



**Pacific Gas and
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February 15, 2007

Mr. Robert Perdue
Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

**Subject: Board Order R7-2006-0008
PG&E Topock Compressor Station, Needles, California
Floodplain Reductive Zone In Situ Pilot Test
January 2007 Monitoring Report**

Dear Mr. Perdue:

Enclosed is the Board Order R7-2006-0008 January 2007 Monitoring Report for the Pacific Gas and Electric Company (PG&E) Topock Compressor Station, floodplain reductive zone in situ pilot test. This report is being submitted in compliance with the Waste Discharge Requirements (WDRs) issued by the Colorado River Basin Regional Water Quality Control Board (Water Board) under Board Order R7-2006-0008. WDRs under Board Order R7-2006-0008 apply to the floodplain reductive zone in situ pilot test only.

If you have any questions regarding this report, please call me at (805) 546-5243.

Sincerely,

Yvonne Meeks
Topock Project Manager

Enclosures:

Board Order R7-2006-0008 January 2007 Monitoring Report for the Floodplain Reductive Zone In Situ Pilot Test.

cc: José Cortez, Water Board
Liann Chavez, Water Board
Chris Guerre, DTSC (2 copies)

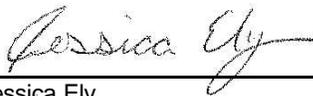
Pacific Gas and Electric Company

**January 2007 Monitoring Report
for the Floodplain Reductive Zone
In-Situ Pilot Test**

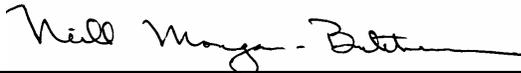
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Order No. R7-2006-0008
PG&E Topock Compressor Station
San Bernardino County, California

15 February 2007

This report was prepared under the supervision of a California licensed Professional Engineer (PE)



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**January 2007 Monitoring
Report for the Floodplain
Reductive Zone In-Situ
Pilot Test**

Waste Discharge Requirements
Order No. R7-2006-0008
PG&E Topock Compressor San
Bernardino County, California

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Our Ref.:
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Date:
15 February 2007

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of the individual or entity for which it was
prepared and may contain information that
is privileged, confidential, and exempt from
disclosure under applicable law.*

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EMAX	EMAX Laboratories, Inc.
ISPT	In-Situ Pilot Test
MRP	Monitoring and Reporting Program
Ozark	Ozark Underground Laboratory
PG&E	Pacific Gas and Electric Company
RWQCB	California Regional Water Quality Control Board, Colorado River Basin Region
SAFPM	<i>Sampling, Analysis, and Field Procedures Manual, PG&E Topock Program, Revision 1</i>
TOC	Total Organic Carbon
Truesdail	Truesdail Laboratories
USEPA	United States Environmental Protection Agency
Work Plan	<i>In-Situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement (August 2005)</i>
Work Plan Addendum	<i>Final Addendum to the In-Situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement (December 5, 2005)</i>
Work Plan Addendum 2	<i>Addendum 2 to the In-Situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement (April 14, 2006)</i>

1.0 Introduction

Pacific Gas and Electric (PG&E) is implementing a floodplain reductive zone in-situ pilot test (ISPT) to address chromium concentrations in groundwater at the Topock Compressor Station near Needles, California. The purpose of the floodplain ISPT is to evaluate the efficacy of using a food-grade reagent mixture to reduce hexavalent chromium in groundwater to form stable, insoluble trivalent chromium. The floodplain ISPT consists of injecting the reagent mixture into a well cluster (PTI-1S/M/D) and monitoring the results in six three-level well nests (PT-1 through PT-6). Figure 1 provides a map of the PG&E Topock Compressor Station and ISPT area. (All figures are provided at the end of the report.)

California Regional Water Quality Control Board, Colorado River Basin Region (RWQCB) Order No. R7-2006-0008 authorizes PG&E to inject 6,000 gallons of blended groundwater and reagent mixture into each well of injection well cluster PTI-1S/M/D located in the Colorado River floodplain. Injection of the reagent mixture may occur one to four times during a 6-month period.

The Monitoring and Reporting Program (MRP) under Order No. R7-2006-0008 requires monthly monitoring reports to be submitted by the 15th day of the following month. This report describes monitoring activities related to the floodplain ISPT for January 2007.

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2.0 In-Situ Pilot Test Sampling Locations

Table 1 summarizes the well construction details of the injection well cluster (PTI-1S/M/D) and monitoring well nests (PT-1 through PT-6). Figure 2 provides a map of the sampling locations, including extraction wells TW-2D, TW-3D, and PE-1. (All figures are provided at the end of the report.)

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3.0 Description of Activities

The procedures and the refinements to the floodplain ISPT are outlined in the following documents: *In-Situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement (Work Plan)*, dated August 2005, the *Final Addendum to the In-Situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement (Work Plan Addendum)*, dated December 5, 2005, and the *Addendum 2 to the In-Situ Hexavalent Chromium Reduction Plan, Floodplain Reductive Zone Enhancement (Work Plan Addendum 2)*, dated April 14, 2006. During January 2007, ARCADIS completed the eighth monthly post-injection sampling event of the floodplain ISPT. In addition, two weekly sampling events were conducted, as described in the *Request for Approval of a Fourth Injection Event*, dated October 18, 2006, and amended by agreement with the California Department of Toxic Substances Control. Associated field activities were performed in accordance with these documents and the applicable procedures contained within the *Sampling, Analysis, and Field Procedures Manual, PG&E Topock Program, Revision 1 (SAFPM)*.

Month 8 post-injection sampling was performed from January 2 through January 4, 2007. The weekly post-injection sampling events were performed on January 15 and 29, 2007.. Data from the January 29, 2007 weekly post-injection sampling event are not included in this report and will be reported in the February monthly report. The post-injection sampling groundwater sampling events were performed in accordance with the Work Plan and Work Plan Addenda 1 and 2.

Samples were collected, labeled, and packaged according to the SAFPM. Table 2 presents the field parameter results. Tables 3 and 4 present the groundwater analytical results. As required under the MRP, calibration logs for field-monitoring instruments are included in Appendix A. Groundwater sampling logs are included in Appendix B.

Groundwater samples for month 8 were analyzed for hexavalent chromium (United States Environmental Protection Agency [USEPA] Method 7199) by Truesdail Laboratories (Truesdail); fluorescein (in-house method) by Ozark Underground Laboratory (Ozark); chromium, dissolved and total iron, manganese, calcium, magnesium, arsenic, potassium, sodium (USEPA Method 6010B), nitrate, nitrite, sulfate, carbonate, bicarbonate alkalinity, chloride, bromide, phosphorous, iodide (USEPA Method 300), total organic carbon (TOC) (USEPA Method 415.5), and sulfide (USEPA Method 376.1) by EMAX Laboratories, Inc. (EMAX).

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Groundwater samples for the weekly post injection event were analyzed for fluorescein (in-house method) by Ozark; iodide (USEPA Method 300), and TOC (USEPA Method 415.5) by EMAX. Hexavalent chromium was analyzed in the field.

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4.0 Sampling and Analytical Procedures

Groundwater sampling and associated tasks were performed in accordance with the applicable procedures contained in the SAFPM.

Prior to groundwater sampling, the depth to water was recorded for each well. These data were used to evaluate the volume of standing water in the well. The monitoring wells were purged using an Enviro-Tech ES-60 Whaler pump or a WaTerra® purge pump with dedicated polyethylene tubing. Purging continued until three casing volumes had been removed. The field parameters, such as pH, specific conductance, temperature, color, odor, and depth to water, were recorded (Table 2). After completion of purging, the groundwater samples were collected into the appropriate containers. Extraction well (PE-1, TW-2D, TW-3D) samples were collected from a dedicated sampling port. Water was purged from the sample port prior to sampling the extraction well, to remove any stagnant water from the port.

The samples were stored in coolers at 4 degrees Celsius and transported to Truesdail, EMAX, and Ozark via a courier service under chain-of-custody documentation. Truesdail and EMAX are certified by the California Department of Health Services (Certification #1247 and #02116CA, respectively) under the State of California's Environmental Laboratory Accreditation Program.

Analyses were performed in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136), or equivalent methods promulgated by the USEPA.

Post-injection sampling was conducted in accordance with the sampling frequency required by the MRP. Sample results are summarized in Tables 3 and 4. As required by the MRP, calibration logs for field-monitoring instruments are presented in Appendix A. Sampling logs are presented in Appendix B. Copies of laboratory analytical results are presented on compact disc in Appendix C.

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5.0 Analytical Results

Laboratory reports prepared by the certified analytical laboratories are presented on compact disc in Appendix C. Summaries of tracer test parameters, primary baseline parameters, and secondary baseline parameters are presented in Tables 2, 3, and 4, respectively.

The analytical results of post-injection sampling indicate that the injected tracers and TOC arrived at the PT-1 and PT-3 monitoring well nests within the first 3 days following the initial injections on May 3 through 6 (Table 3). Data to date from the second injection on August 11, 2006, the third injection on September 7, 2006, and the fourth injection on November 1, 2006 do not indicate any changes in groundwater flow relative to the initial injections. Indications of reducing conditions and hexavalent chromium reduction have been noted at wells PTI-1D, PT-1D, PT-2D, and PT-3D (Table 3).

In wells PTI-1D, PT-1D, and PT-2D, hexavalent chromium concentrations have declined over the course of the ISPT. Despite several slight rebounds in hexavalent chromium concentrations between injections, concentrations have remained low and have continued to decrease following each of the four injection events. Concentrations of hexavalent chromium were reduced to less than 10 micrograms in PTI-1D following the third injection and in PTI-1D and PT-1D following the fourth injection. Continued sampling will demonstrate more clearly the effectiveness of the technology to create and sustain chromium-reducing conditions.

Observed indications of reducing conditions in the pilot test area include a decrease in nitrate concentrations, an increase in iron concentrations and increases in manganese concentrations (Table 3). With the use of in-situ technology, the creation of the desired reducing environment may cause temporary solubilization and mobilization of other reducible metals that naturally reside in the aquifer matrix, such as manganese, iron, and arsenic. Once the reduction-oxidation conditions return to ambient conditions, such solubilized metals typically re-oxidize and precipitate and bind to the aquifer matrix. Chromium is not expected to re-oxidize to the hexavalent state under natural groundwater conditions.

The maximum concentration of dissolved manganese in the aquifer was recorded at PT-6S during the baseline sampling event (Table 3). The manganese concentrations in this well and other wells in the shallow, naturally reduced zones associated with the fluvial sediments in the Colorado River floodplain are higher than in the naturally

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oxidized sediments associated with the alluvial fan sediments under the floodplain. The increases of manganese in the treatment area wells have not exceeded this natural, pre-test concentration in the reducing zone.

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The analysis supporting the estimation of the biodegradation half-life values for lactate injected at injection well PTI-1D for the floodplain pilot test is included as Appendix D, as requested by the California Department of Toxic Substances Control in a letter sent to PG&E on January 12, 2007. This analysis was performed to evaluate injection of solutions with increased lactate concentrations, and estimate resulting lactate concentrations at extraction wells. This evaluation concludes that increasing lactate concentrations to enhance the duration and extent of the reducing zone around the injection wells will not impact the IM-3 treatment system based on biodegradation rates and groundwater velocities.

Table 5 identifies the laboratory that performed each analysis and lists the following required monitoring information:

- Sample Location
- Sample identification
- Sampler name
- Sample date
- Sample time
- Laboratory performing the analysis
- Analysis method
- Analysis date
- Laboratory technician

No operational and maintenance issues or interruptions to remedial systems occurred during the reporting period.

6.0 Conclusions

This report summarizes the results of the month of January 2007. Indications of reducing conditions and hexavalent chromium reduction have been noted at PTI-1D, PT-2D, PT-3D, and PT-1D; month 8 data indicate that the additional injections have increased the reduction of hexavalent chromium. Data trends will continue to be evaluated as more data become available.

There were no incidents of non-compliance with respect to Order No. R7-2006-0008. No variances occurred during this period.

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7.0 Certification

PG&E submitted a signature delegation letter to the RWQCB on July 5, 2006. The letter delegated PG&E's signature authority to Mr. Curt Russell and Ms. Yvonne Meeks.

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Certification Statement:

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Signature: 
Name: Yvonne Meeks
Company: PG&E
Title: Project Manager
Date: February 15, 2007

Table 1
Boring and Well Construction Detail Summary
 PG&E Topock
 Needles, California
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Well or Boring Designation	Date Completed	Aquifer Zone	Ground Elevation* (feet msl)	TOC Elevation** (feet msl)	Total Depth of Boring (feet bgs)	Casing Diameter (inches)	Boring Diameter (inches)	Well Completion Depth (feet bgs)	Well Completion Elevation (feet msl)	Screen Depth Interval (feet bgs)	Screen Elevation Interval (feet msl)	Sand Pack Depth Interval (feet bgs)	Sand Pack Elevation Interval (feet msl)	Bentonite Depth Interval (feet bgs)	Bentonite Elevation Interval (feet msl)	Well Permit Number	Distance From PTI-1 (feet)	Latitude	Longitude
PT-1S	31-Jan-06	S	472.239	474.644	125	2	10	45	430	35-45	440-430	32-47	443-428	28-32	447-443	2006010013	20	34° 43' 10.3"	114° 29' 25.8"
PT-1M	31-Jan-06	M	472.239	474.622	125	2	10	70	405	60-70	415-405	57-72	428-403	46-57	429-418	2006010013	23	34° 43' 10.3"	114° 29' 25.8"
PT-1D	31-Jan-06	D	472.239	474.627	125	2	10	105	370	95-105	380-370	92-125	383-350	72-92	403-383	2006010013	24	34° 43' 10.3"	114° 29' 25.8"
PT-2S	8-Feb-06	S	471.627	473.487	127	2	10	45	428	35-45	438-428	32-47	441-426	28-32	445-441	2006010012	45	34° 43' 10.3"	114° 29' 26.1"
PT-2M	8-Feb-06	M	471.627	473.587	127	2	10	70	404	60-70	414-404	57-72	423-402	46-57	428-417	2006010012	47	34° 43' 10.3 "	114° 29' 26.1"
PT-2D	8-Feb-06	D	471.627	473.522	127	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010012	49	34° 43' 10.3"	114° 29' 26.1"
PT-3S	14-Feb-06	S	471.698	473.584	129	2	10	45	429	35-45	439-429	32-47	442-427	28-32	446-442	2006010011	12	34° 43' 10.2"	114° 29' 25.6"
PT-3M	14-Feb-06	M	471.698	473.520	129	2	10	70	404	60-70	414-404	57-72	427-402	46-57	428-417	2006010011	15	34° 43' 10.2"	114° 29' 25.6"
PT-3D	14-Feb-06	D	471.698	473.525	129	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010011	13	34° 43' 10.2"	114° 29' 25.6"
PT-4S	12-Feb-06	S	471.79	474.430	127	2	10	45	429	35-45	439-429	32-47	442-427	28-32	446-442	2006010010	27	34° 43' 10.1"	114° 29' 25.4"
PT-4M	12-Feb-06	M	471.79	474.331	127	2	10	70	404	60-70	414-404	57-72	423-403	46-57	428-417	2006010010	29	34° 43' 10.1"	114° 29' 25.4"
PT-4D	12-Feb-06	D	471.79	474.299	127	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010010	24	34° 43' 10.1"	114° 29' 25.4"
PT-5S	10-Feb-06	S	471.262	473.611	127	2	10	45	429	35-45	439-429	32-47	442-427	28-32	446-442	2006010009	54	34° 43' 10.1"	114° 29' 25.0"
PT-5M	10-Feb-06	M	471.262	473.630	127	2	10	70	404	60-70	414-404	57-72	427-402	46-57	428-417	2006010009	53	34° 43' 10.2"	114° 29' 25.0"
PT-5D	10-Feb-06	D	471.262	473.625	127	2	10	105	369	95-105	379-369	92-127	382-347	72-92	402-382	2006010009	49	34° 43' 10.2"	114° 29' 25.0"
PT-6S	28-Jan-06	S	474.441	475.981	137	2	10	45	431	35-45	441-431	32-47	444-429	28-32	448-444	2006010008	27	34° 43' 10.6"	114° 29' 25.4"
PT-6M	28-Jan-06	M	474.441	476.025	137	2	10	70	406	60-70	416-406	57-72	425-404	46-57	430-419	2006010008	23	34° 43' 10.6"	114° 29' 25.4"
PT-6D	28-Jan-06	D	474.441	476.013	137	2	10	105	371	95-105	381-381	92-137	384-339	72-92	444-384	2006010008	25	34° 43' 10.6"	114° 29' 25.4"
PTI-1S	28-Jan-06	S	472.751	475.035	47	4	10	45	430	35-45	440-430	32-47	443-428	28-32	447-443	2006010006	0	34° 43' 10.4"	114° 29' 25.5"
PTI-1M	26-Jan-06	M	472.938	475.087	77	4	10	70	405	60-70	415-405	57-72	428-403	46-57	429-418	2006010007	0	34° 43' 10.4"	114° 29' 25.6"
PTI-1D	26-Jan-06	D	472.573	474.762	137	4	10	105	370	95-105	380-370	92-137	383-338	72-92	403-383	2006010005	0	34° 43' 10.4"	114° 29' 25.6"
TW-2D	1-Apr-04	D	496.932	496.932	180	6	12	153	344	113-148	384-349	108-153	389-344	153-180, 101-108	344-317, 396-394	-	205	34° 43' 10.3"	114° 29' 28.0"
TW-3D	24-Oct-05	D	497.415	497.415	157	6	10	153	344	111-156	386-341	105-157	392-340	50-105	447-392	-	217	34° 43' 10.2"	114° 29' 28.1"
PE-1	2-Mar-05	D	466.879	496.549	105	6	10	110	387	79-89	418-408	76-99	421-398	99-105, 72-76	398-425, 392-421	2005101057	296	34° 43' 9.3"	114° 29' 22.2"

Notes:

- feet bgs Feet below ground surface
- feet msl Feet mean sea level
- PTI- Pilot test injection well
- PT- Pilot test monitoring well
- S Shallow
- M Middle
- D Deep
- TOC Top of casing
- * Elevations are in feet, North American Vertical Datum of 1988 (NAVD 88), NGS data sheet EU0763.
- ** Reference elevation
- Not available

Table 2
Summary of Field Parameters
 PG&E Topock
 Needles, California

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-1S	17-Mar-06	N	35-45	-150.7	7.05	6,565	26.62	<10
	06-Apr-06	N		-173	7.06	6,892	26.92	<10
	04-May-06	N		-100.6	8.06	8,889	25.64	<10
	05-May-06	N		-107.2	7.55	7,457	26.82	<10
	06-May-06	N		-88.4	7.09	7,318	26.45	<10
	07-May-06	N		-98.6	7.31	7,097	26.59	10
	08-May-06	N		-82.7	7.35	6,976	26.65	<10
	09-May-06	N		-30.7	7.12	7,550	26.63	<10
	10-May-06	N		-102.2	7.15	6,735	26.72	<10
	11-May-06	N		-97.7	7.22	6,369	26.72	<10
	12-May-06	N		-73	7.08	6,594	26.72	<10
	13-May-06	N		-47.2	7.18	5,961	26.61	---
	23-May-06	N		14.1	7.34	5,830	27.01	<10
	01-Jun-06	N		567.9	7.03	3,636	26.54	<10
	06-Jun-06	N		-173.5	7.39	6,546	26.88	<10
	18-Jul-06	N		-133.4	7.25	6,461	26.6	<10
	08-Aug-06	N		-139.1	6.96	7,412	26.43	10
	06-Sep-06	N		-175.9	7.44	6,555	26.87	13
	04-Oct-06	N		-151.8	7.33	6,939	26.97	18
	08-Nov-06	N		-138.6	6.78	9,980	26.04	38
05-Dec-06	N	-132.4	6.57	10,303	22.97	63		
	03-Jan-07	N		-131.6	6.87	9,494	24.91	18
PT-1M	17-Mar-06	N	60-70	-211	7.46	7,000	26.21	<10
	06-Apr-06	N		-211.1	9	7,506	26.54	<10
	04-May-06	N		-88.7	8.45	6,824	25.1	<10
	06-May-06	N		-93.1	7.48	7,221	25.8	---
	07-May-06	N		-98.2	7.62	7,202	26.1	38
	08-May-06	N		-77.6	7.07	4,593	26.16	42
	09-May-06	N		-19.6	7.62	7,273	26.23	<10
	10-May-06	N		-118.8	7.69	6,657	26.55	15
	11-May-06	N		-92.1	7.61	6,539	26.29	11
	12-May-06	N		-77.3	7.54	6,877	26.3	<10
	13-May-06	N		-39.2	7.47	5,933	26.26	---
	24-May-06	N		-16.2	7.67	5,837	26.24	<10
	31-May-06	N		-59.6	7.36	4,549	27.59	<10
	06-Jun-06	N		-176.9	7.62	7,071	26.27	<10
	18-Jul-06	N		-139.6	7.51	6,927	26.3	<10
	08-Aug-06	N		-183.5	7.21	6,826	25.66	<10
	06-Sep-06	N		-233.4	7.88	6,750	26.3	17
	04-Oct-06	N		-132.1	7.51	6,823	28.81	12
	08-Nov-06	N		-146	7.14	6,743	25.36	10
	05-Dec-06	N		-133.1	6.87	6,503	23.29	83
	03-Jan-07	N		-100.2	7.26	6,511	24.62	<10

Table 2
Summary of Field Parameters
 PG&E Topock
 Needles, California

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-1D	17-Mar-06	N	95-105	-129.5	7.36	13,149	26.06	1,900
	06-Apr-06	N		112	6.66	14,027	26	3,040
	05-May-06	N		47.6	7.86	12,918	26.03	---
	06-May-06	N		69.3	7.36	14,048	26.18	4,660
	07-May-06	N		79.3	7.62	13,536	26.07	3,680
	08-May-06	N		85.6	7.71	12,334	26.14	4,980
	09-May-06	N		-145.2	7.59	12,058	26.18	2,960
	10-May-06	N		5.7	7.54	11,794	26.19	2,840
	11-May-06	N		-7.1	7.71	10,586	26.1	1,740
	12-May-06	N		-6	7.56	10,653	26.5	2,260
	13-May-06	N		41.9	7.6	9,215	25.9	---
	24-May-06	N		90.2	6.6	10,570	26.25	1,420
	31-May-06	N		358.1	5.89	5,935	29.21	980
	05-Jun-06	N		403.4	8.41	10,776	27.13	840
	17-Jul-06	N		201.6	7.39	11,498	26.29	840
	08-Aug-06	N		-163.8	7.17	11,662	25.83	1,240
	14-Aug-06	N		-22.9	8.1	9,762	27.52	820
	17-Aug-06	N		-154.6	8.16	10,189	26.46	580
	22-Aug-06	N		-109.3	8.31	9,846	26.68	540
	24-Aug-06	N		-2.1	8.03	9,779	26.62	580
	29-Aug-06	N		-42.1	8.12	9,308	26.56	480
	05-Sep-06	N		-94.7	8.33	9,402	27.92	371
	12-Sep-06	N		-174.1	7.95	9,129	26.76	180
	19-Sep-06	N		-361.1	8.32	8,445	26.49	320
	28-Sep-06	N		-155.8	7.74	8,889	26.58	118
	04-Oct-06	N		-173.9	7.82	9,298	26.73	103
	17-Oct-06	N		-186	7.57	9,869	26.5	40
	31-Oct-06	N		117.6	7.58	10,534	25.8	171
	08-Nov-06	N		-252.4	7.38	9,572	25.69	<10
	14-Nov-06	N		-124.7	6.91	9,798	25.69	41
	21-Nov-06	N		-130.4	7.02	9,382	24.85	12
	28-Nov-06	N		-202.9	7.6	8,884	25.27	17
05-Dec-06	N	-242.7	7.16	9,548	23.52	36		
18-Dec-06	N	-231.2	8.27	10,087	23.62	44		
	03-Jan-07	N		-64.9	7.39	11,107	24.79	10
	15-Jan-07	N		-216.8	7.69	11,036	23.05	88

Table 2
Summary of Field Parameters
PG&E Topock
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January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-2S	17-Mar-06	N	35-45	-204	7.27	6,273	26.87	<10
	06-Apr-06	N		-175.9	6.14	6,867	26.79	<10
	24-May-06	N		-6.5	7.57	5,405	27.13	10
	01-Jun-06	N		-88.7	7.25	6,678	26.74	10
	07-Jun-06	N		-168.6	7.57	6,268	26.37	<10
	18-Jul-06	N		-203.8	7.28	6,492	27.51	<10
	08-Aug-06	N		-74.6	7.54	6,892	26.96	19
	06-Sep-06	N		-205.1	7.69	6,563	28.21	17
	04-Oct-06	N		-152.2	7.4	6,548	26.53	24
	08-Nov-06	N		-152	7.1	7,712	26.23	18
	05-Dec-06	N		-140.7	6.89	7,515	25.04	12
	03-Jan-07	N		-166.2	7.58	7,024	25.19	<10
PT-2M	17-Mar-06	N	60-70	-170.9	7.29	7,304	26.3	<10
	06-Apr-06	N		-173.8	8.01	7,752	26.9	<10
	24-May-06	N		44.3	7.61	5,902	2,647	<10
	31-May-06	N		-65	7.14	7,271	25.94	<10
	07-Jun-06	N		-99.7	7.62	6,825	26.71	<10
	18-Jul-06	N		-173.1	7.16	6,849	27.25	<10
	08-Aug-06	N		-27.6	7.44	6,797	26.39	<10
	06-Sep-06	N		-227.6	7.66	6,610	27.04	19
	04-Oct-06	N		-82.9	7.33	6,592	25.85	18
	08-Nov-06	N		-20.1	6.9	6,813	25.86	<10
	05-Dec-06	N		-62.8	6.73	6,639	23.53	22
	03-Jan-07	N		-160.3	7.47	6,298	24.71	12

