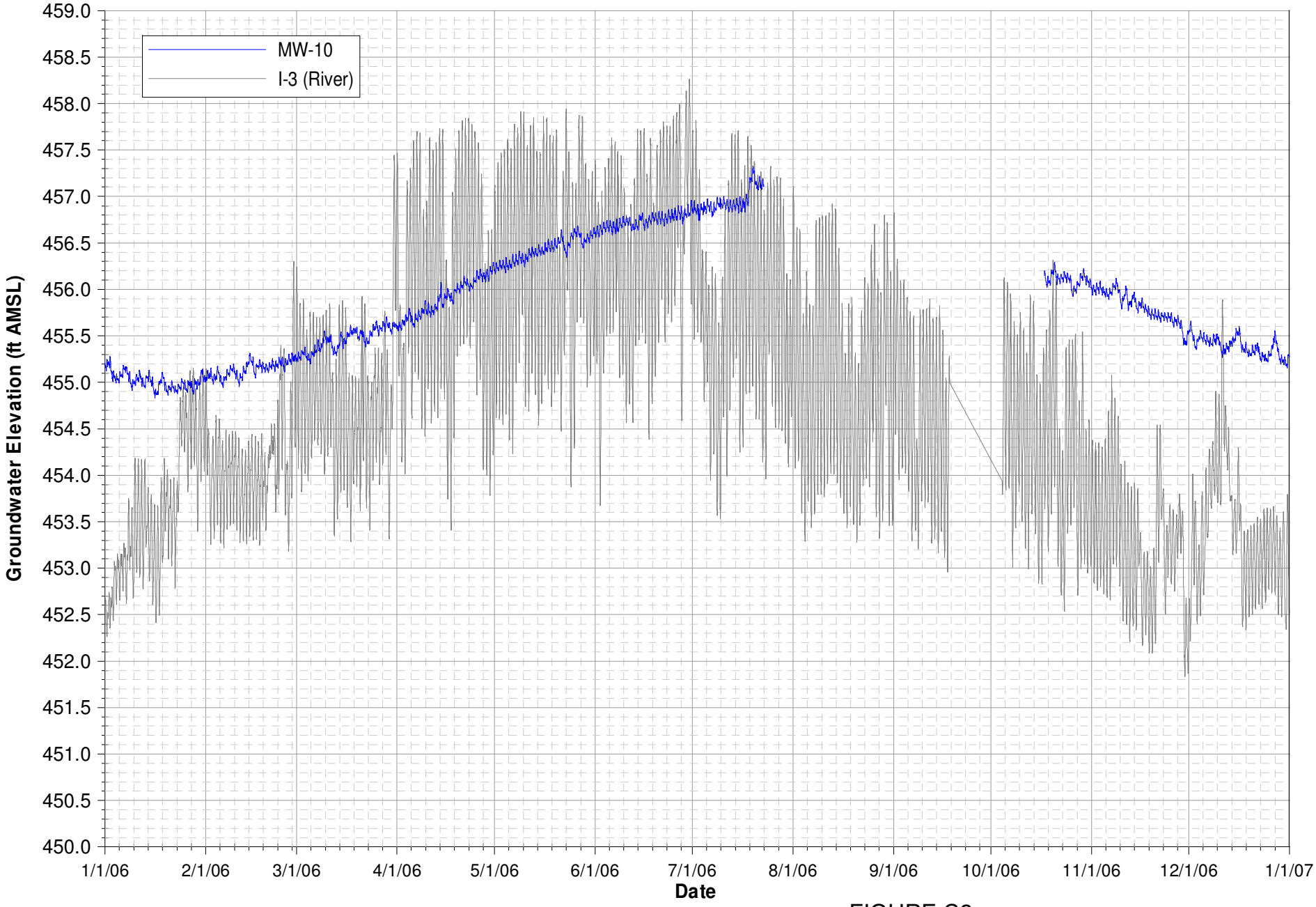
