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March 15, 2007

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

Subject: Board Order R7-2006-0060

PG&E Topock Compressor Station, Needles, California Interim Measure No. 3 Groundwater Treatment System

Discharge to Injection Wells February 2007 Monitoring Report

Dear Mr. Perdue:

Enclosed is the Board Order R7-2006-0060 February 2007 Monitoring Report for the Pacific Gas and Electric Company (PG&E) Topock Compressor Station, Interim Measure (IM) No. 3 Groundwater Treatment System.

This report is being submitted in compliance with the Waste Discharge Requirements (WDRs) issued September 20, 2006 by the Colorado River Basin Regional Water Quality Control Board (Water Board) under Order R7-2006-0060 (successor to Order R7-2004-0103). These WDRs apply to IM No. 3 Treatment System discharge by subsurface injection.

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

Sincerely,

Curt Russell

Topock Onsite Project Manager

Enclosures:

Order R7-2006-0060 February 2007 Monitoring Report for the IM No. 3 Groundwater Treatment System.

cc: José Cortez, Water Board Liann Chavez, Water Board Tom Vandenberg, Water Board Aaron Yue, DTSC

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

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

Prepared for

California Regional Water Quality Control Board Colorado River Basin Region

on behalf of

Pacific Gas and Electric Company

March 15, 2007

CH2MHILL 155 Grand Avenue, Suite 1000 Oakland, CA 94612

February 2007 Monitoring Report Interim Measure No. 3 Groundwater Treatment System Waste Discharge Requirements Order No. R7-2006-0060 PG&E Topock Compressor Station Needles, California

Prepared for Pacific Gas and Electric Company

March 15, 2007

No. C68986

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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Appendix

A Laboratory Analytical Reports

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Acronyms and Abbreviations

gpm gallons per minute

HMI human-machine interface

IM Interim Measure

MRP Monitoring and Reporting Program

PG&E Pacific Gas and Electric Company

PLC programmable logic controller

PST Pacific Standard Time

STL Severn Trent Laboratories, Inc.

TOC total organic carbon

Truesdail Laboratories, Inc.

Water Board California Regional Water Quality Control Board, Colorado River

Basin Region

WDR Waste Discharge Requirements

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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 February 2007. The groundwater monitoring results for wells OW-1S/M/D, OW-2S/M/D, OW-5S/M/D, CW-1M/D, CW-2M/D, CW-3M/D, and CW-4M/D will be submitted under separate cover, as part of the Compliance Monitoring Program.

In addition to Board Order No. R7-2006-0060, the Water Board issued Waste Discharge Requirements (WDRs) for IM No. 3 treatment system discharge to the Colorado River (Board Order R7-2004-0100) and IM No. 3 treatment system discharge to the PG&E Compressor Station (Board Order R7-2004-0080). Board Order R7-2004-0100 expired on January 31, 2007 without any discharge to the Colorado River. Reporting of Board Order R7-2004-0080 and Board Order R7-2004-0100 activities will be submitted under separate cover.

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2.0 Sampling Station Locations

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

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

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

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

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4.0 Groundwater Treatment System Flow Rates

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

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

The IM No. 3 facility also treated approximately 2,200 gallons of water generated from the groundwater monitoring program and 7,300 gallons of water generated from injection well re-development during February 2007. No container(s) of solids from the IM No. 3 facility were taken offsite during February 2007.

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

- **February 15, 2007 (unplanned)**: The extraction well system was temporarily offline from 8:07 am until 8:08 am and 10:40 am until 10:46 am while switching to generator power and returning to Needles power as a result of a temporary Needles power outage. Extraction system downtime was 8 minutes.
- **February 21, 2007 (planned)**: The extraction well system was temporarily offline from 2:45 pm until 2:46 pm while completing programmable logic controller (PLC) maintenance. Extraction system downtime was 2 minutes.