Table 2
Summary of Field Parameters
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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-2D	17-Mar-06	N	95-105	-100.5	7.21	12,626	26.17	1,600
	06-Apr-06	N		-71.3	7.04	13,924	26.03	2,300
	24-May-06	N		180.9	7.39	9,229	26.45	1,640
	31-May-06	N		-51.2	7.39	11,157	25.95	1,160
	07-Jun-06	N		403.3	7.61	10,386	26.21	840
	17-Jul-06	N		426.4	7.46	11,231	26.63	500
	07-Aug-06	N		-134.6	7.43	11,647	26.8	660
	14-Aug-06	N		3.5	7.95	11,541	26.64	620
	17-Aug-06	N		-157.2	7.93	11,608	26.61	560
	21-Aug-06	N		-177.7	8.26	11,140	26.52	500
	24-Aug-06	N		-73.9	8.01	10,924	26.45	580
	29-Aug-06	N		-72	8.01	10,433	26.39	680
	05-Sep-06	N		-234.6	7.82	10,660	27.33	520
	12-Sep-06	N		-87	7.74	10,774	26.5	520
	19-Sep-06	N		-245.7	7.65	9,754	26.57	500
	28-Sep-06	N		-146.9	7.68	9,443	26.41	258
	04-Oct-06	N		91	7.58	9,240	25.85	4220*
	17-Oct-06	N		378.7	7.42	9,445	25.45	76
	31-Oct-06	N		393.3	7.53	10,065	25.69	282
	08-Nov-06	N		212	7.31	10,769	25.98	225
	14-Nov-06	N		395.4	7.46	10,256	25.4	279
	21-Nov-06	N		12.2	7.48	10,695	25.42	253
	28-Nov-06	N		22.1	7.38	10,417	23.83	214
	05-Dec-06	N		-106.9	7.04	10,124	24.67	205
	18-Dec-06	N		-95.5	8	10,285	24.75	158
		03-Jan-07		N		61.2	7.67	10,700
	15-Jan-07	N		-149.5	7.69	11,205	23.90	170

Table 2
Summary of Field Parameters
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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-3S	16-Mar-06	N	35-45	-218.9	7.14	6,353	26.67	<10
	03-Apr-06	N		-238.1	7.38	6,846	26.68	<10
	04-May-06	N		-119.3	8.1	6,380	27.1	<10
	05-May-06	N		-130.6	7.44	6,690	26.46	<10
	06-May-06	N		-130.7	7.1	6,363	26.6	<10
	07-May-06	N		-115.2	7.25	6,846	26.56	<10
	09-May-06	N		-43.9	7.27	6,976	26.55	<10
	10-May-06	N		-135.7	7.35	6,419	26.81	11
	11-May-06	N		-20.1	7.39	6,218	26.77	<10
	12-May-06	N		-92.7	7.14	6,169	26.69	<10
	13-May-06	N		-90.5	7.28	6,358	26.7	---
	23-May-06	N		1.37	7.13	5,944	26.82	<10
	30-May-06	N		-162.7	12.28	5,971	27.5	13
	06-Jun-06	N		-177.7	7.57	5,295	26.72	12
	19-Jul-06	N		-166.3	7.27	5,771	26.64	<10
	08-Aug-06	N		-120.1	7.04	6,105	27.83	<10
	06-Sep-06	N		-98	7.52	6,205	26.68	23
	04-Oct-06	N		-156.2	7.32	6,249	26.31	20
	07-Nov-06	N		-155.4	7.43	6,586	26.4	20
	05-Dec-06	N		-146.3	6.85	6,377	24.46	32
	03-Jan-07	N		-141.2	7.55	6,391	24.52	<10
PT-3M	18-Mar-06	N	60-70	-249.1	7.96	7,232	26.19	<10
	07-Apr-06	N		-218.3	7.33	8,041	26.06	---
	04-May-06	N		-101.8	8.68	7,193	24.31	---
	05-May-06	N		-106	7.99	7,665	26.05	<10
	06-May-06	N		-96.6	7.53	7,613	25.83	<10
	07-May-06	N		-82	7.64	7,681	26.23	<10
	09-May-06	N		-8.4	7.58	7,718	25.98	<10
	10-May-06	N		-103	7.61	7,176	26.41	14
	11-May-06	N		-86.4	7.7	6,879	26.32	<10
	12-May-06	N		-71.8	7.54	6,927	26.27	13
	13-May-06	N		6.9	7.49	7,130	26.12	---
	23-May-06	N		42.8	7.38	7,475	26.13	<10
	30-May-06	N		-70.3	12.31	7,977	26.69	16
	06-Jun-06	N		-112.8	7.68	7,026	25.75	<10
	19-Jul-06	N		-156.3	7.33	6,911	25.7	<10
	08-Aug-06	N		-92.5	7.52	7,048	26.72	10
	06-Sep-06	N		-39.3	7.68	6,777	25.84	14
	04-Oct-06	N		-126.1	7.49	6,566	25.36	19
	07-Nov-06	N		-150	7.38	6,571	26.48	19
	05-Dec-06	N		-108.9	7.04	6,219	24.26	60
	03-Jan-07	N		-149.1	7.68	6,098	24.48	13

Table 2
Summary of Field Parameters
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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-3D	18-Mar-06	N	95-105	-54.4	7.38	13,782	25.98	4,620
	05-Apr-06	N		51.8	7.51	14,347	26.71	7,760
	05-May-06	N		66.7	7.87	13,263	25.96	3,140
	06-May-06	N		71.7	7.54	11,437	26.03	3,440
	07-May-06	N		76.8	7.81	9,027	26.14	4,200
	09-May-06	N		168.5	7.62	12,715	26.08	3,960
	10-May-06	N		2.6	6.66	10,771	26.33	3,960
	11-May-06	N		-11.9	7.86	11,767	26.28	3,780
	12-May-06	N		-6.1	7.65	12,290	26.18	3,720
	13-May-06	N		144.5	7.72	12,139	26.33	---
	23-May-06	N		129.1	7.31	13,111	27.37	3,900
	30-May-06	N		30.7	12.4	13,907	27.29	3,800
	06-Jun-06	N		12.6	7.71	12,310	25.82	3,380
	17-Jul-06	N		-246.7	7.51	12,277	26.17	1,920
	08-Aug-06	N		-66.9	8.62	13,045	29.12	4,100
	14-Aug-06	N		-24.3	8.46	10,984	26.95	3,140
	17-Aug-06	N		-176.1	8.34	11,853	26.29	3,600
	21-Aug-06	N		-163.9	8.54	12,168	26.73	3,860
	24-Aug-06	N		-95.2	8.31	12,213	26.3	3,520
	29-Aug-06	N		-124.4	8.34	12,065	26.68	3,340
	05-Sep-06	N		-61.2	8.41	12,130	26.55	3,200
	12-Sep-06	N		-144.8	8.01	12,434	26.47	2,880
	19-Sep-06	N		-231.4	7.66	12,884	26.31	3,100
	28-Sep-06	N		-115.5	7.75	12,579	25.98	3,800
	04-Oct-06	N		-69.8	7.84	12,638	26.11	3,520
	17-Oct-06	N		-115.2	7.61	13,181	26.85	700
	31-Oct-06	N		-74.9	7.77	13,265	25.45	3,440
	07-Nov-06	N		-140.8	7.94	13,517	26.23	2,640
	14-Nov-06	N		-186.7	7.69	11,694	25.13	680
	21-Nov-06	N		-80.4	7.7	13,544	25.1	2,960
	28-Nov-06	N		-118.6	7.61	13,654	23.36	2,880
	05-Dec-06	N		-24.5	7.19	13,171	24.79	3,100
18-Dec-06	N	-192.5	8.34	13,619	23.5	4,120		
	03-Jan-07	N		-159.2	7.75	13,761	25.26	3,400
	15-Jan-07	N		-168.4	8.06	13,540	23.46	3,200

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-4S	15-Mar-06	N	35-45	-257	7.32	7,072	26.16	<10
	06-Apr-06	N		-159.9	7.8	7,783	26.11	<10
	04-May-06	N		-117	8.33	6,585	25.39	<10
	05-May-06	N		-126.6	7.7	7,325	25.82	<10
	09-May-06	N		-93.5	7.21	7,752	25.75	<10
	10-May-06	N		-119.8	7.41	4,939	26.33	<10
	11-May-06	N		6.2	7.62	7,180	27.26	<10
	12-May-06	N		-71.2	7.35	6,997	26.08	14
	13-May-06	N		-68.7	7.6	7,305	26.09	---
	23-May-06	N		20.4	7.53	6,411	27.13	<10
	30-May-06	N		-121.7	7.1	7,504	25.93	<10
	06-Jun-06	N		-230.2	7.78	7,377	27.56	<10
	19-Jul-06	N		-137.8	7.33	7,106	26.16	11
	08-Aug-06	N		-151.6	7.2	7,174	26.05	11
	06-Sep-06	N		-126.1	7.73	7,212	26.7	<10
	04-Oct-06	N		-130	7.62	7,314	26.67	11
	08-Nov-06	N		-135.2	7.88	7,478	24.89	13
	05-Dec-06	N		-145.3	6.97	7,165	24.14	65
	03-Jan-07	N		-125	7.39	7,329	25.09	<10
PT-4M	15-Mar-06	N	60-70	-246.1	7.9	6,784	25.99	<10
	07-Apr-06	N		-210.5	7.48	7,566	26.28	---
	04-May-06	N		-119.6	8.74	7,031	24.95	<10
	08-May-06	N		-113.4	7.97	7,384	26.14	11
	09-May-06	N		-58.9	7.74	7,588	25.84	<10
	10-May-06	N		-134	7.73	7,022	26.24	<10
	11-May-06	N		-115.2	7.92	6,991	26.21	<10
	12-May-06	N		-95.1	7.73	7,084	25.79	<10
	13-May-06	N		-68.6	7.85	6,265	25.93	---
	23-May-06	N		25.9	7.81	6,267	26.82	<10
	30-May-06	N		-113.1	7.48	7,467	25.61	11
	06-Jun-06	N		-211.3	7.89	7,258	26.68	<10
	19-Jul-06	N		-146.4	7.44	6,939	26.19	<10
	08-Aug-06	N		-160.5	7.29	6,976	25.76	10
	06-Sep-06	N		-110.5	7.77	6,825	26.08	<10
	04-Oct-06	N		-123.5	7.6	6,918	26.34	18
	08-Nov-06	N		-178.6	7.82	6,623	25.25	17
	05-Dec-06	N		-128.9	7.01	6,042	24.18	28
	03-Jan-07	N		-100.1	7.42	6,177	24.9	<10

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-4D	15-Mar-06	N	95-105	-98.4	7.4	15,180	26.02	5,800
	05-Apr-06	N		-30	7.58	162,310	26.61	5,840
	08-May-06	N		62.7	7.93	14,947	26.1	5,920
	09-May-06	N		48.3	7.45	14,719	25.92	6,520
	10-May-06	N		42.1	7.68	14,351	26.14	6,160
	11-May-06	N		-10.2	7.84	13,923	26.15	5,920
	12-May-06	N		-4.5	7.72	14,580	25.97	7,480
	13-May-06	N		28.1	7.69	12,744	26	---
	23-May-06	N		50	7.91	13,640	31.2	4,840
	30-May-06	N		-81.3	7.43	15,116	25.97	5,800
	06-Jun-06	N		-174.3	7.81	15,010	26.65	4,780
	19-Jul-06	N		-76.3	7.49	14,389	25.97	5,960
	08-Aug-06	N		-135.9	7.32	14,160	25.09	6,220
	06-Sep-06	N		46.8	7.79	14,720	26.1	5,020
	04-Oct-06	N		-99.4	7.7	14,992	27.04	5,280
	08-Nov-06	N		11.4	7.72	15,619	24.91	5,640
	05-Dec-06	N		-5.4	7.19	15,149	24.11	5,660
	03-Jan-07	N		15.5	7.64	16,119	24.81	5,580
PT-5S	16-Mar-06	N	35-45	-204.9	7.33	7,714	25.81	<10
	07-Apr-06	N		-177.3	7	8,640	25.75	---
	01-Jun-06	N		-88.9	7.17	8,682	25.46	<10
	19-Jul-06	N		-134.5	7.23	8,660	25.53	<10
	09-Aug-06	N		-172.2	7.37	8,902	25.2	<10
	08-Sep-06	N		-209.6	7.32	8,742	25.63	26
	05-Oct-06	N		-133.7	7.32	8,975	25.91	12
	09-Nov-06	N		-108.7	7.33	9,205	22.15	18
	06-Dec-06	N		-136.8	7.33	9,454	23.91	25
		04-Jan-07		N		121.7	7.37	10,029
PT-5M	16-Mar-06	N	60-70	-184.6	7.29	6,989	25.48	<10
	07-Apr-06	N		-183.5	6.97	8,609	25.8	---
	01-Jun-06	N		-49.9	7.05	6,191	24.82	<10
	19-Jul-06	N		-113.4	7.26	5,091	25.32	<10
	09-Aug-06	N		-171.5	7.46	4,740	24.81	<10
	08-Sep-06	N		-184.3	7.58	4,666	25.16	<10
	05-Oct-06	N		-113.8	7.53	4,606	24.89	10
	09-Nov-06	N		-61.7	7.57	4,571	22.25	<10
	06-Dec-06	N		-69.3	7.55	4,807	23.06	38
		04-Jan-07		N		-69.1	7.62	5,397

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PT-5D	16-Mar-06	N	95-105	-191.1	7.71	8,304	25.85	6,200
	07-Apr-06	N		-181.1	7.05	8,561	25.78	---
	12-May-06	N		-1.2	7.7	13,620	26.62	5,240
	01-Jun-06	N		-45.5	7.47	14,037	25.5	3,660
	17-Jul-06	N		-208.6	7.55	13,286	25.97	3,940
	09-Aug-06	N		-128.2	7.41	13,646	25.65	4,380
	08-Sep-06	N		-168	7.65	13,954	25.45	4,600
	05-Oct-06	N		-78.9	7.66	14,067	26.14	4,100
	09-Nov-06	N		-46.2	7.82	15,243	23.18	4,980
	06-Dec-06	N		18.8	7.77	14,972	24.06	4,720
	04-Jan-07	N		28.4	7.79	16,363	23.39	4,840
PT-6S	18-Mar-06	N	35-45	-91.7	6.99	10,053	25.49	<10
	04-Apr-06	N		-187.9	7.22	10,379	26.56	<10
	13-May-06	N		-48.4	7.31	7,353	26.62	---
	22-May-06	N		-14	7.21	7,476	26.59	<10
	01-Jun-06	N		556.8	6.52	4,423	27.56	<10
	06-Jun-06	N		-164.1	7.65	8,564	26.25	14
	19-Jul-06	N		-161.6	6.97	8,271	22.57	12
	09-Aug-06	N		-107.7	6.88	9,196	26.87	52
	08-Sep-06	N		-143.6	7.78	9,508	26.05	45
	05-Oct-06	N		-139.1	7.09	9,579	25.84	20
	09-Nov-06	N		-138.6	7.04	10,797	25.75	25
	06-Dec-06	N		-136.9	6.81	11,708	23.92	62
	04-Jan-07	N		-140.1	7.13	11,955	22.67	22
PT-6M	16-Mar-06	N	60-70	-120.1	7.25	7,221	26.13	<10
	04-Apr-06	N		-114.1	7.45	7,761	26.18	<10
	13-May-06	N		22.6	7.46	6,212	26.22	---
	23-May-06	N		85.6	7.57	5,988	26.51	<10
	01-Jun-06	N		675.3	6.84	3,952	27.04	<10
	06-Jun-06	N		-197.1	7.98	6,832	2,610	<10
	19-Jul-06	N		-168.5	7.28	6,528	26.7	<10
	09-Aug-06	N		-38.9	7.2	6,396	26.43	<10
	08-Sep-06	N		-38.6	8.12	6,168	25.81	28
	05-Oct-06	N		-21.2	7.61	6,166	25.52	<10
	09-Nov-06	N		20	7.52	6,076	25.21	<10
	06-Dec-06	N		-45.2	7.28	6,198	24.57	29
	04-Jan-07	N		-135.1	7.6	5,966	24.06	<10

Table 2
Summary of Field Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PTI-6D	16-Mar-06	N	95-105	-118.9	7.73	13,489	25.9	3,380
	04-Apr-06	N		-91.1	7.72	12,784	26.95	2,580
	13-May-06	N		28.7	7.77	9,829	25.87	---
	22-May-06	N		79.4	7.9	9,631	26.37	2,040
	01-Jun-06	N		692.8	7.08	6,017	26.42	1,360
	06-Jun-06	N		-170.6	8	10,470	25.84	1,000
	17-Jul-06	N		-681.6	7.62	10,365	26.49	920
	09-Aug-06	N		-43.8	7.5	10,793	26.84	1,600
	08-Sep-06	N		14.3	8.26	11,809	25.89	1,780
	05-Oct-06	N		-12.7	7.76	10,885	25.36	1,080
	09-Nov-06	N		131.7	7.68	11,006	25.01	1,400
	06-Dec-06	N		-31.7	7.45	11,056	24.15	1,280
	04-Jan-07	N		-171.3	7.75	11,078	24.07	1,620
PTI-1S	15-Mar-06	N	35-45	-203.1	7.1	6,390	26.83	<10
	05-Apr-06	N		-184	7.28	6,964	27.06	<10
	06-May-06	N		---	---	---	---	620
	07-May-06	N		-137.8	6.73	4,936	33.59	600
	09-May-06	N		-54.8	6.57	5,627	32.39	---
	10-May-06	N		-155.1	6.29	5,313	25.6	290
	11-May-06	N		-156.5	6.27	5,326	28.93	20
	12-May-06	N		-71.9	6.8	4,457	28.07	70
	13-May-06	N		-132.8	6.58	4,582	28.42	---
	23-May-06	N		-21.3	6.66	4,262	27.04	<10
	31-May-06	N		-146	6.93	4,313	28.09	28
	05-Jun-06	N		-240.5	7.88	4,144	27.51	<10
	18-Jul-06	N		-164.1	7.28	6,399	26.77	80
	07-Aug-06	N		-124.1	7.22	6,771	26.43	<10
	07-Sep-06	N		-98.6	7.54	6,865	26.62	14
	03-Oct-06	N		-171.7	7.35	6,861	26.74	<10
	07-Nov-06	N		-178.4	6.86	7,209	26.03	14
	04-Dec-06	N		-172	6.84	7,347	24.37	13
	02-Jan-07	N		-153.2	7.15	7,219	24.25	<10

Table 2
Summary of Field Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)	
PTI-1M	15-Mar-06	N	60-70	-220.1	7.38	7,338	26.17	14	
	04-Apr-06	N		-173.8	7.71	7,919	27.06	10	
	06-May-06	N		-6.8	6.82	6,623	29.31	74	
	07-May-06	N		-17.2	7.08	6,244	28.96	55	
	09-May-06	N		-2.3	7.22	7,559	28.03	430	
	10-May-06	N		57	7.26	6,179	29.4	28	
	11-May-06	N		-149.5	7.02	7,325	27.56	27	
	12-May-06	N		-72.4	7.52	6,066	27.05	29	
	13-May-06	N		-229	7.45	6,745	27.13	---	
	23-May-06	N		-231.7	6.66	6,204	27.57	11	
	31-May-06	N		-120.2	7.2	6,824	26.76	57	
	05-Jun-06	N		-254	8.13	7,092	26.94	<10	
	18-Jul-06	N		-180.1	7.56	6,990	26.62	<10	
	07-Aug-06	N		-150.3	7.45	6,940	27.24	<10	
	07-Sep-06	N		-78.2	7.87	6,923	26.86	16	
	03-Oct-06	N		-112.8	7.27	6,621	26.15	<10	
	07-Nov-06	N		-160.2	6.47	6,610	25.58	<10	
	04-Dec-06	N		-64.1	7.00	6,278	24.51	32	
	02-Jan-07	N			-75.6	7.29	6,291	23.45	18

Table 2
Summary of Field Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PTI-1D	15-Mar-06	N	95-105	-89.9	7.37	13,018	26.04	1,780
	03-Apr-06	N		-87	7.68	13,811	26.07	3,520
	07-May-06	N		43.5	6.99	6,659	27.75	61
	09-May-06	N		124.5	7.25	6,880	29.05	870
	10-May-06	N		181	7.68	13,066	29.78	3,320
	11-May-06	N		159.9	8.13	11,442	27.48	1,140
	12-May-06	N		47.8	6.43	4,888	28.17	122
	13-May-06	N		-6.4	7.35	6,626	26.74	---
	22-May-06	N		154.7	8.08	15,136	27.57	980
	31-May-06	N		-198.3	7.92	12,156	26.32	1,160
	05-Jun-06	N		-210.4	8.51	11,989	28.74	920
	18-Jul-06	N		-138.6	7.94	11,582	26.93	1,700
	07-Aug-06	N		-157.4	7.75	11,815	27.14	1,720
	15-Aug-06	N		-52.8	8.35	7,441	29.07	100
	17-Aug-06	N		-204.8	8.53	8,988	29.38	140
	22-Aug-06	N		-66	8.61	10,398	28.19	160
	24-Aug-06	N		-20.2	8.38	10,670	28.31	220
	29-Aug-06	N		-58.8	8.49	11,102	27.95	186
	05-Sep-06	N		-84.6	8.47	11,337	27.51	240
	12-Sep-06	N		-227.1	7.79	8,409	28.97	74
	19-Sep-06	N		-343.4	8.45	10,698	27.31	30
	28-Sep-06	N		-152.3	7.98	11,585	26.35	<10
	03-Oct-06	N		-170.2	8.02	11,933	26.63	13
	17-Oct-06	N		-173.8	8.01	12,274	27.14	28
	31-Oct-06	N		-142.4	8.03	12,402	25.97	175
	07-Nov-06	N		-293.8	7.26	8,689	26.44	10
	14-Nov-06	N		-225.2	7.61	10,502	26.11	<10
	21-Nov-06	N		-222.2	7.54	11,328	24.75	26
	28-Nov-06	N		-206.1	7.54	12,071	23.86	28
	04-Dec-06	N		-148.6	7.55	12,362	25.68	16
18-Dec-06	N	-243.3	8.4	12,556	22.72	21		
	02-Jan-07	N		-158.5	7.73	13,064	23.65	36
	15-Jan-07	N		-239.6	8.12	12,405	23.35	77

Table 2
Summary of Field Parameters
PG&E Topock
Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
PE-1	17-Mar-06	N	79-89	---	---	---	---	115
	05-Apr-06	N		---	---	---	---	144
	01-Jun-06	N		---	---	---	---	116
	17-Jul-06	N		---	---	---	---	59
	07-Aug-06	N		-29.4	6.53	9,401	22.9	99
	06-Sep-06	N		2.2	7.56	9,443	24.78	94
	03-Oct-06	N		160.6	7.5	9,190	27.03	109
	07-Nov-06	N		-94	7.06	9,235	25.01	100
	06-Dec-06	N		-7.5	7.2	9,111	20.16	63
	02-Jan-07	N		209.6	7.31	9,264	20.93	77
TW-2D	17-Mar-06	N	113-148	---	---	---	---	1,620
	05-Apr-06	N		---	---	---	---	1,620
	19-Jul-06	N		---	---	---	---	940
	07-Aug-06	N		-35.5	7.18	7,991	28.1	900
	14-Aug-06	N		54.8	7.45	7,793	30.1	880
	17-Aug-06	N		-202.6	7.72	7,053	30.28	1,480
	22-Aug-06	N		63.1	7.2	7,364	30.14	1,040
	24-Aug-06	N		95.2	7.73	6,605	32.22	1,580
	29-Aug-06	N		163	7.39	7,387	30.71	900
	06-Sep-06	N		16.6	7.49	7,964	28.02	920
	12-Sep-06	N		79.1	7.46	5,675	29.6	1,720
	19-Sep-06	N		81.9	7.09	6,967	29.67	920
	28-Sep-06	N		36.4	7.66	5,605	26.94	1,200
	04-Oct-06	N		-73.6	7.58	8,257	31.39	1,430
	17-Oct-06	N		337	7.5	10,003	27.19	380
	31-Oct-06	N		144.9	7.54	6,974	24.18	1,280
	08-Nov-06	N		61.7	6.97	6,041	24.89	700
	14-Nov-06	N		-59.4	7.36	7,633	24.72	740
	21-Nov-06	N		-86.8	7.5	6,492	25.51	2,980
	28-Nov-06	N		217	7.3	6,917	23.42	700
	06-Dec-06	N		-12.3	7.14	6,871	19.51	436
	18-Dec-06	N		-21.8	7.58	7,189	19.62	429
	02-Jan-07	N		-77.6	7.43	8,060	17.02	640
15-Jan-07	N	-90.4	7.53	7,340	13.98	580		

Table 2
Summary of Field Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	ORP (mV)	pH	Specific Conductance (µS/cm)	Temperature (C°)	Hexavalent Chromium Field (µg/L)
TW-3D	17-Mar-06	N	111-156	---	---	---	---	3,660
	05-Apr-06	N		---	---	---	---	3,460
	19-Jul-06	N		---	---	---	---	2,760
	07-Aug-06	N		-45.9	7.45	9,325	28.1	2,300
	14-Aug-06	N		52.1	7.82	9,071	30.04	2,880
	17-Aug-06	N		-195.4	7.69	9,016	30.2	2,740
	22-Aug-06	N		32.9	8.03	8,856	31.02	2,760
	24-Aug-06	N		101.8	7.8	8,663	30.83	2,840
	29-Aug-06	N		199.4	6.88	8,476	30.78	2,800
	06-Sep-06	N		4.9	7.45	8,959	28.64	2,840
	12-Sep-06	N		87	7.48	9,435	29.96	2,820
	19-Sep-06	N		73.4	7.13	8,913	29.35	2,740
	28-Sep-06	N		-86.7	7.27	8,899	30.27	2,780
	04-Oct-06	N		-62.4	7.47	8,411	30.8	3,320
	17-Oct-06	N		350.4	7.31	9,043	26.31	720
	31-Oct-06	N		134.7	7.4	8,896	25.16	2,860
	08-Nov-06	N		65.3	7.11	9,172	25.2	2,740
	14-Nov-06	N		-13.3	7.5	8,843	24.72	2,740
	21-Nov-06	N		-67.6	7.39	9,051	25.92	2,920
	28-Nov-06	N		179.9	7.26	9,038	26.4	2,700
	06-Dec-06	N		-4.3	7.1	8,937	21.78	2,120
	18-Dec-06	N		-27.7	7.69	9,064	20.63	3,260
		02-Jan-07	N		-55	7.45	9,465	16.94
	15-Jan-07	N		-43.9	7.49	9,131	19.22	2,580
INJ_SOLUTION_01	05-May-06	N	NA	---	---	---	---	<10
INJ_SOLUTION_03	06-May-06	N	NA	---	---	---	---	174