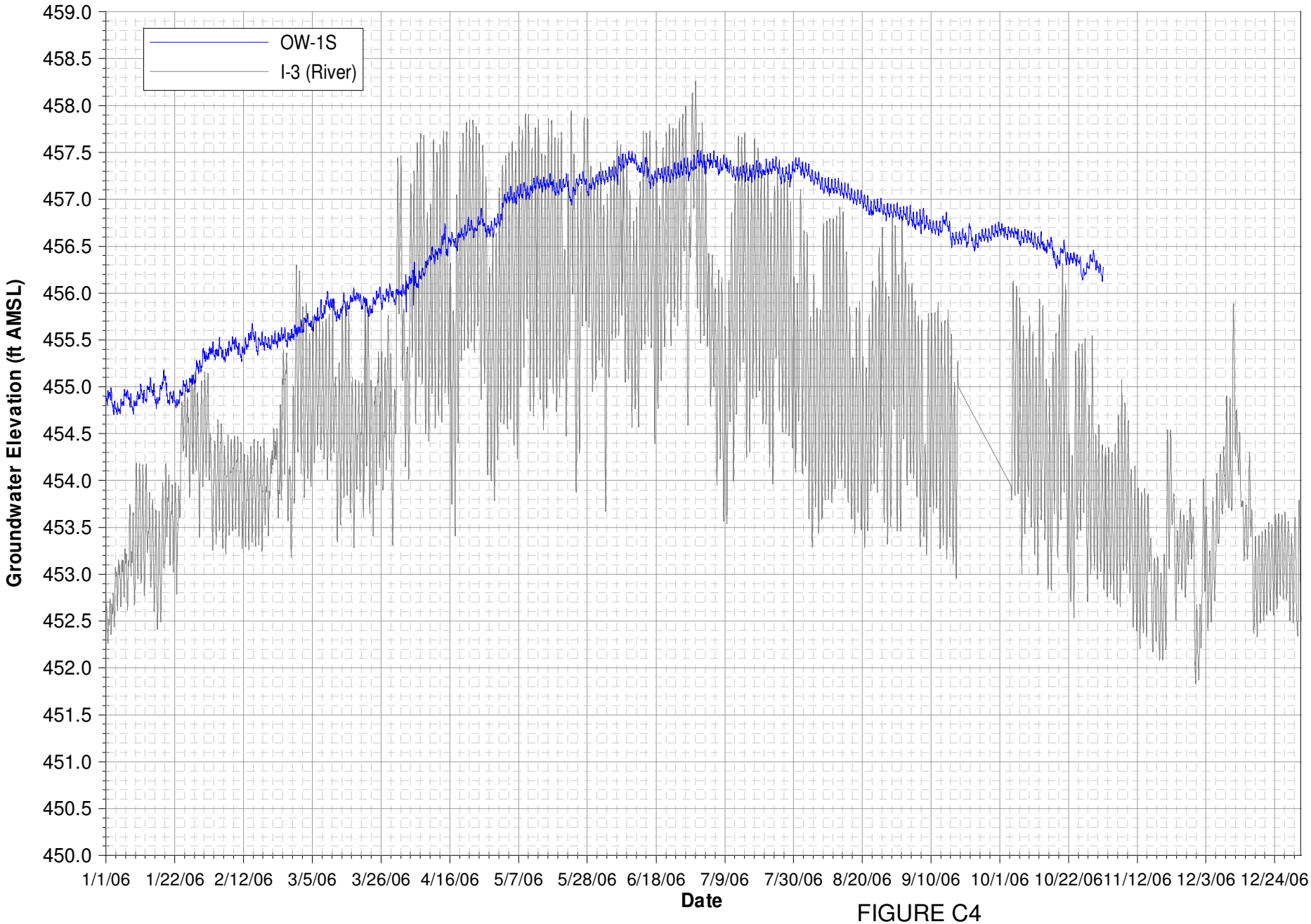


