



**Pacific Gas and
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February 15, 2008

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
January 2008 Monitoring Report**

Dear Mr. Perdue:

Enclosed is the January 2008 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 California Regional Water Quality Control Board, Colorado River Basin Region (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:

January 2008 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

January 2008 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

February 15, 2008

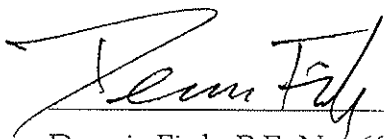
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January 2008 Monitoring Report
for Interim Measure No. 3 Groundwater Treatment System
Waste Discharge Requirements Order No. R7-2006-0060
PG&E Topock Compressor Station
Needles, California

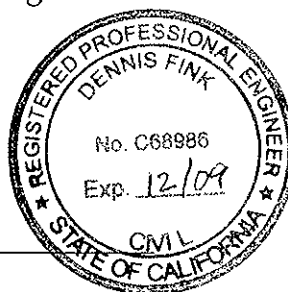
Prepared for
Pacific Gas and Electric Company

February 15, 2008

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
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 January 2008. 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 are located at the end of this report.) Sampling station locations are shown on 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 January 2008, 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. Extraction well TW-2D was operated for a short period on January 25th while replacing a flow meter on extraction well TW-3D. The operational run time for the IM groundwater extraction system (combined or individual pumping) was 98 percent during the January 2008 reporting period.

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 January 2008 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 wells 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 5,865,036 gallons of extracted groundwater during January 2008. The IM No. 3 facility also treated approximately 2,455 gallons of water generated from the groundwater monitoring program. Two containers of solids from the IM No. 3 facility were transported offsite during January 2008.

Periods of planned and unplanned extraction system down time (that together resulted in less than 3 percent downtime during January 2008) 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.

- **January 2, 2008 (planned):** The extraction well system was temporarily offline from 8:41 am until 1:25 pm and from 1:28 pm until 1:53 pm to complete reverse osmosis unit maintenance and replace two valves within the IM No. 3 facility process piping. Extraction system downtime was 5 hours 9 minutes.
- **January 9, 2008 (planned):** The extraction well system was temporarily offline from 11:34 am until 11:39 am, 11:40 am until 11:45 am, and 12:10 pm until 1:34 pm to clean the iron oxidation tank piping. Extraction system downtime was 1 hour 34 minutes.
- **January 16, 2008 (planned):** The extraction well system was temporarily offline from 7:34 am until 1:46 pm and from 2:42 pm until 2:44 pm to repair two joints of the treated water pipeline between the IM No. 3 treatment plant and injection well field. The repairs were accomplished at the flanged ends between the pipe sections, and were identified during routine pipeline inspections when droplets were identified on the two joints. Only a few fluid ounces of treated water leaked from each location. Extraction system downtime was 6 hours 14 minutes.
- **January 23, 2008 (planned):** The extraction well system was temporarily offline from 9:34 am until 12:34 pm and 2:36 pm until 4:34 pm to switch to a clean bank of microfilter modules. Extraction system downtime was 4 hours 58 minutes.

- **January 25, 2008 (unplanned):** The extraction well system was temporarily offline from 7:21 am until 8:10 am for microfilter repairs. Extraction system downtime was 49 minutes.
- **January 28, 2008 (unplanned):** The extraction well system was temporarily offline from 8:15 pm until 8:23 pm to re-start the facility after an in-line pH probe failure and repair. Extraction system downtime was 8 minutes.

5.0 Sampling and Analytical Procedures

With the exception of pH, all samples were collected at the designated sampling locations and placed directly into containers provided by Truesdail Laboratories, Inc. (Truesdail). 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 via courier 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.

California certified laboratory 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 (EPA).

During January 2008, analysis of pH was conducted at Truesdail for each sample. Starting November 20, 2007, analysis of pH was also conducted by field method pursuant to the Water Board letter dated October 16, 2007 – Clarification of Monitoring and Reporting Program Requirements, authorizing pH measurements to be conducted in the field. The field method pH samples were collected at the designated sampling locations and field tested within 15 minutes of sampling.

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 were 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 January 2008 were prepared by certified analytical laboratories, and are presented in Appendix A.

The January 2008 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 was followed:

- The influent was sampled monthly; the sampling date was January 3, 2008. Results are presented in Table 3.
- The effluent was sampled weekly; the sample dates were January 3, 9, 16, 23 and 30, 2008. Results are presented in Table 4.
- The reverse osmosis concentrate was sampled monthly; the sample date was January 3, 2008. Results are presented in Table 5.
- The sludge was sampled monthly; the sample date was January 3, 2008. In accordance with the WDRs, sludge is required to be 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 First Quarter 2008 aquatic bioassay test was performed on a sludge sample collected January 3, 2008. Results are presented in Table 6.

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

7.0 Conclusions

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

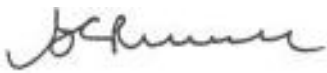
In addition, no incidents of non-compliance were identified during the reporting period, and no events that caused an immediate or potential threat to human health or the environment, or new releases of hazardous waste or hazardous waste constituents, or new solid waste management units, were identified 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 December 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: _____ February 15, 2008 _____

Tables

TABLE 1
Sampling Station Descriptions
January 2008 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
January 2008 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)
January 2008 Average Monthly Flowrate	131.4	123.1	8.0

Notes:

gpm: gallons per minute.

^a Extraction wells TW-3D and PE-1 were operated during January 2008. Extraction well TW-2D was operated for a short period on January 25th while replacing a flow meter on Extraction well TW-3D.

^b The difference between influent flow rate and the sum of the effluent and reverse osmosis concentrate flow rates during January 2008 is less than 0.3 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 No. 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 January 2008.

TABLE 3
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Influent Monitoring Results ^a
January 2008 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	Lab ^c pH	Field ^d pH	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	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
			50.4	0.0070	0.153	0.0700	---	0.27	2.9	0.26	0.0710	0.022	0.015	0.016	0.0048	0.13	0.0250	0.018	0.016	0.017	0.13	0.0350	0.0010	1.20	2.4	0.12	
SC-100B-WDR-132	1/3/2008		5170	0.158	7980	7.50 J	7.50	1630	1500	ND (50.0)	ND (0.500)	ND (3.0)	ND (5.0)	ND (300)	0.622	ND (10.0)	2.88	ND (2.0)	ND (20.0)	20.0	ND (20.0)	3.60	ND (0.0050)	641	ND (20.0)	ND (20.0)	
RL			250	0.100	2.00	2.00	---	1.0	20.0	50.0	0.500	3.0	5.0	300	0.200	10.0	0.500	2.0	20.0	5.0	20.0	1.00	0.0050	25.0	20.0	20.0	

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 value
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.
^d Starting 11/20/2007, analysis of pH was switched from California certified laboratory analysis to field method pursuant to the Water Board letter dated October 16, 2007 – Clarification of Monitoring and Reporting Program Requirements, stating that pH measurements may be conducted in the field.

TABLE 4
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Effluent Monitoring Results^a
January 2008 Monthly Report for Interim Measures No.3 Groundwater Treatment System

WDRs Effluent Limits ^b	Ave. Monthly	NA	NA	NA	6.5-8.4	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	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>	Analytes Units ^c MDL ^d	TDS	Turbidity	Specific Conductance	Lab ^e pH	Field ^f pH	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	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	mg/L	mg/L	mg/L	µg/L	µg/L	
		50.4	0.0070	0.153	0.0700	---	0.053	0.14	0.26	0.0710	0.022	0.015	0.016	0.0048	0.13	0.0250	0.018	0.016	0.017	0.13	0.0350	0.0010	1.20	2.4	0.12	
Sample ID	Date																									
SC-700B-WDR-132	1/3/2008	4130	ND (0.100)	6680	8.19 J	8.10	ND (1.0)	ND (1.0)	ND (50.0)	ND (0.500)	ND (3.0)	ND (5.0)	ND (300)	1.12	ND (10.0)	2.18	ND (2.0)	30.1	14.1	ND (20.0)	2.89	ND (0.0050)	517	ND (20.0)	ND (20.0)	
	RL	250	0.100	2.00	2.00	---	1.0	1.0	50.0	0.500	3.0	5.0	300	0.200	10.0	0.500	2.0	20.0	5.0	20.0	1.00	0.0050	25.0	20.0	20.0	
SC-700B-WDR-134	1/9/2008	4100	ND (0.100)	6870	8.14 J	7.80	1.0	0.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	250	0.100	2.00	2.00	---	1.0	0.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
SC-700B-WDR-133	1/16/2008	4000	ND (0.100)	6780	8.25 J	7.90	ND (1.0)	ND (0.20)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	250	0.100	2.00	2.00	---	1.0	0.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
SC-700B-WDR-135	1/23/2008	4020	ND (0.100)	6650	8.21 J	8.10	ND (1.0)	ND (0.20)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	250	0.100	2.00	2.00	---	1.0	0.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
SC-700B-WDR-136	1/30/2008	4260	ND (0.100)	6670	7.96 J	7.90	ND (1.0)	ND (0.20)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
	RL	250	0.100	2.00	2.00	---	1.0	0.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

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 value

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 wells (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.

^f Starting 11/20/2007, analysis of pH was switched from California certified laboratory analysis to field method pursuant to the Water Board letter dated October 16, 2007 – Clarification of Monitoring and Reporting Program Requirements, stating that pH measurements may be conducted in the field.

TABLE 5
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Reverse Osmosis Concentrate Results ^a
January 2008 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Required Sampling Frequency		Monthly																						
<div>Sample ID</div> <div>Date</div>	<div>Analytes</div> <div>Units ^b</div> <div>MDL</div>	TDS	Specific Conductance	Lab ^c pH	Field ^d pH	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	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
		50.4	0.153	0.0700	---	0.00027	0.00014	0.00011	0.000075	0.000081	0.000038	0.000058	0.00013	0.00065	0.0250	0.000091	0.000084	0.000030	0.00064	0.000080	0.00011	0.000090	0.000062	0.00058
SC-701-WDR-132	1/3/2008	20000	27100	7.99 J	8.10	ND (0.0010)	ND (0.0010)	ND (0.0030)	ND (0.0050)	ND (0.300)	ND (0.0010)	ND (0.0020)	ND (0.0050)	ND (0.0100)	11.0	ND (0.0020)	0.0578	ND (0.00020)	ND (0.0200)	0.0127	ND (0.0050)	ND (0.0010)	ND (0.0050)	ND (0.0200)
RL		250	2.00	2.00	---	0.0010	0.0010	0.0030	0.0050	0.300	0.0010	0.0020	0.0050	0.0100	0.500	0.0020	0.0050	0.00020	0.0200	0.0050	0.0050	0.0010	0.0050	0.0200

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 value
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.
^d Starting 11/20/2007, analysis of pH was switched from California certified laboratory analysis to field method pursuant to the Water Board letter dated October 16, 2007 – Clarification of Monitoring and Reporting Program Requirements, stating that pH measurements may be conducted in the field.

TABLE 6
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Sludge Monitoring Results^a
January 2008 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Required Sampling Frequency		Monthly ^c																			Quarterly ^d
<div></div>	Analytes	Chromium	Hexavalent Chromium	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Fluoride	Lead	Molybdenum	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Bioassay ^e
	Units ^b	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	% Survival at 750 mg/L
	MDL	3.17	0.00029	0.295	0.0066	0.0370	0.0308	0.0238	0.0374	0.123	0.100	0.154	0.0074	0.0029	0.0647	0.0142	0.0185	0.105	0.0334	0.946	5%
Sample ID	Date																				
SC-Sludge-WDR-132	1/3/2008	23000	295	422	71.0	129	248	48.1	12.2	440	78.5	52.8	65.1	ND (0.0922)	23.2	ND (4.14)	ND (20.7)	ND (4.15)	128	967	100
RL		208	18.9	4.15	20.7	2.50	2.50	4.15	2.50	5.00	9.43	4.15	20.7	0.0922	2.50	4.14	20.7	4.15	2.50	116	5

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
^d Sludge shall have an aquatic bioassay test performed each time sludge is transported offsite, unless transport is more frequent than quaterly, in which case the sampling frequency shall be quarterly.
^e Concentration of sludge per 1 liter of water.