Notes:

Most recent data indicated in **BOLD**

- ft bgs Feet below ground surface
- mV Millivolts
- µS/cm Microsiemens per centimeter
- C° Degrees Celsius
- µg/L Micrograms per liter
- ORP Oxidation Reduction Potential
- < Symbol indicates not detected at or above the estimated reporting limit as noted.
- N Normal
- Not available/Not analyzed
- NA Not applicable
- * Possible anomaly

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-1S	17-Mar-06	N	35-45	<1	1.3	<1	<.5	ND	<.5	<.1	3,050	1,930	1,320	198	2.98
	06-Apr-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	1,910	1,860	779	181	3.04
	04-May-06	N		<1 J/HD	---	<1	<1	ND	---	---	---	---	---	---	---
	05-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	06-May-06	N		<1	<1	<1	<.5	ND	<.5	<.1	5,560	2,960	947	90.1	6.66
	07-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---
	08-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	09-May-06	N		<1	<1	<1	0.846	ND	<.5	<.1	2,360	4,770	1,070	144	4.16
	10-May-06	N		<0.2	---	<1	<2.5	ND	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	<2.5	ND	---	---	---	---	---	---	---
	12-May-06	N		<1 J/HD	---	<1	<1	ND	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	4.48	<1	<1	ND	<1	<.2	3,900	3,220	800	122	4.58
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	117,000	826	790	157	4.53
	01-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.1	89,600	2,570	911	126	5.11
	06-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.5	43,400	3,020	857	125	5.77
	18-Jul-06	N		<0.2	<1	<1	1.96	ND	<.5	<.1	28,400	4,610	679	114	6.98
	08-Aug-06	N		<0.2	<1	<.5	2.26	ND	<.5	<.1	42,300	5,870	1,140	79.7	9.38
	06-Sep-06	N		2.2	42.3	<.5	0.627	0.239	<.5	<.1	6,460	34,300	1,560	109	6.61
	04-Oct-06	N		6	<1	<.5	0.933	0.068	<.5	<.1	30,500	3,890	951	101	9.61
	08-Nov-06	N		<0.2	<1	<.5	1.61	0.395	<.5	<.1	33,600	16,600	2,250	33.4	55.0
05-Dec-06	N		<0.2	<1	<2.5	<2.5	0.262	<2.5	<.5	36,400	31,700	2,620	7.19	67.9	
03-Jan-07	N		<0.2	<1	<2.5	<2.5	ND	<2.5	<.5	39,300	21,500	1,840	45.9	12.2	

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
PT-1M	17-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.1	<500	<500	1,330	411	1.14	
	06-Apr-06	N		<1	1	<1	<.5	ND	<.5	<.5	591	557	1,350	446	1.1	
	04-May-06	N		<1 J/HD	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	06-May-06	N		<40	<1	<1	258	0.452	<.5	<.1	554	535	1,230	397	27.9	
	07-May-06	N		<1	---	<1	390	0.466	---	---	---	---	---	---	---	
	08-May-06	N		<1	---	<1	377	0.429	---	---	---	---	---	---	---	
	09-May-06	N		<1	<1	<1	341	0.232	<.5	<.1	543	550	2,430	391	25.4	
	10-May-06	N		<1	---	<1	296	0.458	---	---	---	---	---	---	---	
	11-May-06	N		<1	---	<1	273	0.433	---	---	---	---	---	---	---	
	12-May-06	N		<1 J/HD	---	<1	245	0.423	---	---	---	---	---	---	---	
	13-May-06	N		<1 J/HD	3.69	<1	216	0.354	<.5	<.1	696	668	4,390	451	5.39	
	24-May-06	N		<1	10.8	<1	96	0.160	<.5	<.5	673	6,900	3,560	425	2.02	
	31-May-06	N		<1 J/HD	3.29	<1	48.9	0.101	<.5	<.5	7,360	577	3,950	430	2.4	
	06-Jun-06	N		<1	<1	<1	36.7	0.083	<.5	<.5	5,230	637	3,450	501	1.82	
	18-Jul-06	N		<0.2	<1	<1	13.4	0.039	<.5	<.1	3,430	871	2,810	405	2.47	
	08-Aug-06	N		<0.2	<1	<.5	5.36	ND	<.5	<.1	5,280	744	2,330	452	3.92	
	06-Sep-06	N		<0.2	<1	<.5	2.55	0.162	<.5	<.1	<500	579	2,240	481	2.29	
	04-Oct-06	N		<0.2	<1	<.5	1.62	ND	<.5	<.1	4,810	628	1,820	412	6.06	
	08-Nov-06	N		<0.2	<1	<.5	0.820	ND	<.5	<.1	1,470	682	1,630	390	12.1	
	05-Dec-06	N		<0.2	<1	<.5	0.663	0.24	<.5	<.1	1,350	824	1,250	389	13.7	
03-Jan-07	N		<0.2	<1	<.5	0.660	0.486	<.5	<.1	13,400	<500	1,240	420	1.66		
03-Jan-07	FD		<0.2	<1	<.5	0.661	0.051	<.5	<.1	12,300	<500	1,280	418	1.67		

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
PT-1D	17-Mar-06	N	95-105	2,470	2,270	<1	0.581	ND	1.84	<.5	<500	<500	88.2	943	1.07	
	17-Mar-06	FD		2,460	2,230	<1	<.5	ND	1.84	<.5	<500	<500	85.7	941	1.18	
	06-Apr-06	N		3,080	2,770	5.45	<.5	ND	2.27	<.5	<500	<500	51	978	1.09	
	06-Apr-06	FD		2,960	2,690	6.15	<.5	ND	2.26	<.5	<500	<500	54.8	963	1.1	
	06-May-06	N		4,140	4,350	<1	<.5	ND	2.64	<.1	<500	<500	26.7	930	1.24	
	07-May-06	N		3,560	---	50.9	<1	ND	---	---	---	---	---	---	---	---
	08-May-06	N		3,190	---	252	1.26	ND	---	---	---	---	---	---	---	---
	09-May-06	N		2,870	2,780	441	2.63	0.023	1.18	<.2	<500	<500	48.9	846	37.5	
	10-May-06	N		2,670	---	464	2.92	0.029	---	---	---	---	---	---	---	---
	11-May-06	N		2,660	---	528	2.87	0.016	---	---	---	---	---	---	---	---
	12-May-06	N		2,520	---	578	3.01	0.022	---	---	---	---	---	---	---	---
	13-May-06	N		2,380 J/HD	2,390	613	3	0.016	<1	<.2	<500	<500	60.1	529	58.4	
	24-May-06	N		1,320	1,330	488	2.61	0.164	<.5	<.5	<500	<500	507	653	30.7	
	31-May-06	N		970 J/HD	896	373	1.86	ND	<.5	<.5	<500	<500	992	665	16	
	05-Jun-06	N		931	859	371	1.71	ND	<.5	<.5	<500	<500	1,270	730	10.1	
	17-Jul-06	N		998	1,000	30.4	1.37	ND	0.939	0.869	<500	<500	1,160	731	3.68	
	08-Aug-06	N		1,100	1,120	9.79	0.597	ND	1.15	<.1	<500	<500	1,030	748	3.21	
	14-Aug-06	N		---	---	16.7	---	703	---	---	---	---	---	---	---	52.7
	17-Aug-06	N		---	---	<2.5	---	1,180	---	---	---	---	---	---	---	50
	21-Aug-06	N		---	---	5.79	---	1,420	---	---	---	---	---	---	---	36.2
	21-Aug-06	FD		---	---	14.5	---	1,440	---	---	---	---	---	---	---	36.3
	24-Aug-06	N		---	---	11.3	---	1,360	---	---	---	---	---	---	---	31.8
	24-Aug-06	FD		---	---	13.3	---	1,450	---	---	---	---	---	---	---	32.6
	29-Aug-06	N		---	---	8.58	---	1,210	---	---	---	---	---	---	---	16.3
	05-Sep-06	N		320	363	5.79	<1	1,250	<1	0.359	<500	<500	2,790	671	5.9	
	12-Sep-06	N		---	---	333	---	845	---	---	---	---	---	---	---	46.3
	19-Sep-06	N		---	---	462	---	549	---	---	---	---	---	---	---	35.2
	19-Sep-06	FD		---	---	462	---	558	---	---	---	---	---	---	---	33.5
	28-Sep-06	N		---	---	447	---	251	---	---	---	---	---	---	---	16.4
	04-Oct-06	N		58.7	117	454	0.539	136	<.5	<.1	<500	<500	5,790	480	10.3	
	17-Oct-06	N		---	---	303	---	84.3	---	---	---	---	---	---	---	4.91
	31-Oct-06	N		---	---	170	---	40.6	---	---	---	---	---	---	---	9.23
08-Nov-06	N	<0.2	60.6	144	<5	1,300	<5	<1	<500	<500	5,390	365	150			
14-Nov-06	N	---	---	<2.5	---	0.546	---	---	---	---	---	---	---	49.9		
21-Nov-06	N	---	---	<0.50	---	0.492	---	---	---	---	---	---	---	31.2		
28-Nov-06	N	---	---	59.0	---	958	---	---	---	---	---	---	---	41.9		
05-Dec-06	N	<0.2	28.5	52.0	<2.5	1,460	<2.5	<.5	<500	<500	4,440	355	49.3			
18-Dec-06	N	---	---	31.4	---	514	---	---	---	---	---	---	---	3.29		
03-Jan-07	N	<0.2	12.1	22.0	<1	260	<1	<.2	1,470	<500	8,120	567	1.55			
15-Jan-07	N	---	---	13.9	---	169	---	---	---	---	---	---	---	1.36		

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-2S	17-Mar-06	N	35-45	<1	<1	<1	0.563	ND	<.5	<.1	34,300	976	1,170	11.7	7.42
	06-Apr-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	30,200	1,850	1,240	8.91	8.57
	24-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	164,000	<500	1,160	3.02	11
	01-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.1	91,900	934	1,300	3.06	9.65
	07-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<.5	42,300	950	1,280	2.77	10.8
	18-Jul-06	N		<0.2	<1	<1	1.47	ND	<.5	<.1	38,300	2,690	1,330	6.83	12.1
	08-Aug-06	N		<0.2	1.14	<.5	1.63	ND	<.5	<.1	61,300	1,400	1,430	54.1	10.7
	06-Sep-06	N		0.26	<1	<.5	0.805	ND	<.5	<.1	48,400	889	1,460	30.4	10.6
	04-Oct-06	N		<0.2	<1	<.5	1.02	ND	<.5	<.1	25,600	1,750	1,400	12.8	13.0
	08-Nov-06	N		<0.2	<1	<.5	1.21	ND	<.5	<.1	10,600	1,470	1,770	56.0	63.6
	05-Dec-06	N		0.5	7.62	<.5	0.689	0.086	<.5	<.1	1,500	<500	226	328	3.88
	03-Jan-07	N		<0.2	<1	<1	1.31	ND	<1	<.2	5,420	1,310	1,380	24.7	11.0
PT-2M	17-Mar-06	N	60-70	<1	8.19	<1	<.5	ND	<.5	<.5	<500	<500	547	474	<1
	06-Apr-06	N		<0.2	7.58	<1	<.5	ND	<.5	<.1	<500	<500	380	471	<1
	24-May-06	N		<1	<1	<1	40	0.114	<.5	<.5	20,000	<500	431	423	1.76
	31-May-06	N		<1	<1	<1	12.1	0.033	<.5	<.5	3,430	<500	363	438	2.21
	31-May-06	FD		<HD /J	<1	<1	12	0.038	<.5	<.5	4,150	<500	371	429	2.28
	07-Jun-06	N		<1	<1	<1	5.29	0.024	<.5	<.5	1,220	<500	353	487	1.85
	18-Jul-06	N		<0.2	1.06	<1	0.988	5.65	<.5	<.1	1,990	<500	228	377	3.1
	08-Aug-06	N		<0.2	<1	<.5	0.638	ND	<.5	<.1	1,040	<500	233	412	9.06
	06-Sep-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	811	<500	228	415	2.41
	04-Oct-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	958	<500	203	374	7.88
	08-Nov-06	N		<0.2	2.79	6.89	<.5	ND	<.5	<.1	<500	<500	212	354	23.1
	05-Dec-06	N		0.66	8.58	<.5	0.644	0.167	<.5	<.1	1,120	<500	211	351	14.0
	03-Jan-07	N		3.4	74.4	<.5	0.611	0.269	<.5	<.1	757	<500	1,570	366	1.64

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)		
PT-2D	17-Mar-06	N	95-105	1,660	1,580	<1	<.5	ND	1.23	<.5	<500	<500	154	931	1.09		
	17-Mar-06	FD		1,670	1,570	<1	<.5	ND	1.26	<.5	<500	<500	161	924	1.24		
	06-Apr-06	N		2,310	2,160	4.44	<.5	ND	1.68	<.5	<500	<500	79.7	924	1.02		
	06-Apr-06	FD		2,290	2,170	4.1	<.5	ND	1.84	<.5	<500	<500	78.3	946	<1		
	24-May-06	N		1,800	1,760	374	2.11	ND	<.5	<.5	507	<500	173	691	26.9		
	31-May-06	N		1,180	1,170	388	1.85	ND	<.5	<.5	1,400	<500	320	689	17.6		
	07-Jun-06	N		951	930	390	1.99	ND	<.5	<.5	<500	<500	423	724	14.4		
	17-Jul-06	N		466	438	110	1.76	ND	<.5	0.885	<500	<500	622	745	3.98		
	07-Aug-06	N		568	495	34	0.687	ND	0.607	<.1	4,350	<500	597	953	7.94		
	14-Aug-06	N		---	---	27.1	---	ND	---	---	---	---	---	---	---	7.23	
	14-Aug-06	FD		---	---	28.9	---	ND	---	---	---	---	---	---	---	4.80	
	17-Aug-06	N		---	---	24.3	---	47.0	---	---	---	---	---	---	---	5.10	
	17-Aug-06	FD		---	---	23.6	---	49.5	---	---	---	---	---	---	---	4.34	
	21-Aug-06	N		---	---	17.3	---	405	---	---	---	---	---	---	---	16.2	
	24-Aug-06	N		---	---	16.8	---	636	---	---	---	---	---	---	---	21.8	
	29-Aug-06	N		---	---	14.7	---	792	---	---	---	---	---	---	---	12.6	
	06-Sep-06	N		---	---	432	512	10.2	<1	905	<1	<2	<500	<500	1,270	699	4.54
	12-Sep-06	N		---	---	---	---	18.1	---	954	---	---	---	---	---	---	7.24
	19-Sep-06	N		---	---	---	---	120	---	1,050	---	---	---	---	---	---	10.3
	28-Sep-06	N		---	---	---	---	229	---	610	---	---	---	---	---	---	6.92
	04-Oct-06	N		---	---	292	234	303	<2.5	307	<2.5	<.5	3,090	<500	1,420	455	4.00
	17-Oct-06	N		---	---	---	---	394	---	ND	---	---	---	---	---	---	7.26
	31-Oct-06	N		---	---	---	---	367	---	ND	---	---	---	---	---	---	8.51
	31-Oct-06	FD		---	---	---	---	366	---	ND	---	---	---	---	---	---	10.1
	08-Nov-06	N		---	---	281	229	299	<2.5	ND	<2.5	<.5	<500	<500	1,710	508	24.3
	14-Nov-06	N		---	---	---	---	251	---	106	---	---	---	---	---	---	31.7
	21-Nov-06	N		---	---	---	---	218	---	163	---	---	---	---	---	---	22.4
	28-Nov-06	N		---	---	---	---	153	---	507	---	---	---	---	---	---	16.2
	05-Dec-06	N		---	---	186	183	46.7	<2.5	258	<2.5	<.5	<500	<500	1,380	292	15.0
	18-Dec-06	N		---	---	---	---	65.3	---	332	---	---	---	---	---	---	1.59
	03-Jan-07	N		---	---	171	167	31.9	0.722	258	<.5	<.1	<500	<500	3,380	490	1.57
	15-Jan-07	N		---	---	---	---	19.3	---	260	---	---	---	---	---	---	1.48

Table 3
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PG&E Topock
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January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-3S	16-Mar-06	N	35-45	<1	40.3	<1	<.5	ND	<.5	<.1	6,370	4,860	1,160	217	4.27
	03-Apr-06	N		<1	1.48	<1	<.5	ND	<.5	<.5	5,510	4,990	988	221	4.66
	04-May-06	N		<0.2 J/HD	---	<1	<1	ND	---	---	---	---	---	---	---
	05-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	06-May-06	N		<1	1.46	<1	<.5	ND	<.5	<.1	7,370	5,660	968	80.2	5.05
	06-May-06	FD		<1	1.01	<1	<.5	ND	<.5	<.1	6,500	5,820	950	80.4	5.26
	07-May-06	N		<0.2	---	<1	<1	ND	---	---	---	---	---	---	---
	09-May-06	N		<0.2 J/HD	1.54	<1	<1	9.61	<1	<.2	7,850	6,280	973	112	5.83
	10-May-06	N		<1	---	<1	19	34.4	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	1.07	5.49	---	---	---	---	---	---	---
	12-May-06	N		<0.2	---	<1	64.6	42.3	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	2.38	<1	93.7	56.0	<1	<.2	6,710	5,890	872	112	14.6
	23-May-06	N		<1	<1	<1	68.1	1,060	<1	<.5	130,000	1,750	830	30.5	49.9
	30-May-06	N		<1	1.36	<1	470	1,510	<2.5	<.5	27,600	695	762	24.4	93.5
	06-Jun-06	N		<1 J/HD	<1	<1	749	1,220	<2.5	<.5	21,900	3,220	750	23.2	119
	19-Jul-06	N		<0.2	<1	<1	212	751	<.5	<.5	23,400	4,680	652	12.9	16.4
	08-Aug-06	N		<0.2	<1	<.5	75.6	578	<.5	<.1	38,500	3,000	749	16.3	6.28
	06-Sep-06	N		<0.2	<1	<.5	35.2	344	<.5	<.1	12,900	3,700	883	34.2	6.66
	04-Oct-06	N		<0.2	<1	<2.5	25.1	206	<2.5	<.5	12,600	4,310	886	36.9	10.7
	08-Nov-06	N		<0.2	<1	<.5	16.6	53.1	<.5	<.1	13,100	3,720	914	36.9	33.9
05-Dec-06	N		<0.2	<1	<.5	15.0	60.8	<.5	<.1	6,120	4,470	836	32.3	28.2	
03-Jan-07	N			<0.2	<1	<1	13.3	45.7	<1	<.2	7,700	4,870	798	25.8	6.45

Table 3
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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
PT-3M	18-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.5	<500	<500	1,670	571	1.33	
	07-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	<500	<500	2,020	672	1.01	
	04-May-06	N		<1 J/HD	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	05-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	06-May-06	N		<1 J/HD	<1	<1	<.5	ND	<.5	<.1	508	<500	1,720	597	1.11	
	07-May-06	N		<1	---	<1	2.32	0.025	---	---	---	---	---	---	---	---
	09-May-06	N		<0.2 J/HD	<1	<1	28.8	0.075	<.5	<.1	518	<500	1,350	559	2.94	
	10-May-06	N		<1	---	<1	60.2	0.148	---	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	75.8	0.2	---	---	---	---	---	---	---	---
	12-May-06	N		<1 J/HD	---	<1	87.1	0.223	---	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	2.46	<1	72.9	0.135	<.5	<.1	620	597	1,250	530	3.22	
	13-May-06	FD		<0.2	9.68	<1	73.3	0.180	<.5	<.1	620	589	1,270	517	3.89	
	23-May-06	N		<1	<1	<1	27.4	0.104	<.5	<.5	12,000	<500	1,550	573	1.59	
	30-May-06	N		<1	3.09	<1	9.74	0.043	<.5	<.5	33,100	<500	1,260	533	1.94	
	06-Jun-06	N		<1	<1	<1	4.86	0.031	<.5	<.5	5,140	<500	1,100	583	1.77	
	06-Jun-06	FD		<1	1.61	<1	4.5	0.034	<.5	<.5	24,400	<500	1,130	575	2.41	
	19-Jul-06	N		<1 J/HD	<1	<1	1.21	ND	<.5	<.5	14,500	588	936	544	4.05	
	08-Aug-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	11,800	<500	888	514	2.39	
	06-Sep-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	4,070	<500	821	590	2.2	
	04-Oct-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	3,570	<500	732	479	1.84	
08-Nov-06	N	<0.2	1.57	<.5	15.2	78.5	<.5	<.1	6,980	4,230	872	82.0	33.1			
05-Dec-06	N	5.5	7.24	3.44	0.712	13	1.67	<.1	1,070	<500	677	627	9.96			
03-Jan-07	N	<0.2	<1	<.5	<.5	ND	<.5	<.1	13,400	<500	582	481	1.32			

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-3D	18-Mar-06	N	95-105	4,390	4,370	<1	<.5	ND	3.33	<.5	<500	<500	16.7	984	<1
	05-Apr-06	N		4,440	4,680	8.87	<.5	ND	3.28	<.5	<500	<500	10.2	966	<1
	05-May-06	N		3,980	---	<1	<1	ND	---	---	---	---	---	---	---
	06-May-06	N		3,090 J/HD	3,420	666	2.93	0.031	1.73	<.1	<500	<500	28.4	699	80.3
	07-May-06	N		4,140	---	515	3.15	0.023	---	---	---	---	---	---	---
	09-May-06	N		3,900 J/HD	3,920	268	2.1	0.020	2.02	<.2	<500	<500	42	853	36
	10-May-06	N		3,680	---	199	<2.5	0.013	---	---	---	---	---	---	---
	11-May-06	N		3,700	---	159	---	ND	---	---	---	---	---	---	---
	12-May-06	N		1,940	---	127	<2.5	ND	---	---	---	---	---	---	---
	13-May-06	N		3,550 J/HD	3,630	96.8	3.07	0.151	2.1	<.2	<500	<500	309	909	9.41
	23-May-06	N		4,380	3,940	21.7	<.5	ND	2.73	<.5	671	<500	113	854	2.39
	30-May-06	N		3,880	4,030	<1	<1	ND	2.82	<.5	<500	<500	83.8	843	2.23
	06-Jun-06	N		3,730	3,770	2.92	<.5	ND	2.82	<.5	1,630	<500	67.5	985	1.31
	17-Jul-06	N		3,830	3,920	1.15	0.893	ND	2.92	0.722	<500	<500	22.4	690	3.31
	17-Jul-06	FD		3,730	3,820	<1	1.13	ND	2.93	0.723	<500	<500	22.2	885	3.14
	08-Aug-06	N		3,260	4,180	8.34	0.861	0.123	3.28	<.1	6,760	<500	27.7	875	2.99
	14-Aug-06	N		---	---	8.97	---	1,190	---	---	---	---	---	---	58
	17-Aug-06	N		---	---	9.65	---	387	---	---	---	---	---	---	10.5
	21-Aug-06	N		---	---	8.24	---	209	---	---	---	---	---	---	3.86
	24-Aug-06	N		---	---	7.09	---	181	---	---	---	---	---	---	8.53
	29-Aug-06	N		---	---	7.51	---	114	---	---	---	---	---	---	2.25
	29-Aug-06	FD		---	---	7.5	---	108	---	---	---	---	---	---	2.35
	05-Sep-06	N		2,930	2,940	8.37	<10	49.9	<10	<2	<500	<500	1,660	801	2.33
	12-Sep-06	N		---	---	270	---	40.9	---	---	---	---	---	---	32.8
	12-Sep-06	FD		---	---	265	---	45.5	---	---	---	---	---	---	31.3
	19-Sep-06	N		---	---	60.8	---	18.6	---	---	---	---	---	---	6.91
	28-Sep-06	N		---	---	25.3	---	7.85	---	---	---	---	---	---	6.16
	04-Oct-06	N		3,100	2,960	25.5	<1	7.04	2.65	<.2	<500	<500	2,630	741	7.61
	17-Oct-06	N		---	---	4.16	---	2.09	---	---	---	---	---	---	7.08
	17-Oct-06	FD		---	---	4.89	---	ND	---	---	---	---	---	---	8.91
	31-Oct-06	N		---	---	7.27	---	0.597	---	---	---	---	---	---	8.65
	08-Nov-06	N		2,430	2,330	<5	<5	423	<5	<1	<500	<500	3,940	694	43.9
14-Nov-06	N	---	---	187	---	108	---	---	---	---	---	---	16.7		
21-Nov-06	N	---	---	10.0	---	88.4	---	---	---	---	---	---	4.15		
28-Nov-06	N	---	---	10.0	---	62.0	---	---	---	---	---	---	3.50		
05-Dec-06	N	5,240	4,800	8.25	<1	ND	2.44	<.2	<500	<500	767	756	2.46		
18-Dec-06	N	---	---	7.10	---	22.7	---	---	---	---	---	---	<1		
03-Jan-07	N	3,190	3,160	7.77	0.829	13.3	2.94	<.1	<500	<500	2,340	799	1.05		
15-Jan-07	N	---	---	7.03	---	6.28	---	---	---	---	---	---	<1		