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5.0 Sampling and Analytical Procedures

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

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

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

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

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

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

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

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6.0 Analytical Results

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

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

- The influent was sampled monthly; sample date February 6, 2007. Results are presented in Table 3.
- The effluent was sampled weekly; sample dates February 6, 14, 21 and 27, 2007. Results are presented in Table 4.
- The reverse osmosis concentrate was sampled monthly; sample date February 6, 2007. Results are presented in Table 5.
- The sludge was sampled monthly; sample date February 6, 2007. In accordance with WDRs, sludge is sampled each time it is transported offsite (unless sludge is transported offsite more frequently than monthly, in which case the sampling frequency is monthly). Results are presented in Table 6.
- The sludge is required to have an aquatic bioassay test quarterly; the 1st Quarter 2007 aquatic bioassay test was performed on a sludge sample collected January 3, 2007. The results were presented in the January 2007 WDR Monitoring Report submitted to the Water Board February 15, 2007.

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

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

In addition to the WDR required parameters, seven samples were analyzed for total organic carbon (TOC) to evaluate the overall water chemistry of the IM No. 3 facility. The additional analyses were conducted on samples collected from specified WDR sampling locations:

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- Influent, collected February 6, 14, 21 and 27, 2007
- Effluent, collected February 6, 2007
- Reverse osmosis concentrate (brine), collected February 6, 2007

The additional analyses for TOC were completed for treatment process evaluation. The TOC results remain comparable to baseline conditions and are included in the laboratory reports provided in Appendix A of this report.

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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.

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8.0 Certification

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

Certification Statement:

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

Signature:	behum
Name:	Curt Russell
Company: _	Pacific Gas and Electric Company
Title:	Topock Onsite Project Manager
Date:	March 15, 2007

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

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

Note:

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^{### =} 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

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

Parameter	System Influent ^{a,b}	System Effluent ^{b,c}	Reverse Osmosis Concentrate ^{b,d}
Average Monthly Flowrate (gpm)	134.3	126.0	9.0

Notes:

gpm: gallons per minute.

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Extraction wells TW-3D and PE-1 were operated during February 2007.

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

^c Effluent was discharged into injection wells IW-02 and IW-03 during February 2007.

d Reverse Osmosis Concentrate flow meter reading from FIT-701.

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

Required Sampling	g Frequency											P	onthly											
Sample ID	Analytes Units b MDL Date	TDS mg/L 64	Turbidity NTU 0.016	Specific Conductance µmhos/cm 0.7	pH pHunits 0.057		Hexavalent Chromium µg/L 1.8	Aluminium μg/L 1.8	Ammonia (as N) mg/L 0.1	Antimony µg/L 0.28	Arsenic μg/L 0.25	Barium μg/L 0.87	Boron mg/L 0.00087	Copper µg/L 0.36	Fluoride mg/L 0.018	Lead μg/L 0.25	Manganese μg/L 1.6	Molybdenum μg/L 0.2	Nickel μg/L 0.53	Nitrate (as N) mg/L 0.017	Nitrite (as N) mg/L 0.001	Sulfate mg/L 0.77	Iron μg/L 0.99	Zinc µg/L 2.0
SC-100B-WDR-085 RL	2/6/2007	5500 250	0.306 0.1	8580 2.0	7.31 2.0	1680 10	1830 20	ND 50	ND 0.5	ND 3.0	ND 5.0	ND 300	1.15 0.2	18.0 10	2.74 0.2	ND 2.1	ND 500	16.8 5.0	ND 20	3.42 0.2	0.0096 0.005	635 25	ND 300	ND 20

NOTES:

(---) = not required by the WDR Monitoring and Reporting Program

μg/L = micrograms per liter
mg/L = milligrams per liter
NTU = nephelometric turbidity units
μmhos/cm = micromhos per centimeter
ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