FIGURE C3
MW-10 HYDROGRAPH, 2006
GROUNDWATER AND SURFACE WATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.
I-3 data unavailable 9/18/2006 through 10/4/2006.
MW-10 data unavailable 7/23/06 through 10/17/06.

CH2MHILL



Note: Data subject to review.
I-3 data unavailable 9/18/2006 through 10/4/2006.
OW-01S data unavailable after 11/8/2006 due to transducer failure.

FIGURE C4
OW-1S HYDROGRAPH, 2005
GROUNDWATER AND SURFACE WATER MONITORING PROGRAM
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

Appendix D
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

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The Monitoring and Remediation Optimization System (MAROS) software developed by the Air Force Center for Environmental Excellence (AFCEE) was used to evaluate the sampling frequency of monitoring wells in the Topock Groundwater Monitoring Program (GMP) network. This memorandum summarizes the results of the evaluation and provides recommendations for revised sampling frequencies.

MAROS Description

MAROS is a modular set of tools that uses simple statistical and heuristic methods to evaluate appropriate sampling frequencies for wells in long-term groundwater monitoring programs. The capabilities of MAROS include plume trend analysis, detailed characterization of sample frequency, well redundancy, well sufficiency, and data sufficiency. MAROS is designed for single plumes, two-dimensional analysis, and evaluation only within the existing well network.

Application of MAROS to the Topock GMP Data Set

Sampling frequency analysis for hexavalent chromium [Cr(VI)] was the primary focus of the Topock groundwater monitoring program evaluation. Sampling frequency analysis relies primarily on evaluating data trends, particularly rate of change, at individual wells. MAROS requires at least four data points to calculate a trend at a well, but a trend based on only four data points may be erroneous. A minimum of six data points is recommended.

MAROS is designed to be used at sites where a static set of wells has been sampled at a regular frequency over a long period. Addition of new wells to the monitoring network during the period of interest often causes MAROS to reach an erroneous conclusion that the plume is migrating and results in excessive sampling frequency recommendations. At a site such as Topock, where new wells have been added each year, it is best to evaluate data from groups of wells for which data are available over the entire time period of interest.

Because Topock wells are sampled at various frequencies and MAROS provides the most meaningful results when all of the site wells are sampled during the same event, the GMP data set was reduced to reflect quarterly sampling intervals. To obtain the most conservative data set, the maximum concentration detected at the well during the quarter was used in the analysis of wells sampled more than once during a given quarter.

The program was used to analyze data for the period from January 1, 2005 through December 31, 2006, for all of the routinely-sampled monitoring wells. The 2-year data set is considered be the most representative of current conditions at the site, while including most of the wells at the site. As more quarterly data become available, MAROS analysis can be performed on the more recent wells which do not currently have the minimum number of data points.

Because MAROS performs a two-dimensional analysis, the data set was broken up by monitoring wells in the upper depth interval (UA), the middle depth interval (MA), and the lower depth interval (LA). Separate runs were made for each depth interval. The wells in the Alluvial Aquifer have been separated into three depth intervals to present groundwater quality and groundwater level data. The depth intervals are based on grouping the monitoring wells screened at common elevations and do not represent distinct hydrostratigraphic units or separate aquifer zones. The Alluvial Aquifer is considered to be hydraulically undivided. The contaminant used for the trend analysis was Cr(VI).

MAROS Inputs

In addition to analytical data, MAROS uses some hydrogeologic data. These data are used to evaluate plume movement. One value for each parameter is identified per depth interval. The values selected are shown on Table 1. The contaminant source was assumed to be approximately at the location of monitoring well MW-10. Wells included in the analysis must be assigned to one of two categories: source well or tail well. At least one source well must be selected for each layer. In each layer, the well(s) nearest the source area well (MW-10) were assigned to the source category. Source wells included: MW-09 and MW-10 in UA, MW-20-100 in MA, and MW-38D and MW-24B in LA. Although it is approximately 1,800 feet downgradient of the assumed contaminant source (near MW-10), MW-20-100 was selected as the source area well for the MA because it is the closest downgradient well to MW-10 for which a sufficient data set is available (it has a regular sampling frequency), and it has the highest Cr(VI) concentrations of the MA dataset.