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
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January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
PT-4S	15-Mar-06	N	35-45	<1	3.83	0.714 J	<.5	ND	<.5	<.1	4,060	713	919	474	1.69	
	06-Apr-06	N		<1	5.84	<1	<.5	ND	<.5	<.5	2,510	1,350	707	450	1.69	
	04-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---	---
	05-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---	---
	09-May-06	N		<0.2 J/HD	<1	<.5	ND	<.5	<.1	10,800	1,490	657	472	2.4		
	10-May-06	N		<40	---	<1	<2.5	ND	---	---	---	---	---	---	---	---
	11-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	12-May-06	N		<1	---	<1	<1	ND	---	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	3.18	<1	<1	ND	<1	<.2	2,320	1,940	673	415	2.02	
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	18,600	<500	683	436	2.29	
	30-May-06	N		<1	1.15	<1	<.5	ND	<.5	<.5	20,000	<500	650	426	2.72	
	06-Jun-06	N		<1 J/HD	<1	<.5	0.073	<.5	<.5	<.5	8,530	1,340	610	492	2.56	
	19-Jul-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	4,710	1,670	545	445	4.86	
	08-Aug-06	N		<0.2	<1	<.5	<.5	0.165	<.5	<.1	4,270	1,710	617	431	4.21	
	06-Sep-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	4,440	1,260	614	499	3.46	
	06-Sep-06	FD		<0.2	<1	<.5	<.5	ND	<.5	<.1	3,780	1,360	634	461	3.16	
	04-Oct-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	4,050	1,600	576	401	5.38	
	08-Nov-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	3,460	1,530	616	405	17.2	
	05-Dec-06	N		<0.2	1.21	<.5	<.5	ND	<.5	<.1	4,470	2,100	562	347	15.3	
	03-Jan-07	N		<0.2	1.29	<.5	<.5	ND	<.5	<.1	6,190	1,330	492	396	2.57	
PT-4M	15-Mar-06	N	60-70	<1	<1	0.75 J	<.5	ND	<.5	<.1	<500	<500	966	609	<1	
	07-Apr-06	N		<1	1.63	<1	<.5	ND	<.5	<.5	<500	<500	766	722	1.05	
	04-May-06	N		<1 J/HD	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	08-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	09-May-06	N		<0.21 J/HD	<1	<1	<.5	ND	<.5	<.1	723	700	686	504	1.12	
	10-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	11-May-06	N		<1 J/HD	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	12-May-06	N		<1	---	<1	<.5	ND	---	---	---	---	---	---	---	---
	13-May-06	N		<1 J/HD	2.05	<1	<.5	ND	<.5	<.1	988	899	612	529	1.22	
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	3,700	<500	613	565	1.58	
	30-May-06	N		<1	229	<1	<.5	ND	<.5	<.5	929	<500	492	534	2.05	
	06-Jun-06	N		<1 J/HD	2.24	<1	<.5	ND	<.5	<.5	1,330	<500	523	570	1.31	
	19-Jul-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	1,270	892	492	518	5.5	
	08-Aug-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	1,960	724	535	528	3.22	
	06-Sep-06	N		0.29	<1	<.5	<.5	ND	<.5	<.1	4,780	526	565	565	2.22	
	04-Oct-06	N		<0.20	1.73	<.5	<.5	ND	<.5	<.1	5,070	<500	569	496	2.38	
	08-Nov-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	2,150	<500	470	464	14.4	
	05-Dec-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	2,130	775	466	445	9.54	
	03-Jan-07	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	5,940	842	402	465	1.46	

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PG&E Topock
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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
PT-4D	15-Mar-06	N	95-105	5,670	5,510	<1	1.32	ND	4.28	<.5	<500	<500	8.27	1,080	<1	
	05-Apr-06	N		5,960	5,480	12.9	<.5	ND	4.7	<.5	<500	<500	<5	1,110	1.05	
	08-May-06	N		5,870	---	<1	<1	ND	---	---	---	---	---	---	---	---
	09-May-06	N		5,900 J/HD	5,900	<1	<2.5	ND	4.6	<.5	<500	<500	<5	1,110	1.16	
	10-May-06	N		5,830	---	<1	<2.5	ND	---	---	---	---	---	---	---	
	11-May-06	N		5,790	---	<1	<1	ND	---	---	---	---	---	---	---	
	12-May-06	N		5,810	---	<1	<1	ND	---	---	---	---	---	---	---	
	13-May-06	N		5,710 J/HD	5,900	<1	<1	ND	4.36	<.2	<500	<500	<5	1,050	1.21	
	23-May-06	N		5,750	5,880	<1	<.5	ND	4.91	<.5	<500	<500	<5	1,010	1.6	
	23-May-06	FD		---	5,970	<1	<.5	ND	4.89	<.5	<500	<500	<5	1,010	1.87	
	30-May-06	N		5,730	5,740	<1	<1	ND	4.75	<.5	2,390	<500	21	989	2.32	
	06-Jun-06	N		5,800 J/HD	5,560	<1	<.5	0.078	4.7	<.5	<500	<500	<5	1,130	1.44	
	19-Jul-06	N		5,360	5,830	<1	0.989	ND	4.5	<.5	<500	<500	<5	957	7.78	
	08-Aug-06	N		5,080	5,800	10.1	0.914	0.024	4.31	<1	<500	<500	13.2	989	2.99	
	06-Sep-06	N		5,750	5,720	3.57	0.647	ND	4.76	<.2	<500	<500	<5	1,030	2.18	
	04-Oct-06	N		5,800	5,710	13.0	<2.5	ND	4.62	<.5	<500	<500	11.9	882	1.76	
	04-Oct-06	FD		5,530	6,000	13.3	<2.5	ND	4.78	<.5	<500	<500	15.2	869	8.18	
	08-Nov-06	N		5,680	5,440	13.6	<2.5	ND	4.68	<.5	<500	<500	<5	869	8.30	
	05-Dec-06	N		6,130	5,560	13.5	<2.5	ND	4.85	<.5	<500	<500	<5	875	2.03	
	03-Jan-07	N		5,360	5,320	13.4	<2.5	ND	4.54	<.5	3,060	<500	<5	916	1.02	
PT-5S	16-Mar-06	N	35-45	<1	2.71	<1	<.5	ND	<.5	<1	949	971	2,440	401	3.2	
	07-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	995	1,030	1,850	490	2.76	
	01-Jun-06	N		<1	<1	<1	<.5	ND	<.5	<1	4,250	1,870	1,530	372	4.14	
	19-Jul-06	N		<1	<1	<1	<.5	ND	<.5	<.5	3,530	2,470	1,400	351	12.7	
	09-Aug-06	N		<0.2	<1	<.5	2.26	ND	<.5	<1	3,220	2,410	1,350	375	8.3	
	08-Sep-06	N		<0.2	<1	<.5	0.586	ND	<.5	3.7	4,070	2,840	1,410	340	6.95	
	05-Oct-06	N		<0.2	1.05	<.5	0.938	ND	<.5	<1	3,410	2,680	1,280	316	8.13	
	09-Nov-06	N		<0.2	<1	<.5	0.717	ND	<.5	<1	3,480	2,710	1,190	315	14.3	
	06-Dec-06	N		<0.2	32.7	<.5	1.04	ND	<.5	<1	4,250	3,250	1,280	307	40.7	
	06-Dec-06	FD		<0.2	<1.0	<10	1.04	ND	<.5	<1	4,170	3,440	1,330	308	38.0	
	04-Jan-07	N		<0.2	<1	<.5	1.05	ND	<.5	<1	7,100	3,640	1,250	339	6.36	

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-5M	16-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.1	<500	<500	707	463	1.04
	07-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	1,850	1,820	1,770	443	3.31
	01-Jun-06	N		<1 J/HD	<1	<1	<.5	ND	<.5	<.1	4,570	<500	168	437	1.62
	19-Jul-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	2,240	<500	109	404	6.53
	09-Aug-06	N		<0.2 J/HD	<1	<.5	<.5	ND	<.5	<.1	3,770	<500	83.5	372	3.75
	08-Sep-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	9,570	<500	82.3	404	2.77
	05-Oct-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	2,980	<500	65.4	343	5.79
	09-Nov-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	790	<500	59.1	348	18.5
	06-Dec-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	958	<500	61.3	353	22.1
04-Jan-07	N	<0.2	<1	<.5	<.5	ND	<.5	<.1	4,110	<500	62.2	391	1.68		
PT-5D	16-Mar-06	N	95-105	6,150	5,650	<1	<.5	ND	4.86	0.258	<500	<500	355	1,080	<1
	07-Apr-06	N		<0.2	<1	<1	<.5	ND	<.5	<.5	2,280	2,200	1,700	403	3.49
	12-May-06	N		4,250	4,680	<1	1.17	0.02	3.58	<1	<500	<500	209	1,020	1.34
	01-Jun-06	N		3,900	3,930	<1	<.5	ND	3.18	<.1	3,550	<500	132	919	1.27
	17-Jul-06	N		3,640	3,890	<1	1.01	ND	2.98	0.613	<500	<500	90.8	882	3.73
	09-Aug-06	N		4,470 J/HD	3,880	6.85	<1	ND	3.12	<.2	<500	<500	55.8	933	1.74
	08-Sep-06	N		4,420	4,930	9.71	<1	ND	3.61	<.2	<500	<500	40.0	923	2.33
	05-Oct-06	N		3,740	3,920	8.72	<1	ND	3.13	<.2	<500	<500	62.3	860	8.05
	09-Nov-06	N		4,510	4,400	11.6	<2.5	ND	4.01	<.5	<500	<500	36.6	839	3.59
	06-Dec-06	N		4,700	4,480	11.0	0.704	ND	3.99	<.1	<500	<500	33.5	852	4.90
04-Jan-07	N	4,050	4,690	10.7	1.09	ND	3.95	<.2	24,100	<500	14.4	876	1.22		
PT-6S	16-Mar-06	N	35-45	<1	---	---	---	---	---	---	---	---	---	---	---
	18-Mar-06	N		---	4.6	<1	1.18	ND	<.5	<1	4,560	3,530	9,260	60	13.4
	04-Apr-06	N		<1	<1	<1	1.3	ND	<.5	<.5	11,600	6,310	7,650	57.8	14.2
	13-May-06	N		<1 J/HD	2.83	<1	<1	ND	<1	<.2	33,000	13,400	4,400	3.03	13
	22-May-06	N		<1 J/HD	26	<1	<.5	ND	<.5	<.5	22,600	1,180	3,710	5.91	13.9
	01-Jun-06	N		<1 J/HD	1.38	<1	<.5	ND	<.5	<.1	17,000	12,600	3,710	6.96	13.4
	06-Jun-06	N		<1 J/HD	1.44	<1	<2.5	ND	<2.5	<.5	19,000	17,100	3,250	4.57	14.8
	19-Jul-06	N		1.1	17.2	<1	2.72	ND	<.5	<.5	19,900	17,200	2,970	2.56	16.9
	09-Aug-06	N		<0.2	1.41	<.5	2.9	ND	<.5	<.1	23,700	16,500	3,170	76.2	16.1
	08-Sep-06	N		<0.2	2.56	<1	<1	ND	<1	<.2	22,900	15,800	2,810	4.46	16.4
	05-Oct-06	N		<0.2	<1	<2.5	<2.5	ND	<2.5	<.5	26,400	19,100	2,610	4.66	20.2
	09-Nov-06	N		<0.2	3.65	<.5	1.70	ND	<.5	<.1	27,800	20,000	2,550	6.07	62.2
	06-Dec-06	N		<0.2	<1.0	<.5	1.90	ND	<.5	<.1	36,500	27,700	2,530	9.65	76.0
04-Jan-07	N	<0.2	1.23	<1	2.12	ND	<1	<.2	35,400	30,000	2,220	9.68	20.9		

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PT-6M	16-Mar-06	N	60-70	<1	<1	<1	<.5	ND	<.5	<.1	<500	<500	56.1	486	<1
	04-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	<500	<500	55.2	498	1.22
	13-May-06	N		<1 J/HD	4.53	<1	<.5	ND	<.5	<.1	<500	<500	71.2	509	1.7
	23-May-06	N		<1	<1	<1	<.5	ND	<.5	<.5	1,690	<500	71.2	476	1.11
	01-Jun-06	N		<1	1.24	<1	<.5	ND	<.5	<.1	1,150	<500	77.6	479	1.4
	06-Jun-06	N		<1 J/HD	1.66	<1	<.5	ND	<.5	<.5	1,650	<500	76.4	528	3.14
	19-Jul-06	N		<0.2	2.53	<1	<.5	ND	<.5	<.5	641	<500	89.2	471	4.28
	09-Aug-06	N		<0.2 J/HD	<1	<.5	<.5	ND	<.5	<.1	<500	<500	94.1	465	5.44
	08-Sep-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	2,790	<500	108	452	2.97
	05-Oct-06	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	1,120	<500	104	405	8.61
	09-Nov-06	N		<0.2	1.15	<.5	<.5	ND	<.5	<.1	1,990	<500	114	389	12.9
	06-Dec-06	N		<0.2	1.13	<.5	<.5	ND	<.5	<.1	<500	<500	116	388	17.1
	04-Jan-07	N		<0.2	<1	<.5	<.5	ND	<.5	<.1	1,510	<500	119	391	1.91
PT-6D	16-Mar-06	N	95-105	3,310	3,140	<1	<.5	ND	2.5	0.218	<500	<500	361	844	<1
	04-Apr-06	N		2,270	2,180	4.23	<.5	ND	1.73	<.5	<500	<500	258	750	<1
	13-May-06	N		1,760 J/HD	1,720	<1	<1	ND	1.49	<.2	1,320	<500	169	810	1.16
	22-May-06	N		1,610 J/HD	1,970	<1	<.5	ND	1.42	<.5	2,520	<500	168	719	1.96
	01-Jun-06	N		1,440	1,420	<1	<.5	ND	1.2	<.1	764	<500	152	711	1.08
	06-Jun-06	N		1,340 J/HD	1,290	<1	1.85	0.105	1.38	<.5	1,130	<500	134	750	2.45
	17-Jul-06	N		1,220	1,120	<1	<.5	ND	0.994	0.917	<500	<500	112	670	3.54
	09-Aug-06	N		1,320 J/HD	1,440	3.34	0.94	ND	1.27	<.1	<500	<500	77.2	684	2.67
	08-Sep-06	N		1,540	1,520	3.54	<.5	ND	1.55	<.1	<500	<500	70.6	726	2.17
	05-Oct-06	N		1,060	1,000	2.44	0.550	ND	1.05	<.1	612	<500	34.1	667	2.90
	09-Nov-06	N		1,300	1,160	3.25	0.561	ND	1.36	<.1	<500	<500	28.8	620	4.61
	09-Nov-06	FD		1,500	1,130	4.63	0.614	ND	1.75	<.1	<500	<500	29.0	617	4.20
	06-Dec-06	N		1,100	1,270	2.97	0.637	ND	1.33	<.1	<500	<500	25.2	672	7.01
04-Jan-07	N	1,320	1,490	3.58	0.724	0.036	1.75	<.1	1,260	<500	116	634	1.36		

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
PTI-1S	15-Mar-06	N	35-45	<1	19.8	0.708 J	<.5	ND	<.5	<.1	7,360	8,350	717	122	4.55	
	05-Apr-06	N		<1	<1	<1	<.5	ND	<.5	<.5	7,730	3,320	606	120	4.84	
	06-May-06	N		<1 J/HD	4.15	<1	1,130	1,950	<2.5	<.5	21,500	19,900	980	15	588	
	07-May-06	N		<1 J/HD	---	<1	449	3,820	---	---	---	---	---	---	452	
	09-May-06	N		<1	---	<1	360	3,820	---	---	---	---	---	---	474	
	09-May-06	FD		<0.2	---	<1	360	3,770	---	---	---	---	---	---	467	
	10-May-06	N		<1	---	<1	362	3,560	---	---	---	---	---	---	506	
	11-May-06	N		<1	---	<1	316	3,760	---	---	---	---	---	---	543	
	12-May-06	N		<1	---	<1	284	3,710	---	---	---	---	---	---	558	
	13-May-06	N		---	---	<1	288	3,730	---	---	---	---	---	---	525	
	23-May-06	N		---	---	<1	213	3,810	---	---	---	---	---	---	214	
	31-May-06	N		---	---	<1	56.4	4,090	---	---	---	---	---	---	188	
	05-Jun-06	N		---	---	<1	28.7	3,750	---	---	---	---	---	---	136	
	18-Jul-06	N		<0.2	---	<1	3.05	647	---	---	---	---	---	---	9.33	
	07-Aug-06	N		<0.2	---	<.5	<.5	196	---	---	---	---	---	---	11.4	
	07-Sep-06	N		<1	---	<1	<1	73.4	---	---	---	---	---	---	8.1	
	03-Oct-06	N		<0.2	---	<2.5	<2.5	46	---	---	---	---	---	---	10.8	
	07-Nov-06	N		---	---	<.5	1.03	30.7	---	---	---	---	---	---	26.3	
	05-Dec-06	N		---	---	<.5	0.884	21.6	<.5	<.1	---	---	---	4.37	45.4	
	02-Jan-07	N			<0.2	---	<.5	0.974	17.1	---	---	---	---	---	---	7.41
PTI-1M	15-Mar-06	N	60-70	3.9	8.2	0.718 J	<.5	ND	<.5	<.1	<500	<500	141	510	<1	
	04-Apr-06	N		3.3	11.1	<1	<.5	ND	<.5	<.5	<500	<500	99.5	529	<1	
	06-May-06	N		<1 J/HD	<1	<1	1,430	0.853	<.5	<.1	<500	<500	1,770	18.7	210	
	07-May-06	N		<1 J/HD	---	<1	1,510	0.728	---	---	---	---	---	---	215	
	09-May-06	N		<1	---	---	621	0.272	---	---	---	---	---	---	83.4	
	10-May-06	N		<1	---	<1	1,080	0.746	---	---	---	---	---	---	111	
	11-May-06	N		<1	---	<1	1,130	0.79	---	---	---	---	---	---	101	
	12-May-06	N		<1	---	<1	1,090	0.934	---	---	---	---	---	---	77.6	
	13-May-06	N		---	---	<1	1,060	1.04	---	---	---	---	---	---	67.6	
	23-May-06	N		---	---	<1	1,490	1.58	---	---	---	---	---	---	77.8	
	31-May-06	N		---	---	<1	169	0.298	---	---	---	---	---	---	3.56	
	05-Jun-06	N		---	---	<1	125	0.281	---	---	---	---	---	---	2.18	
	18-Jul-06	N		<1	---	<1	28.4	0.100	---	---	---	---	---	---	3.12	
	07-Aug-06	N		<0.2	---	<.5	18.1	1.57	---	---	---	---	---	---	6.07	
	07-Sep-06	N		<0.2	---	<.5	5.66	0.047	---	---	---	---	---	---	2.42	
	03-Oct-06	N		<0.2	---	<0.5	1.96	0.029	---	---	---	---	---	---	7.75	
	07-Nov-06	N		---	---	<.5	0.950	0.079	---	---	---	---	---	---	14.3	
	05-Dec-06	N		---	---	<.5	0.750	ND	<.5	<.1	---	---	---	431	19.7	
	02-Jan-07	N			<0.2	---	<.5	0.647	ND	---	---	---	---	---	---	1.51

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PTI-1D	15-Mar-06	N	95-105	1,620	1,580	<1	2.63	ND	<.5	<.5	<500	<500	1,070	907	1.3
	03-Apr-06	N		3,350	3,370	6.42	<.5	ND	2.59	<.5	<500	<500	140	912	<1
	07-May-06	N		<1 J/HD	---	1,640	8.27	0.153	---	---	---	---	---	---	195
	09-May-06	N		<1	---	1,950	19.2	0.794	---	---	---	---	---	---	204
	10-May-06	N		937	---	672	4.56	0.087	---	---	---	---	---	---	46.4
	11-May-06	N		1,050	---	613	3.76	0.059	---	---	---	---	---	---	31.9
	12-May-06	N		<1 J/HD	---	2,400	12.6	0.603	---	---	---	---	---	---	215
	13-May-06	N		---	---	1,760	8.24	0.145	---	---	---	---	---	---	206
	22-May-06	N		---	---	57.9	0.942	ND	---	---	---	---	---	---	2.34
	31-May-06	N		---	---	<1	<.5	ND	---	---	---	---	---	---	3.26
	05-Jun-06	N		---	---	20	<.5	ND	---	---	---	---	---	---	2.45
	18-Jul-06	N		---	1,360	---	1.65	0.512	ND	---	---	---	---	---	3.42
	07-Aug-06	N		---	1,820	---	4.65	<.5	ND	---	---	---	---	---	7.28
	15-Aug-06	N		---	---	---	<5	---	2,850	---	---	---	---	---	117
	17-Aug-06	N		---	---	---	14.3	---	1,830	---	---	---	---	---	53.7
	22-Aug-06	N		---	---	---	1.50	---	849	---	---	---	---	---	13.1
	24-Aug-06	N		---	---	---	<1	---	629	---	---	---	---	---	6.76
	29-Aug-06	N		---	---	---	<1	---	285	---	---	---	---	---	3.53
	05-Sep-06	N		---	231	---	<.5	<.5	168	---	---	---	---	---	3.76
	12-Sep-06	N		---	---	---	873	---	30.4	---	---	---	---	---	110
	19-Sep-06	N		---	---	---	260	---	30	---	---	---	---	---	11
	28-Sep-06	N		---	---	---	80.9	---	15.4	---	---	---	---	---	6.94
	28-Sep-06	FD		---	---	---	80.5	---	15.4	---	---	---	---	---	7.51
	03-Oct-06	N		---	<0.2	---	51.8	0.648	12.3	---	---	---	---	---	5.91
	17-Oct-06	N		---	---	---	20.5	---	6.1	---	---	---	---	---	6.70
	31-Oct-06	N		---	---	---	11.9	---	3.43	---	---	---	---	---	9.12
	07-Nov-06	N		---	---	---	10.7	<5	2,010	---	---	---	---	---	206
	14-Nov-06	N		---	---	---	<5	---	757	---	---	---	---	---	35.6
	14-Nov-06	FD		---	---	---	<5	---	761	---	---	---	---	---	35.4
	21-Nov-06	N		---	---	---	<5.00	---	362	---	---	---	---	---	12.1
	21-Nov-06	FD		---	---	---	<5.00	---	351	---	---	---	---	---	8.66
	28-Nov-06	N		---	---	---	0.990	---	185	---	---	---	---	---	7.09
	28-Nov-06	FD		---	---	---	1.02	---	183	---	---	---	---	---	6.64
05-Dec-06	N		---	---	---	0.577	0.694	70.9	0.610	<.1	---	---	---	728	8.83
18-Dec-06	N		---	---	---	0.571	---	56.7	---	---	---	---	---	3.84	
18-Dec-06	FD		---	---	---	0.568	---	56	---	---	---	---	---	3.89	
02-Jan-07	N		---	29.8	---	1.23	0.761	25	---	---	---	---	---	1.86	
15-Jan-07	N		---	---	---	1.31	---	14.2	---	---	---	---	---	1.74	

Table 3
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PG&E Topock
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January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
PE-1	17-Mar-06	N		148	138	<1	<.5	ND	<.5	<.5	<500	<500	12.7	900	2.14
	05-Apr-06	N		140	136	<1	<.5	ND	<.5	<.5	<500	<500	12.3	939	1.99
	01-Jun-06	N		114	111	<1	<.5	ND	<.5	<.1	<500	<500	12.5	773	2.34
	17-Jul-06	N		97	96.2	<1	1.11	ND	<.5	1.11	<500	<500	10.7	772	4.16
	07-Aug-06	N		100	98.6	<.5	<.5	ND	<.5	<.1	<500	<500	10.5	699	8.83
	07-Aug-06	FD		104	100	<.5	0.868	ND	<.5	<.1	<500	<500	10.7	692	4.58
	06-Sep-06	N		94.5	102	<.5	<.5	ND	<.5	<.1	<500	<500	11.0	751	3.23
	03-Oct-06	N		90.2	93.6	<0.5	0.624	ND	<0.5	<0.1	<500	<5000	11.6	683	8.57
	03-Oct-06	FD		95.8	96.2	<0.5	0.615	ND	<0.5	<0.1	<500	<5000	11.4	717	6.28
	07-Nov-06	N		96.6	87.8	<.5	<.5	ND	<.5	<.1	<500	<500	10.6	709	11.6
	06-Dec-06	N		99.9	101	<.5	0.658	ND	<.5	<.1	<500	<500	10.4	651	22.7
	02-Jan-07	N		85.8	91.2	<.5	0.707	ND	<.5	<.1	<500	<500	8.94	681	2.34
TW-2D	17-Mar-06	N		1,430	1,530	<1	<.5	ND	1.67	<.5	<500	<500	<5	501	<1
	05-Apr-06	N		1,350	1,240	2.55	<.5	ND	1.51	<.5	<500	<500	<5	509	<1
	19-Jul-06	N		802	785	7.09	0.55	ND	1.34	<.5	<500	<500	<5	483	2.88
	07-Aug-06	N		943	797	2.51	0.791	ND	1.79	<.1	<500	<500	<5	433	6.62
	14-Aug-06	N		---	---	5.29	---	ND	---	---	---	---	---	---	6.29
	17-Aug-06	N		---	---	3.90	---	ND	---	---	---	---	---	---	1.27
	22-Aug-06	N		---	---	4.56	---	ND	---	---	---	---	---	---	1.20
	24-Aug-06	N		---	---	3.88	---	ND	---	---	---	---	---	---	8.17
	29-Aug-06	N		---	---	4.02	---	ND	---	---	---	---	---	---	1.94
	06-Sep-06	N		780	813	2.83	<.5	ND	2.34	<.1	<500	<500	<5	398	1.81
	12-Sep-06	N		---	---	1.76	---	ND	---	---	---	---	---	---	2.13
	19-Sep-06	N		---	---	2.56	---	0.114	---	---	---	---	---	---	5.42
	28-Sep-06	N		---	---	2.56	---	ND	---	---	---	---	---	---	3.12
	04-Oct-06	N		733	738	1.41	0.921	ND	1.21	<.1	<500	<500	<5	491	2.41
	17-Oct-06	N		---	---	<.5	---	0.058	---	---	---	---	---	---	6.48
	31-Oct-06	N		---	---	2.57	---	0.093	---	---	---	---	---	---	4.46
	08-Nov-06	N		619	605	7.12	1.19	ND	1.23	<.1	<500	<500	<5	487	4.72
	14-Nov-06	N		---	---	6.42	---	ND	---	---	---	---	---	---	6.77
	21-Nov-06	N		---	---	2.53	---	0.011	---	---	---	---	---	---	3.44
	28-Nov-06	N		---	---	2.48	---	0.783	---	---	---	---	---	---	3.75
	06-Dec-06	N		739	900	6.30	1.12	ND	1.38	<.1	<500	<500	<5.0	411	12.4
18-Dec-06	N		---	---	1.65	---	ND	---	---	---	---	---	---	<1	
02-Jan-07	N		629	513	1.60	0.663	---	2.59	<.1	<500	<500	<5	315	1.02	
15-Jan-07	N		---	---	1.72	---	0.531	---	---	---	---	---	---	1.11	
15-Jan-07	FD		---	---	2.01	---	0.534	---	---	---	---	---	---	<1	