MDL = method detection limit

^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

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

WDRs Effluent	Ave. Monthly	NA	NA	NA	6.5-8.4	25	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Limits ^b	Max Daily	NA	NA	NA	6.5-8.4	50	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Required Sampl	ling Frequency			We	ekly											Mont	hly							
	Analytes	TDS	Turbidity	Specific Conductance	e 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
	Units ^c	mg/L	NTU	µmhos/cm	pHunits	μg/L	μg/L	μg/L	mg/L	μg/L	μg/L	μg/L	mg/L	μg/L	mg/L	μg/L	μg/L	μg/L	μg/L	mg/L	mg/L	mg/L	μg/L	μg/L
Sample ID	MDL	64	0.016	0.7	0.057	0.75	0.088	1.8	0.1	0.28	0.25	0.87	0.00087	0.36	0.018	0.25	1.6	0.2	0.53	0.017	0.001	1.5	0.99	2.0
Sample ID	Date																							
SC-700B-WDR-08	85 2/6/2007	4370	ND	6890	7.98	ND	ND	ND	ND	ND	ND	ND	1.12	ND	1.96	5.80	ND	10.6	ND	2.83	ND	485	ND	28.2
RL		250	0.1	2.0	2.0	1.0	1.0	50	0.5	3.0	5.0	300	0.2	10	0.2	2.1	500	5.0	20	0.2	0.005	50	300	20
SC-700B-WDR-08	86 2/14/2007	4150	ND	6940	8.05	ND	ND																	
RL		250	0.1	2.0	2.0	1.0	0.2																	
SC-700B-WDR-08	87 2/21/2007	4460	ND	6940	8.06	1.30	ND																	
RL		250	0.1	2.0	2.0	1.0	0.2																	
SC-700B-WDR-09	92 2/27/2007	4530	ND	6890	8.12	ND	ND																	
RL		250	0.1	2.0	2.0	1.0	0.2																	

NOTES:

(---) = not required by the WDR Monitoring and Reporting Program NA = not applicable

μg/L = micrograms per liter

mg/L = milligrams per liter
NTU = nephelometric turbidity units

μmhos/cm = micromhos per centimeter

ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

MDL = method detection limit

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

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

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

TABLE 5

Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs) Reverse Osmosis Concentrate Results $^{\bf a}$

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

Required Sampling Frequency											Mon	thly										
Analytes Units ^b	TDS mg/L	Specific Conductance µmhos/cm	pH pHunits	Chromium mg/L	Hexavalent Chromium mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Cobalt mg/L	Copper mg/L	Fluoride mg/L	Lead mg/L	Molybdenum mg/L	Mercury mg/L	Nickel mg/L	Selenium mg/L	Silver mg/L	Thallium mg/L	Vanadium mg/L	Zinc mg/L
Sample ID Date	320	0.7	0.057	0.00031	0.00044	0.0014	0.0012	0.00087	0.00074	0.0012	0.00075	0.0018	0.18	0.0012	0.00098	0.000049	0.0026	0.0066	0.003	0.00098	0.00089	0.002
SC-701-WDR-085 2/6/2007	22200	30500	7.80	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.0	ND	0.0708	ND	ND	ND	ND	ND	ND	ND
RL	1250	2.00	2.00	0.001	0.005	0.0052	0.0104	0.30	0.0052	0.0052	0.0052	0.0104	2.00	0.0104	0.0052	0.0002	0.02	0.0104	0.0052	0.0052	0.0052	0.02

NOTES:

(---) = not required by the WDR Monitoring and Reporting Program

µg/L = micrograms per liter

mg/L = milligrams per liter

µmhos/cm = micromhos per centimeter

ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

MDL = method detection limit

^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

TABLE 6
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Sludge Monitoring Results^a

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

Required Samplin	ıg Frequency										Monthly	С										Quarterly ⁶	t
	Analytes	Chromium	Hexavalent Chromium		Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Fluoride	Lead	Molybdenum	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Bioassay % Survival	Bioassay % Survival	Bioassay % Survival
	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	at 750 mg/L e	at 500 mg/L e	at 250 mg/L e
Sample ID	MDI Date	0.8	0.8	2.4	1.6	0.4	0.24	0.32	0.8	1.6	0.36	1.0	1.2	0.08	1.2	2.0	0.4	2.0	0.8	4.0	100	100	100
SC-SLUDGE-WDR-0	085 2/6/2007	16000	73.0	ND	47.0	110	ND	ND	ND	15.0	18.0	ND	ND	1.30	ND	ND	ND	12.0	110	8.20			
RL		4.0	1.6	24	4.0	8.0	2.0	2.0	20	10	4.0	2.0	16	0.4	16	2.0	4.0	4.0	20	8.0			