TABLE 1
MAROS Input Parameters for Each Depth Interval
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Parameter	UA	MA	LA	Input Source
Seepage velocity (ft/yr)	127	152	142	Average from groundwater model
Generalized groundwater flow direction	East	East	East	Average from groundwater model
Saturated thickness (ft)	30	30	70	Average from groundwater model
Effective Porosity (%)	18	18	18	Average from groundwater model
Porosity (%)	30	30	30	C.W. Fetter, *Applied Hydrogeology*, 1994; and site specific sediment samples

TABLE 1
MAROS Input Parameters for Each Depth Interval
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Parameter	UA	MA	LA	Input Source
50 ppb plume width (ft)	3100	2850	2650	4th Quarter 2006 Monitoring Event Plume Map
50 ppb plume length (ft)	1460	1420	2315	4th Quarter 2006 Monitoring Event Plume Map
Maximum plume length (ft)	1460	1420	2315	4th Quarter 2006 Monitoring Event Plume Map
Distance from source to nearest downgradient receptor (ft) [Colorado River]	2080	2080	2080	4th Quarter 2006 Monitoring Event Plume Map
Distance from source to nearest downgradient property line (ft)) [Colorado River]	2080	2080	2080	4th Quarter 2006 Monitoring Event Plume Map
Distance from plume tail to nearest downgradient receptor (ft)) [Colorado River]	350	350	10	4th Quarter 2006 Monitoring Event Plume Map
Distance from plume tail to nearest downgradient property line (ft)) [Colorado River]	350	350	10	4th Quarter 2006 Monitoring Event Plume Map

Data Sets Used

As previously described, the program was used to analyze data from a 2-year period for all of the routinely-sampled monitoring wells data for each depth interval. Table 2 lists the wells that were included in each layer.

TABLE 2
Wells Included in MAROS Evaluation, by Depth Interval
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

UA Wells	MA Wells	LA Wells
MW-09	CW-01M	CW-01D
MW-10	CW-02M	CW-02D
MW-11	CW-03M	CW-03D
MW-12	CW-04M	CW-04D
MW-13	MW-20-100	MW-20-130

TABLE 2
Wells Included in MAROS Evaluation, by Depth Interval
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

UA Wells	MA Wells	LA Wells
MW-14	MW-27-060	MW-24B
MW-15	MW-30-050	MW-27-085
MW-16	MW-33-090	MW-28-090
MW-17	MW-34-055	MW-31-135
MW-18	MW-36-050	MW-33-150
MW-19	MW-36-070	MW-33-210
MW-20-070	MW-37S	MW-34-080
MW-21	MW-39-050	MW-34-100
MW-22	MW-39-060	MW-35-135
MW-24A	MW-39-070	MW-36-090
MW-25	MW-41M	MW-36-100
MW-26	MW-42-055	MW-37D
MW-27-020	MW-42-065	MW-38D
MW-28-025	MW-44-070	MW-39-080
MW-29	MW-50-095	MW-39-100
MW-30-030	MW-51	MW-40D
MW-31-060	OW-01M	MW-41D
MW-32-020	OW-02M	MW-43-075
MW-32-035	OW-03M	MW-43-090
MW-33-040	OW-05M	MW-44-115
MW-35-060	PGE-06	MW-44-125
MW-36-020	Park Moabi	MW-45-095a
MW-36-040		MW-45-095b
MW-38S		MW-46-175
MW-39-040		MW-46-205
MW-40S		MW-47-115
MW-41S		MW-49-135
MW-42-030		MW-49-275
MW-43-025		MW-49-365
MW-47-055		MW-50-200

TABLE 2
Wells Included in MAROS Evaluation, by Depth Interval
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

UA Wells	MA Wells	LA Wells
OW-01S		OW-01D
OW-02S		OW-02D
OW-03S		OW-03D
OW-05S		OW-05D
TW-02S		TW-02D
TW-01		TW-03D
		TW-04
		TW-05

Data were consolidated into quarterly events, selecting the maximum Cr(VI) concentration detected during each period at each well. As recommended by MAROS authors, non-detects (NDs) were set to the lowest detection limit (0.0002 milligrams per liter [mg/L]). When the actual detection limit was used, false increasing and decreasing trends were interpreted by the program, as ND values varied depending on the detection limit.