TABLE 7

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

Monitoring Information

January 2008 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-132	J. Aide	1/3/2008	10:30:00 AM	TLI	EPA 120.1	SC	1/4/2008	Tina Acquiat
					TLI	EPA 200.7	FE	1/24/2008	Michel Mendoza/Mark Kotani
					TLI	EPA 200.7	B	1/8/2008	Michel Mendoza/Mark Kotani
					TLI	EPA 200.8	NI	1/7/2008	Linda Saetern
					TLI	EPA 200.8	ZN	1/7/2008	Linda Saetern
					TLI	EPA 200.8	PB	1/7/2008	Linda Saetern
					TLI	EPA 200.8	MO	1/7/2008	Linda Saetern
					TLI	EPA 200.8	MN	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CU	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CR	1/7/2008	Linda Saetern
					TLI	EPA 200.8	BA	1/7/2008	Linda Saetern
					TLI	EPA 200.8	AS	1/7/2008	Linda Saetern
					TLI	EPA 200.8	AL	1/7/2008	Linda Saetern
					TLI	EPA 200.8	SB	1/7/2008	Linda Saetern
					TLI	EPA 218.6	CR6	1/4/2008	Jean Paul Gleeson
					TLI	EPA 300.0	NO3N	1/4/2008	Giawad Ghenniwa
					TLI	EPA 300.0	SO4	1/4/2008	Giawad Ghenniwa
					TLI	EPA 300.0	FL	1/7/2008	Giawad Ghenniwa
					FIELD	HACH	PH	1/3/2008	Joe Aide
					TLI	SM2130B	TRB	1/4/2008	Gautam Savani
					TLI	SM2540C	TDS	1/7/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/4/2008	Tina Acquiat
					TLI	SM4500NH3D	NH3N	1/7/2008	Iordan Stavrev
					TLI	SM4500NO2B	NO2N	1/4/2008	Tina Acquiat
SC-700B	SC-700B-WDR-132	J. Aide	1/3/2008	10:00:00 AM	TLI	EPA 120.1	SC	1/4/2008	Tina Acquiat
					TLI	EPA 200.7	B	1/8/2008	Michel Mendoza/Mark Kotani
					TLI	EPA 200.7	FE	1/8/2008	Michel Mendoza/Mark Kotani
					TLI	EPA 200.8	MN	1/7/2008	Linda Saetern
					TLI	EPA 200.8	AL	1/7/2008	Linda Saetern
					TLI	EPA 200.8	AS	1/7/2008	Linda Saetern
					TLI	EPA 200.8	BA	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CU	1/7/2008	Linda Saetern
					TLI	EPA 200.8	MO	1/7/2008	Linda Saetern
					TLI	EPA 200.8	NI	1/7/2008	Linda Saetern
					TLI	EPA 200.8	PB	1/7/2008	Linda Saetern
					TLI	EPA 200.8	SB	1/7/2008	Linda Saetern

TABLE 7

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

Monitoring Information

January 2008 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-132	J. Aide	1/3/2008	10:00:00 AM	TLI	EPA 200.8	ZN	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CR	1/7/2008	Linda Saetern
					TLI	EPA 218.6	CR6	1/4/2008	Jean Paul Gleeson
					TLI	EPA 300.0	FL	1/7/2008	Giawad Ghenniwa
					TLI	EPA 300.0	SO4	1/4/2008	Giawad Ghenniwa
					TLI	EPA 300.0	NO3N	1/4/2008	Giawad Ghenniwa
					FIELD	HACH	PH	1/3/2008	Joe Aide
					TLI	SM2130B	TRB	1/4/2008	Gautam Savani
					TLI	SM2540C	TDS	1/7/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/4/2008	Tina Acquiat
					TLI	SM4500NH3D	NH3N	1/7/2008	Iordan Stavrev
					TLI	SM4500NO2B	NO2N	1/4/2008	Tina Acquiat
SC-700B	SC-700B-WDR-133	J. Aide	1/16/2008	9:30:00 AM	TLI	EPA 120.1	SC	1/17/2008	Tina Acquiat
					TLI	EPA 200.8	CR	1/17/2008	Linda Saetern
					TLI	EPA 218.6	CR6	1/16/2008	Jean Paul Gleeson
					FIELD	HACH	PH	1/16/2008	Joe Aide
					TLI	SM2130B	TRB	1/18/2008	Gautam Savani
					TLI	SM2540C	TDS	1/17/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/17/2008	Tina Acquiat
SC-700B	SC-700B-WDR-134	J. Aide	1/9/2008	9:15:00 AM	TLI	EPA 120.1	SC	1/10/2008	Tina Acquiat
					TLI	EPA 200.8	CR	1/11/2008	Linda Saetern
					TLI	EPA 218.6	CR6	1/10/2008	Jean Paul Gleeson
					FIELD	HACH	PH	1/9/2008	Joe Aide
					TLI	SM2130B	TRB	1/10/2008	Gautam Savani
					TLI	SM2540C	TDS	1/10/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/10/2008	Tina Acquiat
SC-700B	SC-700B-WDR-135	Joe Aide	1/23/2008	8:30:00 AM	TLI	EPA 120.1	SC	1/24/2008	Tina Acquiat
					TLI	EPA 200.8	CR	1/24/2008	Linda Saetern
					TLI	EPA 218.6	CR6	1/24/2008	Jean Paul Gleeson
					FIELD	HACH	PH	1/23/2008	Joe Aide
					TLI	SM2130B	TRB	1/24/2008	Gautam Savani
					TLI	SM2540C	TDS	1/24/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/24/2008	Tina Acquiat
SC-700B	SC-700B-WDR-136	Joe Aide	1/30/2008	2:30:00 PM	TLI	EPA 120.1	SC	2/1/2008	Tina Acquiat
					TLI	EPA 200.8	CR	1/31/2008	Linda Saetern

TABLE 7

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

Monitoring Information

January 2008 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-136	Joe Aide	1/30/2008	2:30:00 PM	TLI	EPA 218.6	CR6	1/31/2008	Jean Paul Gleeson
					FIELD	HACH	PH	1/30/2008	Joe Aide
					TLI	SM2130B	TRB	1/31/2008	Gautam Savani
					TLI	SM2540C	TDS	1/31/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/31/2008	Tina Acquiat
SC-701	SC-701-WDR-132	J. Aide	1/3/2008	10:15:00 AM	TLI	EPA 120.1	SC	1/4/2008	Tina Acquiat
					TLI	EPA 200.8	PB	1/7/2008	Linda Saetern
					TLI	EPA 200.8	V	1/7/2008	Linda Saetern
					TLI	EPA 200.8	MO	1/7/2008	Linda Saetern
					TLI	EPA 200.8	ZN	1/7/2008	Linda Saetern
					TLI	EPA 200.8	TL	1/7/2008	Linda Saetern
					TLI	EPA 200.8	SE	1/7/2008	Linda Saetern
					TLI	EPA 200.8	SB	1/7/2008	Linda Saetern
					TLI	EPA 200.8	NI	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CU	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CO	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CD	1/7/2008	Linda Saetern
					TLI	EPA 200.8	BE	1/10/2008	Linda Saetern
					TLI	EPA 200.8	BA	1/7/2008	Linda Saetern
					TLI	EPA 200.8	AG	1/7/2008	Linda Saetern
					TLI	EPA 200.8	AS	1/7/2008	Linda Saetern
					TLI	EPA 200.8	CR	1/7/2008	Linda Saetern
					TLI	EPA 218.6	CR6	1/4/2008	Jean Paul Gleeson
					TLI	EPA 245.1	HG	1/6/2008	Michel Mendoza
					TLI	EPA 300.0	FL	1/7/2008	Giawad Ghenniwa
					FIELD	HACH	PH	1/3/2008	Joe Aide
					TLI	SM2540C	TDS	1/7/2008	Tina Acquiat
					TLI	SM4500-HB	PH	1/4/2008	Tina Acquiat
Phase Seperator	SC-Sludge-WDR-132	J. Aide	1/3/2008	10:40:00 AM	TLI	EPA 300.0	FL	1/7/2008	Giawad Ghenniwa
					TLI	EPA 6010B	NI	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	ZN	2/4/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	V	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	TL	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	SB	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	PB	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	FE	1/16/2008	Mark Kotani/Michel Mendoza

TABLE 7

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

Monitoring Information

January 2008 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
Phase Separator	SC-Sludge-WDR-132	J. Aide	1/3/2008	10:40:00 AM	TLI	EPA 6010B	CU	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	CR	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	CO	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	CD	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	BA	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 6010B	BE	1/16/2008	Mark Kotani/Michel Mendoza
					TLI	EPA 7471A	HG	1/6/2008	Michel Mendoza
					TLI	SM2540B	MOIST	1/21/2008	Gautam Savani
					TLI	SW 6020A	AG	1/31/2008	Linda Saetern
					TLI	SW 6020A	AS	1/28/2008	Linda Saetern
					TLI	SW 6020A	MO	1/28/2008	Linda Saetern
					TLI	SW 6020A	SE	1/31/2008	Linda Saetern
					TLI	SW 7199	CR6	1/10/2008	David Blackburn

TABLE 7

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

Monitoring Information

January 2008 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
Phase Separator	SC-Sludge-WDR-132	J. Aide	01/3/2008	10:40:00 AM	ATL	96-Hour Acute Aquatic Toxicity Screening Test	BIO	1/24//2008 - 01/28/2008	Lori Montoya

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)

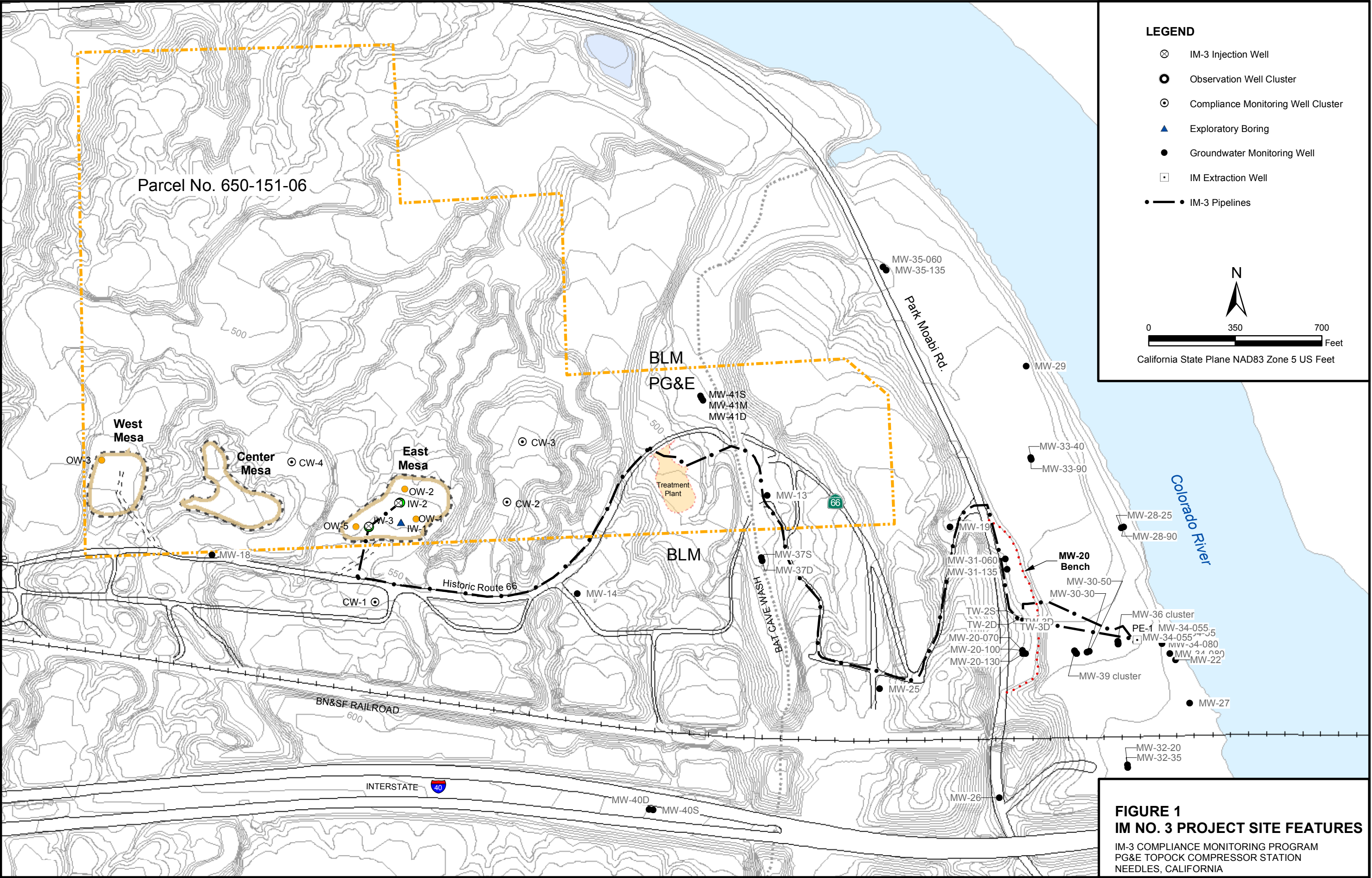
Prior to April 11, 2007 the analytical methods listed in the 40 CFR Part 136 for pH and TDS were E150.1 and E160.1, respectively. Per EPA and Department of Health Services guidelines, the analytical methods listed in the current 40 CFR Part 136 have changed to SM4500-H B and SM2540C as shown on the table.

