



**Pacific Gas and
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June 15, 2007

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

**Subject: Board Order R7-2006-0060
PG&E Topock Compressor Station, Needles, California
Interim Measure No. 3 Groundwater Treatment System
Discharge to Injection Wells
May 2007 Monitoring Report**

Dear Mr. Perdue:

Enclosed is the May 2007 Monitoring Report for the Pacific Gas and Electric Company (PG&E) Topock Compressor Station, Interim Measure (IM) No. 3 Groundwater Treatment System.

This report is being submitted in compliance with the Waste Discharge Requirements (WDRs) issued September 20, 2006 by the Colorado River Basin Regional Water Quality Control Board (Water Board) under Order R7-2006-0060. The WDRs apply to IM No. 3 Treatment System discharge by subsurface injection.

The groundwater monitoring results for wells OW-1S/M/D, OW-2S/M/D, OW-5S/M/D, CW-1M/D, CW-2M/D, CW-3M/D, and CW-4M/D will be submitted under separate cover, as part of the Compliance Monitoring Program.

If you have any questions regarding this report, please call me at (760) 326-5582.

Sincerely,

Curt Russell
Topock Onsite Project Manager

Enclosures:

May 2007 Monitoring Report for the IM No. 3 Groundwater Treatment System.

cc: Abdi Haile, Water Board
Cliff Raley, Water Board
Tom Vandenberg, State Water Resources Control Board
Aaron Yue, DTSC

May 2007 Monitoring Report for Interim Measure No. 3 Groundwater Treatment System

Waste Discharge Requirements Board Order No. R7-2006-0060 PG&E Topock Compressor Station Needles, California

Prepared for
**California Regional Water Quality Control Board
Colorado River Basin Region**

on behalf of
Pacific Gas and Electric Company

June 15, 2007

CH2MHILL
155 Grand Avenue, Suite 1000
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**May 2007 Monitoring Report
Interim Measure No. 3 Groundwater Treatment System
Waste Discharge Requirements Order No. R7-2006-0060
PG&E Topock Compressor Station
Needles, California**

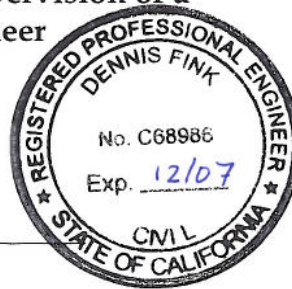
Prepared for
Pacific Gas and Electric Company

June 15, 2007

This report was prepared under the supervision of a
California Certified Professional Engineer



Dennis Fink, P.E. No. 68986
Project Engineer



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Acronyms and Abbreviations

EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
IM	Interim Measure
MRP	Monitoring and Reporting Program
PG&E	Pacific Gas and Electric Company
PST	Pacific Standard Time
STL	Severn Trent Laboratories, Inc.
TOC	total organic carbon
Truesdail	Truesdail Laboratories, Inc.
Water Board	California Regional Water Quality Control Board, Colorado River Basin Region
WDR	Waste Discharge Requirements

1.0 Introduction

Pacific Gas and Electric Company (PG&E) is implementing an Interim Measure (IM) to address chromium concentrations in groundwater at the Topock Compressor Station near Needles, California. The IM consists of groundwater extraction for hydraulic control of the plume boundaries in the Colorado River floodplain and management of extracted groundwater. The groundwater extraction, treatment, and injection systems collectively are referred to as IM No. 3. Figure 1 provides a map of the project area. All figures are located at the end of this report.

California Regional Water Quality Control Board, Colorado River Basin Region (Water Board) Board Order No. R7-2006-0060 authorizes PG&E to inject treated groundwater into injection wells located on San Bernardino County Assessor's Parcel No. 650-151-06. Order No. R7-2006-0060 was issued September 20, 2006, and is the successor to Order No. R7-2004-0103. The Monitoring and Reporting Program (MRP) under the order requires monthly monitoring reports to be submitted by the fifteenth day of the following month.

This report covers monitoring activities related to operation of the IM No. 3 groundwater treatment system during May 2007. The groundwater monitoring results for wells OW-1S/M/D, OW-2S/M/D, OW-5S/M/D, CW-1M/D, CW-2M/D, CW-3M/D, and CW-4M/D will be submitted under separate cover, as part of the Compliance Monitoring Program.

2.0 Sampling Station Locations

Table 1 lists the locations of sampling stations. (All tables and figures are located at the end of this report.) Sampling station locations are provided in the process and instrumentation diagrams: Figures TP-PR-10-10-04, TP-PR-10-10-08, and TP-PR-10-10-06.

3.0 Description of Activities

The treatment system was initially operated between July 25 and July 28, 2005 for the WDR-mandated startup phase. Discharge to the injection wells was initiated July 31, 2005 after successfully completing the startup phase in accordance with Order R7-2004-0103. Full-time operation of the treatment system commenced in August 2005.

Influent to the treatment facility, permitted by Order R7-2006-0060 (successor to Order R7-2004-0103), includes the following components:

- Groundwater from extraction wells TW-2S, TW-2D, TW-3D, and PE-1.
- Purged groundwater and water generated from rinsing field equipment during monitoring events.
- Groundwater generated during well installation, well development, and aquifer testing.

During May 2007, extraction wells TW-3D and PE-1 operated at a target pump rate of 135 gallons per minute (gpm) excluding periods of planned and unplanned downtime (planned and unplanned downtime is described in Section 4.0).

Operation of the groundwater treatment system results in the following three out-flow components:

- **Treated Effluent:** Treated water that is discharged to the injection well(s).
- **Reverse Osmosis Concentrate (brine):** Treatment byproduct that is transported and disposed of offsite at a permitted facility.
- **Sludge:** Treatment byproduct that is transported offsite for disposal at a permitted facility. Disposal occurs each time a sludge waste storage bin reaches capacity or within 90 days of the start date for accumulation in the storage container.

4.0 Groundwater Treatment System Flow Rates

The May 2007 treatment system monthly average flow rates (influent, effluent, and reverse osmosis concentrate) are presented in Table 2.

The system influent flow rate was measured by flow meters at groundwater extraction wells TW-2S, TW-2D, TW-3D, and PE-1 (Figure TP-RP-10-10-03). The treatment system effluent flow rate was measured by flow meters in the piping into injection well IW-2 and IW-3 (Figure TP-RP-10-10-11). The reverse osmosis concentrate flow rate was measured by a flow meter at the piping carrying water from reverse osmosis concentrate tank T-701 to the truck load-out station (Figure TP-RP-10-10-08).

The IM No. 3 facility treated approximately 6,051,672 gallons of extracted groundwater during May 2007. The IM No. 3 facility also treated approximately 9,730 gallons of water generated from the groundwater monitoring program, and approximately 4,800 gallons of water from Injection Well Development activities during May 2007. In addition, the IM No. 3 facility treated approximately 12,900 gallons of water during May that was produced during the IM No. 3 facility re-start activities, after the scheduled April 2007 maintenance shut-down.

Two containers of solids (approximately 12 cubic yards each) were removed from the IM No. 3 facility during May 2007, and taken to an offsite facility.

Periods of planned and unplanned extraction system down time (that together resulted in less than 1 percent downtime during May 2007) are summarized below. The times shown are in Pacific Standard Time (PST) to be consistent with other data collected (e.g., water level data) at the site.

- **May 1, 2007 (planned):** The extraction well system was temporarily offline from 2:12 pm until 2:27 pm to collect a sample from TW-2D. Extraction system downtime was 15 minutes.
- **May 2-3, 2007 (unplanned):** The extraction well system was temporarily offline from 11:39 pm until 12:10 am due to a temporary power imbalance from the City of Needles power system. Extraction system downtime was 31 minutes.
- **May 4, 2007 (unplanned):** The extraction well system was temporarily offline from 3:16 pm until 3:28 pm due to a power imbalance from the City of Needles power system. The extraction system was transferred to generator power. Extraction system downtime was 12 minutes.
- **May 5, 2007 (unplanned):** The extraction well system was temporarily offline from 8:02 am until 8:12 am to monitor incoming City of Needles power. The extraction system was returned to generator power after the downtime. Extraction system downtime was 10 minutes.

- **May 7, 2007 (unplanned):** The extraction well system was temporarily offline from 1:03 am until 1:15 am to return facility operations to City of Needles power. Extraction system downtime was 12 minutes.
- **May 16, 2007 (planned):** The extraction well system was temporarily offline from 1:11 pm until 1:17 pm while changing microfilter module operation. Extraction system downtime was 6 minutes.
- **May 22-23, 2007 (unplanned):** The extraction well system was temporarily offline from 11:47 pm until 12:02 am to clean a flow switch (FSL-201). Extraction system downtime was 15 minutes.

5.0 Sampling and Analytical Procedures

All samples were collected at the designated sampling locations and placed directly into containers provided by Truesdail Laboratories, Inc. (Truesdail) or Severn Trent Laboratories, Inc. (STL). Sample containers were labeled and packaged according to standard sampling procedures.

The samples were stored in a sealed container chilled with ice and transported to Truesdail or STL via courier service under chain-of-custody documentation. The laboratories confirmed the samples were received in chilled condition upon arrival.

Truesdail is certified by the California Department of Health Services (Certification No. 1237) under the State of California's Environmental Laboratory Accreditation Program. STL is certified by the California Department of Health Services (Certification No. 1118) under the Environmental Laboratory Accreditation Program.

All analyses were performed in accordance with the latest edition of the "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 Code of Federal Regulations Part 136), promulgated by the United States Environmental Protection Agency.

As required by the MRP, the analytical method selected for total chromium has a method detection limit of 1 part per billion, and the analytical method selected for hexavalent chromium has a method detection limit of 0.2 part per billion.

Influent, effluent, reverse osmosis concentrate, and sludge sampling was conducted in accordance with the sampling frequency required by the MRP. The sampling analytical results are shown in Tables 3, 4, 5, and 6, respectively.

Groundwater quality is being monitored in observation and compliance wells according to Order R7-2006-0060, and the procedures and schedules approved in the *Groundwater Compliance Monitoring Plan for Interim Measures No. 3 Injection Area* submitted to the Water Board on June 17, 2005. Quarterly groundwater monitoring analytical results for the injection area (wells OW-1S/M/D, OW-2S/M/D, OW-5S/M/D, CW-1M/D, CW-2M/D, CW-3M/D, and CW-4M/D) are reported in a separate document, in conjunction with groundwater level maps of the same monitoring wells.

6.0 Analytical Results

Laboratory reports for samples collected in May 2007 were prepared by certified analytical laboratories, and are presented in Appendix A. The May 2007 analytical results from groundwater treatment system influent, effluent, reverse osmosis concentrate, and sludge samples are presented in Tables 3, 4, 5, and 6, respectively.

In accordance with the WDR reporting requirements, the following sampling frequency schedule was followed:

- The influent was sampled monthly; the sample date was May 2, 2007. Results are presented in Table 3.
- The effluent was sampled weekly; the sample dates were May 2, 9, 16, 23, and 30, 2007. Results are presented in Table 4.
- The reverse osmosis concentrate was sampled monthly; the sample date was May 2, 2007. Results are presented in Table 5.
- The sludge was sampled monthly; the sample date was May 2, 2007. In accordance with the WDRs, sludge is sampled each time it is transported offsite (unless sludge is transported offsite more frequently than monthly, in which case the sampling frequency is monthly). Results are presented in Table 6.
- The sludge is required to have an aquatic bioassay test quarterly; the 2nd Quarter 2007 aquatic bioassay test was performed on a sludge sample collected April 4, 2007. Results were presented in the April 2007 Monitoring Report submitted May 15, 2007.

Table 7 identifies the laboratory that performed each analysis and lists the following required information:

- Sample location
- Sample identification number
- Sampler name
- Sample date
- Sample time
- Laboratory performing analysis
- Analysis method
- Analysis date
- Laboratory technician

In addition to the WDR required parameters, four samples were analyzed for total organic carbon (TOC) to evaluate the overall water chemistry of the IM No. 3 facility. The additional analyses were conducted on samples collected May 2, 16, 23, and 30, 2007 from the specified influent WDR sampling location. The additional analyses for TOC were completed for treatment process evaluation. The TOC results remain comparable to baseline conditions and are included in the laboratory reports provided in Appendix A of this report.

7.0 Conclusions

There were no exceedances of effluent limitations during the reporting period.