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
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January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
TW-3D	17-Mar-06	N		3,350	3,070	<1	<.5	ND	4.87	<.2	<500	<500	<5	613	1.04
	05-Apr-06	N		3,140	2,980	6.12	<.5	ND	4.61	<.5	<500	<500	<5	645	<1
	19-Jul-06	N		2,440	2,360	<1	1	ND	3.89	<.5	<500	<500	<5	637	3
	07-Aug-06	N		2,600	2,580	5.86	0.849	ND	4.08	<.1	<500	<500	<5	599	5.26
	14-Aug-06	N		---	---	6.23	---	ND	---	---	---	---	---	---	3.31
	17-Aug-06	N		---	---	6.31	---	ND	---	---	---	---	---	---	1.41
	22-Aug-06	N		---	---	6.43	---	ND	---	---	---	---	---	---	1.40
	24-Aug-06	N		---	---	6.21	---	0.288	---	---	---	---	---	---	8.22
	29-Aug-06	N		---	---	6.33	---	0.085	---	---	---	---	---	---	2.08
	06-Sep-06	N		2,570	2,620	6.1	<1	ND	3.94	<.2	<500	<500	<5	656	2.05
	12-Sep-06	N		---	---	5.19	---	ND	---	---	---	---	---	---	2.43
	19-Sep-06	N		---	---	5.57	---	0.179	---	---	---	---	---	---	4.88
	28-Sep-06	N		---	---	5.80	---	ND	---	---	---	---	---	---	5.07
	04-Oct-06	N		2,350	2,920	6.86	<1	ND	5.21	<.2	<500	<500	<5	577	3.67
	17-Oct-06	N		---	---	<1.0	---	ND	---	---	---	---	---	---	6.18
	31-Oct-06	N		---	---	8.01	---	ND	---	---	---	---	---	---	10.4
	08-Nov-06	N		2,600	2,330	7.08	0.882	ND	4.24	<.1	<500	<500	<5	629	4.11
	14-Nov-06	N		---	---	7.52	---	ND	---	---	---	---	---	---	6.34
	21-Nov-06	N		---	---	7.02	---	ND	---	---	---	---	---	---	2.54
	28-Nov-06	N		---	---	7.12	---	0.029	---	---	---	---	---	---	3.48
	06-Dec-06	N		2,690	2,570	7.01	0.853	ND	4.29	<.1	<500	<500	<5.0	582	8.43
	18-Dec-06	N		---	---	7.18	---	ND	---	---	---	---	---	---	1.47
	02-Jan-07	N		---	2,480	2,450	6.44	0.915	0.024	4.37	<.1	<500	<500	<5	601
15-Jan-07	N		---	---	6.25	---	0.018	---	---	---	---	---	---	---	1.12
INJ_SOLUTION_01	04-May-06	N		---	---	---	---	5,620	---	---	---	---	---	---	265
	05-May-06	N		---	---	---	<5	---	---	---	---	---	---	---	---
INJ_SOLUTION_02	05-May-06	N		---	---	---	1,790	---	---	---	---	---	---	---	276
INJ_SOLUTION_03	06-May-06	N		---	---	1,960	---	---	---	---	---	---	---	---	258
	11-Aug-06	N		---	---	<5	---	5,140	---	---	---	---	---	---	459
	07-Sep-06	N		<0.2	---	1,670	---	---	---	---	---	---	---	---	466
INJ_SOLUTION_04	01-Nov-06	N		<0.2	---	---	---	4,440	---	---	---	---	---	---	---
Make_Up_Water	05-May-06	N		---	---	<1	<.5	---	---	---	---	---	---	---	---

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)	
Field Blank	17-Mar-06	FB		<0.2	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	<.5	<1	
	04-Apr-06	FB		<0.2	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	<.5	<1	
	09-May-06	EB		<0.2 J/HD	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	<.5	<1	
	13-May-06	FB		<0.2	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	<.5	<1	
	24-May-06	FB		0.25	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	2.45	1.53	
	01-Jun-06	FB		<0.2	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	<.5	21.4	
	05-Jun-06	FB		<0.2	<1	<1	<.5	0.027	<.5	<1	<500	<500	<5	<.5	<1	
	17-Jul-06	FB		<0.2	<1	<1	<.5	ND	<.5	<1	<500	<500	<5	<.5	2.51	
	07-Aug-06	FB		<0.2	<1	<.5	<.5	ND	<.5	<1	<500	<500	<5	<.5	5.16	
	14-Aug-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	4.04	
	21-Aug-06	FB		---	---	<.5	---	0.033	---	---	---	---	---	---	1.08	
	29-Aug-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	1.49	
	06-Sep-06	FB		<0.2	<1	<.5	<.5	ND	<.5	<1	<500	<500	<5	4.47	1.85	
	12-Sep-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	1.69	
	19-Sep-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	4.04	
	28-Sep-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	5.13	
	03-Oct-06	FB		<0.2	<1	<0.5	<0.5	ND	<0.5	<0.1	<500	<500	<5	<0.5	7.03	
	17-Oct-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	4.51	
	31-Oct-06	FB		---	---	<.5	---	0.298	---	---	---	---	---	---	7.78	
	07-Nov-06	FB		<0.2	<1	<.5	<.5	ND	<.5	<1	<500	<500	<5	<.5	<1	
	14-Nov-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	1.05	
	21-Nov-06	FB		---	---	<0.50	---	ND	---	---	---	---	---	---	<1.00	
	28-Nov-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	<1	
	05-Dec-06	FB		<0.2	<1	<.5	<.5	ND	<.5	<1	<500	<500	<5	<0.500	<1	
	18-Dec-06	FB		---	---	<.5	---	ND	---	---	---	---	---	---	1.06	
	03-Jan-07	FB			<0.2	<1	<.5	<.5	ND	<.5	<1	<500	<500	<5	<.5	<1
	15-Jan-07	FB			---	---	<.5	---	ND	---	---	---	---	---	---	<1

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
Equipment Blank	17-Mar-06	EB		<0.2	2.91	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	07-Apr-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	09-May-06	FB		<0.2 J/HD	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	13-May-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	1.33
	24-May-06	EB		0.23	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	2.47	1.17
	01-Jun-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	05-Jun-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	1.03
	17-Jul-06	EB		<0.2	<1	<1	<.5	ND	<.5	<.1	<500	<500	<5	<.5	2.95
	07-Aug-06	EB		<0.2	<1	<.5	<.5	ND	<.5	<.1	<500	<500	<5	0.539	3.84
	14-Aug-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	4.45
	21-Aug-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	1.11
	29-Aug-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	1.57
	06-Sep-06	EB		<0.2	<1	<.5	<.5	ND	<.5	<.1	<500	<500	<5	4.11	<1
	12-Sep-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	2.03
	19-Sep-06	EB		---	---	<.5	---	---	---	---	---	---	---	---	4.38
	28-Sep-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	4.95
	04-Oct-06	EB		<0.2	7.26	<.5	<.5	ND	<.5	<.1	<500	<500	<5	2.39	2.24
	17-Oct-06	EB		---	---	<.5	---	---	---	---	---	---	---	---	3.20
	31-Oct-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	7.47
	07-Nov-06	EB		<0.2	<1	<.5	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	14-Nov-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	<1
	21-Nov-06	EB		---	---	<0.50	---	ND	---	---	---	---	---	---	<1.00
	28-Nov-06	EB		---	---	<.5	---	0.016	---	---	---	---	---	---	<1
	06-Dec-06	EB		<0.2	<1	<.5	<.5	ND	<.5	<.1	<500	<500	<5	<.5	7.14
	18-Dec-06	EB		---	---	<.5	---	ND	---	---	---	---	---	---	<1
	03-Jan-07	EB		<0.2	<1	<.5	<.5	ND	<.5	<.1	<500	<500	<5	<.5	<1
	15-Jan-07	EB		---	---	<.5	---	ND	---	---	---	---	---	---	<1

Notes appear on following page.

Table 3
Summary of Primary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Hexavalent Chromium (µg/L)	Dissolved Chromium (µg/L)	Iodide (mg/L)	Bromide (mg/L)	Fluorescein (ppb)	Nitrate-N (mg/L)	Nitrite-N (mg/L)	Total Iron (µg/L)	Dissolved Iron (µg/L)	Dissolved Manganese (µg/L)	Sulfate (mg/L)	Total Organic Carbon (mg/L)
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Notes:

Most recent data indicated in **BOLD**

- ft bgs Feet below ground surface
- mg/L Milligrams per liter
- µg/L Micrograms per liter
- ppb Parts per billion
- < Symbol indicates not detected at or above laboratory detection limit as noted
- N Normal
- EB Equipment blank
- FB Field blank
- FD Field duplicate
- J Reported value is estimated
- J/HD Sample analyzed beyond USEPA-recommended holding time. Results may still be used for their intended purpose.
- NA Not applicable

- ND Not detected
- Nitrate-N Nitrate as Nitrogen
- Nitrite-N Nitrite as Nitrogen
- Not analyzed/Not available
- USEPA United States Environmental Protection Agency

Table 4
Summary of Secondary Analytical Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)	
PT-1S	17-Mar-06	N	35-45	262,000	74,700	<5 U	15,400	1,040,000	367	<5 U	1,710	<.5 U	<2 U	---	
	06-Apr-06	N		267,000	70,500	<5 U	14,400	1,090,000	368	<5 U	1,740	<.5 U	<2 U	3,860	
	06-May-06	N		287,000	83,200	<5 U	14,800	1,110,000	437	<5 U	2,180	<.5 U	<2 U	4,680	
	09-May-06	N		298,000	89,100	<5 U	14,500	1,110,000	405	<5 U	1,910	<.5 U	<2 U	---	
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	---	4,340
	13-May-06	N		260,000	79,100	<5 U	13,900	1,080,000	423	<5 U	2,140	<1 U	<2 U	---	
	23-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	06-Jun-06	N		278,000	83,600	10.4	14,600	1,060,000	461	<5 U	1,960	<.5 U	<2 U	---	
	18-Jul-06	N		277,000	76,700	7.51	14,000	1,080,000	424	<5 U	1,570	<.5 U	<2 U	4,000	
	08-Aug-06	N		328,000	107,000	9.3	16,300	1,190,000	464	<5 U	2,170	<.5 U	<2 U	4,430	
	06-Sep-06	N		312,000	80,400	18.2	16,700	1,030,000	475	<5 U	1,990	<.5 U	<2 U	3,830	
	04-Oct-06	N		327,000	92,900	9.27	15,300	1,210,000	445	<5 U	2,110	<.5 U	<2 U	4,080	
	08-Nov-06	N		396,000	152,000	12.2	17,300	1,410,000	515	<5 U	2,960	<.5 U	<2 U	5,170	
	05-Dec-06	N		432,000	181,000	14.6	17,500	1,530,000	570	<5 U	3,120	<2.5 U	<2.0	5,410	
	03-Jan-07	N		381,000	151,000	12.3	15,400	1,350,000	485	<5 U	2,830	<2.5 U	<2 U	5,260	
	PT-1M	17-Mar-06		N	60-70	229,000	40,100	<5 U	15,700	1,230,000	145	<5 U	1,790	<.5 U	<2 U
06-Apr-06		N	242,000	40,600		<5 U	15,000	1,290,000	144	<5 U	1,840	<.5 U	<2 U	4,250	
06-May-06		N	233,000	36,600		<5 U	13,200	1,370,000	168	<5 U	1,820	<.5 U	<2 U	4,340	
09-May-06		N	214,000	34,700		6.56	12,800	1,280,000	125	<5 U	1,790	<.5 U	<2 U	---	
10-May-06		N	---	---		---	---	---	---	---	---	---	---	---	3,470
13-May-06		N	207,000	35,800		9.84	12,500	1,380,000	192	<5 U	1,880	<.5 U	<2 U	---	
24-May-06		N	---	---		---	---	---	---	---	---	---	---	<2 U	---
31-May-06		N	---	---		---	---	---	---	---	---	---	---	<2 U	---
06-Jun-06		N	221,000	38,900		7.14	12,700	1,290,000	191	<5 U	2,140	<.5 U	<2 U	---	
18-Jul-06		N	235,000	38,700		5.53	12,600	1,350,000	197	<5 U	1,730	<.5 U	<2 U	4,130	
08-Aug-06		N	218,000	37,900		5.49	12,100	1,230,000	209	<5 U	1,870	<.5 U	<2 U	4,120	
06-Sep-06		N	230,000	40,200		5.96	13,300	1,320,000	239	<5 U	1,840	<.5 U	<2 U	3,920	
04-Oct-06		N	215,000	33,400		6.06	12,700	1,330,000	205	<5 U	1,890	<.5 U	<2 U	3,940	
08-Nov-06		N	203,000	34,800		5.90	11,800	1,220,000	225	<5 U	1,740	<.5 U	<2 U	3,810	
05-Dec-06		N	205,000	35,400		5.13	11,500	1,170,000	233	<5 U	1,760	<.5 U	<2.0	3,740	
03-Jan-07		N	187,000	32,600		5.07	11,100	1,170,000	230	<5 U	1,740	<.5 U	<2 U	3,680	
03-Jan-07		FD	190,000	33,500		5.21	11,100	1,190,000	230	<5 U	1,750	<.5 U	<2 U	3,660	

Table 4
Summary of Secondary Analytical Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)	
PT-1D	17-Mar-06	N	95-105	321,000	24,900	<5 U	24,600	2,540,000	107	<5 U	3,650	<.5 U	<2 U	---	
	17-Mar-06	FD		316,000	24,900	<5 U	24,800	2,550,000	110	<5 U	3,610	<.5 U	<2 U	---	
	06-Apr-06	N		332,000	24,000	<5 U	25,300	2,680,000	101	<5 U	3,780	<.5 U	<2 U	8,070	
	06-Apr-06	FD		334,000	23,600	<5 U	25,100	2,700,000	98.1	<5 U	3,700	<.5 U	<2 U	8,260	
	06-May-06	N		357,000	24,300	<5 U	25,300	2,930,000	85.2	<5 U	4,230	<.5 U	<2 U	8,260	
	09-May-06	N		260,000	17,700	<5 U	20,800	2,360,000	130	<5 U	3,170	<1 U	<2 U	6,960	
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	---	7,070
	13-May-06	N		223,000	16,600	<5 U	20,700	2,340,000	160	<5 U	2,170	<1 U	<2 U	---	
	24-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	31-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	05-Jun-06	N		220,000	17,400	5.38	26,300	2,160,000	127	<5 U	3,210	<.5 U	<2 U	---	
	17-Jul-06	N		287,000	21,500	<5 U	36,200	2,500,000	109	<5 U	3,160	<.5 U	<2 U	7,010	
	08-Aug-06	N		264,000	21,000	<5 U	36,700	2,410,000	110	<5 U	3,350	<.5 U	<2 U	6,860	
	05-Sep-06	N		178,000	14,600	6.23	28,900	2,180,000	126	<5 U	2,810	<1 U	<2 U	5,540	
	04-Oct-06	N		153,000	13,700	8.99	28,700	1,980,000	110	<5 U	2,670	<.5 U	<2 U	5,710	
	08-Nov-06	N		145,000	13,600	10.5	34,100	1,920,000	338	<5 U	2,770	<.5 U	<2 U	5,580	
	05-Dec-06	N		130,000	12,300	11.2	32,300	1,910,000	163	<5 U	2,870	<2.5 U	<2.0	5,060	
03-Jan-07	N	168,000	17,500	5.91	39,700	2,180,000	90.0	<5 U	3,210	<1 U	<2 U	6,130			
PT-2S	17-Mar-06	N	35-45	273,000	92,700	<5 U	12,500	929,000	613	<5 U	1,630	<.5 U	<2 U	---	
	06-Apr-06	N		300,000	99,800	<5 U	12,100	1,030,000	635	<5 U	1,670	<.5 U	<2 U	3,810	
	24-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	07-Jun-06	N		324,000	105,000	5.77	11,600	1,000,000	691	<5 U	1,900	<.5 U	<2 U	---	
	18-Jul-06	N		336,000	103,000	6.66	10,500	1,040,000	646	<5 U	1,740	<.5 U	<2 U	4,230	
	08-Aug-06	N		353,000	110,000	8.48	10,900	1,040,000	574	<5 U	1,960	<.5 U	<2 U	4,170	
	06-Sep-06	N		335,000	113,000	7.21	11,500	1,060,000	667	<5 U	1,940	<.5 U	<2 U	4,020	
	04-Oct-06	N		360,000	102,000	5.97	11,400	1,050,000	610	<5 U	1,890	<.5 U	<2 U	3,770	
	08-Nov-06	N		418,000	131,000	<5 U	11,700	1,100,000	640	<5 U	2,200	<.5 U	<2 U	4,430	
	05-Dec-06	N		268,000	50,700	<5 U	13,000	1,220,000	265	<5 U	1,930	<.5 U	<2.0	3,660	
03-Jan-07	N	368,000	116,000	<5 U	10,800	1,050,000	660	<5 U	1,970	<1 U	<2 U	3,900			

Table 4
Summary of Secondary Analytical Parameters

PG&E Topock

Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-2M	17-Mar-06	N	60-70	227,000	35,600	<5 U	14,700	1,340,000	264	<5 U	1,880	<.5 U	<2 U	---
	06-Apr-06	N		232,000	35,600	<5 U	13,400	1,400,000	204	<5 U	1,920	<.5 U	<2 U	4,430
	24-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	31-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	31-May-06	FD		---	---	---	---	---	---	---	---	---	<2 U	---
	07-Jun-06	N		220,000	36,500	<5 U	12,600	1,360,000	212	<5 U	2,020	<.5 U	<2 U	---
	18-Jul-06	N		221,000	35,900	<5 U	11,900	1,320,000	237	<5 U	1,870	<.5 U	<2 U	4,050
	08-Aug-06	N		218,000	36,200	<5 U	11,900	1,280,000	228	<5 U	1,810	<.5 U	<2 U	3,920
	06-Sep-06	N		225,000	38,400	<5 U	13,200	1,280,000	241	<5 U	1,810	<.5 U	<2 U	3,820
	04-Oct-06	N		231,000	36,600	<5 U	12,900	1,270,000	225	<5 U	1,850	<.5 U	<2 U	3,090
	08-Nov-06	N		232,000	42,500	<5 U	12,000	1,210,000	248	<5 U	1,830	<.5 U	<2 U	3,740
	05-Dec-06	N		263,000	50,400	<5 U	12,500	1,130,000	248	<5 U	1,850	<.5 U	<2.0	3,850
	03-Jan-07	N		209,000	31,900	<5 U	18,300	1,630,000	245	<5 U	1,740	<.5 U	<2 U	3,730
	PT-2D	17-Mar-06	N	95-105	314,000	25,700	<5 U	24,900	2,530,000	125	<5 U	3,530	<.5 U	<2 U
17-Mar-06		FD		315,000	26,300	<5 U	25,200	2,560,000	112	<5 U	3,560	<.5 U	<2 U	---
06-Apr-06		N		338,000	25,600	<5 U	25,100	2,640,000	109	<5 U	3,550	<.5 U	<2 U	8,120
06-Apr-06		FD		338,000	25,800	<5 U	25,300	2,650,000	109	<5 U	3,660	<.5 U	<2 U	8,040
24-May-06		N		---	---	---	---	---	---	---	---	---	<2 U	---
31-May-06		N		---	---	---	---	---	---	---	---	---	<2 U	---
07-Jun-06		N		231,000	18,100	5.36	21,700	2,310,000	154	<5 U	3,120	<.5 U	<2 U	---
17-Jul-06		N		261,000	20,300	<5 U	22,800	2,320,000	102	<5 U	3,300	<.5 U	<2 U	7,090
07-Aug-06		N		266,000	21,600	<5 U	23,600	2,460,000	99.2	<5 U	3,550	<.5 U	<2 U	7,190
06-Sep-06		N		227,000	18,900	5.34	24,300	2,300,000	134	<5 U	2,980	<1 U	<2 U	6,000
04-Oct-06		N		157,000	11,700	<5 U	21,000	2,010,000	150	<5 U	2,730	<2.5 U	<2 U	5,600
08-Nov-06		N		186,000	15,500	<5 U	23,500	2,150,000	115	<5 U	3,080	<2.5 U	<2 U	6,090
05-Dec-06		N		174,000	14,000	<5 U	22,400	2,160,000	258	<5 U	2,710	<2.5 U	<2.0	5,760
03-Jan-07		N		179,000	16,300	<5 U	23,900	2,150,000	100	<5 U	3,250	<.5 U	<2 U	6,290

Table 4
Summary of Secondary Analytical Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-3S	16-Mar-06	N	35-45	244,000	85,600	<5 U	10,000	942,000	334	<5 U	1,740	<.5 U	<2 U	---
	03-Apr-06	N		236,000	80,600	5.08	10,300	930,000	369	<5 U	1,800	<.5 U	<2 U	4,080
	06-May-06	N		270,000	86,300	6.06	10,100	1,080,000	378	<5 U	1,900	<.5 U	<2 U	3,770
	06-May-06	FD		265,000	85,100	5.96	10,100	1,060,000	367	<5 U	1,860	<.5 U	<2 U	3,610
	09-May-06	N		281,000	93,100	6.28	11,100	1,150,000	367	<5 U	1,850	<1 U	<2 U	4,030
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,950
	13-May-06	N		238,000	79,500	6.32	9,840	1,050,000	365	<5 U	1,820	<1 U	<2 U	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	06-Jun-06	N		189,000	63,000	8.17	9,260	9,170,000	505	<5 U	1,250	<2.5 U	<2 U	---
	19-Jul-06	N		181,000	59,300	8.6	12,100	1,010,000	507	<5 U	1,530	<.5 U	<2 U	3,470
	08-Aug-06	N		203,000	64,100	8.97	14,100	1,040,000	477	<5 U	1,620	<.5 U	<2 U	3,560
	06-Sep-06	N		227,000	71,600	8.21	17,700	1,080,000	480	<5 U	1,750	<.5 U	<2 U	3,430
	04-Oct-06	N		232,000	64,600	7.91	17,800	1,120,000	410	<5 U	1,710	<2.5 U	<2 U	3,470
	08-Nov-06	N		230,000	72,100	7.24	16,200	1,070,000	423	<5 U	1,860	<.5 U	<2 U	3,620
	05-Dec-06	N		225,000	67,100	7.07	15,900	1,070,000	473	<5 U	1,810	<.5 U	<2.0	3,610
	03-Jan-07	N			235,000	73,200	7.00	15,600	1,050,000	463	<5 U	1,890	<1 U	<2 U

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Needles, California

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)	
PT-3M	18-Mar-06	N	60-70	162,000	32,600	<5 U	19,900	1,360,000	112	<5 U	1,830	<.5 U	<2 U	---	
	07-Apr-06	N		184,000	30,500	<5 U	18,300	1,510,000	131	<5 U	1,910	<.5 U	<2 U	4,420	
	06-May-06	N		194,000	28,900	<5 U	15,100	1,490,000	157	<5 U	2,050	<.5 U	<2 U	4,120	
	09-May-06	N		186,000	28,800	<5 U	14,100	1,440,000	170	<5 U	2,020	<.5 U	<2 U	4,410	
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	4,370	
	13-May-06	N		193,000	28,300	<5 U	13,800	1,500,000	176	<5 U	2,040	<.5 U	<2 U	---	
	13-May-06	FD		193,000	28,300	<5 U	13,700	1,490,000	184	<5 U	1,970	<.5 U	<2 U	---	
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---	
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---	
	06-Jun-06	N		184,000	27,100	<5 U	12,900	1,360,000	172	<5 U	2,170	<.5 U	<2 U	---	
	06-Jun-06	FD		189,000	27,900	<5 U	13,400	1,410,000	196	<5 U	2,160	<.5 U	<2 U	---	
	19-Jul-06	N		177,000	26,400	<5 U	12,600	1,370,000	180	<5 U	1,930	<.5 U	<2 U	4,230	
	08-Aug-06	N		182,000	26,400	<5 U	13,100	1,430,000	193	<5 U	1,770	<.5 U	<2 U	4,190	
	06-Sep-06	N		178,000	26,100	<5 U	13,200	1,400,000	209	<5 U	1,860	<.5 U	<2 U	3,970	
	04-Oct-06	N		170,000	22,300	<5 U	12,900	1,470,000	203	<5 U	1,820	<.5 U	<2 U	3,830	
	08-Nov-06	N		226,000	70,100	6.97	16,000	1,040,000	438	<5 U	1,950	<.5 U	<2 U	3,610	
	05-Dec-06	N		149,000	20,900	<5 U	11,100	1,310,000	143	<5 U	3,430	<.5 U	<2.0	5,890	
	03-Jan-07	N			139,000	20,800	<5 U	10,600	1,190,000	213	<5 U	1,630	<.5 U	<2 U	3,510