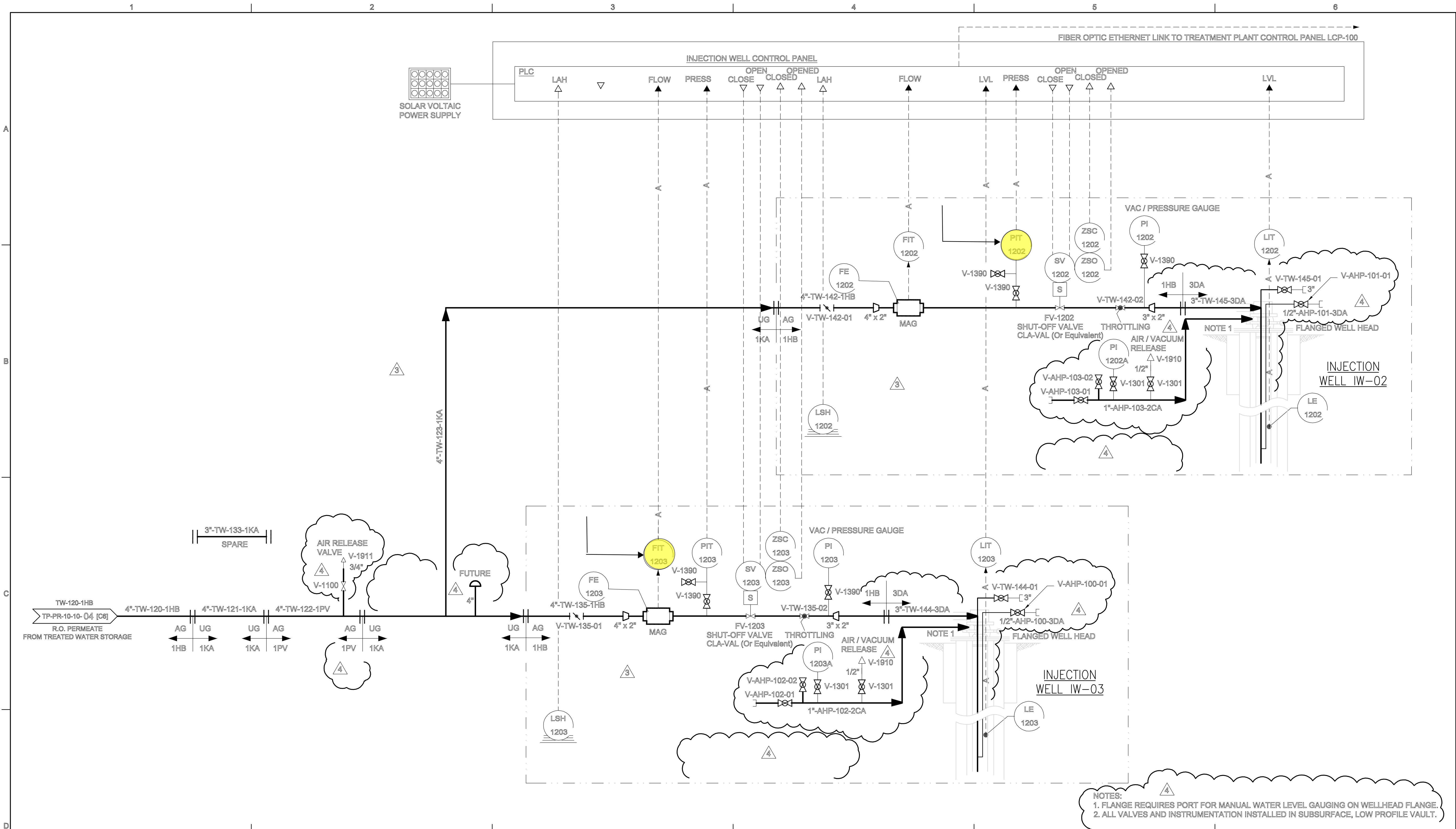
TLI = Truesdail Laboratories, Inc.

ATL = Aquatic Testing Laboratories

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	

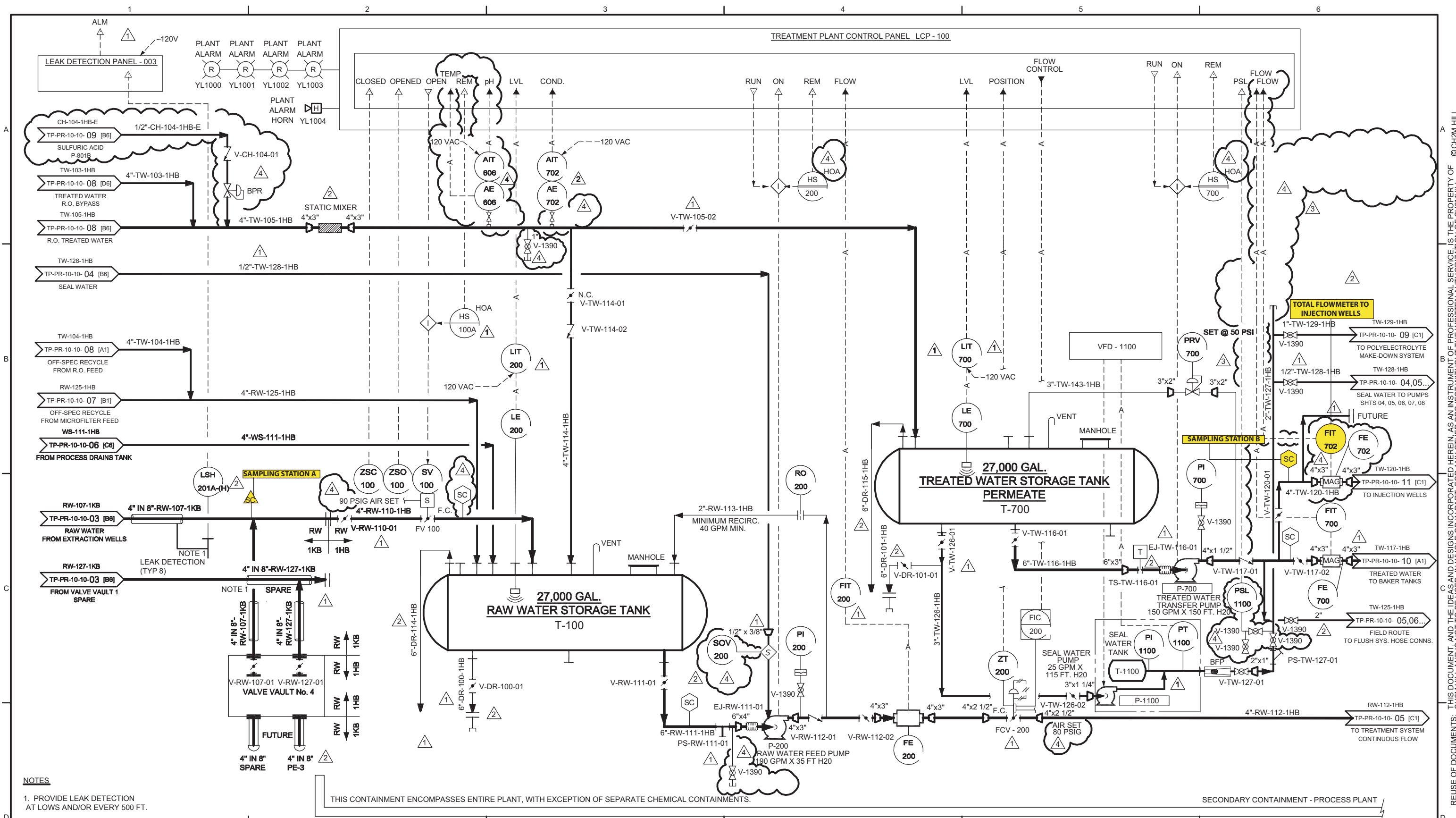
Figures





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.									

SCALE		NONE		CH2MHILL	DWG. NO. TP-PR-10-10-11	REV. 4

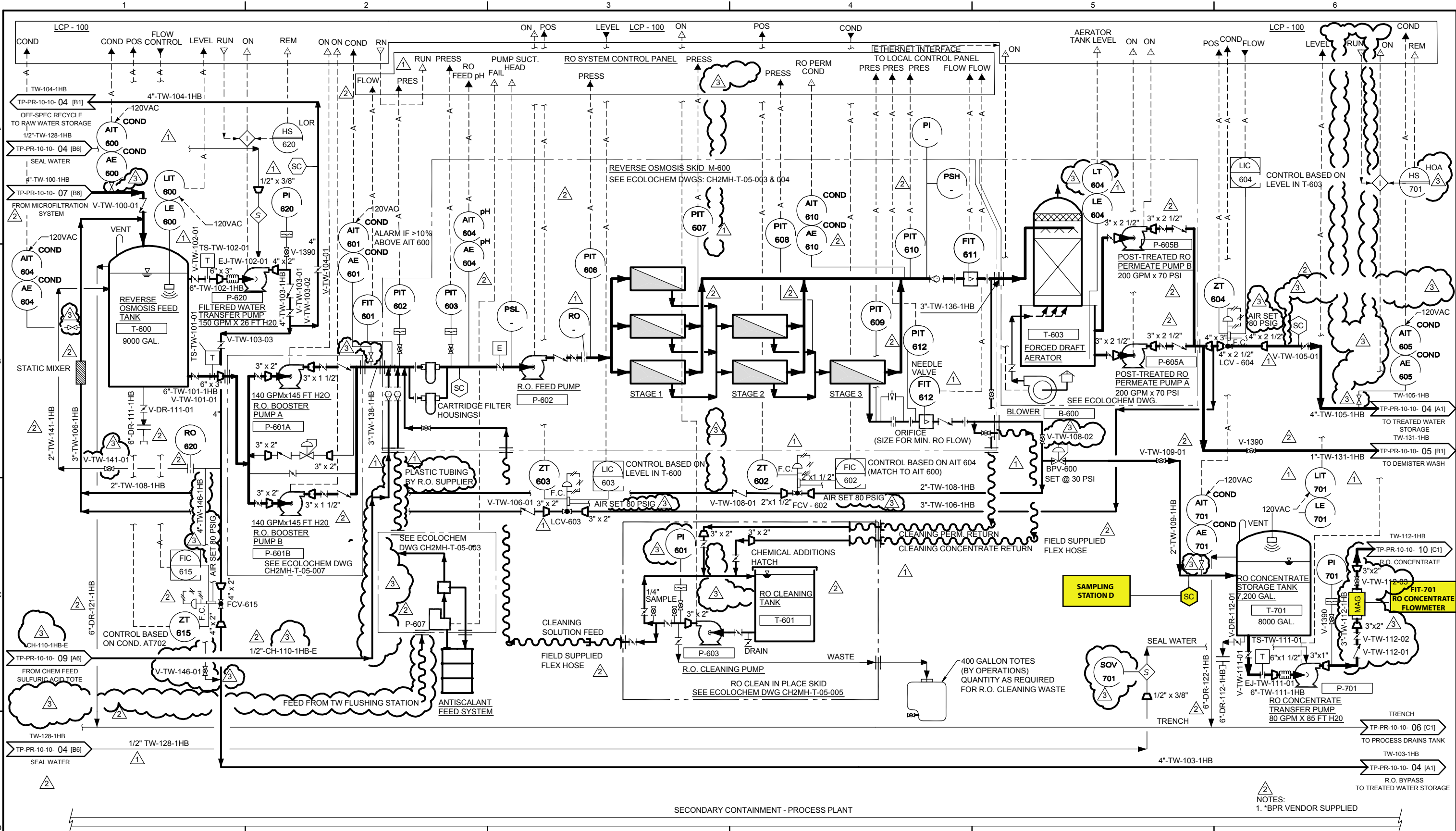


NOTES
1. PROVIDE LEAK DETECTION AT LOWS AND/OR EVERY 500 FT.