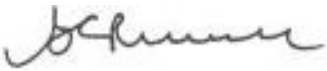
In addition, no incidents of non-compliance were identified during the reporting period, and no events that caused an immediate or potential threat to human health or the environment, or new releases of hazardous waste or hazardous waste constituents, or new solid waste management units were identified during the reporting period.

8.0 Certification

On August 12, 2005, PG&E submitted a signature delegation letter to the Water Board, delegating PG&E signature authority to Mr. Curt Russell and Ms. Yvonne Meeks for correspondence regarding Board Order R7-2004-0103. Order R7-2006-0600 is the successor to Order R7-2004-0103; an additional signature authority delegation is not required, as confirmed in an email from Jose Cortez dated October 12, 2006.

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: _____ Curt Russell _____

Company: _____ Pacific Gas and Electric Company _____

Title: _____ Topock Onsite Project Manager _____

Date: _____ June 15, 2007 _____

Tables

TABLE 1
Sampling Station Descriptions
May 2007 Monitoring Report for Interim Measure No. 3 Groundwater Treatment System

Sample Station	Sample ID^a	Location
Sampling Station A: Groundwater Treatment System Influent	SC-100B-WDR-###	Sample collected from tap on pipe into T-100 (see Figure TP-RP-10-10-04).
Sampling Station B: Groundwater Treatment System Effluent	SC-700B-WDR-###	Sample collected from tap on pipe downstream from T-700 (see Figure TP-RP-10-10-04).
Sampling Station D: Groundwater Treatment System Reverse Osmosis Concentrate	SC-701-WDR-###	Sample collected from tap on pipe into T-701 (see Figure TP-RP-10-10-08).
Sampling Station E: Groundwater Treatment System Sludge	SC-SLUDGE-WDR-###	Sample collected from sludge accumulated in the phase separator used this quarter (see Figure TP-RP-10-10-06).

Note:

= Sequential sample identification number at each sample station.

^a The sample event number is included at the end of the sample ID (e.g., SC-100B-WDR-015).

TABLE 2
Flow Monitoring Results
May 2007 Monitoring Report for Interim Measure No. 3 Groundwater Treatment System

Parameter	System Influent ^{a,b} (gpm)	System Effluent ^{b,c} (gpm)	Reverse Osmosis Concentrate ^b (gpm)
May 2007 Average Monthly Flowrate	135.5	126.8	9.5

Notes:

gpm: gallons per minute.

^a Extraction wells TW-3D and PE-1 were operated during May 2007.

^b The difference between influent flow rate and the sum of the effluent and reverse osmosis concentrate flow rates during May 2007 was less than 0.5 percent, which is within the range of acceptable accuracy considering the margin of error for onsite instrumentation, the water contained within the sludge, purge water treated at the IM-3 facility in addition to the extraction wells, and differences in the inventory of water in the treatment system between the beginning and end of the reporting period.

^c Effluent was discharged into injection well IW-03 during May 2007.

TABLE 3
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Influent Monitoring Results ^a
May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Required Sampling Frequency		Monthly																								
<div>Sample ID</div>	<div>Date</div>	<div>Analytes Units ^b MDL</div>	TDS	Turbidity	Specific Conductance	pH ^c	Chromium	Hexavalent Chromium	Aluminium	Ammonia (as N)	Antimony	Arsenic	Barium	Boron	Copper	Fluoride	Lead	Manganese	Molybdenum	Nickel	Nitrate (as N)	Nitrite (as N)	Sulfate	Iron	Zinc	
			mg/L	NTU	µmhos/cm	pHunits	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	µg/L
			64	0.016	0.7	0.057	0.38	1.8	4.2	0.1	0.67	0.6	0.48	0.000084	0.86	0.09	0.6	0.47	0.47	1.3	0.084	0.001	0.77	0.95	4.1	
SC-100B-WDR-097	5/2/2007		5480	ND	8470	7.28 J	1380	1690	ND	ND	ND	ND	ND	1.26	ND	2.39	ND	ND	9.80	ND	18.1	0.0087	611	ND	ND	
RL			250	0.1	2.0	2.0	1.0	20	50	0.5	3.0	5.0	300	0.2	10	1.0	2.0	500	5.0	20	1.0	0.005	25	300	20	

NOTES:
(---) = not required by the WDR Monitoring and Reporting Program
µg/L = micrograms per liter
mg/L = milligrams per liter
NTU = nephelometric turbidity units
µmhos/cm = micromhos per centimeter
ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation
MDL = method detection limit
RL = project reporting limit
N = nitrogen

^a Sampling Location for all Influent Samples is tap on pipe from extraction wells into tank T-100 (see attached P&ID TP-PR-10-10-04)
^b Units reported in this table are those units required in the WDRs
^c pH results are J flagged because recent EPA requirements for pH analysis have 15-minute holding time.

TABLE 4
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Effluent Monitoring Results^a
May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

WDRs Effluent Limits ^b	Ave. Monthly	NA	NA	NA	6.5-8.4	25	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Max Daily	NA	NA	NA	6.5-8.4	50	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Required Sampling Frequency		Weekly						Monthly																	
<div><div></div><div>Analytes Units^c</div><div>MDL^d</div></div>	Date	TDS	Turbidity	Specific Conductance	pH ^e	Chromium	Hexavalent Chromium	Aluminium	Ammonia (as N)	Antimony	Arsenic	Barium	Boron	Copper	Fluoride	Lead	Manganese	Molybdenum	Nickel	Nitrate (as N)	Nitrite (as N)	Sulfate	Iron	Zinc	
		mg/L	NTU	µmhos/cm	pHunits	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	µg/L
		64	0.016	0.7	0.057	0.72	0.088	0.85	0.1	0.13	0.12	0.095	0.000084	0.17	0.09	0.12	0.094	0.094	0.25	0.084	0.001	0.77	0.95	0.82	
Sample ID	Date																								
SC-700B-WDR-097	5/2/2007	4030	ND	6490	8.10 J	ND	ND	ND	ND	ND	ND	ND	1.29	ND	2.58	ND	ND	12.9	ND	7.25	ND	451	ND	ND	
	RL	140	0.1	2.0	2.0	1.0	1.0	50	0.5	3.0	5.0	300	0.2	10	1.0	2.0	500	5.0	20	1.0	0.005	25	300	20	
SC-700B-WDR-098	5/9/2007	3840	ND	6640	8.10 J	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	140	0.1	2.0	2.0	1.0	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
SC-700B-WDR-099	5/16/2007	4370	ND	7010	8.05 J	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	250	0.1	2.0	2.0	1.0	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
SC-700B-WDR-100	5/22/2007	4070	ND	6490	8.10 J	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	140	0.1	2.0	2.0	1.0	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
SC-700B-WDR-101	5/30/2007	3900	ND	6660	8.07 J	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	140	0.1	2.0	2.0	1.0	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

NOTES:

(---) = not required by the WDR Monitoring and Reporting Program
NA = not applicable
µg/L = micrograms per liter
mg/L = milligrams per liter
NTU = nephelometric turbidity units
µmhos/cm = micromhos per centimeter
ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation
RL = project reporting limit
MDL = method detection limit
N = nitrogen

^a Sampling location for all Effluent Samples is tap on pipe downstream from tank T-700 to injection well IW-2 (see attached P&ID TP-PR-10-10-04)

^b In addition to the listed effluent limits, the WDRs state that the effluent shall not contain heavy metals, chemicals, pesticides or other constituents in concentrations toxic to human health

^c Units reported in this table are those units required in the WDRs

^d MDL listed is the target MDL by analysis method; however, the MDL may change for each sample analysis due to the dilution required by the matrix to meet the method QC requirements. The target MDL for each method/analyte combination is calculated annually.

^e pH results are J flagged because recent EPA requirements for pH analysis have 15-minute holding time.

TABLE 5
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Reverse Osmosis Concentrate Results ^a
May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Required Sampling Frequency		Monthly																						
Sample ID	Date	Analytes Units ^b MDL	TDS	Specific Conductance	pH ^c	Chromium	Hexavalent Chromium	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Fluoride	Lead	Molybdenum	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			mg/L	µmhos/cm	pHunits	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			640	0.7	0.057	0.00038	0.000088	0.00067	0.0006	0.00048	0.00036	0.0006	0.00036	0.00086	0.09	0.0006	0.00047	0.000049	0.0013	0.0032	0.0014	0.00047	0.00043	0.0041
SC-701-WDR-097	5/2/2007		22900	30700	7.94 J	0.0039	ND	ND	ND	ND	ND	ND	ND	ND	13.6	ND	0.0631	ND	ND	0.01	ND	0.0026	ND	ND
RL			2500	2.00	2.00	0.001	0.001	0.003	0.005	0.30	0.0025	0.0025	0.005	0.01	1.00	0.002	0.005	0.0002	0.02	0.005	0.005	0.0025	0.005	0.02

NOTES:
(---) = not required by the WDR Monitoring and Reporting Program
µg/L = micrograms per liter
mg/L = milligrams per liter
µmhos/cm = micromhos per centimeter
ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation
MDL = method detection limit
RL = project reporting limit

^a Sampling Location for all Reverse Osmosis Samples is tap on pipe T-701 (see attached P&ID TP-PR-10-10-08)
^b Units reported in this table are those units required in the WDRs
^c pH results are J flagged because recent EPA requirements for pH analysis have 15-minute holding time.

TABLE 6
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Sludge Monitoring Results^a
May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Required Sampling Frequency		Monthly ^c																		
<div><div></div><div>Analytes</div><div>Units ^b</div><div>MDL</div></div>	<div><div></div><div>Sample ID</div><div>Date</div></div>	Chromium	Hexavalent Chromium	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Fluoride	Lead	Molybdenum	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		3.8	0.19	11	7.5	1.9	1.1	1.5	3.8	7.5	0.36	4.7	5.6	0.038	5.6	9.4	1.9	9.4	3.8	19
SC-SLUDGE-WDR-097	5/2/2007	6100	58.0	ND	ND	50.0	ND	ND	ND	ND	20.2	ND	ND	0.91	ND	ND	ND	ND	ND	97.0
RL		19	1.9	110	19	38	9.4	9.4	94	47	4.0	9.4	75	0.19	75	9.4	19	19	94	38

NOTES:

(---) = not required by the WDR Monitoring and Reporting Program
ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation
mg/kg = milligrams per killogram
mg/L = milligrams per liter
MDL = method detection limit
RL = project reporting limit

^a Sampling Location for all Sludge Samples is the Sludge Collection Bin (see attached P&ID TP-PR-10-10-06)
^b Units reported in this table are those units required in the WDR
^c Sludge shall be tested for the listed constituents each time sludge is transported offsite, unless transport is more frequent than monthly, in which case the sampling frequency shall be monthly

TABLE 7

Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)

Monitoring Information

May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-100B	SC-100B-WDR-097	David Chaney	5/2/2007	10:30:00 AM	TLI	EPA 120.1	SC	5/7/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	5/4/2007	Gautam Savani
					TLI	EPA 200.7	FE	6/7/2007	Mark Kotani
					TLI	EPA 200.7	B	6/7/2007	Mark Kotani
					TLI	EPA 200.8	PB	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	SB	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	NI	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	MO	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	MN	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CU	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CR	6/4/2007	Michel Mendoza
					TLI	EPA 200.8	BA	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	AS	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	AL	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	ZN	6/6/2007	Michel Mendoza
					TLI	EPA 218.6	CR6	5/3/2007	Jean-Paul Gleeson
					TLI	EPA 300.0	SO4	5/8/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	NO3N	5/3/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	FL	5/17/2007	Gaiwad Ghenniwa
					TLI	SM2540C	TDS	5/8/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/3/2007	Tina Acquiat
					TLI	SM4500NH3B	NH3N	5/4/2007	Iordan Stavrev
					TLI	SM4500NO2B	NO2N	5/4/2007	Tina Acquiat
SC-700B	SC-700B-WDR-097	David Chaney	5/2/2007	10:00:00 AM	TLI	EPA 120.1	SC	5/7/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	5/4/2007	Gautam Savani
					TLI	EPA 200.7	B	6/7/2007	Mark Kotani
					TLI	EPA 200.7	FE	6/7/2007	Mark Kotani
					TLI	EPA 200.8	AS	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	PB	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CR	6/4/2007	Michel Mendoza
					TLI	EPA 200.8	CU	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	MN	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	MO	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	BA	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	ZN	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	SB	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	AL	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	NI	6/6/2007	Michel Mendoza

TABLE 7

Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)