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PT-3D	18-Mar-06	N	95-105	273,000	19,200	<5 U	22,900	2,570,000	104	<5 U	3,920	<.5 U	<2 U	---	
	05-Apr-06	N		277,000	18,200	<5 U	22,200	2,720,000	87.2	<5 U	3,760	<.5 U	<2 U	8,130	
	06-May-06	N		218,000	13,400	<5 U	19,500	2,300,000	117	<5 U	3,080	<.5 U	<2 U	6,950	
	09-May-06	N		243,000	16,000	<5 U	21,200	2,620,000	114	<5 U	3,330	<1 U	<2 U	7,500	
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	---	7,070
	13-May-06	N		234,000	16,700	5.06	20,700	2,590,000	112	<5 U	3,660	<1 U	<2 U	---	
	23-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	06-Jun-06	N		249,000	17,100	<5 U	22,000	2,670,000	98.1	<5 U	3,990	<.5 U	<2 U	---	
	17-Jul-06	N		258,000	16,500	5.03	22,200	2,740,000	99.3	<5 U	2,550	<.5 U	<2 U	7,550	
	17-Jul-06	FD		256,000	16,200	<5 U	22,000	2,690,000	99.3	<5 U	3,480	<.5 U	<2 U	7,400	
	08-Aug-06	N		241,000	16,200	<5 U	21,500	2,700,000	93.8	<5 U	3,510	<.5 U	<2 U	7,240	
	05-Sep-06	N		236,000	16,800	5.66	22,600	2,890,000	100	<5 U	3,460	<10 U	<2 U	7,290	
	04-Oct-06	N		237,000	14,500	5.45	22,400	2,800,000	97.5	<5 U	3,820	<1 U	<2 U	7,580	
	08-Nov-06	N		204,000	14,700	8.80	19,800	2,720,000	138	<5 U	3,910	<.5 U	<2 U	7,220	
	05-Dec-06	N		251,000	14,000	6.05	23,200	3,360,000	67.5	<5 U	4,110	<1 U	<2.0	8,650	
	03-Jan-07	N		242,000	16,000	6.82	22,300	2,950,000	70.0	<5 U	4,200	<.5 U	<2 U	8,040	
PT-4S	15-Mar-06	N	35-45	261,000	64,300	6.22	14,100	1,180,000	184	<5 U	1,800	1.35	<2 U	---	
	06-Apr-06	N		282,000	61,800	6.56	13,400	1,300,000	188	<5 U	2,020	<.5 U	<2 U	4,470	
	09-May-06	N		276,000	61,500	7.84	12,100	1,270,000	197	<5 U	2,110	<.5 U	<2 U	4,580	
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	---	4,510
	13-May-06	N		267,000	61,100	7.59	12,300	1,300,000	181	<5 U	2,210	<1 U	<2 U	---	
	23-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	---	<2 U	---
	06-Jun-06	N		263,000	60,200	8.38	12,000	1,200,000	211	<5 U	2,270	<.5 U	<2 U	---	
	19-Jul-06	N		260,000	59,100	8.44	12,300	1,250,000	208	<5 U	1,970	<.5 U	<2 U	4,600	
	08-Aug-06	N		264,000	60,800	9.45	11,900	1,260,000	201	<5 U	1,960	<.5 U	<2 U	4,240	
	06-Sep-06	N		269,000	61,700	8.91	13,100	1,300,000	222	<5 U	2,080	<.5 U	<2 U	4,260	
	06-Sep-06	FD		275,000	63,600	9.67	13,400	1,320,000	207	<5 U	2,120	<.5 U	<2 U	4,370	
	04-Oct-06	N		267,000	55,300	9.38	12,700	1,370,000	220	<5 U	2,110	<.5 U	<2 U	4,280	
	08-Nov-06	N		265,000	60,200	9.64	11,600	1,280,000	215	<5 U	2,260	<.5 U	<2 U	4,420	
	05-Dec-06	N		244,000	53,600	9.43	11,000	1,250,000	238	<5 U	1,980	<.5 U	<2.0	3,880	
	03-Jan-07	N		242,000	53,200	9.19	10,900	1,240,000	230	<5 U	1,960	<.5 U	<2 U	4,220	

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-4M	15-Mar-06	N	60-70	148,000	25,700	<5 U	18,700	1,370,000	144	<5 U	1,800	<.5 U	<2 U	---
	07-Apr-06	N		155,000	28,900	<5 U	20,400	1,480,000	117	<5 U	1,800	<.5 U	<2 U	4,190
	09-May-06	N		176,000	27,200	<5 U	15,400	1,490,000	168	<5 U	2,020	<.5 U	<2 U	4,250
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,870
	13-May-06	N		174,000	25,700	<5 U	14,000	1,460,000	178	<5 U	2,010	<.5 U	<2 U	---
	23-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	30-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	06-Jun-06	N		176,000	25,900	<5 U	13,400	1,380,000	184	<5 U	2,170	<.5 U	<2 U	---
	19-Jul-06	N		170,000	26,700	<5 U	13,300	1,370,000	188	<5 U	1,870	<.5 U	<2 U	4,290
	08-Aug-06	N		166,000	25,000	<5 U	13,200	1,390,000	188	<5 U	1,830	<.5 U	<2 U	4,100
	06-Sep-06	N		176,000	27,100	<5 U	14,300	1,440,000	207	<5 U	1,940	<.5 U	<2 U	3,900
	04-Oct-06	N		162,000	22,700	<5 U	13,600	1,400,000	210	<5 U	1,800	<.5 U	<2 U	3,980
	08-Nov-06	N		137,000	21,300	<5 U	10,800	1,280,000	215	<5 U	1,660	<.5 U	<2 U	3,700
	05-Dec-06	N		133,000	19,300	<5 U	11,200	1,210,000	233	<5 U	1,560	<.5 U	<2.0	9,360
	03-Jan-07	N		123,000	18,500	<5 U	10,600	1,130,000	240	<5 U	1,530	<.5 U	<2 U	3,490
	PT-4D	15-Mar-06	N	95-105	334,000	20,700	5.13	24,800	3,150,000	79.4	<5 U	4,350	<.5 U	<2 U
05-Apr-06		N		339,000	21,100	<5 U	24,000	3,060,000	68.1	<5 U	4,450	<.5 U	<2 U	9,150
09-May-06		N		339,000	21,100	5.36	24,300	3,200,000	69.2	<5 U	4,500	<2.5 U	<2 U	9,040
10-May-06		N		---	---	---	---	---	---	---	---	---	---	9,290
13-May-06		N		339,000	21,000	5.19	24,500	3,200,000	69.2	<5 U	4,380	<1 U	<2 U	---
23-May-06		N		---	---	---	---	---	---	---	---	---	<2 U	---
23-May-06		FD		---	---	---	---	---	---	---	---	---	<2 U	---
30-May-06		N		---	---	---	---	---	---	---	---	---	<2 U	---
06-Jun-06		N		325,000	20,200	5.27	24,200	2,970,000	66.2	<5 U	4,850	<.5 U	<2 U	---
19-Jul-06		N		341,000	20,800	5.44	25,800	3,230,000	71	<5 U	4,000	<.5 U	<2 U	8,770
08-Aug-06		N		340,000	20,500	5.07	24,000	3,560,000	67	<5 U	4,230	<.5 U	<2 U	9,060
06-Sep-06		N		336,000	19,600	5.41	25,600	3,130,000	63.8	<5 U	4,610	<.5 U	<2 U	8,710
04-Oct-06		N		341,000	16,800	5.29	26,300	3,270,000	62.5	<5 U	4,630	<2.5 U	<2 U	8,770
04-Oct-06		FD		353,000	17,500	5.66	26,900	3,560,000	65.0	<5 U	4,560	<2.5 U	<2 U	8,680
08-Nov-06		N		311,000	18,700	5.44	24,100	3,080,000	57.5	<5 U	4,630	<2.5 U	<2 U	8,900
05-Dec-06		N		299,000	16,600	5.33	24,700	3,560,000	50.0	<5 U	4,910	<2.5 U	<2.0	3,340
03-Jan-07	N		340,000	17,800	5.91	24,800	3,380,000	52.5	<5 U	4,820	<2.5 U	<2 U	9,030	

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-5S	16-Mar-06	N	35-45	315,000	72,300	8.86	14,200	1,320,000	279	<5 U	2,050	<.5 U	<2 U	---
	07-Apr-06	N		323,000	65,700	9.36	13,800	1,460,000	237	<5 U	2,170	<.5 U	<2 U	5,080
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	19-Jul-06	N		386,000	84,300	12.7	13,800	1,450,000	375	<5 U	2,580	<.5 U	<2 U	5,460
	09-Aug-06	N		399,000	87,500	13.4	14,100	1,470,000	393	<5 U	2,670	<.5 U	<2 U	5,490
	08-Sep-06	N		427,000	99,100	14.3	15,600	1,540,000	421	<5 U	2,610	<.5 U	<2 U	5,090
	05-Oct-06	N		417,000	87,100	14.5	14,500	1,580,000	398	<5 U	2,880	<.5 U	<2 U	5,380
	09-Nov-06	N		392,000	85,100	15.3	13,300	1,440,000	395	<5 U	2,760	<.5 U	<2 U	5,680
	06-Dec-06	N		413,000	100,000	15.7	13,500	1,540,000	425	<5 U	2,700	<.5 U	<2 U	5,480
	06-Dec-06	FD		432,000	104,000	15.8	14,100	1,590,000	443	<5 U	2,720	<.5 U	<2 U	5,510
	04-Jan-07	N		430,000	111,000	17.1	14,900	1,540,000	433	<5 U	2,840	<.5 U	<2 U	5,500
PT-5M	16-Mar-06	N	60-70	196,000	33,000	<5 U	11,000	1,220,000	237	<5 U	1,740	<.5 U	<2 U	---
	07-Apr-06	N		332,000	72,200	11.1	14,500	1,420,000	270	<5 U	2,210	<.5 U	<2 U	5,050
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	19-Jul-06	N		132,000	21,900	<5 U	9,330	1,030,000	276	<5 U	1,290	<.5 U	<2 U	2,940
	09-Aug-06	N		109,000	18,800	<5 U	8,700	905,000	266	<5 U	1,150	<.5 U	<2 U	2,830
	08-Sep-06	N		119,000	20,800	<5 U	9,720	995,000	311	<5 U	1,180	<.5 U	<2 U	2,780
	05-Oct-06	N		110,000	17,700	<5 U	9,030	9,590,000	265	<5 U	1,100	<.5 U	<2 U	2,660
	09-Nov-06	N		99,900	16,600	<5 U	8,170	870,000	255	<5 U	1,090	<.5 U	<2 U	2,620
	06-Dec-06	N		122,000	20,700	<.50 U	8,370	947,000	270	<5 U	1,160	<.5 U	<2 U	2,660
	04-Jan-07	N		143,000	24,400	<5 U	9,230	980,000	230	<5 U	1,270	<.5 U	<2 U	3,080
PT-5D	16-Mar-06	N	95-105	317,000	21,000	<5 U	24,500	3,150,000	62.3	<5 U	4,460	<.5 U	<2 U	---
	07-Apr-06	N		337,000	73,200	11.5	14,500	1,400,000	289	<5 U	2,190	<.5 U	<2 U	5,030
	12-May-06	N		298,000	20,900	<5 U	24,400	3,300,000	93.2	<5 U	4,160	<.5 U	<2 U	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	17-Jul-06	N		283,000	17,900	<5 U	23,100	2,980,000	96.7	<5 U	4,030	<.5 U	<2 U	8,150
	09-Aug-06	N		249,000	17,600	<5 U	22,100	2,690,000	82.7	<5 U	3,880	<1 U	<2 U	8,230
	08-Sep-06	N		275,000	18,600	<5 U	24,700	3,110,000	68.6	<5 U	4,300	<1 U	<2 U	8,580
	05-Oct-06	N		277,000	17,300	<5 U	24,000	3,040,000	87.5	<5 U	4,570	<1 U	<2 U	8,250
	09-Nov-06	N		262,000	16,600	5.46	22,700	2,970,000	70.0	<5 U	4,320	<2.5 U	<2 U	8,600
	06-Dec-06	N		296,000	15,700	<5 U	22,300	3,300,000	67.5	<5 U	4,500	<.5 U	<2 U	8,480
04-Jan-07	N		324,000	20,700	5.14	24,300	3,400,000	75.0	<5 U	4,890	<1 U	<2 U	9,030	

Table 4
Summary of Secondary Analytical Parameters
 PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PT-6S	18-Mar-06	N	35-45	269,000	157,000	12.6	21,400	1,490,000	501	<5 U	2,870	<.5 U	<2 U	---
	04-Apr-06	N		296,000	153,000	15.2	20,300	1,540,000	451	<5 U	2,900	<.5 U	<2 U	5,940
	13-May-06	N		297,000	147,000	25.5	16,600	1,500,000	538	<5 U	2,740	<1 U	<2 U	---
	22-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	06-Jun-06	N		310,400	148,000	29.9	16,400	1,360,000	505	<5 U	2,820	<2.5 U	<2 U	---
	19-Jul-06	N		311,000	148,000	30.9	16,700	1,380,000	507	<5 U	2,520	<.5 U	<2 U	5,480
	09-Aug-06	N		318,000	165,000	27.6	17,400	1,440,000	474	<5 U	2,680	<.5 U	<2 U	5,500
	08-Sep-06	N		323,000	156,000	25.5	18,000	1,600,000	573	<5 U	2,940	<1 U	<2 U	5,560
	05-Oct-06	N		322,000	147,000	33.9	16,500	1,550,000	550	<5 U	2,890	<2.5 U	<2 U	5,170
	09-Nov-06	N		337,000	170,000	34.0	16,700	1,620,000	565	<5 U	3,200	<.5 U	2.00	6,200
	06-Dec-06	N		372,000	214,000	37.0	16,900	1,840,000	575	<5 U	<.5 U	<.5 U	<2 U	6,330
	04-Jan-07	N		382,000	206,000	39.6	17,900	1,900,000	575	<5 U	3,720	<1 U	<2 U	6,920
	PT-6M	16-Mar-06	N	60-70	230,000	39,700	<5 U	11,800	1,300,000	227	<5 U	1,840	<.5 U	<2 U
04-Apr-06		N		238,000	43,400	<5 U	12,800	1,392,000	227	<5 U	1,980	<.5 U	<2 U	4,340
13-May-06		N		224,000	39,100	<5 U	12,300	1,390,000	210	<5 U	2,030	<.5 U	<2 U	---
23-May-06		N		---	---	---	---	---	---	---	---	---	<2 U	---
01-Jun-06		N		---	---	---	---	---	---	---	---	---	<2 U	---
06-Jun-06		N		228,000	38,700	<5 U	12,400	1,300,000	226	<5 U	2,080	<.5 U	<2 U	---
19-Jul-06		N		212,000	36,800	<5 U	12,300	1,290,000	241	<5 U	1,730	<.5 U	<2 U	4,020
09-Aug-06		N		188,000	35,300	<5 U	11,800	1,190,000	237	<5 U	1,660	<.5 U	<2 U	3,940
08-Sep-06		N		192,000	36,400	<5 U	12,300	1,230,000	264	<5 U	1,670	<.5 U	<2 U	3,630
05-Oct-06		N		186,000	31,000	<5 U	11,200	1,210,000	243	<5 U	1,660	<.5 U	<2 U	3,780
09-Nov-06		N		173,000	31,300	<5 U	10,800	1,090,000	248	<5 U	1,610	<.5 U	<2 U	3,620
06-Dec-06		N		192,000	35,700	<5.0 U	10,600	1,190,000	240	<5 U	1,610	<.5 U	<2 U	3,510
04-Jan-07	N		189,000	35,200	<5 U	10,800	1,140,000	250	<5 U	1,630	<.5 U	<2 U	3,650	

Table 4
Summary of Secondary Analytical Parameters

PG&E Topock

Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)	
PT-6D	16-Mar-06	N	95-105	245,000	16,200	<5 U	19,900	2,600,000	102	<5 U	3,630	<.5 U	<2 U	---	
	04-Apr-06	N		239,000	17,500	<5 U	19,800	2,620,000	97.3	<5 U	3,420	<.5 U	<2 U	7,140	
	13-May-06	N		216,000	14,900	<5 U	19,100	2,590,000	104	<5 U	3,310	<1 U	<2 U	---	
	22-May-06	N		---	---	---	---	---	---	---	---	---	<2 U	---	
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2 U	---	
	06-Jun-06	N		187,000	13,200	<5 U	17,300	2,210,000	118	<5 U	3,380	<.5 U	<2 U	---	
	17-Jul-06	N		188,000	12,100	<5 U	17,000	2,220,000	120	<5 U	2,790	<.5 U	<2 U	6,210	
	09-Aug-06	N		184,000	13,300	<5 U	18,200	2,240,000	116	<5 U	3,050	<.5 U	<2 U	6,480	
	08-Sep-06	N		234,000	16,500	<5 U	21,000	2,580,000	90.6	<5 U	3,600	<.5 U	<2 U	7,040	
	05-Oct-06	N		199,000	12,400	<5 U	19,300	2,470,000	110	<5 U	3,350	<.5 U	<2 U	6,330	
	09-Nov-06	N		189,000	12,400	<5 U	18,100	2,250,000	110	<5 U	3,260	<.5 U	<2 U	6,470	
	09-Nov-06	FD		190,000	12,400	<5 U	18,100	2,290,000	108	<5 U	3,480	<.5 U	<2 U	6,650	
	06-Dec-06	N		208,000	13,800	<5.0 U	17,300	2,410,000	108	<5 U	3,570	<.5 U	<2 U	6,620	
	04-Jan-07	N		245,000	22,000	<5 U	19,700	2,580,000	108	<5 U	3,590	<.5 U	<2 U	7,170	
PTI-1S	15-Mar-06	N	35-45	266,000	88,200	13.2	11,600	980,000	375	<5 U	1,730	<.5 U	<2 U	---	
	05-Apr-06	N		266,000	88,200	7.18	11,200	996,000	357	<5 U	1,760	<.5 U	<2 U	3,810	
	06-May-06	N		155,000	14,100	<5 U	30,900	992,000	602	<5 U	798	<2.5 U	<2 U	3,930	
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	3,040	
	18-Jul-06	N		---	---	---	---	---	---	---	---	---	---	3,770	
	07-Aug-06	N		---	---	---	---	---	---	---	---	---	---	4,080	
	07-Sep-06	N		---	---	---	---	---	---	---	---	---	---	3,940	
	03-Oct-06	N		---	---	---	---	---	---	---	---	---	---	3,830	
	07-Nov-06	N		---	---	---	---	---	---	---	---	---	---	4,120	
	05-Dec-06	N		---	---	---	---	---	---	500	<5 U	2,050	<.5 U	---	3,890
	02-Jan-07	N		---	---	---	---	---	---	---	---	---	---	---	3,740

Table 4
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January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
PTI-1M	15-Mar-06	N	60-70	223,000	33,200	<5 U	12,200	1,360,000	179	<5 U	1,910	<.5 U	<2 U	---
	04-Apr-06	N		226,000	37,700	<5 U	12,800	1,480,000	180	<5 U	2,050	<.5 U	<2 U	4,450
	06-May-06	N		130,000	17,700	26.5	20,400	1,320,000	383	<5 U	1,080	<.5 U	<2 U	4,450
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	4,480
	18-Jul-06	N		---	---	---	---	---	---	---	---	---	---	4,160
	07-Aug-06	N		---	---	---	---	---	---	---	---	---	---	4,190
	07-Sep-06	N		---	---	---	---	---	---	---	---	---	---	3,980
	03-Oct-06	N		---	---	---	---	---	---	---	---	---	---	3,860
	07-Nov-06	N		---	---	---	---	---	---	---	---	---	---	3,670
	05-Dec-06	N		---	---	---	---	---	225	<5 U	1,670	<.5 U	---	3,650
	02-Jan-07	N		---	---	---	---	---	---	---	---	---	---	3,490
PTI-1D	15-Mar-06	N	95-105	289,000	21,500	<5 U	23,600	2,470,000	134	<5 U	3,420	<.5 U	<2 U	---
	03-Apr-06	N		267,000	18,000	<5 U	21,700	2,600,000	99.7	<5 U	3,620	<.5 U	<2 U	8,080
	10-May-06	N		---	---	---	---	---	---	---	---	---	---	7,530
	18-Jul-06	N		---	---	---	---	---	---	---	---	---	---	6,730
	07-Aug-06	N		---	---	---	---	---	---	---	---	---	---	7,300
	05-Sep-06	N		---	---	---	---	---	---	---	---	---	---	6,790
	03-Oct-06	N		---	---	---	---	---	---	---	---	---	---	7,310
	07-Nov-06	N		---	---	---	---	---	---	---	---	---	---	4,840
	05-Dec-06	N		---	---	---	---	---	72.5	<5 U	4,580	<.5 U	---	8,710
	02-Jan-07	N		---	---	---	---	---	---	---	---	---	---	7,200
PE-1	17-Mar-06	N		261,000	37,400	<5 U	19,700	2,200,000	277	<5 U	2,990	<.5 U	<2 U	---
	05-Apr-06	N		263,000	36,400	<5 U	19,600	2,090,000	256	<5 U	3,110	<.5 U	<2 U	6,580
	01-Jun-06	N		---	---	---	---	---	---	---	---	---	<2 U	---
	17-Jul-06	N		252,000	35,200	<5 U	18,300	2,020,000	267	<5 U	2,710	<.5 U	<2 U	5,910
	07-Aug-06	N		230,000	34,800	<5 U	18,100	1,970,000	255	<5 U	2,570	<.5 U	<2 U	5,910
	07-Aug-06	FD		235,000	35,600	<5 U	17,900	2,000,000	274	<5 U	2,550	<.5 U	<2 U	5,960
	06-Sep-06	N		227,000	34,700	<5 U	18,400	1,930,000	268	<5 U	2,670	<.5 U	<2 U	5,370
	03-Oct-06	N		234,000	32,800	<50 U	18,400	1,860,000	268	<5 U	2,630	<0.5 U	<2 U	5,710
	03-Oct-06	FD		242,000	34,000	<50 U	18,900	1,920,000	263	<5 U	2,750	<0.5 U	<2 U	5,580
	07-Nov-06	N		204,000	30,300	<5 U	16,200	1,790,000	263	<5 U	2,750	<.5 U	<2 U	3,180
06-Dec-06	N		225,000	35,200	<5.0 U	16,200	1,860,000	275	<5 U	2,400	<.5 U	<2 U	5,340	
02-Jan-07	N		211,000	32,800	<5 U	16,300	1,800,000	275	<5 U	2,430	<.5 U	<2 U	5,370	

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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
TW-2D	17-Mar-06	N		207,000	23,600	<5 U	13,200	1,240,000	110	<5 U	1,920	<.5 U	<2 U	---
	05-Apr-06	N		231,000	25,800	<5 U	14,700	1,400,000	112	<5 U	2,070	<.5 U	<2 U	4,390
	19-Jul-06	N		241,000	29,900	<5 U	15,000	1,460,000	119	<5 U	1,980	<.5 U	<2 U	4,580
	07-Aug-06	N		242,000	29,700	<5 U	14,600	1,450,000	102	<5 U	1,690	<.5 U	<2 U	3,900
	06-Sep-06	N		262,000	32,500	<5 U	16,400	1,580,000	122	<5 U	1,470	<.5 U	<2 U	4,420
	04-Oct-06	N		261,000	27,600	<5 U	16,100	1,720,000	115	<5 U	2,480	<.5 U	<2 U	4,900
	08-Nov-06	N		243,000	30,000	<5 U	14,300	1,500,000	110	<5 U	2,190	<.5 U	<2 U	3,850
	06-Dec-06	N		258,000	41,300	<5.0 U	11,700	954,000	110	<5 U	1,950	<.5 U	<2 U	290
	02-Jan-07	N		248,000	33,300	<5 U	14,100	1,450,000	97.5	<5 U	1,370	<.5 U	<2 U	3,480
TW-3D	17-Mar-06	N		254,000	27,700	<5 U	15,900	1,540,000	97.3	<5 U	2,190	<.5 U	<2 U	---
	05-Apr-06	N		283,000	28,800	<5 U	17,900	1,740,000	89.9	<5 U	2,580	<.5 U	<2 U	5,580
	19-Jul-06	N		265,000	29,100	<5 U	17,200	1,720,000	98.9	<5 U	2,610	<.5 U	<2 U	5,410
	07-Aug-06	N		272,000	28,800	<5 U	16,900	1,790,000	96.5	<5 U	2,480	<.5 U	<2 U	5,490
	06-Sep-06	N		274,000	29,400	<5 U	18,400	1,800,000	102	<5 U	2,670	<1 U	<2 U	5,240
	04-Oct-06	N		272,000	26,800	<5 U	18,100	1,700,000	175	<5 U	2,430	<1 U	<2 U	4,880
	08-Nov-06	N		257,000	26,900	<5 U	16,500	1,690,000	92.5	<5 U	2,790	<.5 U	<2 U	5,280
	06-Dec-06	N		277,000	30,000	<5 U	16,400	1,760,000	97.5	<5 U	2,470	<.5 U	<2 U	5,220
	02-Jan-07	N		269,000	29,700	<5 U	16,800	1,690,000	95.0	<5 U	2,580	<.5 U	<2 U	5,210
INJ_SOLUTION_01	04-May-06	N		---	---	---	---	---	---	---	---	---	---	2,240
INJ_SOLUTION_02	05-May-06	N		---	---	---	---	---	---	---	---	---	---	4,650
INJ_SOLUTION_03	06-May-06	N		---	---	---	---	---	---	---	---	---	---	4,460
	11-Aug-06	N		---	---	---	---	---	---	---	---	---	---	<10 U
	07-Sep-06	N		---	---	---	---	---	---	---	---	---	---	4,950

Table 4
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Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
Field Blank	17-Mar-06	FB		<1000 U	<1000 U	<5 U	<1000 U	2,040	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
	04-Apr-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	<10 U
	09-May-06	EB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
	13-May-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
	24-May-06	FB		---	---	---	---	---	---	---	---	---	<2 U	---
	01-Jun-06	FB		---	---	---	---	---	---	---	---	---	<2 U	---
	05-Jun-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
	17-Jul-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	10
	07-Aug-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	25
	06-Sep-06	FB		2,930	<1000 U	<5 U	<1000 U	7,980	8.28	<5 U	10.4	<.5 U	<2 U	15
	03-Oct-06	FB		<1000 U	<1000 U	<5 U	<1000 U	2,440	<5 U	<5 U	<0.5 U	<0.5 U	<2 U	30
	07-Nov-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
	05-Dec-06	FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2.0	25.0
	03-Jan-07	FB		<1000 U	<1000 U	<5 U	<1000 U	2,340	<5 U	<5 U	0.789	<.5 U	<2 U	50.0
	Equipment Blank	17-Mar-06	EB		<1000 U	<1000 U	<5 U	<1000 U	5,360	<5 U	<5 U	<.5 U	<.5 U	<2 U
07-Apr-06		EB		<1000 U	<1000 U	<5 U	<1000 U	1,500	<5 U	<5 U	<.5 U	<.5 U	<2 U	<10 U
09-May-06		FB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
13-May-06		EB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
24-May-06		EB		---	---	---	---	---	---	---	---	---	<2 U	---
01-Jun-06		EB		---	---	---	---	---	---	---	---	---	<2 U	---
05-Jun-06		EB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
17-Jul-06		EB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	15
07-Aug-06		EB		3,700	1,100	<5 U	<1000 U	1,370	12.9	<5 U	0.832	<.5 U	<2 U	20
06-Sep-06		EB		2,860	<1000 U	<5 U	<1000 U	7,800	7.79	<5 U	9.62	<.5 U	<2 U	<10 U
04-Oct-06		EB		9,340	<1000 U	<5 U	<1000 U	5,440	<5 U	<5 U	14.9	<.5 U	<2 U	35
07-Nov-06		EB		<1000 U	<1000 U	<5 U	<1000 U	<1000 U	<5 U	<5 U	<.5 U	<.5 U	<2 U	---
06-Dec-06		EB		<1000 U	<1000 U	<5 U	<1000 U	38,800	75	<5 U	5.84	<.5 U	<2 U	120
03-Jan-07		EB		<1000 U	<1000 U	<5 U	<1000 U	1,860	<5 U	<5 U	0.772	<.5 U	<2 U	35.0

Notes on following page.