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

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

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-100B	SC-100B-WDR-085	Dave Cheney	2/6/2007	8:30:00 AM	TLI	EPA 120.1	SC	2/7/2007	Tina Acquiat
		·			TLI	EPA 150.1	PH	2/7/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	2/7/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	2/7/2007	Iordan Stavrev
					TLI	EPA 200.7	ZN	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	В	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	BA	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	CR	2/14/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	FE	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	MN	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.8	AS	2/26/2007	Laureen Tan
					TLI	EPA 200.8	CU	2/26/2007	Laureen Tan
					TLI	EPA 200.8	MO	2/26/2007	Laureen Tan
					TLI	EPA 200.8	NI	2/26/2007	Laureen Tan
					TLI	EPA 200.8	PB	2/28/2007	Laureen Tan
					TLI	EPA 200.8	SB	2/26/2007	Laureen Tan
					TLI	EPA 200.8	AL	2/26/2007	Laureen Tan
					TLI	EPA 300.0	FL	2/7/2007	Giawad Ghenniwa
					TLI	EPA 300.0	NO3N	2/7/2007	Giawad Ghenniwa
					TLI	EPA 300.0	SO4	2/7/2007	Giawad Ghenniwa
					TLI	EPA 350.2	NH3N	2/8/2007	Iordan Stavrev
					TLI	EPA 354.1	NO2N	2/8/2007	Tina Acquiat
					TLI	EPA Method 218.6	CR6	2/6/2007	Stanley Hsieh
SC-700B	SC-700B-WDR-085	Dave Cheney	2/6/2007	8:30:00 AM	TLI	EPA 120.1	SC	2/7/2007	Tina Acquiat
					TLI	EPA 150.1	PH	2/7/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	2/7/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	2/7/2007	Iordan Stavrev
					TLI	EPA 200.7	ZN	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	MN	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	FE	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	CR	2/15/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	В	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	BA	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.8	AL	2/26/2007	Laureen Tan
					TLI	EPA 200.8	NI	2/26/2007	Laureen Tan
					TLI	EPA 200.8	PB	2/28/2007	Laureen Tan
					TLI	EPA 200.8	SB	2/26/2007	Laureen Tan

TABLE 7
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Monitoring Information
February 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-700B	SC-700B-WDR-085	Dave Cheney	2/6/2007	8:30:00 AM	TLI	EPA 200.8	CU	2/26/2007	Laureen Tan
					TLI	EPA 200.8	AS	2/26/2007	Laureen Tan
					TLI	EPA 200.8	MO	2/26/2007	Laureen Tan
					TLI	EPA 300.0	NO3N	2/7/2007	Giawad Ghenniwa
					TLI	EPA 300.0	SO4	2/7/2007	Giawad Ghenniwa
					TLI	EPA 300.0	FL	2/7/2007	Giawad Ghenniwa
					TLI	EPA 350.2	NH3N	2/8/2007	Iordan Stavrev
					TLI	EPA 354.1	NO2N	2/8/2007	Tina Acquiat
					TLI	EPA Method 218.6	CR6	2/7/2007	Stanley Hsieh
SC-700B	SC-700B-WDR-086	Joe Aide	2/14/2007	5:00:00 PM	TLI	EPA 120.1	SC	2/20/2007	Tina Acquiat
					TLI	EPA 150.1	PH	2/15/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	2/20/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	2/15/2007	Gautam Savani
					TLI	EPA 200.7	CR	2/15/2007	Riddhi Patel
					TLI	EPA Method 218.6	CR6	2/14/2007	Faisal Raihan
SC-700B	SC-700B-WDR-087	Chris Knight	2/21/2007	12:55:00 PM	TLI	EPA 120.1	SC	2/26/2007	Tina Acquiat
					TLI	EPA 150.1	PH	2/22/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	2/27/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	2/22/2007	Gautam Savani
					TLI	EPA 200.8	CR	2/25/2007	Riddi Patel
					TLI	EPA Method 218.6	CR6	2/21/2007	Faisal Raihan
SC-700B	SC-700B-WDR-092	Dave Cheney	2/27/2007	3:45:00 PM	TLI	EPA 120.1	SC	2/28/2007	Tina Acquiat
					TLI	EPA 150.1	PH	2/28/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	2/28/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	2/28/2007	Gautam Savani
					TLI	EPA 200.7	CR	3/7/2007	David Blackburn
					TLI	EPA Method 218.6	CR6	2/28/2007	Faisal Raihan
SC-701	SC-701-WDR-085	Dave Cheney	2/6/2007	8:30:00 AM	TLI	EPA 120.1	SC	2/7/2007	Tina Acquiat
					TLI	EPA 150.1	PH	2/7/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	2/7/2007	Tina Acquiat
					TLI	EPA 200.7	BA	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	ZN	2/16/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.7	CR	2/15/2007	Riddhi Patel/David Blackburn
					TLI	EPA 200.8	V	2/28/2007	Laureen Tan
					TLI	EPA 200.8	BE	2/28/2007	Laureen Tan
					TLI	EPA 200.8	CD	2/26/2007	Laureen Tan