Description of MAROS Analyses Performed

Sampling Frequency Optimization

Sampling frequency analysis determines the sampling interval for each sampling location using the Modified Cost Effective Sampling (CES) method. CES is a methodology developed to estimate the lowest-frequency sampling schedule for a given monitoring well, while still providing stakeholders the needed information for regulatory and remedial decision-making. The CES method evaluates the frequency of well sampling based on statistics describing the trend, variability, and magnitude of contaminant concentrations. Contaminant rate of change at a well is evaluated relative to the cleanup goal or maximum contaminant level (MCL). The California MCL for total chromium (0.05 mg/L) was used in this evaluation. The central premise of the CES method is that sampling frequency should be based on the rate of change of constituents at the well rather than well location within the plume. The sampling frequency method MAROS employs is based on the CES method, with some modifications to integrate with the overall MAROS approach.

MAROS Results for Upper Depth Interval (UA) Wells

Table 3 lists all of the UA monitoring wells included in the analysis, the current sampling frequency for each well, and the MAROS-recommended sampling frequency. MAROS recommends biennial sampling for the majority of the UA wells.

TABLE 3
UA MAROS-recommended Sampling Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Well	Current Sampling Frequency	MAROS Sampling Frequency
MW-09	Annual	Annual
MW-10	Quarterly	Quarterly
MW-11	Annual	Annual
MW-12	Quarterly	Quarterly
MW-13	Semiannual	Annual
MW-14	Semiannual	Annual
MW-15	Biennial	Biennial
MW-16	Biennial	NA
MW-17	Biennial	NA
MW-18	Semiannual	Annual
MW-19	Quarterly	Annual
MW-20-070	Quarterly	Annual
MW-21	Quarterly	Biennial
MW-22	Semiannual	Biennial
MW-24A	Quarterly	Quarterly
MW-25	Semiannual	Annual
MW-26	Semiannual	Quarterly
MW-27-020	Annual	Biennial
MW-28-025	Annual	Biennial
MW-29	Annual	Biennial
MW-30-030	Biennial	Biennial
MW-31-060	Semiannual	Annual
MW-32-020	Quarterly	Biennial
MW-32-035	Quarterly	Biennial
MW-33-040	Quarterly	Biennial

TABLE 3
UA MAROS-recommended Sampling Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Well	Current Sampling Frequency	MAROS Sampling Frequency
MW-35-060	Semiannual	Annual
MW-36-020	Annual	Biennial
MW-36-040	Annual	Biennial
MW-38S	Annual	Annual
MW-39-040	Quarterly	Biennial
MW-40S	Annual	Biennial
MW-41S	Semiannual	Annual
MW-42-030	Semiannual	Biennial
MW-43-025	Semiannual	Biennial
MW-47-055	Quarterly	Quarterly
OW-01S	Quarterly	Biennial
OW-02S	Quarterly	Annual
OW-03S	Semiannual	NA
OW-05S	Quarterly	Annual
TW-01	Biennial	NA
TW-02S	Annual	Annual

NA = Not applicable, insufficient number of samples for high degree of confidence in MAROS analysis results

MAROS Results for Middle Depth Interval (MA) Wells

Table 4 lists all of the MA monitoring wells included in the analysis, the current sampling frequency for each well, and the MAROS-recommended sampling frequency. MAROS recommends biennial sampling for the majority of the MA wells.