Monitoring Information

May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-700B	SC-700B-WDR-097	David Chaney	5/2/2007	10:00:00 AM	TLI	EPA 218.6	CR6	5/3/2007	Jean-Paul Gleeson
					TLI	EPA 300.0	NO3N	5/3/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	FL	5/17/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	SO4	5/8/2007	Gaiwad Ghenniwa
					TLI	SM2540C	TDS	5/8/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/3/2007	Tina Acquiat
					TLI	SM4500NH3B	NH3N	5/4/2007	Iordan Stavrev
					TLI	SM4500NO2B	NO2N	5/4/2007	Tina Acquiat
SC-700B	SC-700B-WDR-098	Michael Lafour	5/9/2007	11:25:00 AM	TLI	EPA 120.1	SC	5/11/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	5/10/2007	Gautam Savani
					TLI	EPA 200.7	CR	5/17/2007	Mark Kotani
					TLI	EPA 218.6	CR6	5/9/2007	Jean-Paul Gleeson
					TLI	SM2540C	TDS	5/11/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/10/2007	Tina Acquiat
SC-700B	SC-700B-WDR-099	David Chaney	5/16/2007	10:15:00 AM	TLI	EPA 120.1	SC	5/17/2007	Tina Acquiat/Gautam Savani
					TLI	EPA 180.1	TRB	5/17/2007	Gautam Savani
					TLI	EPA 200.8	CR	5/21/2007	Michel Mendoza
					TLI	EPA 218.6	CR6	5/17/2007	Jean-Paul Gleeson
					TLI	SM2540C	TDS	5/18/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/17/2007	Tina Acquiat
SC-700B	SC-700B-WDR-100	David Chaney	5/22/2007	12:15:00 PM	TLI	EPA 120.1	SC	5/23/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	5/23/2007	Gautam Savani
					TLI	EPA 200.7	CR	5/29/2007	Mark Kotani
					TLI	EPA 218.6	CR6	5/23/2007	Jean-Paul Gleeson
					TLI	SM2540C	TDS	5/23/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/23/2007	Tina Acquiat
SC-700B	SC-700B-WDR-101	David Chaney	5/30/2007	1:00:00 PM	TLI	EPA 120.1	SC	5/31/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	5/30/2007	Gautam Savani
					TLI	EPA 200.7	CR	6/1/2007	Mark Kotani
					TLI	EPA 218.6	CR6	5/31/2007	Jean-Paul Gleeson
					TLI	SM2540C	TDS	5/31/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/31/2007	Tina Acquiat
SC-701	SC-701-WDR-097	David Chaney	5/2/2007	10:15:00 AM	TLI	EPA 120.1	SC	5/7/2007	Tina Acquiat
					TLI	EPA 200.8	NI	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	ZN	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	AS	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	BA	6/6/2007	Michel Mendoza

TABLE 7

Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)

Monitoring Information

May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-701	SC-701-WDR-097	David Chaney	5/2/2007	10:15:00 AM	TLI	EPA 200.8	BE	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CD	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CO	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CR	6/4/2007	Michel Mendoza
					TLI	EPA 200.8	MO	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	PB	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	SB	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	SE	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	TL	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	V	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	CU	6/6/2007	Michel Mendoza
					TLI	EPA 200.8	AG	6/4/2007	Michel Mendoza
					TLI	EPA 218.6	CR6	5/3/2007	Jean-Paul Gleeson
					TLI	EPA 245.1	HG	5/15/2007	Connie Chinn
					TLI	EPA 300.0	FL	5/17/2007	Gaiwad Ghenniwa
					TLI	SM2540C	TDS	5/8/2007	Tina Acquiat
					TLI	SM4500-HB	PH	5/3/2007	Tina Acquiat
SC-Sludge	SC-SLUDGE-WDR-097	David Chaney	5/2/2007	9:45:00 AM	STL	EPA 160.3	MOIST	5/8/2007	Janice Salenga
					TLI	EPA 300.0	FL	5/17/2007	Gaiwad Ghenniwa
					STL	EPA 6010B	NI	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	ZN	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	V	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	TL	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	SE	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	SB	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	PB	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	MO	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	CU	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	CR	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	CO	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	CD	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	BE	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	BA	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	AG	5/8/2007	Josephine Asuncion
					STL	EPA 6010B	AS	5/8/2007	Josephine Asuncion
					STL	EPA 7471A	HG	5/7/2007	Hao Ton
					STL	SW 7199	CR6	5/7/2007	Yuriy Zakhrabov

TABLE 7

Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)

Monitoring Information

*May 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System***NOTES:**

SC-700B = Sampling location for all Effluent Samples is tap on pipe downstream from tank T-700 to injection well IW-2 (see attached P&ID TP-PR-10-10-04)

SC-100B = Sampling Location for all Influent Samples is tap on pipe from extraction wells into tank T-100 (see attached P&ID TP-PR-10-10-04)

SC-701 = Sampling Location for all Reverse Osmosis Samples is tap on pipe T-701 (see attached P&ID TP-PR-10-10-08)

Prior to April 11, 2007 the analytical methods listed in the 40 CFR Part 136 for pH and TDS were E150.1 and E160.1, respectively. Per EPA and Department of Health Services guidelines, the analytical methods listed in the current 40 CFR Part 136 have changed to SM4500-H B and SM2540C as shown on the table.

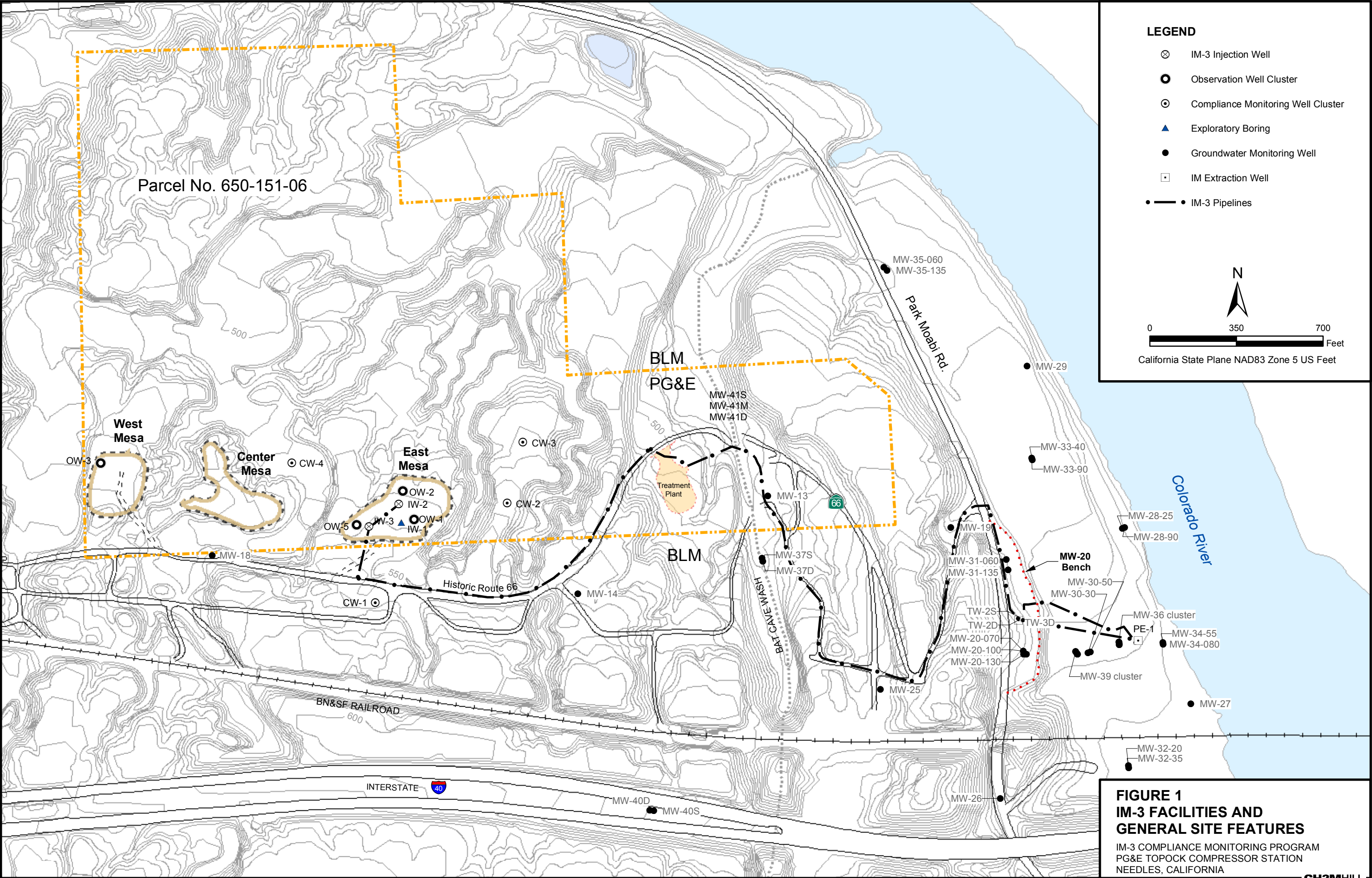
TLI = Truesdail Laboratories, Inc.

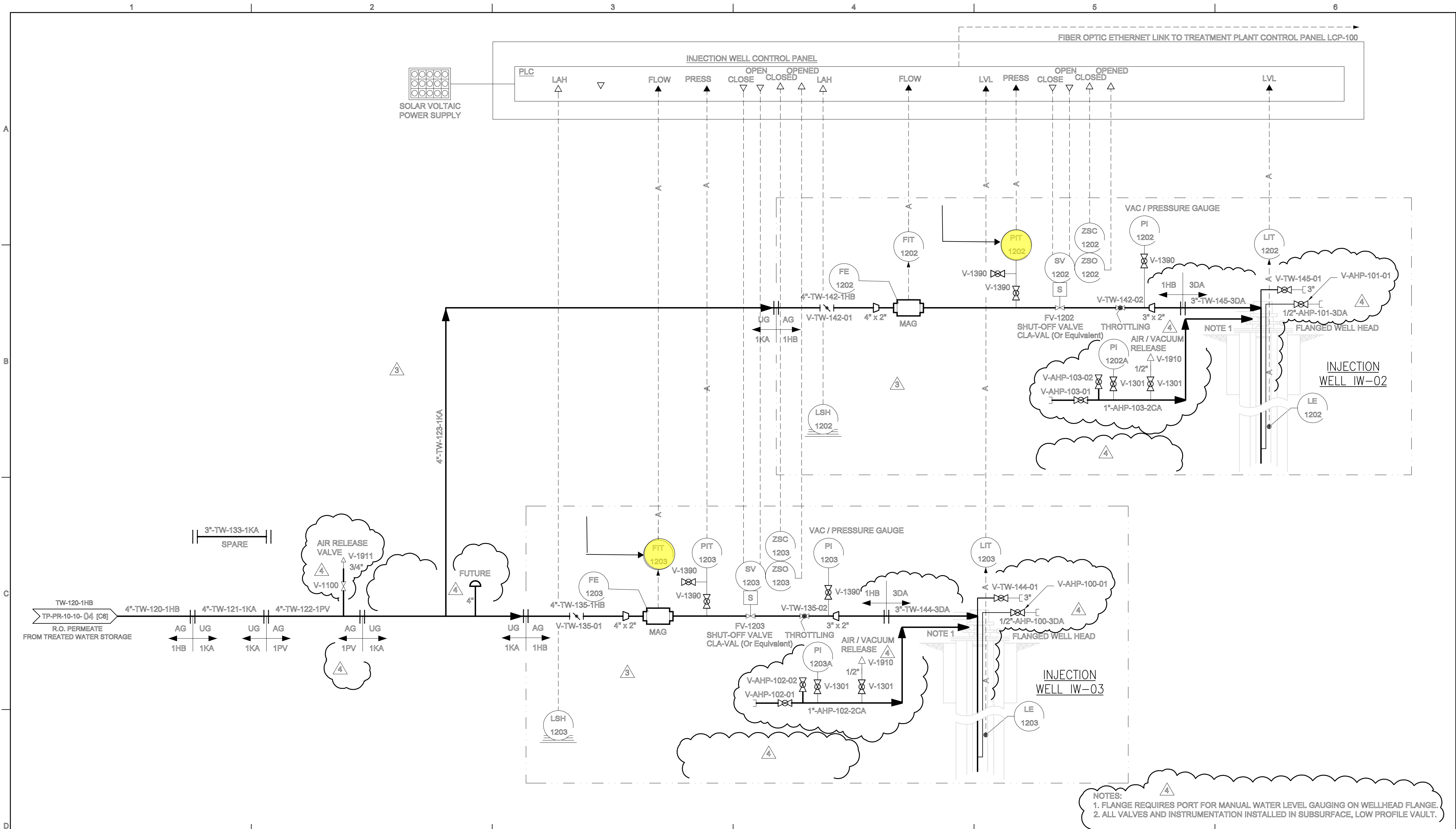
STL = Severn Trent Laboratories, Inc.