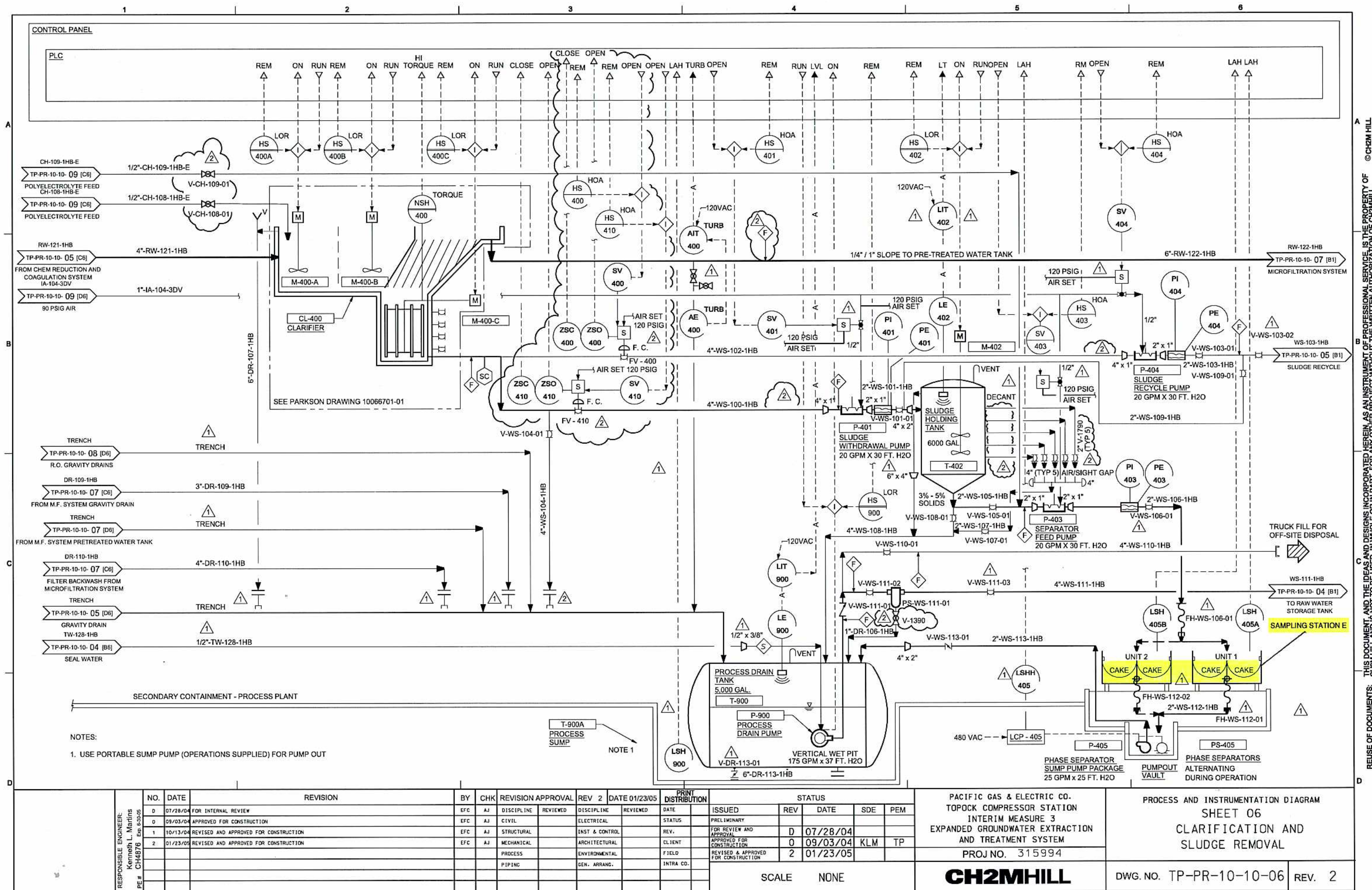
THIS CONTAINMENT ENCOMPASSES ENTIRE PLANT, WITH EXCEPTION OF SEPARATE CHEMICAL CONTAINMENTS.

SECONDARY CONTAINMENT - PROCESS PLANT

RESPONSIBLE ENGINEER: Kenneth L. Martins CH4876 PE #	NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL	REV 4	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 04 STORAGE AREA			
	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		STATUS		PRELIMINARY							
	1	10/13/04	REVISED AND APPROVED FOR CONSTRUCTION	EFC	AJ	STRUCTURAL		INST & CONTROL		REV.		FOR REVIEW AND APPROVAL	D	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	ADDED RECIRC. LINE AND PRV VALVE TO T-700 - APPROVED FOR CONSTRUCTION	EFC	AJ	PROCESS		ENVIRONMENTAL		FIELD		REVISED & APPROVED FOR CONSTRUCTION	4	/ /					
	4	09/21/05	REVISED PER AS-BUILT CONDITIONS	EFC	AJ	PIPING		GEN. ARRANG.		INTRA CO.									
										SCALE NONE					CH2MHILL		DWG. NO. TP-PR-10-10-04	REV. 4	



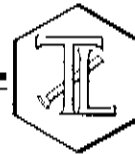
RESPONSIBLE ENGINEER: Kenneth L. Martins PE # CH43876 Exp. 6-30-06	NO.	DATE	REVISION	BY	CHK	REVISION APPROVAL	REV 3	DATE 09/21/05	PRINT DISTRIBUTION	STATUS					PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994	PROCESS 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
January 2008 Laboratory Analytical Reports

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

January 29, 2008

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-132 PROJECT, GROUNDWATER
MONITORING,
TLI NO.: 972413

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-132 project groundwater monitoring. 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 January 3, 2008, 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.

A result for Hexavalent Chromium by EPA 218.6 is reported in the matrix spike calculations for sample SC-701-WDR-132 although it is below the reporting limit due to the small amount of Hexavalent Chromium detected in the sample.

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.

Sean Condon
for Mona 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

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

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

Laboratory No.: 972413

Date: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

ANALYST LIST

ANALYST		
EPA 120.1	Specific Conductivity	Tina Acquiati
SM 4500-H B	pH	Tina Acquiati
SM 2540C	Total Dissolved Solids	Tina Acquiati
SM 2130B	Turbidity	Gautam Savani
EPA 300.0	Anions	Giawad Ghenniwa
SM 4500-NH3 B	Ammonia	Iordan Stavrev
SM 4500-NO2 B	Nitrite as N	Tina Acquiati
EPA 200.7	Metals by ICP	Michel Mendoza / Mark Kotani
EPA 200.8	Metals by ICP/MS	Linda Saetern
EPA 245.1	Mercury	Michel Mendoza
EPA 218.6	Hexavalent Chromium	Jean Paul Gleeson

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Established 1931

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

Attention: Shawn Duffy

Sample: Three (3) Groundwaters

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

REPORT

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

Laboratory No.: 972413

Date: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

Prep/ Analyzed: January 4, 2008

Analytical Batch: 01PH08D

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>
972413-1	SC-100B-WDR-132	08:43	pH	0.0700	2.00	7.50
972413-2	SC-700B-WDR-132	08:47	pH	0.0700	2.00	8.19
972413-3	SC-701-WDR-132	08:50	pH	0.0700	2.00	7.99

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	972413-3	7.99	8.00	0.01	+ 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	7.05	7.00	0.05	+ 0.100 Units	Yes
LCS #1	7.05	7.00	0.05	+ 0.100 Units	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

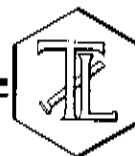
for 
Mona Nassimi, Manager
Analytical Services

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Attention: Shawn Duffy

Laboratory No.: 972413

Sample: Three (3) Groundwaters
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00

Date: January 29, 2008
Collected: January 3, 2007
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Prep/ Analyzed: January 4, 2008
Analytical Batch: 01EC08B

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>
972413-1	SC-100B-WDR-132	µmhos/cm	EPA 120.1	1.00	2.00	7980
972413-2	SC-700B-WDR-132	µmhos/cm	EPA 120.1	1.00	2.00	6680
972413-3	SC-701-WDR-132	µmhos/cm	EPA 120.1	1.00	2.00	27100

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	972413-3	27100	27200	0.37%	≤ 10%	Yes

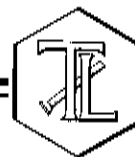
<u>QC Std I.D.</u>	<u>Measured Concentration</u>	<u>Theoretical Concentration</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>	<u>QC Within Control</u>
CCS	690	706	97.7%	90% - 110%	Yes
CVS#1	945	996	94.9%	90% - 110%	Yes
LCS	689	706	97.6%	90% - 110%	Yes

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Laboratory No.: 972413

Date: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

Prep/ Analyzed: January 7, 2008

Analytical Batch: 01TDS08B

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>
972413-1	SC-100B-WDR-132	mg/L	SM 2540C	250	5170
972413-2	SC-700B-WDR-132	mg/L	SM 2540C	250	4130
972413-3	SC-701-WDR-132	mg/L	SM 2540C	250	20000

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	972412-1	3790	3760	0.40%	≤ 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	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

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P.O. No.: 358342.TM.02.00

Prep/ Analyzed: January 4, 2008

Analytical Batch: 01TUC08E

Investigation:

Turbidity by Method SM 2130B

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>
972413-1	SC-100B-WDR-132	10:30	NTU	1.00	0.100	0.158
972413-2	SC-700B-WDR-132	10:00	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	972372-4	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	7.35	8.00	91.9%	90% - 110%	Yes
LCS	7.52	8.00	94.0%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

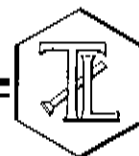
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seem Gordon
f- Mona Nassimi, Manager
Analytical Services

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P.O. No.: 358342.TM.02.00

Prep/ Analyzed: January 4, 2008

Prep. Batch: 01CrH08A

Analytical Batch: 01CrH08A

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
972413-1	SC-100B-WDR-132	10:30	06:39	mg/L	100	0.0200	1.50
972413-2	SC-700B-WDR-132	10:00	07:19	mg/L	5.00	0.0010	ND
972413-3	SC-701-WDR-132	10:15	07:29	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	972413-1	1.50	1.51	0.66%	< 20%	Yes

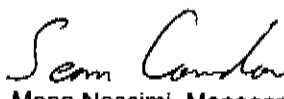
QC Std I.D.	Lab Number	Conc. of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	972413-1	1.50	100	0.0150	1.50	3.03	3.00	102%	90-110%	Yes
MS	972413-2	0.00	5.00	0.00100	0.00500	0.00520	0.00500	104%	90-110%	Yes
MS	972413-3	0.00043	5.00	0.00100	0.00500	0.00572	0.00543	106%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00506	0.00500	101%	90% - 110%	Yes
MRCVS#1	0.00995	0.0100	99.5%	95% - 105%	Yes
MRCVS#2	0.00992	0.0100	99.2%	95% - 105%	Yes
LCS	0.00505	0.00500	101%	90% - 110%	Yes
LCSD	0.00504	0.00500	101%	90% - 110%	Yes

NU: Below the reporting limit (NOT Detected).

DF: Dilution Factor.

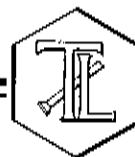
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

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Sample: Three (3) Groundwaters

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Project No.: 358342.TM.02.00

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Laboratory No.: 972413

Date: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

Prep/ Analyzed: January 7, 2008

Analytical Batch: 01NH3-E08B

Investigation:

Ammonia as N by Method SM 4500-NH3 D

Analytical Results Ammonia as N

TLI I.D.	Field I.D.	Sample Time	Method	Units	DF	RL	Results
972413-1	SC-100B-WDR-132	10:30	SM 4500-NH3 D	mg/L	1.00	0.500	ND
972413-2	SC-700B-WDR-132	10:00	SM 4500-NH3 D	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	972434-1	1.63	1.69	3.61%	≤ 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	972434-1	1.63	1.00	6.00	6.00	7.31	7.63	94.7%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	10.4	10.0	104%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Conda
for Mona Nassimi, Manager
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Prep/ Analyzed: January 7, 2008

Analytical Batch: 01AN08E

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
972413-1	SC-100B-WDR-132	10:30	14:06	mg/L	5.00	0.500	2.88
972413-2	SC-700B-WDR-132	10:00	14:17	mg/L	5.00	0.500	2.18
972413-3	SC-701-WDR-132	10:15	14:29	mg/L	5.00	0.500	11.0

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972372-6	1.81	1.81	0.0%	≤ 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	972372-6	1.81	1.00	4.00	4.00	5.63	5.81	95.5%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	4.18	4.00	105%	90% - 110%	Yes
MRCVS#1	3.14	3.00	105%	90% - 110%	Yes
MRCVS#2	3.11	3.00	104%	90% - 110%	Yes
LCS	4.14	4.00	104%	90% - 110%	Yes
LCSD	4.18	4.00	105%	90% - 110%	Yes

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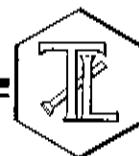
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Seam Condon
Mona Nassimi, Manager
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Attention: Shawn Duffy

Sample: Three (3) Groundwaters

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Project No.: 358342.TM.02.00

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Laboratory No.: 972413

Date: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

Prep/ Analyzed: January 4, 2008

Analytical Batch: 01AN08D

Investigation:

Sulfate by Method EPA 300.0

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
972413-1	SC-100B-WDR-132	10:30	19:16	mg/L	50.0	25.0	641
972413-2	SC-700B-WDR-132	10:00	18:41	mg/L	50.0	25.0	517

QA/QC Summary

QC STD I.D.		Laboratory Number		Concentration		Duplicate Concentration		Relative Percent Difference		Acceptance limits		QC Within Control	
Duplicate		972413-2		517		517		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	972413-2	517	50.0	10.0	500	1030	1017	103%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	20.1	20.0	101%	90% - 110%	Yes
MRCVS#1	13.8	15.0	92.0%	90% - 110%	Yes
MRCVS#2	15.4	15.0	103%	90% - 110%	Yes
MRCVS#3	15.4	15.0	103%	90% - 110%	Yes
MRCVS#4	15.5	15.0	103%	90% - 110%	Yes
LCS	20.2	20.0	101%	90% - 110%	Yes
LCSD	20.4	20.0	102%	90% - 110%	Yes

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DF: Dilution Factor.