TABLE 4
MA MAROS-recommended Sampling Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Well	Current Sampling Frequency	MAROS Sampling Frequency
CW-01M	Semiannual	Biennial
CW-02M	Semiannual	Biennial

TABLE 4
MA MAROS-recommended Sampling Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Well	Current Sampling Frequency	MAROS Sampling Frequency
CW-03M	Semiannual	Annual
CW-04M	Semiannual	Biennial
MW-20-100	Quarterly	Quarterly
MW-27-060	Annual	Biennial
MW-30-050	Not sampled	Biennial
MW-33-090	Quarterly	Biennial
MW-34-055	Annual	Biennial
MW-36-050	Annual	Biennial
MW-36-070	Quarterly	Biennial
MW-37S	Semiannual	Biennial
MW-39-050	Annual	Annual
MW-39-060	Annual	Annual
MW-39-070	Quarterly	Annual
MW-41M	Semiannual	Annual
MW-42-055	Quarterly	Biennial
MW-42-065	Quarterly	Biennial
MW-44-070	Quarterly	Biennial
MW-50-095	Quarterly	NA
MW-51	Quarterly	NA
OW-01M	Quarterly	Biennial
OW-02M	Quarterly	Biennial
OW-03M	Semiannual	Biennial
OW-05M	Quarterly	Biennial
PGE-06	Not sampled	NA
Park Moabi	Biennial	Biennial

NA = Not applicable, insufficient number of samples for high degree of confidence in MAROS analysis results

MAROS Results for Lower Depth Interval (LA) Wells

Table 5 lists all of the LA monitoring wells included in the analysis, the current sampling frequency for each well, and the MAROS-recommended sampling frequency. MAROS recommends annual and biennial sampling for the majority of the LA wells.

TABLE 5
LA MAROS-recommended Sampling Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Well	Current Sampling Frequency	MAROS Sampling Frequency
CW-01D	Semiannual	Biennial
CW-02D	Semiannual	Biennial
CW-03D	Semiannual	Biennial
CW-04D	Semiannual	Biennial
MW-20-130	Quarterly	Quarterly
MW-24B	Quarterly	Quarterly
MW-27-085	Monthly	Biennial
MW-28-090	Quarterly	Biennial
MW-31-135	Semiannual	Annual
MW-33-150	Quarterly	Annual
MW-33-210	Quarterly	Annual
MW-34-080	Monthly	Biennial
MW-34-100	Biweekly	Quarterly
MW-35-135	Semiannual	Annual
MW-36-090	Monthly	Annual
MW-36-100	Monthly	Annual
MW-37D	Quarterly	Annual
MW-38D	Annual	Annual
MW-39-080	Monthly	Annual
MW-39-100	Monthly	Annual
MW-40D	Quarterly	Semiannual
MW-41D	Semiannual	Biennial
MW-43-075	Quarterly	Biennial
MW-43-090	Quarterly	Biennial
MW-44-115	Monthly	Annual

TABLE 5
LA MAROS-recommended Sampling Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells, 2005-2006

Well	Current Sampling Frequency	MAROS Sampling Frequency
MW-44-125	Monthly	Annual
MW-45-095a	Not sampled	NA
MW-45-095b	Not sampled	NA
MW-46-175	Monthly	Annual
MW-46-205	Quarterly	Biennial
MW-47-115	Quarterly	Biennial
MW-49-135	Quarterly	NA
MW-49-275	Quarterly	NA
MW-49-365	Quarterly	NA
MW-50-200	Quarterly	NA
OW-01D	Semiannual	Biennial
OW-02D	Semiannual	Biennial
OW-03D	Semiannual	NA
OW-05D	Semiannual	Biennial
TW-02D	Annual	Annual
TW-03D	Monthly	Annual
TW-04	Semiannual	NA
TW-05	Annual	NA

NA = Not applicable, insufficient number of samples for high degree of confidence in MAROS analysis results

Long-term Monitoring Recommendations

The MAROS software recommended a reduced sampling frequency for most of the routinely-sampled monitoring wells at Topock. Annual or biennial sampling was recommended for most of the monitoring wells. Table 6 is a summary of the current sampling frequencies for the Topock GMP and interim measures observation and compliance wells. The table includes a summary of the MAROS-recommended sampling frequency for each monitoring well included in the MAROS evaluation. Finally the table includes the recommended sampling frequency for the well in 2007 given the MAROS results and whether the well is used for interim measures monitoring.