Table 4
Summary of Secondary Analytical Parameters

PG&E Topock
 Needles, California

January 2007 Monitoring Report for the Floodplain Reductive Zone In-Situ Pilot Test

Location Name	Sample Date	Sample Type	Screen Interval (ft bgs)	Dissolved Calcium (µg/L)	Dissolved Magnesium (µg/L)	Dissolved Arsenic (µg/L)	Dissolved Potassium (µg/L)	Dissolved Sodium (µg/L)	Alkalinity bicarbonate (mg/L)	Alkalinity carbonate (mg/L)	Chloride-cl (mg/L)	Orthophosphate-p (mg/L)	Sulfide (mg/L)	Total Dissolved Solids (mg/L)
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Notes:

Most recent data indicated in **BOLD**

- ft bgs Feet below ground
- mg/L Milligrams per liter
- µg/L Micrograms per liter
- < Symbol indicates not detected at or above laboratory detection limit as noted.
- EB Equipment blank
- FB Field blank
- FD Field duplicate
- N Normal
- NA Not applicable
- Dissolved Samples were field filtered with a 0.45 micron filter.
- Not analyzed/not sampled

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-1S	PT-01S-20070103	Cody Montoya	1/3/2007	11:30 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/4/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/9/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/3/2007	Stanley Hsieh

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-1M	PT-01M-20070103	Cody Montoya	1/3/2007	10:32 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/3/2007	Stanley Hsieh

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-1M	PT-01M-20070103D	Cody Montoya	1/3/2007	EMXT	E160.1		Total Dissolved Solids	1/9/2007	Tina Hoang
				EMXT	E300.0		Bromide	1/4/2007	Cherry Dam
				EMXT	E300.0		Chloride-cl	1/6/2007	Cherry Dam
				EMXT	E300.0		Iodide	1/4/2007	Cherry Dam
				EMXT	E300.0		Nitrate-n	1/4/2007	Cherry Dam
				EMXT	E300.0		Nitrite-n	1/4/2007	Cherry Dam
				EMXT	E300.0		Orthophosphate-p	1/4/2007	Cherry Dam
				EMXT	E300.0		Sulfate	1/6/2007	Cherry Dam
				EMXT	E310.1		Alkalinity	1/9/2007	Jennie Jang
				EMXT	E310.1		Alkalinity bicarbonate	1/9/2007	Jennie Jang
				EMXT	E310.1		Alkalinity carbonate	1/9/2007	Jennie Jang
				EMXT	E376.1		Sulfide	1/5/2007	Kam Ng
				EMXT	E415.1		Total Organic Carbon	1/8/2007	Michael Amador
				Ozark	OHM In-House Method		Fluorescein	1/5/2007	Margaret Ridinger
				EMXT	SW6010B		Iron-Total	1/5/2007	Mary Jane Mendoza
				EMXT	SW6020A		Arsenic	1/12/2007	Jon Elliot
				EMXT	SW6020A		Calcium	1/12/2007	Jon Elliot
				EMXT	SW6020A		Chromium	1/12/2007	Jon Elliot
				EMXT	SW6020A		Iron-Dissolved	1/12/2007	Jon Elliot
				EMXT	SW6020A		Magnesium	1/12/2007	Jon Elliot
				EMXT	SW6020A		Manganese	1/12/2007	Jon Elliot
				EMXT	SW6020A		Potassium	1/12/2007	Jon Elliot
				EMXT	SW6020A		Sodium	1/9/2007	Jon Elliot
				Truesdail	SW7199		Chromium, hexavalent	1/4/2007	Stanley Hsieh

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-1D	PT-01D-20070103	Cody Montoya	1/3/2007	09:50 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/9/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/3/2007	Stanley Hsieh

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Summary of Monitoring Information
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January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-1D	PT-01D-20070115	David Magallanes	1/15/2007	02:48 PM	EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger
					EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/4/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/9/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-2M	PT-02M-20070103	David Magallanes	1/3/2007	11:00 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician					
PT-2D	PT-02D-20070103	David Magallanes	1/3/2007	10:15 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang					
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam					
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam					
					EMXT	E300.0	Iodide	1/11/2007						
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam					
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam					
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam					
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam					
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang					
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang					
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang					
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng					
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador					
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift					
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger					
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza					
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Manganese	1/9/2007	Jon Elliot					
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot					
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh					
					PT-2D	PT-02D-20070115	David Magallanes	1/15/2007	03:34 PM	EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
										EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift										
Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger										

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Summary of Monitoring Information
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January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-3S	PT-03S-20070103	David Magallanes	1/3/2007	12:50 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/4/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-3M	PT-03M-20070103	David Magallanes	1/3/2007	01:46 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician					
PT-3D	PT-03D-20070103	David Magallanes	1/3/2007	02:45 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang					
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam					
					EMXT	E300.0	Chloride-cl	1/8/2007	Cherry Dam					
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam					
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam					
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam					
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam					
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam					
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang					
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang					
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang					
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng					
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador					
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift					
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger					
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza					
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Chromium	1/9/2007	Jon Elliot					
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot					
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot					
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh					
					PT-3D	PT-03D-20070115	David Magallanes	1/15/2007	12:30 PM	EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
										EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift										
Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger										

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-4S	PT-04S-20070103	Cody Montoya	1/3/2007	02:24 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/8/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-4M	PT-04M-20070103	Cody Montoya	1/3/2007	01:41 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-4D	PT-04D-20070103	Cody Montoya	1/3/2007	12:39 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/6/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/6/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/3/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/12/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-5S	PT-05S-20070104	Cody Montoya	1/4/2007	08:59 AM	EMXT	E160.1	Total Dissolved Solids	1/11/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/5/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/9/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/11/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/5/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/9/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/9/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/4/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/11/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/8/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/11/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/10/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/11/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/11/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/10/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Faisal Raihan

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-5M	PT-05M-20070104	Cody Montoya	1/4/2007	09:44 AM	EMXT	E160.1	Total Dissolved Solids	1/11/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/5/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/9/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/11/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/5/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/9/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/9/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/4/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/11/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/8/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/11/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/11/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/11/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/10/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Faisal Raihan

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-5D	PT-05D-20070104	Cody Montoya	1/4/2007	10:51 AM	EMXT	E160.1	Total Dissolved Solids	1/11/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/5/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/9/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/11/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/5/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/9/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/9/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/4/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/11/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/8/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/11/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/10/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/10/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/11/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/11/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/10/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Faisal Raihan

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-6S	PT-06S-20070104	David Magallanes	1/4/2007	09:00 AM	EMXT	E160.1	Total Dissolved Solids	1/11/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/5/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/9/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/11/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/5/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/5/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/9/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/4/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/11/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/8/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/11/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/11/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/11/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/11/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Faisal Raihan

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-6M	PT-06M-20070104	David Magallanes	1/4/2007	09:47 AM	EMXT	E160.1	Total Dissolved Solids	1/11/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/5/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/9/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/11/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/5/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/9/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/9/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/4/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/11/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/8/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/11/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/11/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/11/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/10/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Faisal Raihan

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Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PT-6D	PT-06D-20070104	David Magallanes	1/4/2007	10:52 AM	EMXT	E160.1	Total Dissolved Solids	1/11/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/5/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/9/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/11/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/5/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/5/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/9/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/9/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/4/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/11/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/8/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/11/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/11/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/11/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/11/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/10/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Faisal Raihan
					PTI-1S	PTI-01S-20070102	Cody Montoya	1/2/2007	03:40 PM
EMXT	E300.0	Bromide	1/3/2007	Cherry Dam					
EMXT	E300.0	Iodide	1/3/2007	Cherry Dam					
EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador					
FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/2/2007	Gary Clift					
Ozark	OHM In-House Method	Fluorescein	1/4/2007	Margaret Ridinger					
Truesdail	SW7199	Chromium, hexavalent	1/2/2007	Faisal Raihan					

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PTI-1M	PTI-01M-20070102	Cody Montoya	1/2/2007	01:44 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/3/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/3/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/2/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/4/2007	Margaret Ridinger
					Truesdail	SW7199	Chromium, hexavalent	1/2/2007	Faisal Raihan
PTI-1D	PTI-01D-20070102	Cody Montoya	1/2/2007	12:45 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/3/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/3/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/2/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/4/2007	Margaret Ridinger
					Truesdail	SW7199	Chromium, hexavalent	1/2/2007	Faisal Raihan
PTI-1D	PTI-01D-20070115	David Magallanes	1/15/2007	11:55 AM	EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger

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Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
PE-1	PE-01-20070102	Gary Clift	1/2/2007	11:00 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/3/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/3/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/3/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/3/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/3/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/3/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/4/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/2/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/4/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/2/2007	Faisal Raihan

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Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
TW-2D	TW-02D-20070102	Gary Clift	1/2/2007	12:00 PM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/3/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/3/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/3/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/3/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/3/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/3/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/3/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/2/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/4/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/2/2007	Faisal Raihan
					TW-2D	TW-02D-20070115	Gary Clift	1/15/2007	02:45 PM
EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador					
FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift					
TW-2D	TW-02D-20070115D		1/15/2007		Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger
					EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
					Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
TW-3D	TW-03D-20070102	Gary Clift	1/2/2007	11:50 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/3/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/3/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/3/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/3/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/3/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/3/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/3/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/2/2007	Gary Clift
					Ozark	OHM In-House Method	Fluorescein	1/4/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/9/2007	Jon Elliot
					Truesdail	SW7199	Chromium, hexavalent	1/2/2007	Faisal Raihan
					TW-3D	TW-03D-20070115	Gary Clift	1/15/2007	02:40 PM
EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador					
FieldAnalysis	IM-3	Chromium, hexavalent-Field	1/15/2007	Gary Clift					
Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger					

Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
Field Blank	FB-20070103		1/3/2007	09:15 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/4/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/4/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/12/2007	Jon Elliot
		Truesdail			SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh	
Field Blank	FB-20070115		1/15/2007	10:00 AM	EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
					Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger

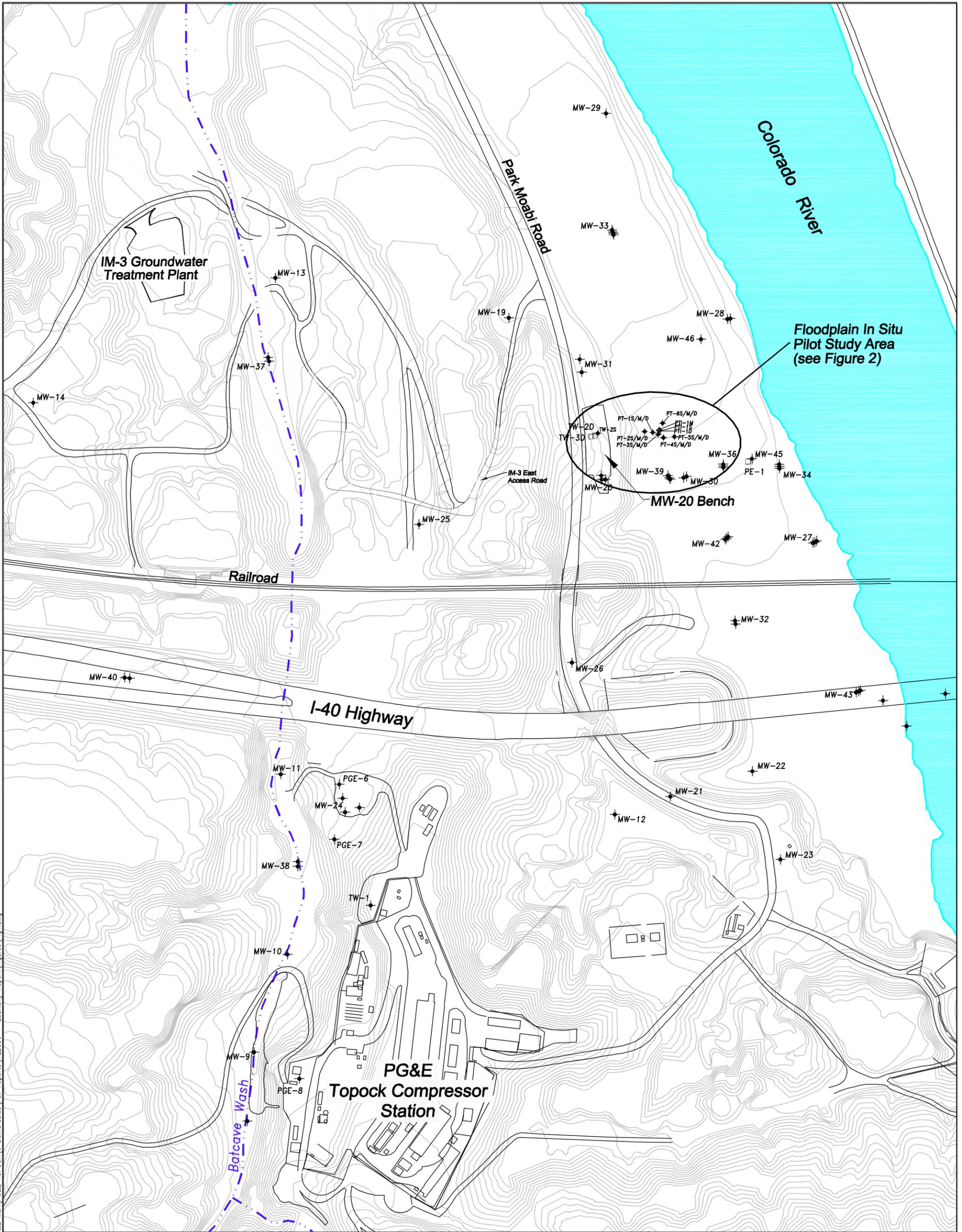
Table 5
Summary of Monitoring Information
 PG&E Topock
 Needles, California

January 2007 Monitoring Reports for the Floodplain Reductive Zone In Situ Pilot Test

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
Equipment Blank	EB-20070103		1/3/2007	09:00 AM	EMXT	E160.1	Total Dissolved Solids	1/9/2007	Tina Hoang
					EMXT	E300.0	Bromide	1/4/2007	Cherry Dam
					EMXT	E300.0	Chloride-cl	1/4/2007	Cherry Dam
					EMXT	E300.0	Iodide	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrate-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Nitrite-n	1/4/2007	Cherry Dam
					EMXT	E300.0	Orthophosphate-p	1/4/2007	Cherry Dam
					EMXT	E300.0	Sulfate	1/4/2007	Cherry Dam
					EMXT	E310.1	Alkalinity	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity bicarbonate	1/9/2007	Jennie Jang
					EMXT	E310.1	Alkalinity carbonate	1/9/2007	Jennie Jang
					EMXT	E376.1	Sulfide	1/5/2007	Kam Ng
					EMXT	E415.1	Total Organic Carbon	1/8/2007	Michael Amador
					Ozark	OHM In-House Method	Fluorescein	1/5/2007	Margaret Ridinger
					EMXT	SW6010B	Iron-Total	1/5/2007	Mary Jane Mendoza
					EMXT	SW6020A	Arsenic	1/12/2007	Jon Elliot
					EMXT	SW6020A	Calcium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Chromium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Iron-Dissolved	1/12/2007	Jon Elliot
					EMXT	SW6020A	Magnesium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Manganese	1/12/2007	Jon Elliot
					EMXT	SW6020A	Potassium	1/12/2007	Jon Elliot
					EMXT	SW6020A	Sodium	1/12/2007	Jon Elliot
Equipment Blank	EB-20070115		1/15/2007	09:45 AM	Truesdail	SW7199	Chromium, hexavalent	1/4/2007	Stanley Hsieh
					EMXT	E300.0	Iodide	1/17/2007	Cherry Dam
					EMXT	E415.1	Total Organic Carbon	1/16/2007	Michael Amador
					Ozark	OHM In-House Method	Fluorescein	1/18/2007	Margaret Ridinger

Notes:

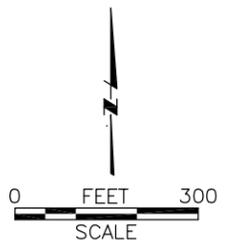
- N Normal
- EB Equipment Blank
- FB Field Blank
- FD Field Duplicate
- EMAX EMAX Laboratories, Inc
- Severn Trent Severn Trent Laboratories, Inc.
- Ozark Ozark Underground Laboratory
- Truesdail Truesdail Laboratory



Source: MWH Draft In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Upland Plume Treatment, 2006.

Legend

- ✦ Monitoring Well Locations
- Extraction Well Locations
- ◇ Injection Well Locations



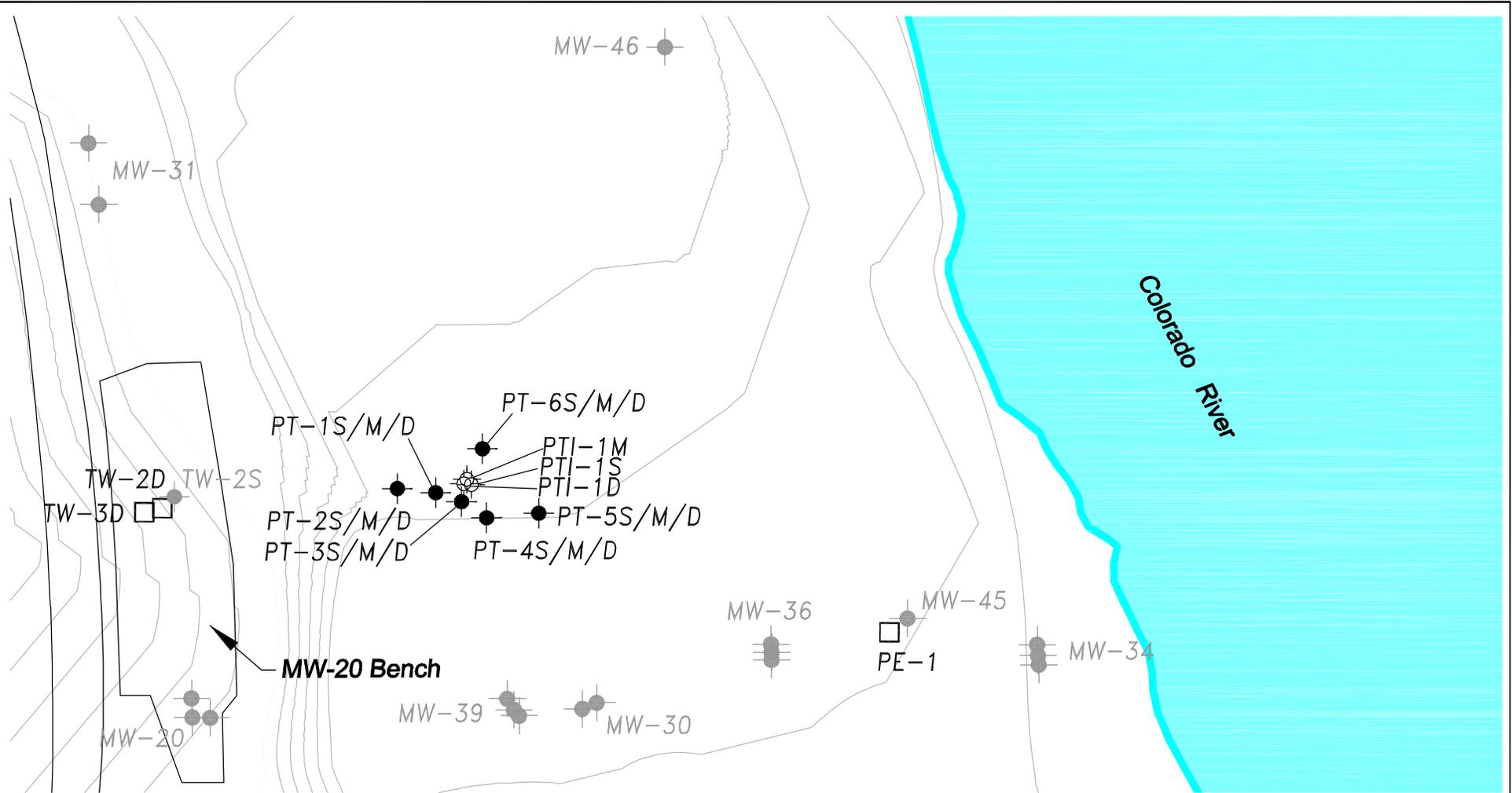
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 Acad Version : R16.1s (LMS Tech)
 User Name : mchiu
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Project Director N. MORGAN-BUTCHER	Area Manager J. PETERS
Task Manager H. VOSCOTT	Technical Review
Drawing Date 05 APR 06	Drawn By M. CHIU

ARCADIS
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 1050 Marina Way South
 Richmond, CA 94804
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 www.arcadis-us.com

SITE PLAN
PG&E TOPOCK FACILITY
NEEDLES, CALIFORNIA

Project Number RC000689.0001
Figure 1



Source: MWH Draft In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Upland Plume Treatment, 2006.

Legend

- Monitoring Well Locations
- Extraction Well Locations
- Injection Well Locations



Project Director N. MORGAN-BUTCHER	Area Manager J. PETERS
Task Manager H. VOSCOTT	Technical Review
Drawing Date 05 APR 06	Drawn By M. CHIU



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**SAMPLE LOCATION MAP
 PG&E TOPOCK FACILITY
 NEEDLES, CALIFORNIA**

Project Number RC000689.0001
Figure 2

Appendix A

Calibration Logs for Field
Monitoring Instruments

Appendix B

Groundwater Sampling Logs

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Appendix C

Analytical Reports and
Chain-of-Custody Documentation
(on Compact Disc)

ARCADIS

Appendix D

Half-life Calculation Technical
Memorandum



ARCADIS U.S., Inc.
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Fax 720.344.3535

MEMO

To:
File

Copies:
Jessica Ely
Kent Glover
Alison Jones
Jim Harrington

From:
Craig Divine

Date:
February 15, 2007

ARCADIS Project No.:
RC000689.0001

Subject:
Estimation of lactate half-life values, Topock Site, PG&E

As requested by California Department of Toxic Substances Control (DTSC) in a letter sent to PG&E on January 12, 2007, this memorandum has been prepared to document estimates of biodegradation half-life values for lactate injected at injection well PTI-1 for the floodplain pilot test conducted at the Topock site (see attached Figure 1). This analysis was performed to evaluate the injection of solutions with increased lactate concentrations, and estimate resulting lactate concentrations at extraction wells. The evaluation concluded that increasing lactate concentrations to enhance the duration and extent of the reducing zone around the injection wells will not impact the IM-3 treatment system based on biodegradation rates and groundwater velocities.

Biodegradation Half-Life of Lactate

To date, the following four injection events have been completed:

- 50 pounds of lactate in 6,000 gallons of solution in all three zones with all three tracers (fluorescein, bromide, iodide)
- 100 pounds of lactate in 6,000 gallons of solution in just the deep zone with fluorescein tracer.

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- 100 pounds of lactate in 6,000 gallons of solution in just the deep zone with iodide tracer.
- 200 pounds of lactate in 6,000 gallons of solution in just the deep zone with fluorescein tracer.

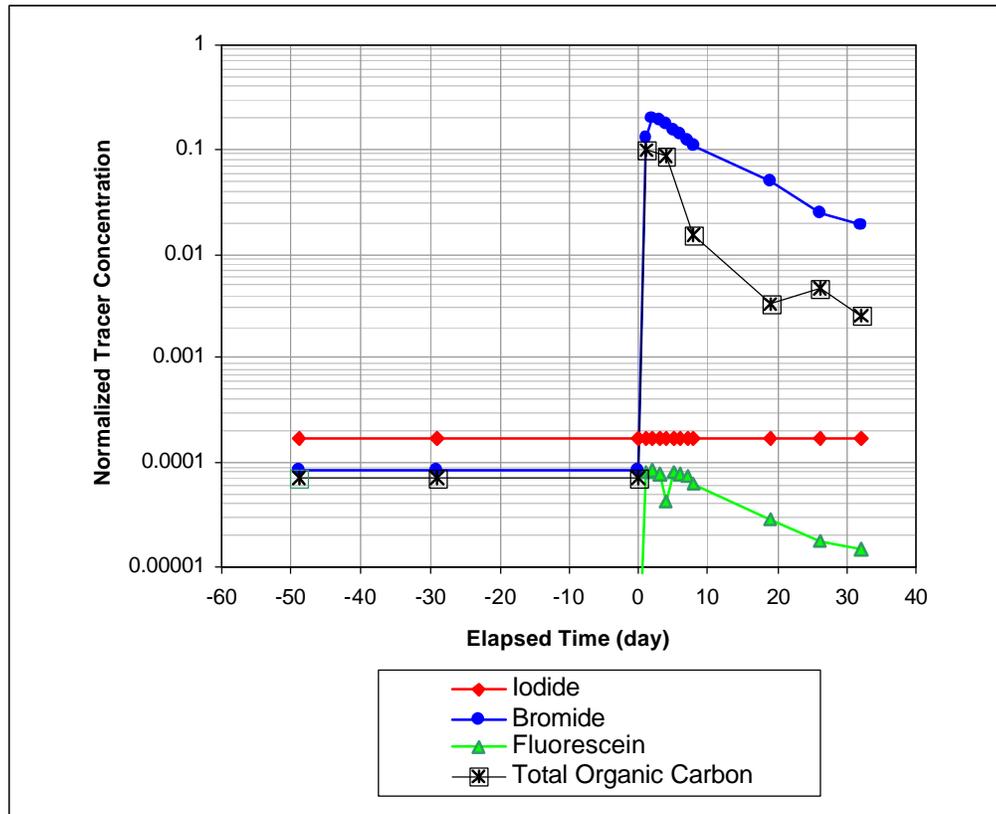
The following two additional injection events are planned for the near future:

- 1,500 pounds of lactate in 18,000 gallons of solution in the deep zone with an iodide tracer.
- 1,500 pounds of lactate in 18,000 gallons of solution in the deep zone with a fluorescein tracer.