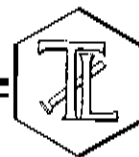
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Seam Condon
for Mona Nassimi, Manager
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Prep/ Analyzed: January 4, 2008

Analytical Batch: 01AN08D

Investigation:

Nitrate as N by Ion Chromatography using EPA 300.0

Analytical Results Nitrate 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>
972413-1	SC-100B-WDR-132	10:30	12:09	mg/L	5.00	1.00	3.60
972413-2	SC-700B-WDR-132	10:00	12:20	mg/L	5.00	1.00	2.89

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		972416-38		3.18	3.33	4.61%	≤ 20%	Yes

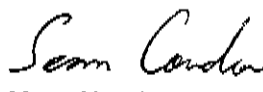
<u>QC Std I.D.</u>	<u>Lab Number</u>	<u>Conc. of unspiked sample</u>	<u>Dilution Factor</u>	<u>Added Spike Conc.</u>	<u>MS Amount</u>	<u>Measured Conc. of spiked sample</u>	<u>Theoretical Conc. of spiked sample</u>	<u>MS% Recovery</u>	<u>Acceptance limits</u>	<u>QC Within Control</u>
MS	972416-38	3.18	1.00	4.00	4.00	7.46	7.18	107%	75-125%	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>
MRCCS	4.04	4.00	101%	90% - 110%	Yes
MRCVS#1	2.75	3.00	91.7%	90% - 110%	Yes
MRCVS#2	3.06	3.00	102%	90% - 110%	Yes
MRCVS#3	3.06	3.00	102%	90% - 110%	Yes
LCS	4.07	4.00	102%	90% - 110%	Yes
LCSD	4.11	4.00	103%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

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 Truesdail Laboratories.

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1931

REPORT

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

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

Attention: Shawn Duffy

Sample: Three (3) Groundwaters

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 972413

Date: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

Prep/ Analyzed: January 4, 2008

Analytical Batch: 01NO208C

Investigation:

Nitrite as N by Method SM 4500-NO2-B

Analytical Results for Nitrite as N

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
972413-1	SC-100B-WDR-132	10:30	13:42	mg/L	1.00	0.0050	ND
972413-2	SC-700B-WDR-132	10:00	13:43	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	972413-2	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	972413-2	0.00	1.00	0.0200	0.0200	0.0193	0.0200	96.5%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCSS	0.0223	0.0230	97.0%	90% - 110%	Yes
MRCVS#1	0.0196	0.0200	98.0%	90% - 110%	Yes
LCS	0.0289	0.0290	99.7%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

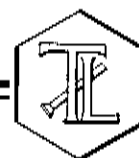
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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Client: E2 Consulting Engineers, Inc.
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REPORT

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

Attention: Shawn Duffy

Samples: Three (3) Groundwaters
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00
Investigation: Total Metal Analyses as Requested

Laboratory No.: 972413

Reported: January 29, 2008

Collected: January 3, 2007

Received: January 3, 2007

Analyzed: January 6 - 24, 2007

Analytical Results

SAMPLE ID: SC-100B-WDR-132		Time Collected: 10:30		LAB ID: 972413-1				
Parameter	Method	Reported		Units	RL	Batch	Date	Time
		Value	DF				Analyzed	Analyzed
Aluminum	EPA 200.8	ND	1.00	mg/L	0.0500	010708A	01/07/08	10:33
Antimony	EPA 200.8	ND	1.00	mg/L	0.0030	010708A	01/07/08	10:33
Arsenic	EPA 200.8	ND	1.00	mg/L	0.0050	010708A	01/07/08	10:33
Barium	EPA 200.8	ND	1.00	mg/L	0.300	010708A	01/07/08	10:33
Chromium	EPA 200.8	1.63	5.00	mg/L	0.0010	010708A	01/07/08	10:57
Copper	EPA 200.8	ND	1.00	mg/L	0.0100	010708A	01/07/08	10:33
Lead	EPA 200.8	ND	1.00	mg/L	0.0020	010708A	01/07/08	10:33
Manganese	EPA 200.8	ND	1.00	mg/L	0.0200	010708A	01/07/08	10:33
Molybdenum	EPA 200.8	0.0200	1.00	mg/L	0.0050	010708A	01/07/08	10:33
Nickel	EPA 200.8	ND	1.00	mg/L	0.0200	010708A	01/07/08	10:33
Zinc	EPA 200.8	ND	1.00	mg/L	0.0200	010708A	01/07/08	10:33
Boron	EPA 200.7	0.622	1.00	mg/L	0.200	010808A	01/08/08	16:11
Iron	EPA 200.7	ND	1.00	mg/L	0.0200	012408A	01/24/08	12:31

SAMPLE ID: SC-700B-WDR-132		Time Collected: 10:00		LAB ID: 972413-2				
Parameter	Method	Reported		Units	RL	Batch	Date	Time
		Value	DF				Analyzed	Analyzed
Aluminum	EPA 200.8	ND	1.00	mg/L	0.0500	010708A	01/07/08	11:03
Antimony	EPA 200.8	ND	1.00	mg/L	0.0030	010708A	01/07/08	11:03
Arsenic	EPA 200.8	ND	1.00	mg/L	0.0050	010708A	01/07/08	11:03
Barium	EPA 200.8	ND	1.00	mg/L	0.300	010708A	01/07/08	11:03
Chromium	EPA 200.8	ND	1.00	mg/L	0.0010	010708A	01/07/08	11:03
Copper	EPA 200.8	ND	1.00	mg/L	0.0100	010708A	01/07/08	11:03
Lead	EPA 200.8	ND	1.00	mg/L	0.0020	010708A	01/07/08	11:03
Manganese	EPA 200.8	0.0301	1.00	mg/L	0.0200	010708A	01/07/08	11:03
Molybdenum	EPA 200.8	0.0141	1.00	mg/L	0.0050	010708A	01/07/08	11:03
Nickel	EPA 200.8	ND	1.00	mg/L	0.0200	010708A	01/07/08	11:03
Zinc	EPA 200.8	ND	1.00	mg/L	0.0200	010708A	01/07/08	11:03
Boron	EPA 200.7	1.12	1.00	mg/L	0.200	010808A	01/08/08	16:15
Iron	EPA 200.7	ND	1.00	mg/L	0.0200	010808A	01/08/08	16:15

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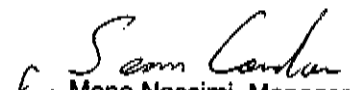
Report Continued

SAMPLE ID: SC-701-WDR-132		Time Collected: 10:15		LAB ID: 972413-3				
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Antimony	EPA 200.8	ND	5.00	mg/L	0.0030	010708A	01/07/08	12:14
Arsenic	EPA 200.8	ND	5.00	mg/L	0.0050	010708A	01/07/08	12:14
Barium	EPA 200.8	ND	5.00	mg/L	0.300	010708A	01/07/08	12:14
Beryllium	EPA 200.8	ND	1.00	mg/L	0.0010	011008A	01/10/08	11:51
Cadmium	EPA 200.8	ND	5.00	mg/L	0.0020	010708A	01/07/08	12:14
Chromium	EPA 200.8	ND	5.00	mg/L	0.0010	010708A	01/07/08	12:14
Cobalt	EPA 200.8	ND	5.00	mg/L	0.0050	010708A	01/07/08	12:14
Copper	EPA 200.8	ND	5.00	mg/L	0.0100	010708A	01/07/08	12:14
Lead	EPA 200.8	ND	5.00	mg/L	0.0020	010708A	01/07/08	12:14
Mercury	EPA 245.1	ND	1.00	mg/L	0.00020	01HG08Aa	01/06/08	N/A
Molybdenum	EPA 200.8	0.0578	5.00	mg/L	0.0050	010708A	01/07/08	12:14
Nickel	EPA 200.8	ND	5.00	mg/L	0.0200	010708A	01/07/08	12:14
Selenium	EPA 200.8	0.0127	5.00	mg/L	0.0050	010708A	01/07/08	12:14
Silver	EPA 200.8	ND	5.00	mg/L	0.0050	010708A	01/07/08	12:14
Thallium	EPA 200.8	ND	5.00	mg/L	0.0010	010708A	01/07/08	12:14
Vanadium	EPA 200.8	ND	5.00	mg/L	0.0050	010708A	01/07/08	12:14
Zinc	EPA 200.8	ND	5.00	mg/L	0.0200	010708A	01/07/08	12:14

ND: Not detected, or below limit of detection.

DF: Dilution factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-132]

972413

Rec'd 01/03/08
972413

COC Number

TURNAROUND TIME

10 Days

DATE

PAGE OF

COMPANY E2																		COMMENTS						
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 358342.TM.02.00 TEAM 1																								
SAMPLERS (SIGNATURE) <i>[Signature]</i>																		NUMBER OF CONTAINERS						
SAMPLE I.D.			DATE		TIME		DESCRIPTION																	
SC-100B-WDR-132			1-3-08		1030		Water																	
SC-700B-WDR-132			1-3-08		1000		Water																	
SC-701-WDR-132			1-3-08		1015		Water																	
									TOTAL NUMBER OF CONTAINERS															

For Sample Conditions
See Form Attached

ALERT!!
Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD					SAMPLE CONDITIONS	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/> °F
<i>[Signature]</i>	J. A. De	ONT	1-3-08 10:55			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>
<i>[Signature]</i>	Rafael Davis	T.H.I.	1-3-08 3:15			
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	SPECIAL REQUIREMENTS:		
<i>[Signature]</i>	Rafael Davis	T.H.I.	1-3-08 20:45			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time			
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time			
Signature (Received)	Printed Name	Company/ Agency	Date/ Time			

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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14201 FRANKLIN AVENUE
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www.truesdail.com

January 15, 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-134 PROJECT, GROUNDWATER
MONITORING, TLI NO.: 972566

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-134 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 January 9, 2008, 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 the large number of samples in-house, 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.