MBC = MBC Applied Environmental Sciences

SC = specific conductance	MO = molybdenum
PH = pH	NI = nickel
TDS = total dissolved solids	PB = lead
TRB = turbidity	HG = mercury
CR = chromium	SE = selenium
CR6 = hexavalent chromium	TL = thallium
FL = fluoride	CO = cobalt
AL = aluminum	CD = cadmium
B = boron	BE = beryllium
FE = iron	AG = silver
MN = manganese	V = vanadium
ZN = zinc	NO3N = nitrate (as N)
SB = antimony	NH3N = ammonia (as N)
AS = arsenic	NO2N = nitrite (as N)
BA = barium	SO4 = sulfate
CU = copper	

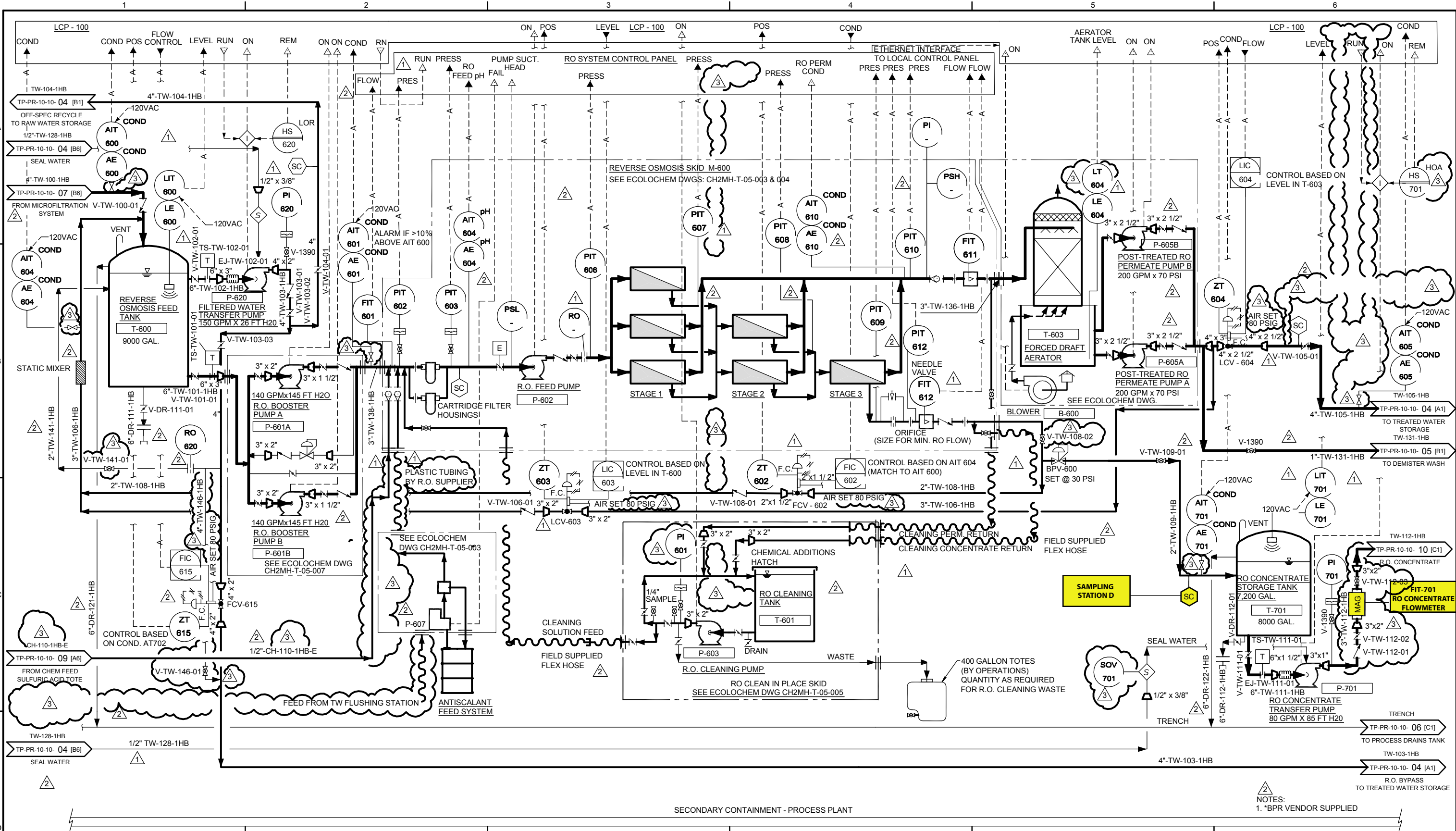
Figures





RESPONSIBLE ENGINEER: Kenneth L. Martins PE # CH4876 Exp. 5-30-05	NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL	REV 4	DATE 03/10/05	PRINT DISTRIBUTION	STATUS					PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994	PROCESS AND INSTRUMENTATION DIAGRAM SHEET 11 INJECTION WELLS	
	A	07/28/04	FOR INTERNAL REVIEW	EFC	AJ	DISCIPLINE REVIEWED	DISCIPLINE	REVIEWED	DATE	ISSUED	REV	DATE	SDE	PEM			
	0	09/03/04	APPROVED FOR CONSTRUCTION	EFC	AJ	CIVIL	ELECTRICAL	STATUS	PRELIMINARY								
	1	10/13/04	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	STRUCTURAL	INST & CONTROL	REV.	FOR REVIEW AND APPROVAL	A	07/28/04						
	2	01/23/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	MECHANICAL	ARCHITECTURAL	CLIENT	APPROVED FOR CONSTRUCTION	0	09/03/04	KLM	TP				
	3	02/14/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	PROCESS	ENVIRONMENTAL	FIELD	REVISED & APPROVED FOR CONSTRUCTION	4	/ /						
	4	03/10/05	REMOVED HOLD AND APPROVED FOR CONSTRUCTION	EFC	AJ	PIPING	GEN. ARRANG.	INTRA CO.									

THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2M HILL.

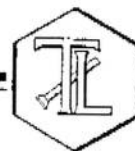


RESPONSIBLE ENGINEER: Kenneth L. Martins PE # CH43876 Exp. 6-30-06	NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL	REV 3	DATE 09/21/05	PRINT DISTRIBUTION	STATUS					PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994	PROCESS AND INSTRUMENTATION DIAGRAM SHEET 08 REVERSE OSMOSIS SYSTEM		
	0	07/28/04	FOR INTERNAL REVIEW	EFC	AJ	DISCIPLINE	REVIEWED	DISCIPLINE	REVIEWED	DATE	ISSUED	REV	DATE	SDE				PEM
	0	09/03/04	APPROVED FOR CONSTRUCTION	EFC	AJ	CIVIL		ELECTRICAL	REVIEWED	STATUS								
	1	10/13/04	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	STRUCTURAL		INST & CONTROL		REV.	D	07/28/04						
	2	01/23/05	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	MECHANICAL		ARCHITECTURAL		CLIENT	0	09/03/04	KLM	TP				
	3	09/21/05	REVISED PER AS-BUILT CONDITIONS	EFC	AJ	PROCESS		ENVIRONMENTAL		FIELD	REVISED & APPROVED FOR CONSTRUCTION	3	/ /					
						PIPING		GEN. ARRANG.		INTRA CO.								
										SCALE NONE					CH2MHILL	DWG. NO. TP-PR-10-10-08	REV. 3	

Appendix A
May 2007 Laboratory Analytical Reports

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

June 7, 2007

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-097 PROJECT, GROUNDWATER AND
SOIL MONITORING,
TLI No.: 965655

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-097 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Anions, Ammonia, Total Dissolved Solids, Total Organic Carbon, and Title 22 Metals and soil monitoring for Fluoride. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on May 2, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

Metals analyzed by ICP/MS for samples SC-100B-WDR-097 and SC-701-WDR-097 were analyzed at a dilution of 5x due to the difficult sample matrix.

No other violations or nonconformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

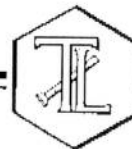
Moni Nassimi
Moni Nassimi
Manager, Analytical Services

K.R.P. Iyer

K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

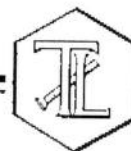
Received: May 2, 2007

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
EPA 300.0	Anions	Giawad Ghenniwa
SM 4500-NH3 B	Ammonia	Jordan Stavrev
SM 4500-NO2 B	Nitrite as N	Tina Acquiat
SM 5310C	Total Organic Carbon	Hope Trinidad
EPA 200.7	Metals by ICP	Mark Kotani
EPA 200.8	Metals by ICP/MS	Michel Mendoza
EPA 245.1	Mercury	Connie Chinn
EPA 218.6	Hexavalent Chromium	Jean Paul Gleeson

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Attention: Shawn Duffy

Laboratory No.: 965655

Sample: Three (3) Groundwaters + One (1) Soil Sample

Date: June 7, 2007

Project Name: PG&E Topock Project

Collected: May 2, 2007

Project No.: 346129.IM.02.E2

Received: May 2, 2007

P.O. No.: 346129.IM.02.E2

Prep/ Analyzed: May 3, 2007

Analytical Batch: 05PH07F

Investigation:

pH by SM 4500-H B

Analytical Results pH

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Run Time</u>	<u>Units</u>	<u>MDL</u>	<u>RL</u>	<u>Results</u>
965655-1	SC-100B-WDR-097	08:09	pH Units	0.0570	2.00	7.28
965655-2	SC-700B-WDR-097	08:11	pH Units	0.0570	2.00	8.10
965655-3	SC-701-WDR-097	08:15	pH Units	0.0570	2.00	7.94

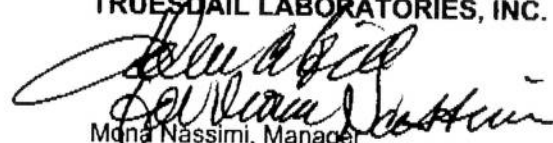
QA/QC Summary

<u>QC STD I.D.</u>	<u>Laboratory Number</u>	<u>Concentration</u>	<u>Duplicate Concentration</u>	<u>Difference (Units)</u>	<u>Acceptance limits</u>	<u>QC Within Control</u>
Duplicate	965658-3	7.99	7.99	0.00	+ 0.100 Units	Yes

<u>QC Std I.D.</u>	<u>Measured Concentration</u>	<u>Theoretical Concentration</u>	<u>Difference (Units)</u>	<u>Acceptance Limits</u>	<u>QC Within Control</u>
LCS	7.01	7.00	0.01	+ 0.100 Units	Yes
LCS #1	7.01	7.00	0.01	+ 0.100 Units	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from these laboratories.