TABLE 7
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Monitoring Information
February 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-701	SC-701-WDR-085	Dave Cheney	2/6/2007	8:30:00 AM	TLI	EPA 200.8	СО	2/26/2007	Laureen Tan
					TLI	EPA 200.8	CU	2/26/2007	Laureen Tan
					TLI	EPA 200.8	MO	2/26/2007	Laureen Tan
					TLI	EPA 200.8	NI	2/26/2007	Laureen Tan
					TLI	EPA 200.8	PB	2/28/2007	Laureen Tan
					TLI	EPA 200.8	SB	2/26/2007	Laureen Tan
					TLI	EPA 200.8	SE	2/28/2007	Laureen Tan
					TLI	EPA 200.8	TL	2/26/2007	Laureen Tan
					TLI	EPA 200.8	AG	2/28/2007	Laureen Tan
					TLI	EPA 200.8	AS	2/26/2007	Laureen Tan
					TLI	EPA 245.1	HG	2/13/2007	Aksiniya Dimitrova
					TLI	EPA 300.0	FL	2/7/2007	Giawad Ghenniwa
					TLI	EPA Method 218.6	CR6	2/7/2007	Stanley Hsieh
SC-Sludge	SC-SLUDGE-WDR-085	Dave Cheney	2/6/2007	12:00:00 AM	STL	EPA 160.3	MOIST	2/9/2007	Janice Salenga
					TLI	EPA 300.0	FL	2/7/2007	Giawad Ghenniwa
					STL	EPA 6010B	PB	2/19/2007	Hao Ton
					STL	EPA 6010B	ZN	2/19/2007	Hao Ton
					STL	EPA 6010B	AS	2/19/2007	Hao Ton
					STL	EPA 6010B	V	2/19/2007	Hao Ton
					STL	EPA 6010B	TL	2/19/2007	Hao Ton
					STL	EPA 6010B	SE	2/19/2007	Hao Ton
					STL	EPA 6010B	SB	2/19/2007	Hao Ton
					STL	EPA 6010B	NI	2/19/2007	Hao Ton
					STL	EPA 6010B	MO	2/19/2007	Hao Ton
					STL	EPA 6010B	CU	2/19/2007	Hao Ton
					STL	EPA 6010B	CR	2/19/2007	Hao Ton
					STL	EPA 6010B	CO	2/19/2007	Hao Ton
					STL	EPA 6010B	CD	2/19/2007	Hao Ton
					STL	EPA 6010B	BA	2/19/2007	Hao Ton
					STL	EPA 6010B	AG	2/19/2007	Hao Ton
					STL	EPA 6010B	BE	2/19/2007	Hao Ton
					STL	EPA 7471A	HG	2/19/2007	Hao Ton
					STL	SW 7199	CR6	2/12/2007	Yuriy Zakhrabov

TABLE 7
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Monitoring Information
February 2007 Monthly Report for Interim Measures No.3 Groundwater Treatment System