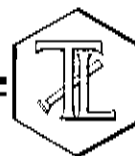
Seam Carter
w. Mona Nassimi
Manager, Analytical Services

K. R. P. Iyer

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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Attention: Shawn Duffy

Sample: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

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

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

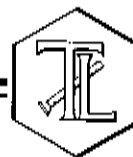
Received: January 9, 2008

ANALYST LIST

ANALYST		
EPA 120.1	Specific Conductivity	Tina Acquiati
SM 4500-H B	pH	Tina Acquiati
SM 2540C	Total Dissolved Solids	Tina Acquiati
SM 2130B	Turbidity	Gautam Savani
EPA 200.8	Total Chromium	Linda Saetern
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

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REPORT

14201 FRANKLIN AVENUE
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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Prep. Batch: 011108A

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

Received: January 9, 2008

Prep/ Analyzed: January 11, 2008

Analytical Batch: 011108A

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>
972566	SC-700B-WDR-134	mg/L	EPA 200.8	10:59	1.00	0.0010	0.0010

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972566	0.0010	0.0010	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	972566	0.0010	1.00	0.0500	0.0500	0.0528	0.0510	104%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0510	0.0500	102%	90% - 110%	Yes
MRCVS#1	0.0497	0.0500	99.4%	90% - 110%	Yes
ICS	0.0518	0.0500	104%	80% - 120%	Yes
LCS	0.0526	0.0500	105%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
For: Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

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REPORT

Client: E2 Consulting Engineers, Inc.
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Oakland, CA 94612

Attention: Shawn Duffy

Sample: One (1) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00

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www.truesdail.com

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

Received: January 9, 2008

Prep/ Analyzed: January 10, 2008

Analytical Batch: 01CrH08B

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

<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>
972566	SC-700B-WDR-134	09:15	07:44	mg/L	1.05	0.00020	0.00057

QA/QC Summary

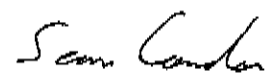
QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972566	0.00057	0.00058	1.74%	< 20%	Yes

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	972566	0.00057	1.06	0.00100	0.00106	0.00165	0.00163	102%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00504	0.00500	101%	90% - 110%	Yes
MRCVS#1	0.00992	0.0100	99.2%	95% - 105%	Yes
LCS	0.00506	0.00500	101%	90% - 110%	Yes
LCSD	0.00505	0.00500	101%	90% - 110%	Yes

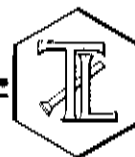
ND: Below the reporting limit (Not Detected).
DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

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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 Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

Received: January 9, 2008

Prep/ Analyzed: January 10, 2008

Analytical Batch: 01PH08K

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>
972566	SC-700B-WDR-134	09:15	08:40	pH	0.0700	2.00	8.14

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	972566	8.14	8.14	0.00	+ 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	7.04	7.00	0.04	+ 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

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REPORT

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

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

Received: January 9, 2008

Prep/ Analyzed: January 10, 2008

Analytical Batch: 01TUC08K

Investigation:

Turbidity by Method SM 2130B

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>
972566	SC-700B-WDR-134	09:15	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	972587-1	1.80	1.83	1.65%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.70	8.00	96.3%	90% - 110%	Yes
LCS	7.55	8.00	94.4%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1931

REPORT

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

Attention: Shawn Duffy

Sample: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

Received: January 9, 2008

Prep/ Analyzed: January 10, 2008

Analytical Batch: 01EC08D

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

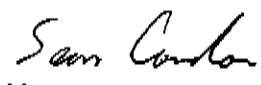
<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Units</u>	<u>Method</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
972566	SC-700B-WDR-134	µmhos/cm	EPA 120.1	1.00	2.00	6870

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972566	6870	6870	0.00%	≤ 10%	Yes

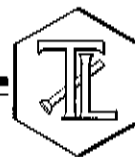
QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	689	706	97.6%	90% - 110%	Yes
CVS#1	946	996	95.0%	90% - 110%	Yes
LCS	689	706	97.6%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1931

REPORT

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

Attention: Shawn Duffy

Sample: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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

Laboratory No.: 972566

Date: January 15, 2008

Collected: January 9, 2008

Received: January 9, 2008

Prep/ Analyzed: January 10, 2008

Analytical Batch: 01TDS08D

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>
972566	SC-700B-WDR-134	mg/L	SM 2540C	250	4100

QA/QC Summary


QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	972566	4100	4170	0.85%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	500	500	100%	90% - 110%	Yes
LCS 2	500	500	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services



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-134]

Rec'd 01/09/08
Lab.# 972566

COC Number
TURNAROUND TIME 10 Days
DATE PAGE 1 OF 1

972566

COMPANY E2		<div style="display: flex; justify-content: space-between;"> <div> <p>PROJECT NAME PG&E Topock</p> <p>PHONE (530) 229-3303 FAX (530) 339-3303</p> <p>ADDRESS 155 Grand Ave Ste 1000 Oakland, CA 94612</p> <p>P.O. NUMBER 358342.TM.02.00 TEAM 1</p> <p>SAMPLERS (SIGNATURE) <i>[Signature]</i></p> </div> <div> <p>COMMENTS</p> <p>Temp - 77.9° pH - 7.8</p> </div> </div>									
SAMPLE I.D. DATE TIME DESCRIPTION											
SC-700B-WDR-134 1-9-08 0915 Water											
<div style="display: flex; justify-content: space-around;"> <div> <p>Cr6 (2186) Lab Filtered</p> <p>Total Metals (200.7) Total Chromium</p> <p>Specific Conductance (120.7)</p> <p>TDS (SM2540C)</p> <p>PH (SM4504B)</p> <p>Turbidity (SM2130)</p> </div> <div> <p>NUMBER OF CONTAINERS</p> </div> </div>											
<div style="display: flex; justify-content: space-around;"> <div> <p>x x x x x x</p> </div> <div> <p>3</p> </div> </div>											
TOTAL NUMBER OF CONTAINERS		3									

ALERT!!
Level III QC

For Sample Conditions
See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD					SAMPLE CONDITIONS	
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time	RECEIVED	COOL <input type="checkbox"/>	WARM <input type="checkbox"/> °F
<i>[Signature]</i>	A. D. K.	ONI	8-9-08 0915			
Signature (Received)	Printed Name	Company/Agency	Date/Time	CUSTODY SEALED	YES <input type="checkbox"/>	NO <input type="checkbox"/>
<i>[Signature]</i>	H. G. L. T.	TLI	8-9-08 2045			
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time	SPECIAL REQUIREMENTS:		
<i>[Signature]</i>	Rafael Davis	T. L. I	1-9-08 2045			
Signature (Relinquished)	Printed Name	Company/Agency	Date/Time			
Signature (Received)	Printed Name	Company/Agency	Date/Time			

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

January 24, 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-133 PROJECT, GROUNDWATER
MONITORING, TLI NO.: 972734

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-133 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 January 16, 2008, 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 the large number of samples in-house, 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.

A result for Hexavalent Chromium by EPA 218.6 is reported in the matrix spike calculation although it is below the reporting limit due to the small amount of Hexavalent Chromium detected in the sample.

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.

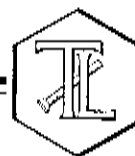
Seam Candan
for Mona Nassimi
Manager, Analytical Services

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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

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

Laboratory No.: 972734

Date: January 24, 2008

Collected: January 16, 2008

Received: January 16, 2008

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
SM 2130B	Turbidity	Gautam Savani
EPA 200.8	Total Chromium	Linda Saetern
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

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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.: 972734

Sample: One (1) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00
Prep. Batch: 011708A

Date: January 24, 2008
Collected: January 16, 2008
Received: January 16, 2008
Prep/ Analyzed: January 17, 2008
Analytical Batch: 011708A

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>
972734	SC-700B-WDR-133	mg/L	EPA 200.8	10:45	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	972735-1	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	972735-1	0.00	1.00	0.0500	0.0500	0.0484	0.0500	96.8%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0485	0.0500	97.0%	90% - 110%	Yes
MRCVS#1	0.0488	0.0500	97.6%	90% - 110%	Yes
MRCVS#2	0.0482	0.0500	96.4%	90% - 110%	Yes
ICS	0.0483	0.0500	96.6%	80% - 120%	Yes
LCS	0.0492	0.0500	98.4%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Conlan
for Mona Nassimi, Manager
Analytical Services

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 Truesdail Laboratories.

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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.: 972734

Sample: One (1) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00

Date: January 24, 2008
Collected: January 16, 2008
Received: January 16, 2008
Prep/ Analyzed: January 16, 2008
Analytical Batch: 01CrH08F

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

<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>
972734	SC-700B-WDR-133	09:30	23:17	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		972734		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	972734	0.00017	1.06	0.00100	0.00106	0.00129	0.00123	106%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCSS	0.00493	0.00500	98.6%	90% - 110%	Yes
MRCVS#1	0.0102	0.0100	102%	95% - 105%	Yes
MRCVS#2	0.0103	0.0100	103%	95% - 105%	Yes
LCS	0.00508	0.00500	102%	90% - 110%	Yes
LCSD	0.00493	0.00500	98.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

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 Truesdail Laboratories.

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1931

REPORT

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

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

Attention: Shawn Duffy

Sample: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 972734

Date: January 24, 2008

Collected: January 16, 2008

Received: January 16, 2008

Prep/ Analyzed: January 18, 2008

Analytical Batch: 01TUC08N

Investigation:

Turbidity by Method SM 2130B

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>
972734	SC-700B-WDR-133	09:30	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	972729-22	0.118	0.119	0.84%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.79	8.00	97.4%	90% - 110%	Yes
LCS	7.65	8.00	95.6%	90% - 110%	Yes
LCS	7.50	8.00	93.8%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

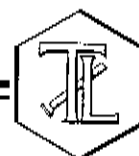
for Sean Condon
Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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 Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 972734

Date: January 24, 2008

Collected: January 16, 2008

Received: January 16, 2008

Prep/ Analyzed: January 17, 2008

Analytical Batch: 01PH08R

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>
972734	SC-700B-WDR-133	09:30	08:47	pH	0.0700	2.00	8.25

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	972734	8.25	8.25	0.00	+ 0.100 Units	Yes

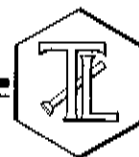
QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.07	7.00	0.07	+ 0.100 Units	Yes
LCS #1	7.06	7.00	0.06	+ 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seem Condon
for Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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.: 972734

Date: January 24, 2008

Sample: One (1) Groundwater Samples
Project Name: PG&E Topock Project

Collected: January 16, 2008

Project No.: 358342.TM.02.00

Received: January 16, 2008

P.O. No.: 358342.TM.02.00

Prep/ Analyzed: January 17, 2008

Analytical Batch: 01EC08G

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>
972734	SC-700B-WDR-133	µmhos/cm	EPA 120.1	1.00	2.00	6780

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972734	6780	6790	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	947	996	95.1%	90% - 110%	Yes	
LCS	690	706	97.7%	90% - 110%	Yes	

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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 Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 972734

Date: January 24, 2008

Collected: January 16, 2008

Received: January 16, 2008

Prep/ Analyzed: January 17, 2008

Analytical Batch: 01TDS08H

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>
972734	SC-700B-WDR-133	mg/L	SM 2540C	250	4000

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	972734	4000	3980	0.25%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	498	500	99.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Conlon
for Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.
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(714)730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

972734 [IM3Plant-WDR-133]

COC Number

TURNAROUND TIME

10 Days

DATE

PAGE 1 OF 1

COMPANY <u>E2</u> PROJECT NAME <u>PG&E Topock</u> PHONE <u>(530) 229-3303</u> FAX <u>(530) 339-3303</u> ADDRESS <u>155 Grand Ave Ste 1000</u> <u>Oakland, CA 94612</u> P.O. NUMBER <u>358342.TM.02.00</u> TEAM <u>1</u> SAMPLERS (SIGNATURE) _____				<div style="text-align: right;"> Rec'd 01/16/08 972734 </div>										COMMENTS <p>pH - 7.9 Temp - 74.1</p>	
SAMPLE I.D. DATE TIME DESCRIPTION				Cr6 (218.6)	Lab Filtered	Total Metals (200.7)	Total Chromium	Specific Conductance (120.1)	TDS (SM2540C)	PH (SM4500H/B)	Turbidity (SM2130)	NUMBER OF CONTAINERS			
SC-700B-WDR-133	1-16-08	0930	Water	x	x	x	x	x	x			3	pH=2		
												3	TOTAL NUMBER OF CONTAINERS		

ALERT!!
Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>[Signature]</i>	<u>LAIDE</u>	<u>OMT</u>	<u>1-16-08 0945</u>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
<i>Bonifacio Dayag</i>	<u>BONIFACIO DAYAG</u>	<u>TLI</u>	<u>1-16-08 1515</u>
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
<i>Bonifacio Dayag</i>	<u>B. DAYAG</u>	<u>TLI</u>	<u>1-16-08 2015</u>
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
<i>d. Shabunina</i>	<u>Shabunina</u>	<u>TLI</u>	<u>JAN 16 2008, 2015</u>
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

[Handwritten notes and stamps]

033

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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

February 4, 2008

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-135 PROJECT, GROUNDWATER
MONITORING, TLI NO.: 972943

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-135 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 January 23, 2008, 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 the large number of samples in-house, 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.

A result for Hexavalent Chromium by EPA 218.6 is reported in the matrix spike calculation although it is below the reporting limit due to the small amount of Hexavalent Chromium detected in the sample.

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.