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Attention: Shawn Duffy

Laboratory No.: 965655

Sample: Three (3) Groundwaters + One (1) Soil Sample
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Date: June 7, 2007
Collected: May 2, 2007
Received: May 2, 2007
Prep/ Analyzed: May 7, 2007
Analytical Batch: 05EC07F

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

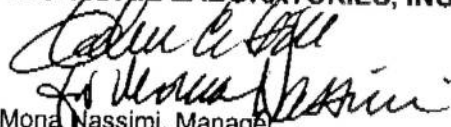
TLI I.D.	Field I.D.	Units	Method	DF	RL	Results
965655-1	SC-100B-WDR-097	µmhos/cm	EPA 120.1	1.00	2.00	8470
965655-2	SC-700B-WDR-097	µmhos/cm	EPA 120.1	1.00	2.00	6490
965655-3	SC-701-WDR-097	µmhos/cm	EPA 120.1	1.00	2.00	30700

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance Limits	QC Within Control
Duplicate	965654-14	1530	1530	0.00%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	691	706	97.9%	90% - 110%	Yes
CVS#1	1340	1410	95.0%	90% - 110%	Yes
CVS#2	1350	1410	95.7%	90% - 110%	Yes
LCS	690	706	97.7%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

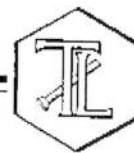

Mona Nassimi, Manager
Analytical Services

009

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 8, 2007

Analytical Batch: 05TDS07F

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>RL</u>	<u>Results</u>
965655-1	SC-100B-WDR-097	mg/L	SM 2540C	250	5480
965655-2	SC-700B-WDR-097	mg/L	SM 2540C	139	4030
965655-3	SC-701-WDR-097	mg/L	SM 2540C	2500	22900

QA/QC Summary

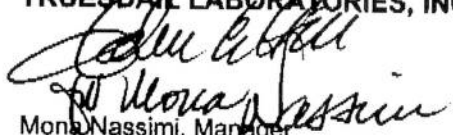
<u>QC STD I.D.</u>	<u>Laboratory Number</u>	<u>Concentration</u>	<u>Duplicate Concentration</u>	<u>Percent Difference</u>	<u>Acceptance Limits</u>	<u>QC Within Control</u>
Duplicate	965643-3	1120	1060	2.75%	≤ 5%	Yes

<u>QC Std I.D.</u>	<u>Measured Concentration</u>	<u>Theoretical Concentration</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>	<u>QC Within Control</u>
LCS 1	495	500	99.0%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

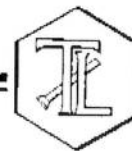

Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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155 Grand Ave. Suite 1000
Oakland, CA 94612

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Attention: Shawn Duffy

Laboratory No.: 965655

Sample: Three (3) Groundwaters + One (1) Soil Sample

Date: June 7, 2007

Project Name: PG&E Topock Project

Collected: May 2, 2007

Project No.: 346129.IM.02.E2

Received: May 2, 2007

P.O. No.: 346129.IM.02.E2

Prep/ Analyzed: May 4, 2007

Analytical Batch: 05TUC07H

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
965655-1	SC-100B-WDR-097	10:30	NTU	1.00	0.100	ND
965655-2	SC-700B-WDR-097	10:00	NTU	1.00	0.100	ND

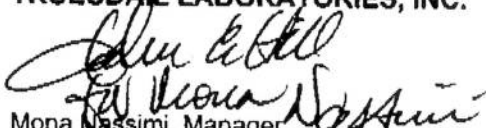
QA/QC Summary

<u>QC STD I.D.</u>	<u>Laboratory Number</u>	<u>Concentration</u>	<u>Duplicate Concentration</u>	<u>Relative Percent Difference</u>	<u>Acceptance limits</u>	<u>QC Within Control</u>
Duplicate	965658-6	ND	ND	0.00%	< 20%	Yes

<u>QC Std I.D.</u>	<u>Measured Concentration</u>	<u>Theoretical Concentration</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>	<u>QC Within Control</u>
LCS	7.40	8.00	92.5%	90% - 110%	Yes
LCS	7.37	8.00	92.1%	90% - 110%	Yes
LCS	7.30	8.00	91.3%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 05CrH07D

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TUSTIN, CALIFORNIA 92780-7008
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Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 3, 2007

Analytical Batch: 05CrH07D

Investigation:

Hexavalent Chromium by IC Using Method EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
965655-1	SC-100B-WDR-097	10:30	07:02	mg/L	100	0.0200	1.69
965655-2	SC-700B-WDR-097	10:00	05:58	mg/L	5.00	0.0010	ND
965655-3	SC-701-WDR-097	10:15	06:08	mg/L	5.00	0.0010	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Sample Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965654-1	0.00199	0.00200	0.50%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965655-1	1.69	100	0.0200	2.00	3.72	3.69	102%	90-110%	Yes
MS	965655-2	0.00	1.06	0.00100	0.00106	0.00113	0.00106	107%	90-110%	Yes
MS	965655-2	0.00	5.00	0.00100	0.00500	0.00524	0.00500	105%	90-110%	Yes
MS	965655-3	0.00	1.06	0.00100	0.00106	0.00	0.00106	0.00%	90-110%	No
MS	965655-3	0.00	5.00	0.00100	0.00500	0.00502	0.00500	100%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00502	0.00500	100%	90% - 110%	Yes
MRCVS#1	0.0101	0.0100	101%	95% - 105%	Yes
MRCVS#2	0.0101	0.0100	101%	95% - 105%	Yes
MRCVS#3	0.0100	0.0100	100%	95% - 105%	Yes
MRCVS#4	0.0102	0.0100	102%	95% - 105%	Yes
MRCVS#5	0.0102	0.0100	102%	95% - 105%	Yes
LCS	0.00504	0.00500	101%	90% - 110%	Yes
LCSD	0.00501	0.00500	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Shawn C. Hall
Mona Nassim
Mona Nassim, Manager
Analytical Services

012

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 4, 2007

Analytical Batch: 05NH307C

Investigation:

Ammonia as N by Method SM 4500-NH3 B

Analytical Results Ammonia as N

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Method</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
965655-1	SC-100B-WDR-097	10:30	SM 4500-NH3 B	mg/L	1.00	0.500	ND
965655-2	SC-700B-WDR-097	10:00	SM 4500-NH3 B	mg/L	1.00	0.500	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965672-1	7.37	7.70	4.38%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965672-1	7.37	1.00	10.0	10.0	19.6	17.4	122%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	9.24	10.0	92.4%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 - FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 17, 2007

Analytical Batch: 05AN07Q

Investigation:

Fluoride by Ion Chromatography using EPA 300.0

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
965655-1	SC-100B-WDR-097	10:30	15:29	mg/L	5.00	1.00	2.39
965655-2	SC-700B-WDR-097	10:00	15:41	mg/L	5.00	1.00	2.58
965655-3	SC-701-WDR-097	10:15	15:52	mg/L	5.00	1.00	13.6
965655-4	SC-Sludge-WDR-097	09:45	16:03	mg/kg	20.0	4.00	20.2

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965658-6	4.44	4.45	0.22%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965658-6	4.44	5.00	2.00	10.0	15.2	14.4	108%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	4.35	4.00	109%	90% - 110%	Yes
MRCVS#1	3.28	3.00	109%	90% - 110%	Yes
MRCVS#2	3.11	3.00	104%	90% - 110%	Yes
MRCVS#3	3.28	3.00	109%	90% - 110%	Yes
LCS	4.06	4.00	102%	90% - 110%	Yes
LCSD	3.91	4.00	97.8%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi
for Mona Nassimi
Mona Nassimi, Manager
Analytical Services

014

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 8, 2007

Analytical Batch: 05AN07H

Investigation:

Sulfate by Method EPA 300.0

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
965655-1	SC-100B-WDR-097	10:30	14:22	mg/L	25.0	25.0	611
965655-2	SC-700B-WDR-097	10:00	15:30	mg/L	25.0	25.0	451

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965657-4	36.2	35.7	1.39%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965657-4	36.2	25.0	4.00	100	136	136	99.8%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	19.9	20.0	99.5%	90% - 110%	Yes
MRCVS#1	14.9	15.0	99.3%	90% - 110%	Yes
MRCVS#2	14.9	15.0	99.3%	90% - 110%	Yes
MRCVS#3	14.9	15.0	99.3%	90% - 110%	Yes
MRCVS#4	14.9	15.0	99.3%	90% - 110%	Yes
MRCVS#5	14.9	15.0	99.3%	90% - 110%	Yes
LCS	19.5	20.0	97.5%	90% - 110%	Yes
LCSD	19.5	20.0	97.5%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

[Signature]
Mona Nassimi, Manager
Analytical Services

015

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 - FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 3, 2007

Analytical Batch: 05AN07C

Investigation:

Nitrate as N by Ion Chromatography using EPA 300.0

Analytical Results Nitrate as N

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
965655-1	SC-100B-WDR-097	10:30	21:10	mg/L	5.00	1.00	18.1
965655-2	SC-700B-WDR-097	10:00	21:22	mg/L	5.00	1.00	7.25

QA/QC Summary

QC STD I.D.		Laboratory Number		Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate		965646-38		2.50	2.51	0.40%	< 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965646-38	2.50	1.00	4.00	4.00	6.57	6.50	102%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCSS	4.02	4.00	101%	90% - 110%	Yes
MRCVS#1	3.02	3.00	101%	90% - 110%	Yes
MRCVS#2	3.04	3.00	101%	90% - 110%	Yes
LCS	3.96	4.00	99.0%	90% - 110%	Yes
LCSD	3.97	4.00	99.3%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

[Signature]
Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 - FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 4, 2007

Analytical Batch: 05NO207D

Investigation:

Nitrite as N by Method SM 4500-NO2-B

Analytical Results for Nitrite as N

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Run Time</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
965655-1	SC-100B-WDR-097	10:30	08:55	mg/L	1.00	0.0050	0.0087
965655-2	SC-700B-WDR-097	10:00	08:56	mg/L	1.00	0.0050	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965643-3	0.0155	0.0165	6.25%	< 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965643-3	0.0155	1.00	0.100	0.100	0.117	0.116	102%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0861	0.0900	95.7%	90% - 110%	Yes
MRCVS#1	0.106	0.100	106%	90% - 110%	Yes
LCS	0.139	0.137	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

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REPORT

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155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Prep. Batch: 05TOC07B

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 - FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965655

Date: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Prep/ Analyzed: May 3, 2007

Analytical Batch: 05TOC07B

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
965655-1	SC-100B-WDR-097	10:30	22:43	mg/L	1.00	0.300	1.12

QA/QC Summary

QC STD I.D.		Laboratory Number		Sample Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control	
Duplicate		965642		5.24	5.33	1.70%	< 20%	Yes	

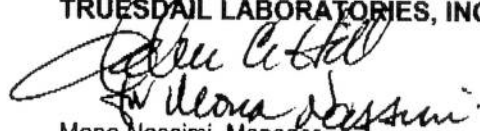
QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965642	5.24	1.00	10.0	10.0	16.5	15.2	113%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCQS	10.3	10.0	103%	90% - 110%	Yes
MRCVS#1	11.0	10.0	110%	90% - 110%	Yes
MRCVS#2	10.8	10.0	108%	90% - 110%	Yes
LCS	21.7	20.0	109%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

018

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Samples: Three (3) Groundwaters + One (1) Soil Sample
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Investigation: Total Metal Analyses as Requested

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 - FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965655

Reported: June 7, 2007

Collected: May 2, 2007

Received: May 2, 2007

Analyzed: May 15 - June 7, 2007

Analytical Results

SAMPLE ID: SC-100B-WDR-097		Time Collected: 10:30		LAB ID: 965655-1				
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	5.00	mg/L	0.0500	060607A	06/06/07	09:18
Antimony	EPA 200.8	ND	5.00	mg/L	0.0030	060607A	06/06/07	09:18
Arsenic	EPA 200.8	ND	5.00	mg/L	0.0050	060607A	06/06/07	09:18
Barium	EPA 200.8	ND	5.00	mg/L	0.300	060607A	06/06/07	09:18
Chromium	EPA 200.8	1.38	5.00	mg/L	0.0010	060407A	06/04/07	13:51
Copper	EPA 200.8	ND	5.00	mg/L	0.0100	060607A	06/06/07	09:18
Lead	EPA 200.8	ND	5.00	mg/L	0.0020	060607A	06/06/07	09:18
Manganese	EPA 200.8	ND	5.00	mg/L	0.500	060607A	06/06/07	09:18
Molybdenum	EPA 200.8	0.0098	5.00	mg/L	0.0050	060607A	06/06/07	09:18
Nickel	EPA 200.8	ND	5.00	mg/L	0.0200	060607A	06/06/07	09:18
Zinc	EPA 200.8	ND	5.00	mg/L	0.0200	060607A	06/06/07	09:18
Boron	EPA 200.7	1.26	1.00	mg/L	0.200	060707A	06/07/07	10:30
Iron	EPA 200.7	ND	1.00	mg/L	0.300	060707A	06/07/07	10:30

SAMPLE ID: SC-700B-WDR-097		Time Collected: 10:00		LAB ID: 965655-2				
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	1.00	mg/L	0.0500	060607A	06/06/07	08:54
Antimony	EPA 200.8	ND	1.00	mg/L	0.0030	060607A	06/06/07	08:54
Arsenic	EPA 200.8	ND	1.00	mg/L	0.0050	060607A	06/06/07	08:54
Barium	EPA 200.8	ND	1.00	mg/L	0.300	060607A	06/06/07	08:54
Chromium	EPA 200.8	ND	1.00	mg/L	0.0010	060407A	06/04/07	10:35
Copper	EPA 200.8	ND	1.00	mg/L	0.0100	060607A	06/06/07	08:54
Lead	EPA 200.8	ND	1.00	mg/L	0.0020	060607A	06/06/07	08:54
Manganese	EPA 200.8	ND	1.00	mg/L	0.500	060607A	06/06/07	08:54
Molybdenum	EPA 200.8	0.0129	1.00	mg/L	0.0050	060607A	06/06/07	08:54
Nickel	EPA 200.8	ND	1.00	mg/L	0.0200	060607A	06/06/07	08:54
Zinc	EPA 200.8	ND	1.00	mg/L	0.0200	060607A	06/06/07	08:54
Boron	EPA 200.7	1.29	1.00	mg/L	0.200	060707A	06/07/07	10:42
Iron	EPA 200.7	ND	1.00	mg/L	0.300	060707A	06/07/07	10:42