Location	Sample ID	Sampler Name	Sample Date	Sample Time	Lab	Analysis Method	Parameter	Analysis Date	Lab Technician
SC-Sludge	SC-Sludge-WDR-076	David Chaney	12/06/2006	13:01:00 PM	MBC	96-Hour Acute Aquatic Toxicity Screening Test	ВІО	1/4//2007 - 01/8/2007	Chris Lim, Yi Young

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)

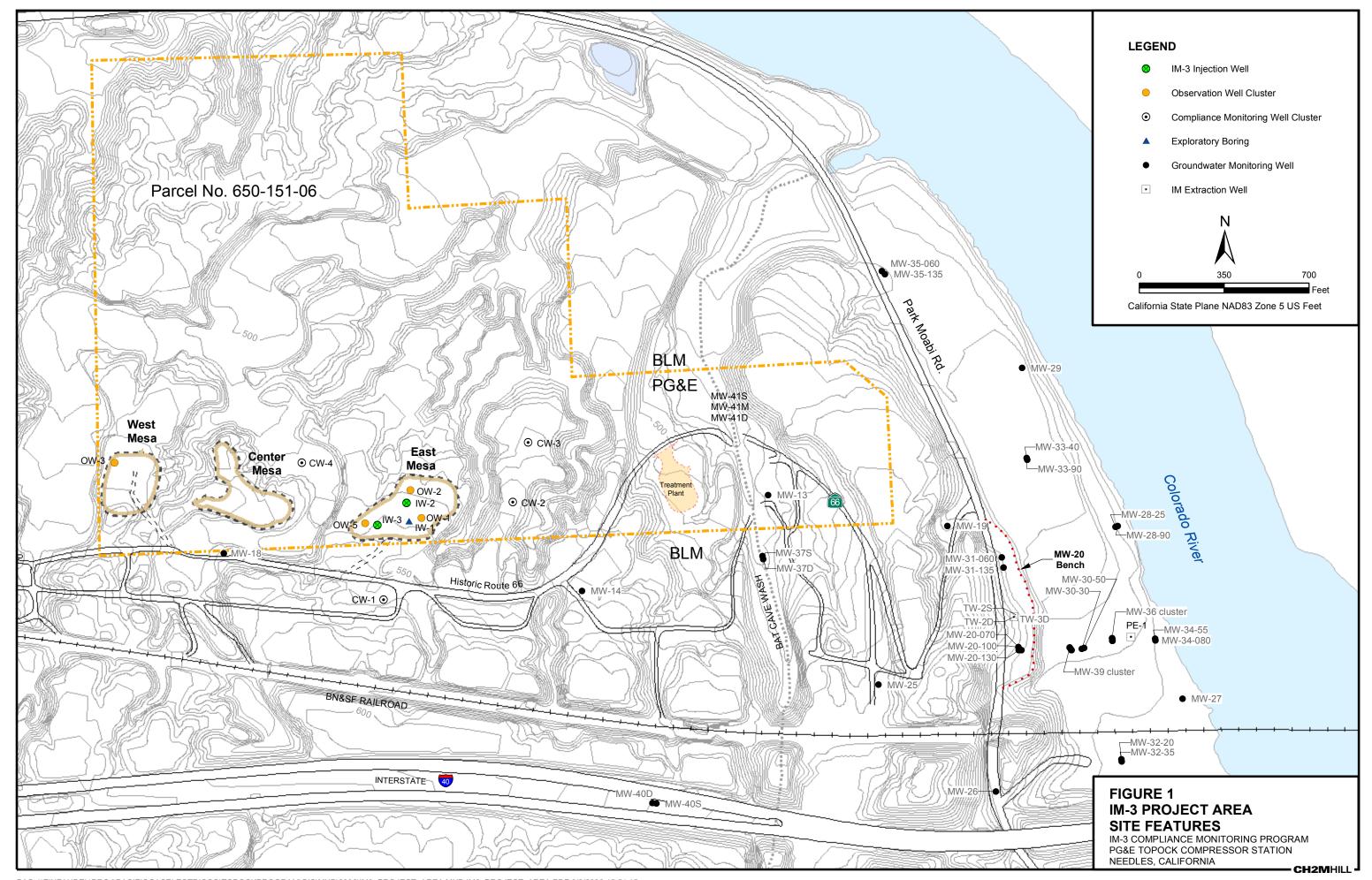
TLI = Truesdail Laboratories, Inc.