Sean Condon
for Mona 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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

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

Laboratory No.: 972943

Date: February 4, 2008

Collected: January 23, 2008

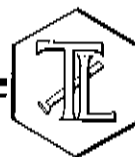
Received: January 23, 2008

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
SM 2130B	Turbidity	Gautam Savani
EPA 200.8	Total Chromium	Linda Saetern
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

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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.: 972943

Sample: One (1) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00
Prep. Batch: 012408A

Date: February 4, 2008
Collected: January 23, 2008
Received: January 23, 2008
Prep/ Analyzed: January 24, 2008
Analytical Batch: 012408A

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>
972943	SC-700B-WDR-135	mg/L	EPA 200.8	09:17	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	972943	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	972943	0.00	1.00	0.0500	0.0500	0.0517	0.0500	103%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0505	0.0500	101%	90% - 110%	Yes
MRCVS#1	0.0548	0.0500	110%	90% - 110%	Yes
ICS	0.0525	0.0500	105%	80% - 120%	Yes
LCS	0.0509	0.0500	102%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

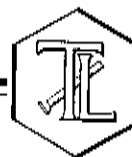
for 
Mona Nassimi, Manager
Analytical Services

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 Truesdail Laboratories.

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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 Samples
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00

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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

Laboratory No.: 972943

Date: February 4, 2008
Collected: January 23, 2008
Received: January 23, 2008
Prep/ Analyzed: January 24, 2008
Analytical Batch: 01CrH08M

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

<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>
972943	SC-700B-WDR-135	08:30	05:04	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		972944-1		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	972943	0.00013	1.06	0.00100	0.00106	0.00117	0.00119	98.1%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00487	0.00500	97.4%	90% - 110%	Yes
MRCVS#1	0.00979	0.0100	97.9%	95% - 105%	Yes
MRCVS#2	0.00964	0.0100	96.4%	95% - 105%	Yes
LCS	0.00485	0.00500	97.0%	90% - 110%	Yes
LCSD	0.00483	0.00500	96.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

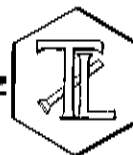
Sean Condon
for Mona Nassimi, Manager
Analytical Services

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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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 972943

Date: February 4, 2008

Collected: January 23, 2008

Received: January 23, 2008

Prep/ Analyzed: January 24, 2008

Analytical Batch: 01TUC08R

Investigation:

Turbidity by Method SM 2130B

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>
972943	SC-700B-WDR-135	08:30	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	972933-18	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.53	8.00	94.1%	90% - 110%	Yes
LCS	7.60	8.00	95.0%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

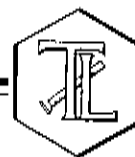
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

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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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 972943

Date: February 4, 2008

Collected: January 23, 2008

Received: January 23, 2008

Prep/ Analyzed: January 24, 2008

Analytical Batch: 01PH08X

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>
972943	SC-700B-WDR-135	08:30	07:57	pH	0.0700	2.00	8.21

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance Limits	QC Within Control
Duplicate	972943	8.21	8.21	0.00	+ 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.08	7.00	0.08	+ 0.100 Units	Yes
LCS #1	7.07	7.00	0.07	+ 0.100 Units	Yes
LCS #2	7.08	7.00	0.08	+ 0.100 Units	Yes

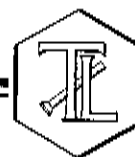
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Shawn Condon
for 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 Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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

Laboratory No.: 972943

Date: February 4, 2008

Collected: January 23, 2008

Received: January 23, 2008

Prep/ Analyzed: January 24, 2008

Analytical Batch: 01EC08K

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>
972943	SC-700B-WDR-135	µmhos/cm	EPA 120.1	1.00	2.00	6650

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance Limits	QC Within Control
Duplicate	972943	6650	6660	0.15%	≤ 10%	Yes

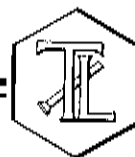
QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	694	706	98.3%	90% - 110%	Yes
CVS#1	946	996	95.0%	90% - 110%	Yes
CVS#2	945	996	94.9%	90% - 110%	Yes
LCS	694	706	98.3%	90% - 110%	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Condon
for Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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 Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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

Laboratory No.: 972943

Date: February 4, 2008

Collected: January 23, 2008

Received: January 23, 2008

Prep/ Analyzed: January 24, 2008

Analytical Batch: 01TDS08M

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>
972943	SC-700B-WDR-135	mg/L	SM 2540C	250	4020

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	972944-1	4090	4180	1.09%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	500	500	100%	90% - 110%	Yes
LCS 2	498	500	100%	90% - 110%	Yes

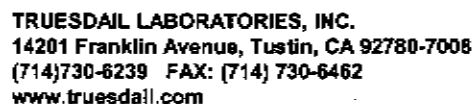
ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

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[IM3Plant-WDR-135]

Rec'd 01/23/08
Lab.# 972943

COC Number

TURNAROUND TIME 10 Days

DATE PAGE 1 OF 1

COMPANY		E2														COMMENTS												
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		358342.TM.02.00		TEAM		1																						
SAMPLERS (SIGNATURE)																												
SAMPLE I.D.				DATE		TIME		DESCRIPTION																				
SC-700B-WDR-135				1-23-08		0830		Water		x	x	x	x	x	x												3	PH-2
																								3	TOTAL NUMBER OF CONTAINERS			

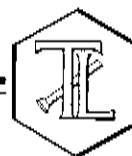
ALERT!!
Level III QC

**For Sample Conditions
See Form Attached**

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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

February 5, 2008

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-136 PROJECT, GROUNDWATER
MONITORING, TLI NO.: 973134

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-136 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 January 30, 2008, 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 the large number of samples in-house, 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.

A result for Hexavalent Chromium by EPA 218.6 is reported in the matrix spike calculation although it is below the reporting limit due to the small amount of Hexavalent Chromium detected in the sample.

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.

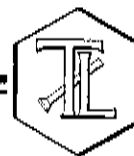
Seam Condon
for Mona Nassimi
Manager, Analytical Services

K.R.P. Iyer

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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Attention: Shawn Duffy

Sample: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

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

Laboratory No.: 973134

Date: February 5, 2008

Collected: January 30, 2008

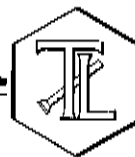
Received: January 30, 2008

ANALYST LIST

METHOD	TEST	ANALYST
EPA 120.1	Specific Conductivity	Tina Acquiat
SM 4500-H B	pH	Tina Acquiat
SM 2540C	Total Dissolved Solids	Tina Acquiat
SM 2130B	Turbidity	Gautam Savani
EPA 200.8	Total Chromium	Linda Saetern
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

TRUESDAIL LABORATORIES, INC.

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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.: 973134

Sample: One (1) Groundwater Samples

Date: February 5, 2008

Project Name: PG&E Topock Project

Collected: January 30, 2008

Project No.: 358342.TM.02.00

Received: January 30, 2008

P.O. No.: 358342.TM.02.00

Prep/ Analyzed: January 31, 2008

Prep. Batch: 013108A

Analytical Batch: 013108A

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>
973134	SC-700B-WDR-136	mg/L	EPA 200.8	09:27	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	973134	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	973134	0.00	1.00	0.0500	0.0500	0.0497	0.0500	99.4%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0482	0.0500	96.4%	90% - 110%	Yes
MRCVS#1	0.0473	0.0500	94.6%	90% - 110%	Yes
ICS	0.0484	0.0500	96.8%	80% - 120%	Yes
LCS	0.0488	0.0500	97.6%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Cordan
for Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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.: 973134

Sample: One (1) Groundwater Samples
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00

Date: February 5, 2008
Collected: January 30, 2008
Received: January 30, 2008
Prep/ Analyzed: January 31, 2008
Analytical Batch: 01CrH08Q

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

<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>
973134	SC-700B-WDR-136	14:30	07:23	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	973134	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	973134	0.00011	1.06	0.00100	0.00106	0.00120	0.00117	103%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00509	0.00500	101.8%	90% - 110%	Yes
MRCVS#1	0.00993	0.0100	99.3%	95% - 105%	Yes
MRCVS#2	0.00978	0.0100	97.8%	95% - 105%	Yes
LCS	0.00510	0.00500	102.0%	90% - 110%	Yes
LCSD	0.00508	0.00500	101.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

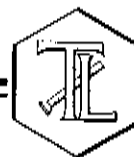
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for 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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 973134

Date: February 5, 2008

Collected: January 30, 2008

Received: January 30, 2008

Prep/ Analyzed: January 31, 2008

Analytical Batch: 01TUC08V

Investigation:

Turbidity by Method SM 2130B

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>
973134	SC-700B-WDR-136	14:30	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	973144-2	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.35	8.00	91.9%	90% - 110%	Yes
LCS	7.40	8.00	92.5%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Condon
for **Mona Nassimi, Manager**
Analytical Services

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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

Sample: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 973134

Date: February 5, 2008

Collected: January 30, 2008

Received: January 30, 2008

Prep/ Analyzed: January 31, 2008

Analytical Batch: 01PH08FF

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>
973134	SC-700B-WDR-136	14:30	10:52	pH	0.0700	2.00	7.96

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	973134	7.96	7.96	0.00	+ 0.100 Units	Yes

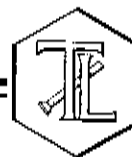
QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.07	7.00	0.07	+ 0.100 Units	Yes
LCS #1	7.05	7.00	0.05	+ 0.100 Units	Yes

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Sean Cantan
Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

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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: One (1) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Laboratory No.: 973134

Date: February 5, 2008

Collected: January 30, 2008

Received: January 30, 2008

Prep/ Analyzed: February 1, 2008

Analytical Batch: 02EC08A

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>
973134	SC-700B-WDR-136	µmhos/cm	EPA 120.1	1.00	2.00	6670

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance Limits	QC Within Control
Duplicate	973134	6670	6680	0.15%	≤ 10%	Yes
QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control	
CCS	693	706	98.2%	90% - 110%	Yes	
CVS#1	946	996	95.0%	90% - 110%	Yes	
LCS	693	706	98.2%	90% - 110%	Yes	

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Shawn Condon
for Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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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 Samples

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

Laboratory No.: 973134

Date: February 5, 2008

Collected: January 30, 2008

Received: January 30, 2008

Prep/ Analyzed: January 31, 2008

Analytical Batch: 01TDS08R

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>
973134	SC-700B-WDR-136	mg/L	SM 2540C	250	4260

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	973134	4260	4330	0.81%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	498	500	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Sean Conlan
Mona Nassimi, Manager
Analytical Services

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CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-136]

973134

Rec'd 01/30/08
Lab.# 973134

COC Number
TURNAROUND TIME 5 Days
DATE PAGE 1 OF 1

COMPANY	E2											COMMENTS		
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	358342.TM.02.00	TEAM	1											
SAMPLERS (SIGNATURE)														
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Cr6 (218.6) Lab Filtered	Total Metals (200.7) Total Chromium	Specific Conductance (120.7)	TDS (SM2540C)	PH (SM4500HB)	Turbidity (SM2130)				NUMBER OF CONTAINERS	
SC-700B-WDR-136	1-30-08	1430	Water	x	x	x	x	x	x				3	pH 7.9 Temp 78.4
													3	P.H. - 2 Rafael
													3	TOTAL NUMBER OF CONTAINERS

For Sample Conditions
See Form Attached

RUSH!!

ALERT!!
Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
	Joe Aude	OMI	1-30-08 1430
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
	Rafael	T.L.I	1-30-08 15:30
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
	Rafael	T.L.I	1-30-08 20:33
Signature (Received)	Printed Name	Company/ Agency	Date/ Time
	Rafael	T.L.I	1-30-08 20:30
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time
Signature (Received)	Printed Name	Company/ Agency	Date/ Time

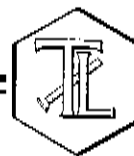
SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F
CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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February 4, 2008

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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-132 PROJECT, SLUDGE
MONITORING,
TLI NO.: 972414

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-132 project sludge monitoring. 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 January 3, 2008, 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.

All final results and associated dilution factors are reported on a dry weight basis.

Results above the reporting limit were detected in the Method Blank (Blank Beads), which in turn caused the Laboratory Control Sample (LCS) recovery to exceed the acceptance limits, for Iron by SW 6010B. The sample result is over ten times the blank detection therefor the data was accepted.

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.

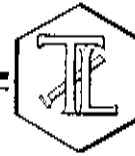
Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

for 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



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

Attention: Shawn Duffy

Sample: One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

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

Laboratory No.: 972414

Date: February 6, 2008

Collected: January 3, 2008

Received: January 3, 2008

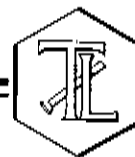
Revision 1

ANALYST LIST

METHOD		ANALYST
EPA 300.0	Fluoride	Giawad Ghenniwa
SM 2540 B	% Moisture	Gautam Savani
SW 6010B	Metals by ICP	Mark Kotani / Michel Mendoza
SW 6020	Metals by ICP/MS	Linda Saetern
SW 7471A	Mercury	Michel Mendoza
SW 7199	Hexavalent Chromium	David Blackburn

TRUESDAIL LABORATORIES, INC.