019

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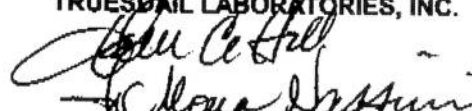
Report Continued

SAMPLE ID: SC-701-WDR-097		Time Collected: 10:15		LAB ID: 965655-3				
Parameter	Method	Reported		Units	RL	Batch	Date	Time
		Value	DF				Analyzed	Analyzed
Antimony	EPA 200.8	ND	5.00	mg/L	0.0030	060607A	06/06/07	09:00
Arsenic	EPA 200.8	ND	5.00	mg/L	0.0050	060607A	06/06/07	09:00
Barium	EPA 200.8	ND	5.00	mg/L	0.300	060607A	06/06/07	09:00
Beryllium	EPA 200.8	ND	5.00	mg/L	0.0025	060607A	06/06/07	09:00
Cadmium	EPA 200.8	ND	5.00	mg/L	0.0025	060607A	06/06/07	09:00
Chromium	EPA 200.8	0.0039	5.00	mg/L	0.0010	060407A	06/04/07	14:14
Cobalt	EPA 200.8	ND	5.00	mg/L	0.0050	060607A	06/06/07	09:00
Copper	EPA 200.8	ND	5.00	mg/L	0.0100	060607A	06/06/07	09:00
Lead	EPA 200.8	ND	5.00	mg/L	0.0020	060607A	06/06/07	09:00
Mercury	EPA 245.1	ND	1.00	mg/L	0.00020	05HG07Aa	05/15/07	23:50
Molybdenum	EPA 200.8	0.0631	5.00	mg/L	0.0050	060607A	06/06/07	09:00
Nickel	EPA 200.8	ND	5.00	mg/L	0.0200	060607A	06/06/07	09:00
Selenium	EPA 200.8	0.0100	5.00	mg/L	0.0050	060607A	06/06/07	09:00
Silver	EPA 200.8	ND	5.00	mg/L	0.0050	060407A	06/04/07	14:14
Thallium	EPA 200.8	0.0026	5.00	mg/L	0.0025	060607A	06/06/07	09:00
Vanadium	EPA 200.8	ND	5.00	mg/L	0.0050	060607A	06/06/07	09:00
Zinc	EPA 200.8	ND	5.00	mg/L	0.0200	060607A	06/06/07	09:00

ND: Not detected, or below limit of detection.

DF: Dilution factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

020

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(714) 730-6239 FAX: (714) 730-6462
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CHAIN OF CUSTODY RECORD
[IM3] Plant-WDR-097

COC Number

TURNAROUND TIME 10 Days

DATE 5-2-07

PAGE 1 OF 1

COMPANY	PROJECT NAME	PHONE	ADDRESS	P.O. NUMBER	SAMPLERS (SIGNATURE)	DATE	TIME	DESCRIPTION	CR6 (2186) Lab Filtered	Anions (300.0) FI	Total Metals (200.7) Title 22	Al, As, Ba, B, Cd, Cr, Pb, Mn, Mo, Ni, Sb, Se, Fe, Zn	Specific Conductance (120.7)	pH (150.7)	TDS (160.7)	Anions (300) FI	Anions (300) FI, SO ₄ , NO ₂ , NO ₃	Ammonia (350.2)	Turbidity (180.1)	TOC	NUMBER OF CONTAINERS	COMMENTS	
E2	PG&E Topock	(530) 229-3303	155 Grand Ave Ste 1000 Oakland, CA 94612	346129 [IM.02.00]	<i>[Signature]</i>	5-2-07	10:30	Groundwater	x		x	x	x	x	x	x	x	x	x	4	6	PH 2	
						5-2-07	10:00	Groundwater	x		x	x	x	x	x	x	x	x	x		4	PH 7	
						5-2-07	10:15	Groundwater	x		x	x	x	x	x	x					3	PH 2	
						5-2-07	9:45	Soil		x											3		
																					16		TOTAL NUMBER OF CONTAINERS

ALERT !!
Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
<i>[Signature]</i>	David Chavez	CMTC HWHFII	5-2-07 13:30
Signature (Received)	Name of the person receiving	Company/Agency	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	Company/Agency	5-2-07 19:15
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
Signature (Received)	Name of the person receiving	Company/Agency	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	Company/Agency	5-2-07 19:15
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
Signature (Received)	Name of the person receiving	Company/Agency	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	Company/Agency	5-2-07 19:15

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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14201 FRANKLIN AVENUE
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May 25, 2007

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-098 PROJECT, GROUNDWATER
MONITORING,
TLI NO.: 965876

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-098 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, and Total Dissolved Solids. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on May 9, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi
Manager, Analytical Services

K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965876

Date: June 1, 2007

Collected: May 9, 2007

Received: May 9, 2007

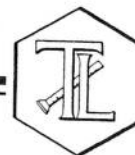
Revision 1

ANALYST LIST

ANALYST		
EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
EPA 200.7	Total Chromium	Mark Kotani
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 051707B

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
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Laboratory No.: 965876

Date: May 25, 2007

Collected: May 9, 2007

Received: May 9, 2007

Prep/ Analyzed: May 17, 2007

Analytical Batch: 051707B

Investigation: Total Chromium by Inductively Coupled Argon Plasma Atomic Emission Spectrometer
using EPA 200.7

Analytical Results Total Chromium

TLI I.D.	Field I.D.	Units	Method	Run Time	DF	RL	Results
965876	SC-700B-WDR-098	mg/L	EPA 200.7	17:34	1.00	0.0010	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965876	ND	ND	0.00%	≤20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965876	0.00	1.00	0.0500	0.0500	0.0439	0.0500	87.8%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0489	0.0500	97.8%	90% - 110%	Yes
MRCVS#1	0.0470	0.0500	94.0%	90% - 110%	Yes
MRCVS#2	0.0503	0.0500	101%	90% - 110%	Yes
ICS	0.0514	0.0500	103%	80% - 120%	Yes
LCS	0.0515	0.0500	103%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Monica Nassimi
Monica Nassimi, Manager
Analytical Services

007

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965876

Date: May 25, 2007
Collected: May 9, 2007
Received: May 9, 2007
Prep/ Analyzed: May 9, 2007
Analytical Batch: 05CrH07M

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
965876	SC-700B-WDR-098	11:25	22:50	mg/L	1.05	0.00020	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965876	ND	ND	0.00%	< 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965876	0.00	1.06	0.00100	0.00106	0.00115	0.00106	108%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00508	0.00500	102%	90% - 110%	Yes
MRCVS#1	0.0105	0.0100	105%	95% - 105%	Yes
MRCVS#2	0.0100	0.0100	100%	95% - 105%	Yes
LCS	0.00507	0.00500	101%	90% - 110%	Yes
LCSD	0.00508	0.00500	102%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

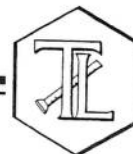
Mona Nassimi
Mona Nassimi, Manager
Analytical Services

008

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Laboratory No.: 965876

Date: May 25, 2007

Collected: May 9, 2007

Received: May 9, 2007

Prep/ Analyzed: May 10, 2007

Analytical Batch: 05TUC070

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

TLI I.D.	Field I.D.	Sample Time	Units	DF	RL	Results
965876	SC-700B-WDR-098	11:25	NTU	1.00	0.100	ND

QA/QC Summary

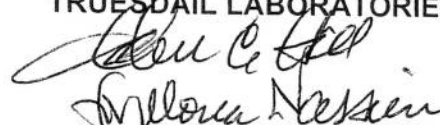
QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965870-32	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.60	8.00	95.0%	90% - 110%	Yes
LCS	7.62	8.00	95.3%	90% - 110%	Yes
LCS	7.75	8.00	96.9%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 965876

Date: May 25, 2007

Collected: May 9, 2007

Received: May 9, 2007

Prep/ Analyzed: May 10, 2007

Analytical Batch: 05PH07P

Investigation:

pH by SM 4500-H B

Analytical Results pH

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Run Time</u>	<u>Units</u>	<u>MDL</u>	<u>RL</u>	<u>Results</u>
965876	SC-700B-WDR-098	11:25	10:55	pH Units	0.0570	2.00	8.10

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	965876	8.10	8.10	0.00	+ 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.02	7.00	0.02	± 0.100 Units	Yes
LCS #1	7.01	7.00	0.01	± 0.100 Units	Yes
LCS #2	7.02	7.00	0.02	± 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

Established 1931



REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965876

Date: May 25, 2007

Collected: May 9, 2007

Received: May 9, 2007

Prep/ Analyzed: May 11, 2007

Analytical Batch: 05EC07K

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

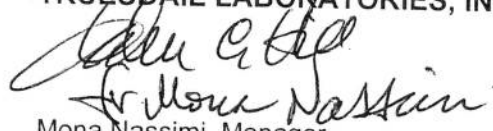
<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
965876	SC-700B-WDR-098	µmhos/cm	EPA 120.1	1.00	2.00	6640

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965708-11	3990	3970	0.50%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	690	706	97.7%	90% - 110%	Yes
CVS#1	1350	1410	95.7%	90% - 110%	Yes
CVS#2	1350	1410	95.7%	90% - 110%	Yes
LCS	690	706	97.7%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

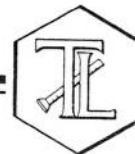

Mona Nassimi, Manager
Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Sample

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 965876

Date: May 25, 2007

Collected: May 9, 2007

Received: May 9, 2007

Prep/ Analyzed: May 11, 2007

Analytical Batch: 05TDS07J

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>RL</u>	<u>Results</u>
965876	SC-700B-WDR-098	mg/L	EPA 160.1	139	3840

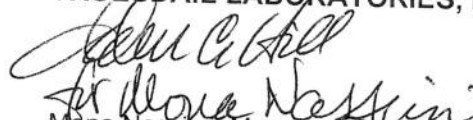
QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	965876	3840	3610	3.09%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	495	500	99.0%	90% - 110%	Yes
LCS 2	493	500	98.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).
RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
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CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-098]

COC Number

TURNAROUND TIME 10 Days

DATE 5-9-07 PAGE 1 OF 1

COMPANY	E2	PROJECT NAME	PG&E Topock	PHONE	(530) 229-3303	FAX	(530) 339-3303	ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612	P.O. NUMBER	346129.IM.02.00	TEAM	1	SAMPLERS (SIGNATURE)	<i>Proch</i>	DATE	5-9-07	TIME	11:25	DESCRIPTION	Groundwater	SAMPLE I.D.	SC-700B-WDR-098						
														CR6 (218.6) Lab Filtered	x	Total Metals (200.7)	x	Specific Conductance (120.7)	x	pH (150.7)	x	TDS (160.7)	x	Turbidity (180.7)	x				
														Rec'd 05/09/07 Lab.#965876															
														NUMBER OF CONTAINERS				PH 2				TOTAL NUMBER OF CONTAINERS							
														3				3											

CHAIN OF CUSTODY SIGNATURE RECORD										SAMPLE CONDITIONS				SPECIAL REQUIREMENTS:	
Signature (Relinquished)	<i>Michael LaFare</i>	Printed Name	Michael LaFare	Company/Agency	CH2M Hill	Date/Time	5-9-07 1530	RECEIVED	COOL	YES	NO	WARM	NO	°F	
Signature (Received)	<i>Wahremi</i>	Printed Name	Wahremi	Company/Agency	T.C.I.	Date/Time	5-9-07 21:30	CUSTODY SEALED	YES	NO	NO	NO	NO		
Signature (Relinquished)		Printed Name		Company/Agency		Date/Time									
Signature (Received)		Printed Name		Company/Agency		Date/Time									
Signature (Relinquished)		Printed Name		Company/Agency		Date/Time									
Signature (Received)		Printed Name		Company/Agency		Date/Time									

ALERT!! For Sample Conditions See Form Attached

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14201 FRANKLIN AVENUE
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May 29, 2007

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-099 PROJECT, GROUNDWATER
MONITORING,
TLI No.: 966071

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-099 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, and Total Organic Carbon. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on May 16, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

Due to instrument problems, the sample for Total Chromium analysis was analyzed by method EPA 200.8 rather than EPA 200.7 as requested on the chain of custody.