TABLE 6
Recommended Topock Groundwater Monitoring Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells

Well	Well Type	Current Sampling Frequency	MAROS Frequency	Recommended Frequency
UA				
MW-09	GMP	Annual	Annual	Annual
MW-10	GMP	Quarterly	Quarterly	Quarterly
MW-11	GMP	Annual	Annual	Annual
MW-12	GMP	Quarterly	Quarterly	Quarterly
MW-13	GMP	Semiannual	Annual	Annual
MW-14	GMP	Semiannual	Annual	Annual
MW-15	GMP	Biennial	Biennial	Biennial
MW-16	GMP	Biennial	NA	NA (Biennial)
MW-17	GMP	Biennial	NA	NA (Biennial)
MW-18	GMP	Semiannual	Annual	Annual
MW-19	GMP	Quarterly	Annual	Annual
MW-20-070	GMP	Quarterly	Annual	Annual
MW-21	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-22	GMP	Semiannual	Biennial	Biennial
MW-24A	GMP	Quarterly	Quarterly	Quarterly
MW-25	GMP	Semiannual	Annual	Annual
MW-26	GMP	Semiannual	Quarterly	Quarterly
MW-27-020	GMP	Annual	Biennial	Biennial
MW-28-025	GMP	Annual	Biennial	Biennial
MW-29	GMP	Annual	Biennial	Biennial
MW-30-030	GMP	Biennial	Biennial	Biennial
MW-31-060	GMP	Semiannual	Annual	Annual
MW-32-020	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-32-035	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-33-040	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-35-060	GMP	Semiannual	Annual	Annual
MW-36-020	GMP	Annual	Biennial	Biennial
MW-36-040	GMP	Annual	Biennial	Biennial
MW-38S	GMP	Annual	Annual	Annual

TABLE 6
Recommended Topock Groundwater Monitoring Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells

Well	Well Type	Current Sampling Frequency	MAROS Frequency	Recommended Frequency
MW-39-040	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-40S	GMP	Annual	Biennial	Biennial
MW-41S	GMP	Semiannual	Annual	Annual
MW-42-030	GMP	Semiannual	Biennial	Biennial
MW-43-025	GMP	Semiannual	Biennial	Biennial
MW-47-055	GMP	Quarterly	Quarterly	IMCP (Quarterly)
OW-01S	IM No. 3 Observation Well	Quarterly	NA*	OW/CW (Quarterly)
OW-02S	IM No. 3 Observation Well	Quarterly	NA*	OW/CW (Quarterly)
OW-03S	GMP	Semiannual	NA	NA (Semiannual)
OW-05S	IM No. 3 Observation Well	Quarterly	NA*	OW/CW (Quarterly)
TW-01	GMP	Biennial	NA	NA (Biennial)
TW-02S	GMP	Annual	Annual	Annual
MA				
CW-01M	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semi-annual)
CW-02M	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
CW-03M	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
CW-04M	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
MW-20-100	GMP	Quarterly	Quarterly	Quarterly
MW-27-060	GMP	Annual	Biennial	Biennial
MW-30-050	GMP	Not sampled	Biennial	Not sampled
MW-33-090	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-34-055	GMP	Annual	Biennial	Biennial
MW-36-050	GMP	Annual	Biennial	Biennial
MW-36-070	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-37S	GMP	Semiannual	Biennial	Biennial
MW-39-050	GMP	Annual	Annual	Annual
MW-39-060	GMP	Annual	Annual	Annual
MW-39-070	GMP	Quarterly	Annual	Annual

TABLE 6
Recommended Topock Groundwater Monitoring Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells