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REPORT

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

Attention: Shawn Duffy

Sample: One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

Prep. Batch: 01CrH08C

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Laboratory No.: 972414

Date: February 4, 2008

Collected: January 3, 2008

Received: January 3, 2008

Prep/ Analyzed: January 10, 2008

Analytical Batch: 01CrH08C

Investigation:

Hexavalent Chromium by IC Using Method SW 7199

Analytical Results Hexavalent Chromium

<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>
972414	SC-Sludge-WDR-132	10:40	11:02	mg/kg	10.0	18.9	295

QA/QC Summary

QC STD I.D.	Laboratory Number	Sample Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972414	295	311	5.28%	≤ 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	972414	295	25.0	15.1	378	680	673	102%	75-125%	Yes
IMS	972414	295	40.0	96.7	3868	4000	4163	95.8%	75-125%	Yes
PDMS	972414	295	25.0	30.2	755	950	1050	86.8%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0517	0.0500	103%	90% - 110%	Yes
MRCVS#1	0.0508	0.0500	102%	90% - 110%	Yes
LCS	0.0512	0.0500	102%	80% - 120%	Yes
LCSD	0.0518	0.0500	104%	80% - 120%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

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

Attention: Shawn Duffy

Sample: One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
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Laboratory No.: 972414

Date: February 4, 2008

Collected: January 3, 2008

Received: January 3, 2008

Prep/ Analyzed: January 21, 2008

Analytical Batch: 01SOLID08D

Investigation:

Total Solids by SM 2540 B

Analytical Results % Moisture

<u>TLI I.D.</u>	<u>Field I.D.</u>	<u>Sample Time</u>	<u>Units</u>	<u>Results</u>
972414	SC-Sludge-WDR-132	10:40	%	78.8

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972414	78.8	79.2	0.51%	< 20%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Condon
for Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

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REPORT

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

Attention: Shawn Duffy

Sample: One (1) Soil Sample

Project Name: PG&E Topock Project

Project No.: 358342.TM.02.00

P.O. No.: 358342.TM.02.00

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TUSTIN, CALIFORNIA 92780-7008
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Laboratory No.: 972414

Date: February 4, 2008

Collected: January 3, 2008

Received: January 3, 2008

Prep/ Analyzed: January 7, 2008

Analytical Batch: 01AN08E

Investigation:

Fluoride by Ion Chromatography using EPA 300.0

Analytical Results Fluoride

<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>
972414	SC-Sludge-WDR-132	10:40	14:40	mg/kg	20.0	9.43	78.5

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	972372-6	1.81	1.81	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	972372-6	1.81	1.00	4.00	4.00	5.63	5.81	95.5%	85-115%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	4.18	4.00	105%	90% - 110%	Yes
MRCVS#1	3.14	3.00	105%	90% - 110%	Yes
MRCVS#2	3.11	3.00	104%	90% - 110%	Yes
LCS	4.14	4.00	104%	90% - 110%	Yes
LCSD	4.18	4.00	105%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for 
Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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REPORT

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

Attention: Shawn Duffy

Samples: One (1) Soil Sample
Project Name: PG&E Topock Project
Project No.: 358342.TM.02.00
P.O. No.: 358342.TM.02.00

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.: 972414

Reported: February 4, 2008

Collected: January 3, 2008

Received: January 3, 2008

Analyzed: See Below

Analytical Results

SAMPLE ID: SC-Sludge-WDR-132		Time Collected: 10:40		LAB ID: 972414				
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Antimony	SW 6010B	422	44.0	mg/kg	4.15	011608A	01/16/08	12:44
Arsenic	SW 6020	71.0	439	mg/kg	20.7	012808B	01/28/08	16:25
Barium	SW 6010B	129	44.0	mg/kg	2.50	011608A	01/16/08	12:44
Beryllium	SW 6010B	248	44.0	mg/kg	2.50	011608A	01/16/08	12:44
Cadmium	SW 6010B	48.1	44.0	mg/kg	4.15	011608A	01/16/08	12:44
Chromium	SW 6010B	23000	4400	mg/kg	208	011608A	01/16/08	13:50
Cobalt	SW 6010B	12.2	44.0	mg/kg	2.50	011608A	01/16/08	12:44
Copper	SW 6010B	440	44.0	mg/kg	5.00	011608A	01/16/08	12:44
Lead	SW 6010B	52.8	44.0	mg/kg	4.15	011608A	01/16/08	12:44
Mercury	SW 7471A	ND	97.8	mg/kg	0.0922	01HG08Ac	01/06/08	N/A
Molybdenum	SW 6020	65.1	439	mg/kg	20.7	012808B	01/28/08	16:25
Nickel	SW 6010B	23.2	44.0	mg/kg	2.50	011608A	01/16/08	12:44
Selenium	SW 6020	ND	879	mg/kg	4.14	013108B	01/31/08	14:21
Silver	SW 6020	ND	879	mg/kg	20.7	013108B	01/31/08	14:21
Thallium	SW 6010B	ND	44.0	mg/kg	4.15	011608A	01/16/08	12:44
Vanadium	SW 6010B	128	44.0	mg/kg	2.50	011608A	01/16/08	12:44
Zinc	SW 6010B	967	490	mg/kg	116	020408A	02/04/08	12:18
Iron	SW 6010B	439000	22000	mg/kg	10400	011608A	01/16/08	14:05

NOTES:

Sample results and reporting limits reported on a dry weight basis.

ND: Not detected, or below limit of detection.

DF: Dilution factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

for Sean Condon
Mona Nassimi, Manager
Analytical Services

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 Truesdail Laboratories.

Rec'd 01/03/08
s18a 972414



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

CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-132]

COC Number

TURNAROUND TIME

10 Days

DATE

PAGE

OF

972414

COMPANY <u>E2</u>		<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> COMMENTS NUMBER OF CONTAINERS </div>																				
PROJECT NAME <u>PG&E Topock</u>																						
PHONE <u>(530) 229-3303</u> FAX <u>(530) 339-3303</u>																						
ADDRESS <u>155 Grand Ave Ste 1000</u> <u>Oakland, CA 94612</u>																						
P.O. NUMBER <u>358342.TM.02.00</u> TEAM <u>1</u>																						
SAMPLERS (SIGNATURE)																						
SAMPLE I.D.	DATE	TIME	DESCRIPTION	Cr6 (218.6)	Lab Filtered	Al,As,Cu,Fe,Mn,Mo,Ni,Pb,Sb,Zn	Total Metals (200.7)	Total Metals (200.7)	Title 22, Mercury	Specific Conductance (120.1)	TDS (SM2540C)	PH (SM4500HB)	Anions (300.0) F	Anions (300.0) F, SO4, NO2, NO3	Cr6 (7199)	Metals (60108)	Title 22, Mercury	Turbidity (SM2130)	Ammonia (SM4500NH3)	Biossay 96hr acute	NUMBER OF CONTAINERS	
SC-Sludge-WDR-132	1-3-08	1040	Sludge										x		x	x				x	5	
																					5	56°
																					TOTAL NUMBER OF CONTAINERS	

For Sample Conditions
See Form Attached

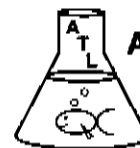
ALERT!!
Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

Signature (Relinquished)	Printed Name <u>J. Ande</u>	Company/ Agency <u>OMI</u>	Date/ Time <u>1-3-08 1055</u>	SAMPLE CONDITIONS RECEIVED COOL <input type="checkbox"/> WARM <input type="checkbox"/> °F CUSTODY SEALED YES <input type="checkbox"/> NO <input type="checkbox"/> SPECIAL REQUIREMENTS:
Signature (Received)	Printed Name <u>Rafael Davila</u>	Company/ Agency <u>T.H.I</u>	Date/ Time <u>1-3-08 3:45</u>	
Signature (Relinquished)	Printed Name <u>Rafael Davila</u>	Company/ Agency <u>T.H.I</u>	Date/ Time <u>1-3-08 20:45</u>	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	
Signature (Relinquished)	Printed Name	Company/ Agency	Date/ Time	
Signature (Received)	Printed Name	Company/ Agency	Date/ Time	

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LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"dedicated to providing quality aquatic toxicity testing"

4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: January 28, 2008

Client: Truesdail Laboratories, Inc.
14201 Franklin Avenue
Tustin, CA 92780
Attn: Sean Condon

Laboratory No.: A-08012302-001
Sample ID.: 972414

Sample Control: The sample was received by ATL in a chilled state, with the chain of custody record attached.

Date Sampled: 01/03/08
Date Received: 01/23/08
Date Tested: 01/24/08 to 01/28/08

Sample Analysis: The following analyses were performed on your sample:

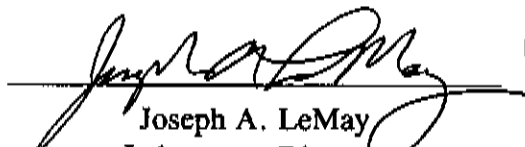
CCR Title 22 Fathead Minnow Hazardous Waste Screen Bioassay (Polisini & Miller 1988).

Attached are the test data generated from the analysis of your sample.

Result Summary:

<u>Sample ID.</u>	<u>Results</u>
972414	PASS (LC50 > 750 mg/l)

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW HAZARDOUS WASTE SCREEN BIOASSAY



Lab No.: A08012302-001

Client/ID: Towndail 972414

TEST SUMMARY

Species: *Pimephales promelas*.

Fish length (mm): av: 32; min: 31; max: 33.

Fish weight (gm): av: 56; min: 48; max: 64.

Test chamber volume: 10 liters.

Temperature: 20 +/- 2°C.

Aeration: Single bubble through narrow bore tube.

Number of replicates: 2.

Dilution water: Soft reconstituted water (40 - 48 mg/l CaCO₃).

QA/QC Batch No.: RT-080123.

Source: In-Lab Culture.

Regulations: CCR Title 22.

Test Protocol: California F&G/DHS 1988.

Endpoints: Survival at 96 hrs.

Test type: Static.

Feeding: None.

Number of fish per chamber: 10.

Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL				24 Hr				48 Hr				72 Hr				96 Hr			
	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D	°C	DO	pH	# D
Date/Time:	1-24-08 1030				1-25-08 1100				1-26-08 1130				1-27-08 1130				1-28-08 1100			
Analyst:	Rm				Rm				Rm				Z				Z			
Control A	19.4	8.8	7.2		20.7	8.5	7.0	0	20.7	8.4	7.1	0	20.7	8.0	7.1	0	20.6	8.1	7.1	0
Control B	19.3	8.8	7.2		20.6	8.5	7.0	0	20.6	8.5	7.1	0	20.7	8.3	7.1	0	20.7	8.6	7.1	0
400 mg/l A	19.4	8.8	7.2		20.7	8.1	7.0	0	20.7	7.9	7.1	0	20.8	7.4	7.0	0	20.7	7.6	7.0	0
400 mg/l B	19.3	8.9	7.2		20.6	8.6	7.0	0	20.6	8.6	7.1	0	20.7	8.3	7.0	0	20.7	8.4	7.1	0
750 mg/l A	19.2	8.9	7.2		20.5	8.6	7.1	0	20.6	8.6	7.1	0	20.7	8.4	7.0	0	20.7	8.4	7.0	0
750 mg/l B	19.2	9.0	7.2		20.4	8.7	7.1	0	20.5	8.6	7.1	0	20.6	8.2	7.0	0	20.6	8.1	7.1	0
Comments: Extraction method: Mechanical shaking <input checked="" type="checkbox"/> . None (aqueous solution) <input type="checkbox"/> . Dissolved Oxygen (DO) readings in mg/l O ₂ .																				

	CONTROL		HIGH CONCENTRATION		Total Number Dead	
	Alkalinity	Hardness	Alkalinity	Hardness	Control	
Initial	23 mg/l CaCO ₃	45 mg/l CaCO ₃	23 mg/l CaCO ₃	45 mg/l CaCO ₃	0	/20
Final	23 mg/l CaCO ₃	45 mg/l CaCO ₃	23 mg/l CaCO ₃	47 mg/l CaCO ₃	0	/20
					750 mg/l	0 /20

RESULTS

✓ (one)	Result	Description
✓	PASSED	LC50 > 750 mg/l (<40% dead in 750 mg/l conc.)
—	FAILED	≥40% dead in 750 mg/l (definitive test recommended)
—	FAILED	LC50 < 400 mg/l (>60% dead in 400 mg/l conc.)