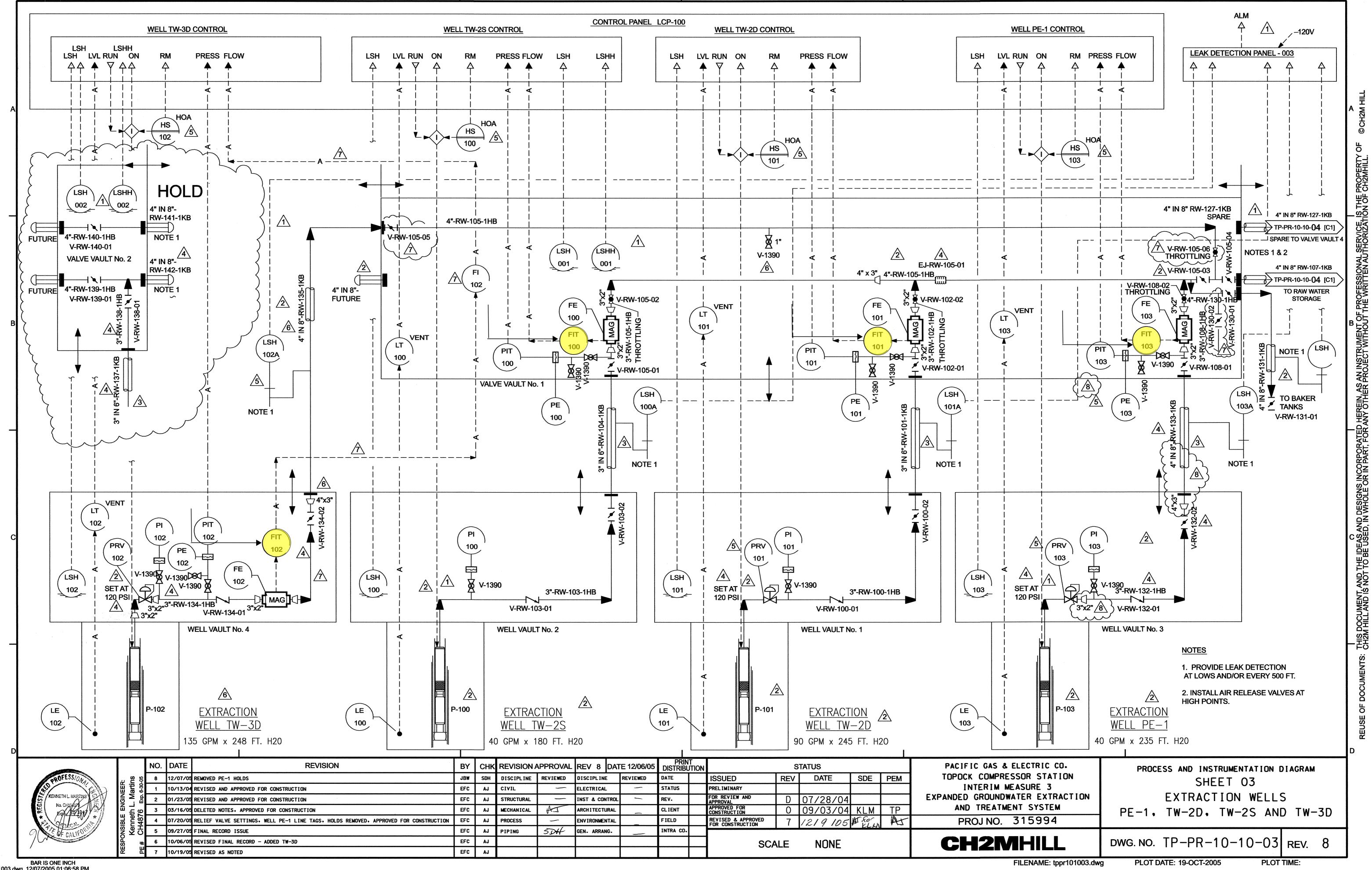
STL = Severn Trent Laboratories, Inc.