Well	Well Type	Current Sampling Frequency	MAROS Frequency	Recommended Frequency
MW-41M	GMP	Semiannual	Annual	Annual
MW-42-055	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-42-065	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-44-070	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-50-095	GMP	Quarterly	NA	NA (Quarterly)
MW-51	GMP	Quarterly	NA	NA (Quarterly)
OW-01M	IM No. 3 Observation Well	Quarterly	NA*	OW/CW (Quarterly)
OW-02M	IM No. 3 Observation Well	Quarterly	NA*	OW/CW (Quarterly)
OW-03M	GMP	Quarterly	Biennial	Biennial
OW-05M	IM No. 3 Observation Well	Quarterly	NA*	OW/CW (Quarterly)
PGE-06	GMP	Not sampled	NA	NA (Not sampled)
Park Moabi	GMP	Biennial	Biennial	Biennial
LA				
CW-01D	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
CW-02D	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
CW-03D	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
CW-04D	IM No. 3 Compliance Well	Semiannual	NA*	OW/CW (Semiannual)
MW-20-130	GMP	Quarterly	Quarterly	Quarterly
MW-24B	GMP	Quarterly	Quarterly	Quarterly
MW-27-085	GMP	Monthly	Biennial	IMCP (Monthly)
MW-28-090	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-31-135	GMP	Semiannual	Annual	Annual
MW-33-150	GMP	Quarterly	Annual	IMCP (Quarterly)
MW-33-210	GMP	Quarterly	Annual	IMCP (Quarterly)
MW-34-080	GMP	Monthly	Biennial	IMCP (Monthly)
MW-34-100	GMP	Biweekly	Quarterly	IMCP (Biweekly)
MW-35-135	GMP	Semiannual	Annual	Annual
MW-36-090	GMP	Monthly	Annual	Annual

TABLE 6
Recommended Topock Groundwater Monitoring Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells

Well	Well Type	Current Sampling Frequency	MAROS Frequency	Recommended Frequency
MW-36-100	GMP	Monthly	Annual	Annual
MW-37D	GMP	Quarterly	Annual	Annual
MW-38D	GMP	Annual	Annual	Annual
MW-39-080	GMP	Monthly	Annual	Annual
MW-39-100	GMP	Monthly	Annual	Annual
MW-40D	GMP	Quarterly	Semiannual	Semiannual
MW-41D	GMP	Semiannual	Biennial	Biennial
MW-43-075	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-43-090	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-44-115	GMP	Monthly	Annual	IMCP (Monthly)
MW-44-125	GMP	Monthly	Annual	IMCP (Monthly)
MW-45-095a	GMP	Not sampled	NA	NA (Not sampled)
MW-45-095b	GMP	Not sampled	NA	NA (Not sampled)
MW-46-175	GMP	Monthly	Annual	IMCP (Monthly)
MW-46-205	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-47-115	GMP	Quarterly	Biennial	IMCP (Quarterly)
MW-49-135	GMP	Quarterly	NA	NA (Quarterly)
MW-49-275	GMP	Quarterly	NA	NA (Quarterly)
MW-49-365	GMP	Quarterly	NA	NA (Quarterly)
MW-50-200	GMP	Quarterly	NA	NA (Quarterly)
OW-01D	IM No. 3 Observation Well	Semiannual	NA*	OW/CW (Semiannual)
OW-02D	IM No. 3 Observation Well	Semiannual	NA*	OW/CW (Semiannual)
OW-03D	GMP	Semiannual	NA	NA (Semiannual)
OW-05D	IM No. 3 Observation Well	Semiannual	NA*	OW/CW (Semiannual)
TW-02D	GMP	Annual	Annual	Annual
TW-03D	IM No. 3 Extraction Well	Monthly	NA*	EW (Monthly)
TW-04	GMP	Semiannual	NA	NA (Semiannual)
TW-05	GMP	Annual	NA	NA (Annual)

TABLE 6
Recommended Topock Groundwater Monitoring Frequency
Evaluation of Sampling Frequencies of Topock GMP Monitoring Wells

Well	Well Type	Current Sampling Frequency	MAROS Frequency	Recommended Frequency

Notes:
OW/CW = Compliance and Observation wells in the IM injection area. No changes are recommended to the sampling frequencies for IM compliance and observation wells.
IMCP =IM Contingency Plan well. No changes are recommended to the sampling frequencies for wells associated with the IM Contingency Plan, submitted to DTSC on August 28, 2006.
EW = Extraction well. No changes are recommended to the sampling frequency for extraction wells.
NA = Not applicable, insufficient number of samples for high degree of confidence in MAROS analysis results.