No other violations or nonconformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

Aden C. Hill
Mona Nassimi
Mona Nassimi
Manager, Analytical Services

Ali. Kharrag
For K.R.P. Iyer
Quality Assurance/Quality Control Officer

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Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 966071

Date: May 29, 2007

Collected: May 16, 2007

Received: May 16, 2007

ANALYST LIST

METHOD	PARAMETER	ANALYST
EPA 120.1	Specific Conductivity	Tina Acquiat / Gautam Savani
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
SM 5310C	Total Organic Carbon	Hope Trinidad
EPA 200.8	Total Chromium	Michel Mendoza
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

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REPORT

14201 FRANKLIN AVENUE
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www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Laboratory No.: 966071

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 052107A

Date: June 6, 2007
Collected: May 16, 2007
Received: May 16, 2007
Prep/ Analyzed: May 21, 2007
Analytical Batch: 052107A
Revision 1

Investigation: Total Chromium by Inductively Coupled Argon Plasma Mass Spectrometer
using EPA 200.8

Analytical Results Total Chromium

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>Run Time</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966071-1	SC-700B-WDR-099	mg/L	EPA 200.8	11:48	1.00	0.0010	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	965708-6	0.00519	0.00514	0.97%	≤20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	965708-6	0.00519	5.00	0.0500	0.250	0.217	0.255	84.7%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.100	0.100	100%	90% - 110%	Yes
MRCVS#1	0.0960	0.100	96.0%	90% - 110%	Yes
ICS	0.0940	0.100	94.0%	80% - 120%	Yes
LCS	0.0992	0.100	99.2%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Condon for

Mona Nassimi, Manager
Analytical Services

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Laboratory No.: 966071

Date: May 29, 2007
Collected: May 16, 2007
Received: May 16, 2007
Prep/ Analyzed: May 17, 2007
Analytical Batch: 05CrH07P

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
966071-1	SC-700B-WDR-099	10:15	05:56	mg/L	1.05	0.00020	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966071-1	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	966071-1	0.00	1.06	0.00100	0.00106	0.00104	0.00106	98.1%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00511	0.00500	102%	90% - 110%	Yes
MRCVS#1	0.0104	0.0100	104%	95% - 105%	Yes
MRCVS#2	0.0105	0.0100	105%	95% - 105%	Yes
LCS	0.00510	0.00500	102%	90% - 110%	Yes
LCSD	0.00512	0.00500	102%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi
Mona Nassimi, Manager
Analytical Services

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 966071

Date: May 29, 2007

Collected: May 16, 2007

Received: May 16, 2007

Prep/ Analyzed: May 17, 2007

Analytical Batch: 05TUC07S

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966071-1	SC-700B-WDR-099	10:15	NTU	1.00	0.100	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966056-11	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.54	8.00	94.3%	90% - 110%	Yes
LCS	7.96	8.00	99.5%	90% - 110%	Yes
LCS	7.83	8.00	97.9%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

[Signature]
for Mona Nassimi
Mona Nassimi, Manager
Analytical Services

009

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www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Laboratory No.: 966071

Date: May 29, 2007

Collected: May 16, 2007

Received: May 16, 2007

Prep/ Analyzed: May 17, 2007

Analytical Batch: 05PH07X

Investigation:

pH by SM 4500-H B

Analytical Results pH

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Run Time</u>	<u>Units</u>	<u>MDL</u>	<u>RL</u>	<u>Results</u>
966071-1	SC-700B-WDR-099	10:15	09:05	pH Units	0.0570	2.00	8.05

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	966071-1	8.05	8.05	0.00	± 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.04	7.00	0.04	± 0.100 Units	Yes
LCS #1	7.02	7.00	0.02	± 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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Established 1931

REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

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Laboratory No.: 966071

Date: May 29, 2007

Collected: May 16, 2007

Received: May 16, 2007

Prep/ Analyzed: May 17, 2007

Analytical Batch: 05EC070

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966071-1	SC-700B-WDR-099	µmhos/cm	EPA 120.1	1.00	2.00	7010

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966071-1	7010	7020	0.14%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	690	706	97.7%	90% - 110%	Yes
CVS#1	1350	1410	95.7%	90% - 110%	Yes
LCS	690	706	97.7%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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REPORT

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155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 966071

Date: May 29, 2007

Collected: May 16, 2007

Received: May 16, 2007

Prep/ Analyzed: May 18, 2007

Analytical Batch: 05TDS07L

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>RL</u>	<u>Results</u>
966071-1	SC-700B-WDR-099	mg/L	EPA 160.1	250	4370

QA/QC Summary

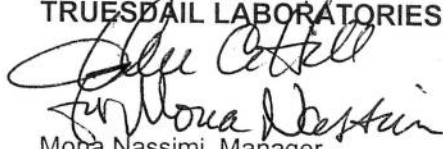
QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	966071-1	4370	4230	1.63%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	504	500	101%	90% - 110%	Yes
LCS 2	496	500	99.2%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

012

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Prep. Batch: 05TOC07G

Laboratory No.: 966071

Date: May 29, 2007

Collected: May 16, 2007

Received: May 16, 2007

Prep/ Analyzed: May 23, 2007

Analytical Batch: 05TOC07G

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>Run Time</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966071-2	SC-100B-WDR-099	mg/L	EPA 415.2	14:54	1.00	0.300	0.463

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966229-2	0.469	0.452	3.69%	≤20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.80	10.0	98.0%	90% - 110%	Yes
MRCVS#1	9.70	10.0	97.0%	90% - 110%	Yes
LCS	20.1	20.0	101%	90% - 110%	Yes
LCSD	20.1	20.0	101%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

013

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966071

TRUESDAIL LABORATORIES, INC.
14201 Franklin Avenue, Tustin, CA 92780-7008
(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD
[IM3Plant-WDR-099]

COC Number
TURNAROUND TIME 10 Days
DATE 5-16-07 PAGE 1 OF 1

COMPANY	E2	PROJECT NAME	PG&E Topock	PHONE	(530) 229-3303	FAX	(530) 339-3303	ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612	P.O. NUMBER	346129 IM.02.00	SAMPLERS (SIGNATURE)		TEAM	1
SAMPLE I.D.	DATE	TIME	DESCRIPTION	CR6 (218.6) Lab Filtered	Total Metals (200.7) Total Chromium	Specific Conductance (120.7)	pH (150.7)	TDS (160.7)	Turbidity (180.7)	Rec'd 05/16/07 Lab.# 966071	NUMBER OF CONTAINERS	COMMENTS			
SC-700B-WDR-099	5/16/07	1015	Groundwater	x	x	x	x	x	x		3				
SC-100B-WDR-099	5/16/07	1020		x	x	x	x	x	x		2				
											PH-1	TOTAL NUMBER OF CONTAINERS			

For Sample Conditions
See Form Attached

ALERT!!
Level III QC

046

CHAIN OF CUSTODY SIGNATURE RECORD			
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
	David Chao	Company/Agency	5-16-07 15:30
Signature (Received)	Printed Name	Company/Agency	Date/Time
	Rafael Davila	Company/Agency	5-16-07 20:45
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
Signature (Received)	Printed Name	Company/Agency	Date/Time
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
Signature (Received)	Printed Name	Company/Agency	Date/Time

SAMPLE CONDITIONS			
RECEIVED	COOL	WARM	°F
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
CUSTODY SEALED			
YES	NO	YES	NO
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPECIAL REQUIREMENTS:			

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May 31, 2007

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-100 PROJECT, GROUNDWATER
MONITORING,
TLI No.: 966229

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-100 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, and Total Organic Carbon. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on May 22, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi
Manager, Analytical Services

K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 966229

Date: June 6, 2007

Collected: May 22, 2007

Received: May 22, 2007

Revision 1

ANALYST LIST

ANALYST		
EPA 120.1	Specific Conductivity	Tina Acquiati
SM 4500-H B	pH	Tina Acquiati
SM 2540C	Total Dissolved Solids	Tina Acquiati
EPA 180.1	Turbidity	Gautam Savani
SM 5310C	Total Organic Carbon	Hope Trinidad
EPA 200.7	Total Chromium	Mark Kotani
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

TRUESDAIL LABORATORIES, INC.

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REPORT

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www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Laboratory No.: 966229

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 052907A

Date: May 31, 2007
Collected: May 22, 2007
Received: May 22, 2007
Prep/ Analyzed: May 29, 2007
Analytical Batch: 052907A

Investigation: Total Chromium by Inductively Coupled Argon Plasma Atomic Emission Spectrometer
using EPA 200.7

Analytical Results Total Chromium

TLI I.D.	Field I.D.	Units	Method	Run Time	DF	RL	Results
966229-1	SC-700B-WDR-100	mg/L	EPA 200.7	11:38	1.00	0.0010	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966229-1	ND	ND	0.00%	≤20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	966229-1	0.00	1.00	0.0500	0.0500	0.0486	0.0500	97.2%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0521	0.0500	104%	90% - 110%	Yes
MRCVS#1	0.0522	0.0500	104%	90% - 110%	Yes
ICS	0.0506	0.0500	101%	80% - 120%	Yes
LCS	0.0466	0.0500	93.2%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

007

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Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Laboratory No.: 966229

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Date: May 31, 2007
Collected: May 22, 2007
Received: May 22, 2007
Prep/ Analyzed: May 23, 2007
Analytical Batch: 05CrH07Q

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
966229-1	SC-700B-WDR-100	12:15	11:33	mg/L	1.05	0.00020	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966220	0.00246	0.00247	0.41%	≤ 20%	Yes

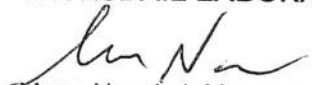
QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	966229-1	0.00	1.06	0.00100	0.00106	0.00114	0.00106	108%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00511	0.00500	102%	90% - 110%	Yes
MRCVS#1	0.0102	0.0100	102%	95% - 105%	Yes
MRCVS#2	0.0104	0.0100	104%	95% - 105%	Yes
MRCVS#3	0.0102	0.0100	102%	95% - 105%	Yes
MRCVS#4	0.0102	0.0100	102%	95% - 105%	Yes
LCS	0.00511	0.00500	102%	90% - 110%	Yes
LCSD	0.00510	0.00500	102%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

008

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 966229

Date: May 31, 2007

Collected: May 22, 2007

Received: May 22, 2007

Prep/ Analyzed: May 23, 2007

Analytical Batch: 05TUC07U

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966229-1	SC-700B-WDR-100	12:15	NTU	1.00	0.100	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966225-4	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	8.15	8.00	102%	90% - 110%	Yes
LCS	8.00	8.00	100%	90% - 110%	Yes
LCS	7.80	8.00	97.5%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 966229

Date: May 31, 2007

Collected: May 22, 2007

Received: May 22, 2007

Prep/ Analyzed: May 23, 2007

Analytical Batch: 05PH07AA

Investigation:

pH by SM 4500-H B

Analytical Results pH

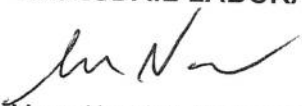
<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Run Time</u>	<u>Units</u>	<u>MDL</u>	<u>RL</u>	<u>Results</u>
966229-1	SC-700B-WDR-100	12:15	08:50	pH Units	0.0570	2.00	8.10

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	966229-1	8.10	8.11	0.01	± 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.06	7.00	0.06	± 0.100 Units	Yes
LCS #1	7.07	7.00	0.07	± 0.100 Units	Yes
LCS #2	7.05	7.00	0.05	± 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 966229

Date: May 31, 2007

Collected: May 22, 2007

Received: May 22, 2007

Prep/ Analyzed: May 23, 2007

Analytical Batch: 05EC07P

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity


<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966229-1	SC-700B-WDR-100	µmhos/cm	EPA 120.1	1.00	2.00	6490

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966229-1	6490	6500	0.15%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	695	706	98.4%	90% - 110%	Yes
CVS#1	1350	1410	95.7%	90% - 110%	Yes
CVS#2	1350	1410	95.7%	90% - 110%	Yes
LCS	693	706	98.2%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

011

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 966229

Date: May 31, 2007

Collected: May 22, 2007

Received: May 22, 2007

Prep/ Analyzed: May 23, 2007

Analytical Batch: 05TDS07N

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>RL</u>	<u>Results</u>
966229-1	SC-700B-WDR-100	mg/L	EPA 160.1	139	4070

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	966229-1	4070	4020	0.62%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	492	500	98.4%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

012

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Laboratory No.: 966229

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 05TOC07G

Date: May 31, 2007
Collected: May 22, 2007
Received: May 22, 2007
Prep/ Analyzed: May 23, 2007
Analytical Batch: 05TOC07G

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>Run Time</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966229-2	SC-100B-WDR-100	mg/L	EPA 415.2	15:03	1.00	0.300	0.469

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966229-2	0.469	0.452	3.69%	≤20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.80	10.0	98.0%	90% - 110%	Yes
MRCVS#1	9.70	10.0	97.0%	90% - 110%	Yes
LCS	20.1	20.0	101%	90% - 110%	Yes
LCSD	20.1	20.0	101%	90% - 110%	Yes

ND: Not detected at reporting limit

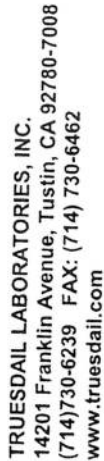
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-100]

COC Number

10 Days

DATE 5-22-07

PAGE 1 OF 1

[illegible]

**For Sample Conditions
See Form Attached**

ALERT!!