The half-life values for lactate were determined by comparing the observed temporal changes in total organic carbon (TOC) concentrations measured at groundwater monitoring wells relative to the observed temporal changes in tracer concentrations.

As shown in the example lactate and tracer breakthrough curve (BTC) at well PT-1M shown below (Figure 2), the decline in lactate and tracer concentrations following the BTC peak (i.e., the “tail” region) follows an exponential decline behavior. Note that for this injection, the fluorescein and iodide tracers were injected in the shallow and deep intervals respectively, while bromide was injected in the middle interval.

Figure 2: Tracer and TOC breakthrough at well PT-1M after the first injection event.



The effects of advection, dispersion, diffusion, and sorption for both lactate (as TOC) and tracer are assumed to be identical. Therefore, the sum effect of these processes on the “tail” side of the tracer BTC can be described empirically by fitting the bulk decay constant (λ_{bulk}) of an exponential function. Assuming that the biodegradation rate of lactate is not concentration-dependent, which is supported by the results presented below, the difference in observed λ_{bulk} values for a tracer and TOC can be defined as the biodegradation rate (λ_{bio}). The biodegradation rate is related to the biodegradation half-life (T_{bio}) by:

$$T_{bio} = \ln(2)/\lambda_{bio} \tag{1}$$

This analysis is demonstrated for well PT-1M for the first injection event in Figure 3 and Table 1 below.

Figure 3: Determination of λ_{bulk} for tracers and TOC at well PT-1M after the first injection event.

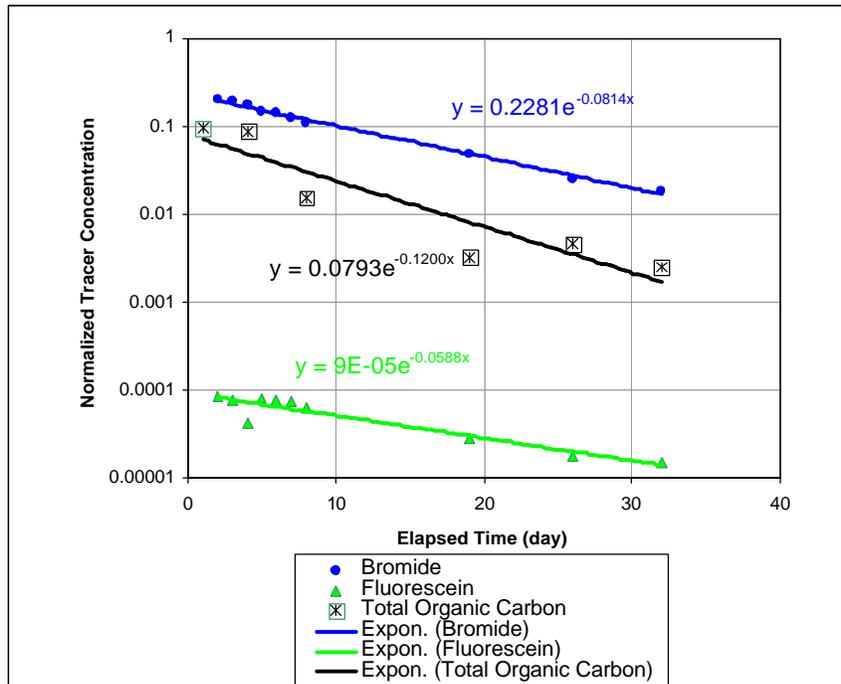


Table 1: Calculated λ_{bulk} , λ_{bio} , and T_{bio} values for well PT-1M for the first injection event.

Tracer	λ_{bulk} (per day)	λ_{bio} (per day)	T_{bio} (days)
Bromide	0.0814	0.0386	18
Fluorescein	0.0588	0.0612	11
Average (Br, Fl)	0.0701	0.0499	14
TOC	0.1200		

As seen in Figure 3, the tracer-signal (as measured by normalized tracer concentration, shown on the vertical axis) for bromide is much stronger than for fluorescein. This is because the bromide was injected into the middle zone (PTI-1M) which best corresponds to the screen interval at PT-1M. Although the observed tracer decline for both fluorescein and bromide can be used to estimate λ_{bulk} , the value obtained from the bromide data is considered more reliable.

Figure 4 and Table 2 present λ_{bio} values estimated from BTC data at all wells sampled during the first injection event. Estimated λ_{bio} values were differentiated into two groups primarily based on the strength of the tracer signal. As seen in the figure, there is no apparent correlation between λ_{bio} and distance from the injection well or observed peak TOC concentration, supporting the assumption that λ_{bio} is not concentration-dependent. Using the estimates from the stronger tracer signal group, the average lactate

T_{bio} for the first injection event is 17 days. Giving equal weight to all T_{bio} estimates yields an average T_{bio} value of 16 days

Figure 4: Estimated lactate half-life values versus distance from the injection well (left) and observed peak TOC concentration (right) for the first injection event.

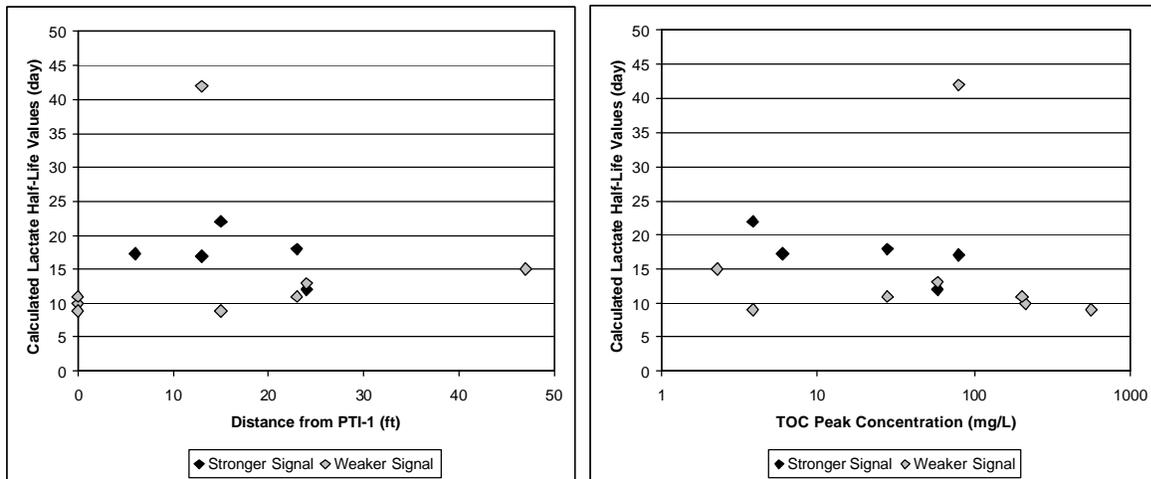
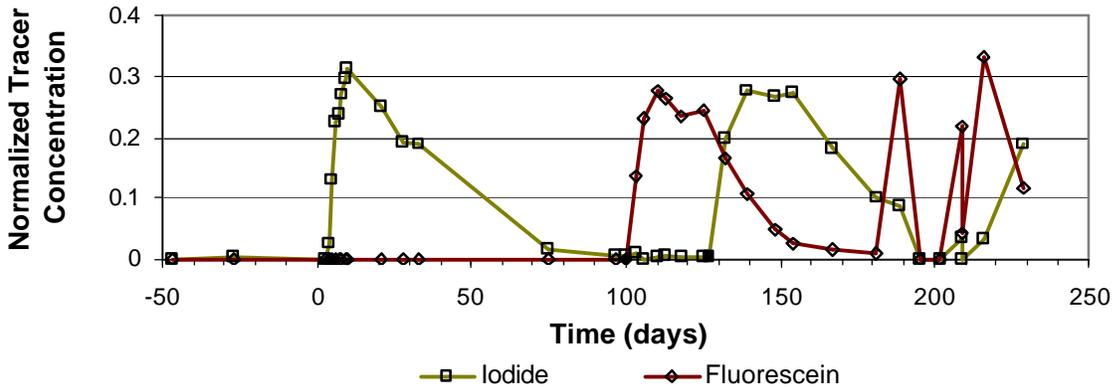


Table 2: Summary of estimated lactate half-life values for the first injection event

Well	Tracer	Distance from Injection Well (ft)	T_{bio} (day)
<i>Higher Reliability</i>			
PT-1M	Bromide	23	18
PT-1D	Iodide	24	12
PT-3M	Bromide	15	22
PT-3D	Iodide	13	17
AVERAGE			17
RELATIVE STANDARD DEVIATION			24%
<i>Lower Reliability</i>			
PT-1M	Fluorescein	23	11
PT-1D	Bromide	24	13
PT-2M	Bromide	47	15
PT-3M	Fluorescein	15	9
PT-3D	Bromide	13	42
PTI-1M	Bromide	0	10
PTI-1S	Bromide	0	9
PTI-1D	Iodide	0	11
AVERAGE			15
RELATIVE STANDARD DEVIATION			74%
ALL DATA		AVERAGE	16
		RELATIVE STANDARD DEVIATION	58%

For the second, third, and fourth injection events, lactate and tracer were only injected into the deep zone, reducing the number of wells that are available to estimate T_{bio} . Tracer and TOC BTCs from the first, second, third, and fourth injection at well PT-1D are shown in Figure 5 below.

Figure 5: Tracer and TOC BTCs from the first, second, third, and fourth injections at well PT-1D



As can be qualitatively observed above, the TOC peak breakthrough concentration is lower for the second and third injection events, even though twice as much lactate was injected in these injection events (100 pounds for the second and third events vs. 50 pounds for the first event). This observation suggests that T_{bio} has decreased, which is anticipated and frequently observed when organic carbon is injected into an aquifer due to the adaptation and growth of the microbial community.

Analysis of the BTC data from the first event supports the use of an exponential model for describing tracer and TOC tail behavior. Therefore, λ_{bulk} was estimated by:

$$I_{bulk} = - \frac{\ln\left(\frac{C_L}{C_P}\right)}{\Delta t} \tag{2}$$

where Δt is the elapsed time between the peak concentration (C_P) and single a lower measured concentration (C_L). The C_L value selected was generally the lowest measured value occurring after C_P that was above background. Table 3 summarizes the estimated λ_{bulk} , λ_{bio} , and T_{bio} values for second, third, and fourth injection events.

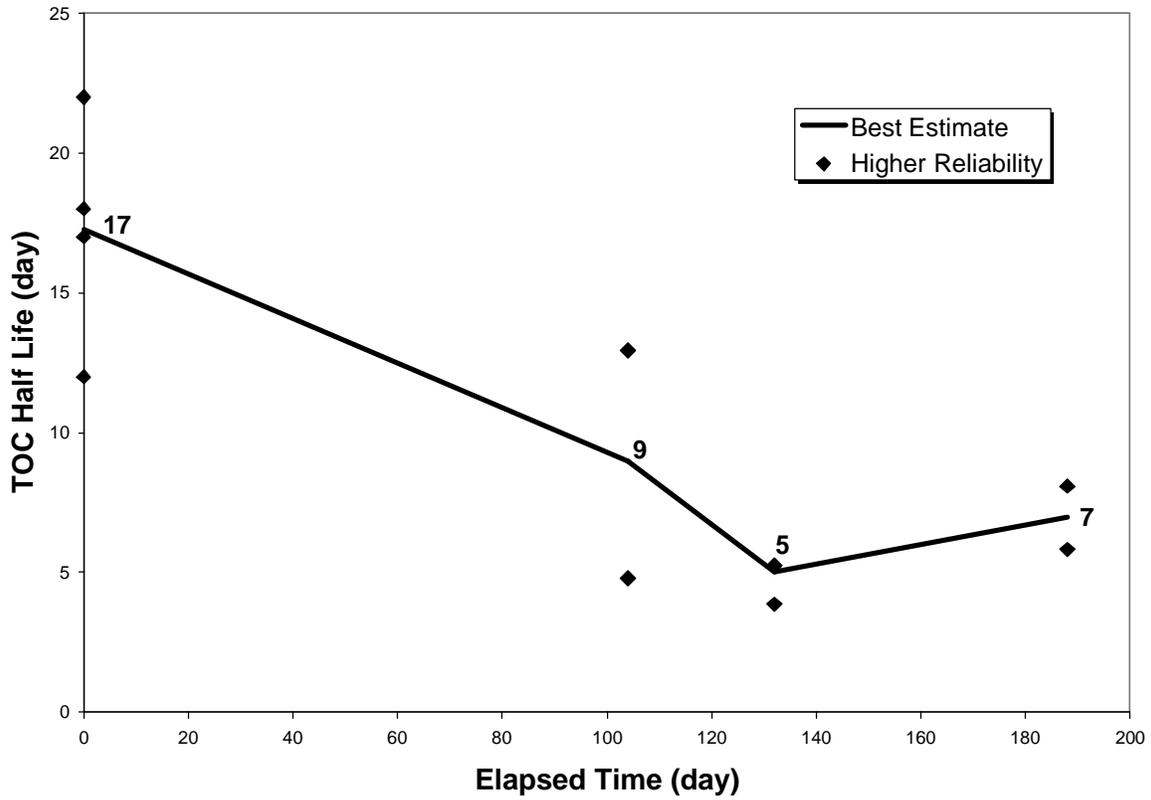
Table 3: Summary of l_{bulk} , l_{bio} , and T_{bio} values for second, third, and fourth injection events

Well	Dt TOC	C_L/C_P TOC	l_{bulk} TOC (per day)	Dt Tracer	C_L/C_P Tracer	l_{bulk} Tracer (per day)	l_{bio} (per day)	T_{bio} (day)
<i>Second Injection Event</i>								
PT-1D	15	0.31	0.08	41	0.100	0.06	0.02	31.4
PT-2D	5	0.58	0.11	16	0.294	0.08	0.03	20.9
PT-3D	15	0.04	0.21	15	0.091	0.16	0.05	12.9
PTI-1D	7	0.11	0.31	9	0.220	0.17	0.14	4.8
Best Estimate								8.9
<i>Third Injection Event</i>								
PT-1D	22	0.22	0.07	35	0.319	0.03	0.04	19.5
PT-2D	34	0.05	0.09	28	0.418	0.03	0.06	12.2
PT-3D	7	0.19	0.24	22	0.093	0.11	0.13	5.2
PTI-1D	7	0.10	0.33	16	0.092	0.15	0.18	3.9
Best Estimate								4.6
<i>Fourth Injection Event</i>								
PT-1D								
PT-2D								
PT-3D	13	0.09	0.18	20	0.147	0.10	0.09	8.1
PTI-1D	14	0.04	0.23	21	0.107	0.11	0.12	5.8
Best Estimate								7.0

Italicized values are considered less reliable due to data density and/or complicated BTC characteristics.

For the second injection event T_{bio} is on the order of 9 days and for third and fourth injection events, T_{bio} is on the order of 5 to 7 days. These values are notably lower than the for the first injection event (approximately 17 days). Although T_{bio} estimates obtained from the later injection events are considered to be somewhat less reliable than those obtained from the first injection due to more complicated BTCs, the change in the T_{bio} values over time is believed to be significant. This decrease in T_{bio} is likely caused by the growth and development of microbial communities. Figure 6 shows the observed change in T_{bio} over time.

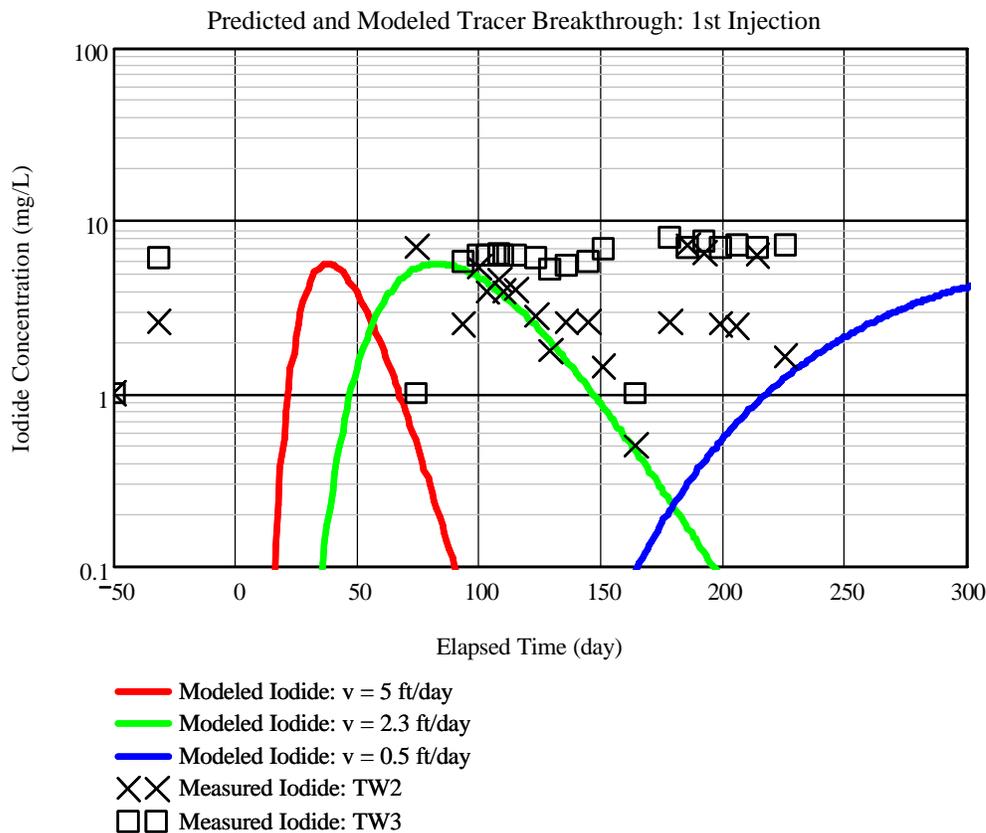
Figure 6: Change in the T_{bio} values over time



Prediction of TOC Transport

The transport of tracer and TOC from PTI-1 to an area near extraction wells TW-2 and TW-3 was evaluated using a two-dimensional analytical solution. Figure 7 below compares predicted iodide concentrations near extraction wells TW-2 and TW-3¹ for hypothetical average groundwater velocities of 5, 2.3, and 0.5 ft/day. These values are representative of expected conditions on the floodplain under pumping conditions. Results indicate that, within the range of groundwater velocities considered, tracer concentrations will not increase more than a few mg/L. This prediction is consistent with the measured iodide concentrations at extraction wells TW-2 and TW-3 which are not significantly greater than background concentrations (range of 2 to 6 parts per million).

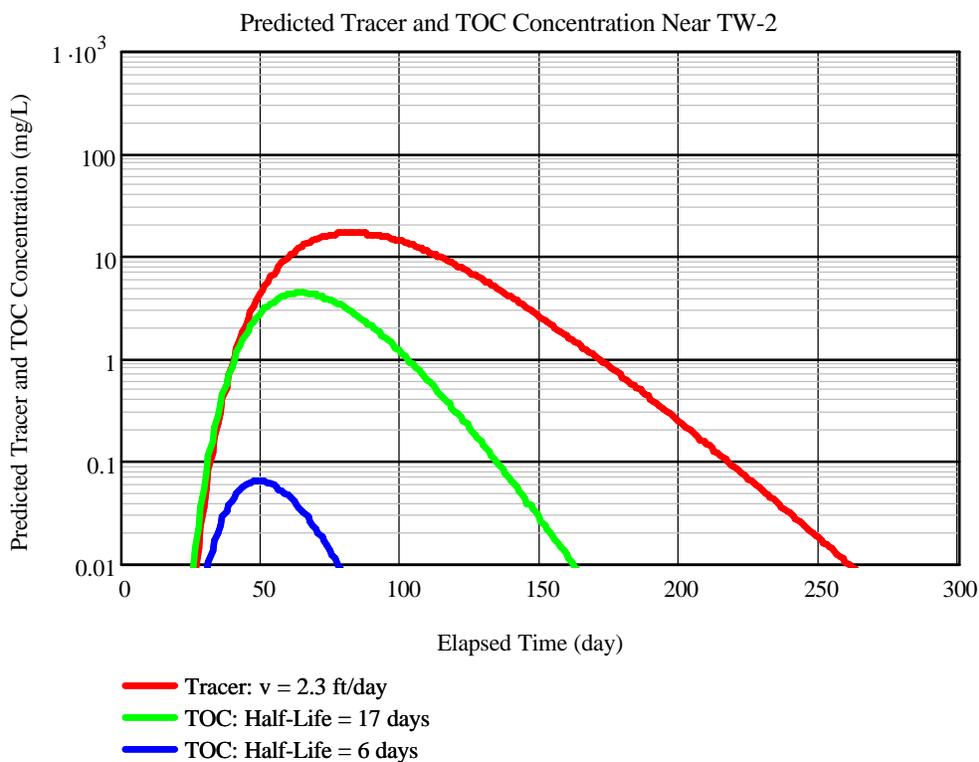
Figure 7: Measured and Modeled Tracer Breakthrough – First Injection



¹ Water from TW-2 and TW-3 is transported via pipeline to IM-3

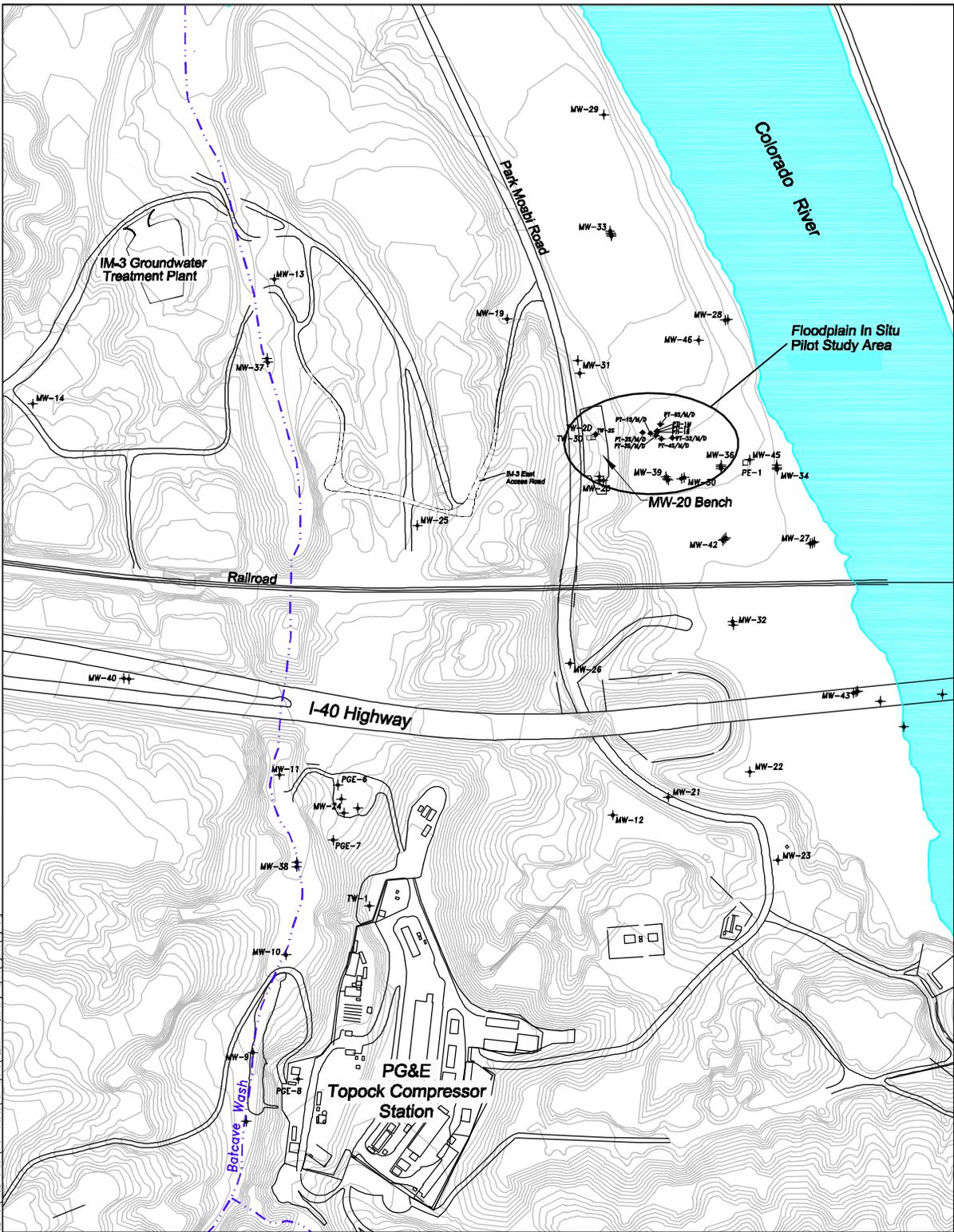
The model was used to predict TOC concentrations by incorporating a biodegradation term into the solution, using the TOC half-life values presented in this document. Figure 8 below compares the predicted tracer and TOC concentrations in the vicinity of extraction wells TW-2 and TW-3 resulting from a future injection event where the injected volume is 18,000 gallons, the injected tracer concentration is 2,000 mg/L, and the injected TOC concentration is 10,000 mg/L.

Figure 8: Predicted Tracer² and TOC Concentrations Near TW-2



This analysis clearly indicates that planned injections will not significantly increase TOC concentrations near TW-2 and TW-3; at most, increases are expected to be on the order of 10 mg/L. These concentrations are not anticipated to affect IM-3 operations.

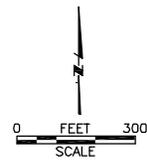
² With no degradation



Source: MWH Draft In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Upland Plume Treatment, 2006.

Legend

- + Monitoring Well Locations
- Extraction Well Locations
- ◇ Injection Well Locations



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