Level III QC

047

CHAIN OF CUSTODY SIGNATURE RECORD

CHAIN OF CUSTODY SIGNATURE RECORD			
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
	David J. Chavez	CH2M HILL ComT	5-22-07 15:30
Signature (Received)	Printed Name	Company/Agency	Date/Time
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
Signature (Received)	Printed Name	Company/Agency	Date/Time
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time
Signature (Received)	Printed Name	Company/Agency	Date/Time

RECEIVED ☐ COOL ☐ WARM ☐

CUSTODY SEALED YES ☐ NO ☐

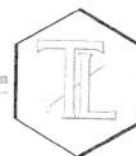
SAMPLE CONDITIONS

°F _____

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

June 6, 2007

E2 Consulting Engineers, Inc.
Mr. Shawn Duffy
155 Grand Ave., Suite 1000
Oakland, California 94612

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-101 PROJECT, GROUNDWATER
MONITORING,
TLI NO.: 966425


Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-101 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, and Total Organic Carbon. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on May 30, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

If you have any questions or require additional information, please contact me at (714) 730-6239 ext. 200.

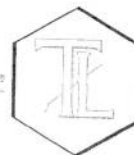
Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi
Manager, Analytical Services


For K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

ANALYST LIST

METHOD	PARAMETER	ANALYST
EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
SM 5310C	Total Organic Carbon	Hope Trinidad
EPA 200.7	Total Chromium	Mark Kotani
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

REPORT



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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Prep. Batch: 060107A

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

Prep/ Analyzed: June 1, 2007

Analytical Batch: 060107A

Investigation: Total Chromium by Inductively Coupled Argon Plasma Atomic Emission Spectrometer
using EPA 200.7

Analytical Results Total Chromium

TLI I.D.	Field I.D.	Units	Method	Run Time	DF	RL	Results
966425-1	SC-700B-WDR-101	mg/L	EPA 200.7	15:27	1.00	0.0010	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966425-1	ND	ND	0.00%	≤20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	966425-1	0.00	1.00	0.0500	0.0500	0.0439	0.0500	87.8%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0508	0.0500	102%	90% - 110%	Yes
MRCVS#1	0.0485	0.0500	97.0%	90% - 110%	Yes
ICS	0.0486	0.0500	97.2%	80% - 120%	Yes
LCS	0.0495	0.0500	99.0%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

007

Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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14201 FRANKLIN AVENUE
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REPORT

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Laboratory No.: 966425

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Date: June 6, 2007
Collected: May 30, 2007
Received: May 30, 2007
Prep/ Analyzed: May 31, 2007
Analytical Batch: 05CrH07S

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
966425-1	SC-700B-WDR-101	13:00	06:56	mg/L	1.05	0.00020	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966425-1	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	966425-1	0.00	1.06	0.00100	0.00106	0.00114	0.00106	108%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCSS	0.00514	0.00500	103%	90% - 110%	Yes
MRCVS#1	0.0100	0.0100	100%	95% - 105%	Yes
LCS	0.00515	0.00500	103%	90% - 110%	Yes
LCSD	0.00513	0.00500	103%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi
Mona Nassimi, Manager
Analytical Services

008

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www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

Prep/ Analyzed: May 30, 2007

Analytical Batch: 05TUC07AA

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966425-1	SC-700B-WDR-101	13:00	NTU	1.00	0.100	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966360-16	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.50	8.00	93.8%	90% - 110%	Yes
LCS	7.53	8.00	94.1%	90% - 110%	Yes
LCS	7.72	8.00	96.5%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

009

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(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

Prep/ Analyzed: May 31, 2007

Analytical Batch: 05PH07AE

Investigation:

pH by SM 4500-H B

Analytical Results pH


<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Run Time</u>	<u>Units</u>	<u>MDL</u>	<u>RL</u>	<u>Results</u>
966425-1	SC-700B-WDR-101	13:00	09:15	pH Units	0.0570	2.00	8.07

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	966425-1	8.07	8.08	0.01	+ 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.05	7.00	0.05	+ 0.100 Units	Yes
LCS #1	7.03	7.00	0.03	+ 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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REPORT



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(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

Prep/ Analyzed: May 31, 2007

Analytical Batch: 05EC07R

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity


<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
966425-1	SC-700B-WDR-101	µmhos/cm	EPA 120.1	1.00	2.00	6660

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966425-1	6660	6670	0.15%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	690	706	97.7%	90% - 110%	Yes
CVS#1	978	998	98.0%	90% - 110%	Yes
LCS	690	706	97.7%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

Prep/ Analyzed: May 31, 2007

Analytical Batch: 05TDS07P

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>RL</u>	<u>Results</u>
966425-1	SC-700B-WDR-101	mg/L	EPA 160.1	139	3900

QA/QC Summary


QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	966425-1	3900	3850	0.65%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	499	500	99.8%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

012

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REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

Client: E2 Consulting Engineers, Inc.
155 Grand Ave. Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

Laboratory No.: 966425

Date: June 6, 2007

Collected: May 30, 2007

Received: May 30, 2007

Prep/ Analyzed: June 5, 2007

Analytical Batch: 06TOC07A

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

P.O. No.: 346129.IM.02.E2

Prep. Batch: 06TOC07A

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

TLI I.D.	Field I.D.	Units	Method	Run Time	DF	RL	Results
966425-2	SC-100B-WDR-101	mg/L	EPA 415.2	17:14	1.00	0.300	0.492

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	966425-2	0.492	0.510	3.59%	≤20%	Yes


QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	966417	4.93	1.00	10.0	10.0	14.5	14.9	96%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.67	10.0	96.7%	90% - 110%	Yes
MRCVS#1	9.74	10.0	97.4%	90% - 110%	Yes
LCS	20.1	20.0	101%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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STL

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

Tel: 714 258 8610 Fax: 714 258 0921
www.stl-inc.com

May 18, 2007

STL LOT NUMBER: **E7E030313**

Priya Kumar / E2
CH2M Hill Inc
155 Grand Ave
Suite 1000
Oakland, CA 94612



Dear Ms. Kumar,

This report contains the analytical results for the sample received under chain of custody by STL Los Angeles on May 3, 2007. This sample is associated with your PG&E TOPOCK GWM project.

STL Los Angeles certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of the report. NELAP Certification Number for STL Los Angeles is 01118CA / E87652.

Any matrix related anomaly is footnoted within the report. A cooler receipt temperature between 2-6 degrees Celsius is within EPA acceptance criteria. The temperature(s) of the cooler received for this project can be found on the Project Receipt Checklist. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. All applicable quality control procedures met method-specified acceptance criteria.

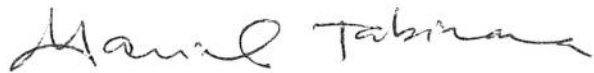
The Analytical Report was provided on May 14, 2007.

This report shall not be reproduced except in full, without the written approval of the laboratory.

This report contains 000187 pages.

If you have any questions, please feel free to call me at (714) 258-8610.

Sincerely,

A handwritten signature in black ink, appearing to read "Marisol Tabirara". The signature is fluid and cursive, with the first name "Marisol" written in a larger, more prominent script than the last name "Tabirara".

Marisol Tabirara
Project Manager

cc: Project File


E7E030313

Savern Trent Laboratories
1721 Grand Ave, Santa Ana, CA 92705
(714)258-8610

CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-097]

COC Number
TURNAROUND TIME 10 Days
DATE 5-2-07 PAGE 1 OF 1

COMPANY E2	PROJECT NAME PG&E Topock GWM	PHONE (530) 229-3303	FAX (530) 339-3303	P.O. NUMBER 346129.IM.02.00	TEAM 1	COMMENTS
ADDRESS 155 Grand Ave Ste 1000 Oakland, CA 94612						
SAMPLERS (SIGNATURE) 						NUMBER OF CONTAINERS
SAMPLE I.D. SC-Sludge-WDR-097						
DATE 5-2-07	TIME 9:45	DESCRIPTION Soil	METALS (60108) Title 22 Metals (7199) Mercury (7471A)			
			X	X	X	TOTAL NUMBER OF CONTAINERS 2

000003

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/Agency	Date/Time	SAMPLE CONDITIONS RECEIVED COOL <input type="checkbox"/> WARM <input type="checkbox"/> °F CUSTODY SEALED YES <input type="checkbox"/> NO <input type="checkbox"/>
Signature (Received)	Printed Name	Company/Agency	Date/Time	
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time	SPECIAL REQUIREMENTS: CA 5/3/07
Signature (Received)	Printed Name	Company/Agency	Date/Time	
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time	
Signature (Received)	Printed Name	Company/Agency	Date/Time	

42 12.7 - 3.8

METHOD / ANALYST SUMMARY

E7E030313

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 160.3 MOD	Janice Salenga	403147
SW846 6010B	Josephine Asuncion	021088
SW846 7199	Yuriy Zakhrafov	000022
SW846 7471A	Hao Ton	000023

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-097

TOTAL Metals

Lot-Sample #...: E7E030313-001

Matrix.....: SO

Date Sampled...: 05/02/07 09:45 Date Received...: 05/03/07 12:55

% Moisture.....: 47

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7127231						
Arsenic	ND	19	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AA
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Antimony	ND	110	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AC
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Barium	50	38	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AD
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Cadmium	ND	9.4	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AE
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Chromium	6100	19	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AF
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Beryllium	ND	9.4	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AG
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Lead	ND	9.4	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AH
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Selenium	ND	9.4	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AJ
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		
Silver	ND	19	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AK
		Dilution Factor: 10		Analysis Time...: 17:21		Analyst ID.....: 021088
		Instrument ID...: M01		MS Run #.....: 7127121		

(Continued on next page)

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-097

TOTAL Metals

Lot-Sample #...: E7E030313-001

Matrix.....: SO

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Cobalt	ND	94	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AL
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Copper	ND	47	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AM
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Molybdenum	ND	75	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AN
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Nickel	ND	75	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AP
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Thallium	ND	19	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AQ
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Vanadium	ND	94	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AR
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Zinc	97	38	mg/kg	SW846 6010B	05/07-05/08/07	JV8CE1AT
		Dilution Factor: 10		Analysis Time...: 17:21	Analyst ID.....: 021088	
		Instrument ID...: M01		MS Run #.....: 7127121		
Prep Batch #...: 7127256						
Mercury	0.91	0.19	mg/kg	SW846 7471A	05/07/07	JV8CE1AU
		Dilution Factor: 1		Analysis Time...: 15:09	Analyst ID.....: 000023	
		Instrument ID...: M04		MS Run #.....: 7127136		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-097

General Chemistry

Lot-Sample #...: E7E030313-001 Work Order #...: JV8CE Matrix.....: SO
Date Sampled...: 05/02/07 09:45 Date Received...: 05/03/07 12:55
% Moisture.....: 47

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	58	1.9	mg/kg	SW846 7199	05/07/07	7125198
		Dilution Factor: 5		Analysis Time...: 11:19	Analyst ID.....: 000022	
		Instrument ID...: W18		MS Run #.....: 7125114		
Percent Moisture	47	0.10	%	MCAWW 160.3 MOD	05/07-05/08/07	7127479
		Dilution Factor: 1		Analysis Time...: 08:00	Analyst ID.....: 4031474	
		Instrument ID...: W15		MS Run #.....: 7127304		

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.