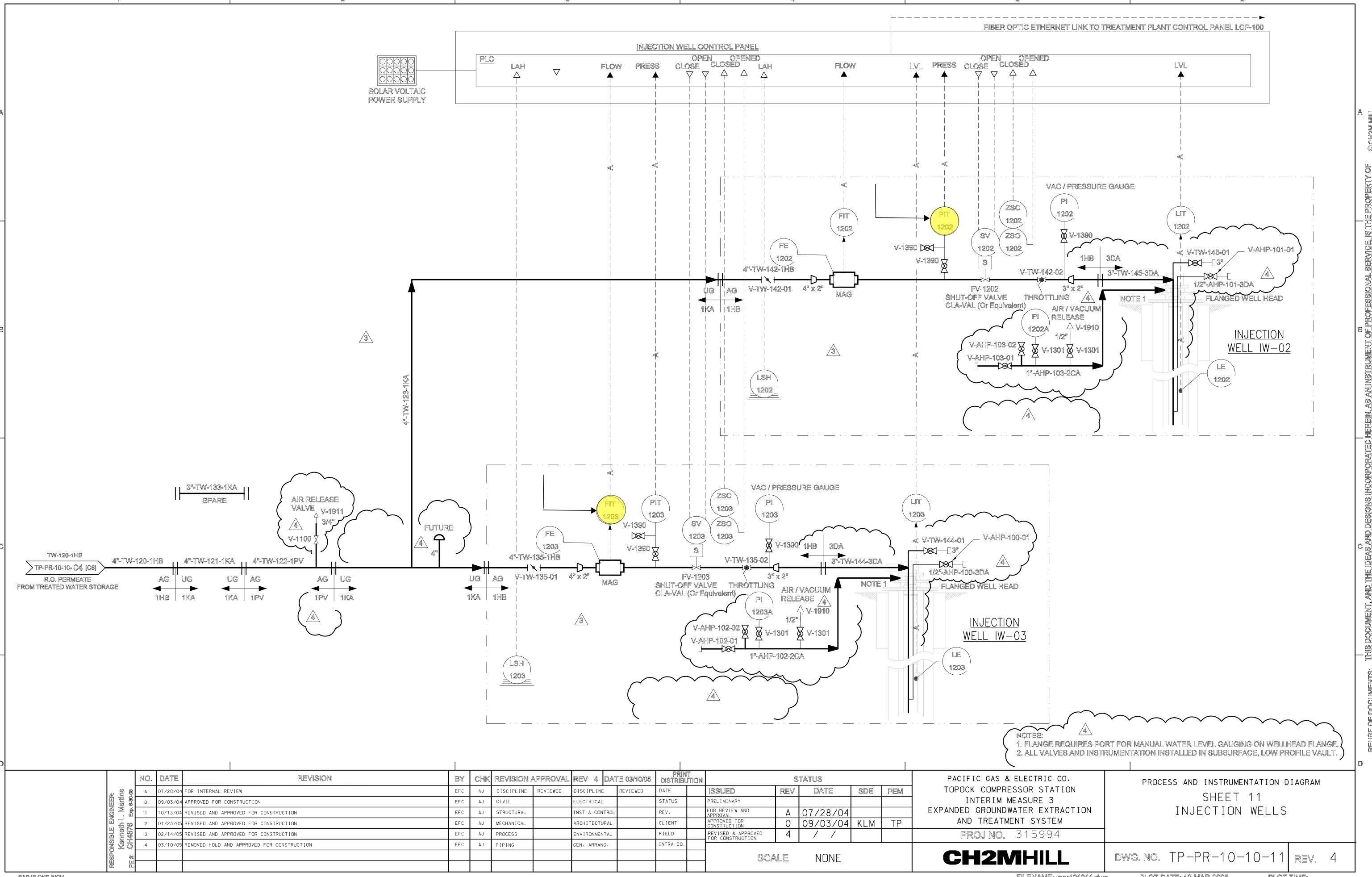
MBC = MBC Applied Environmental Sciences

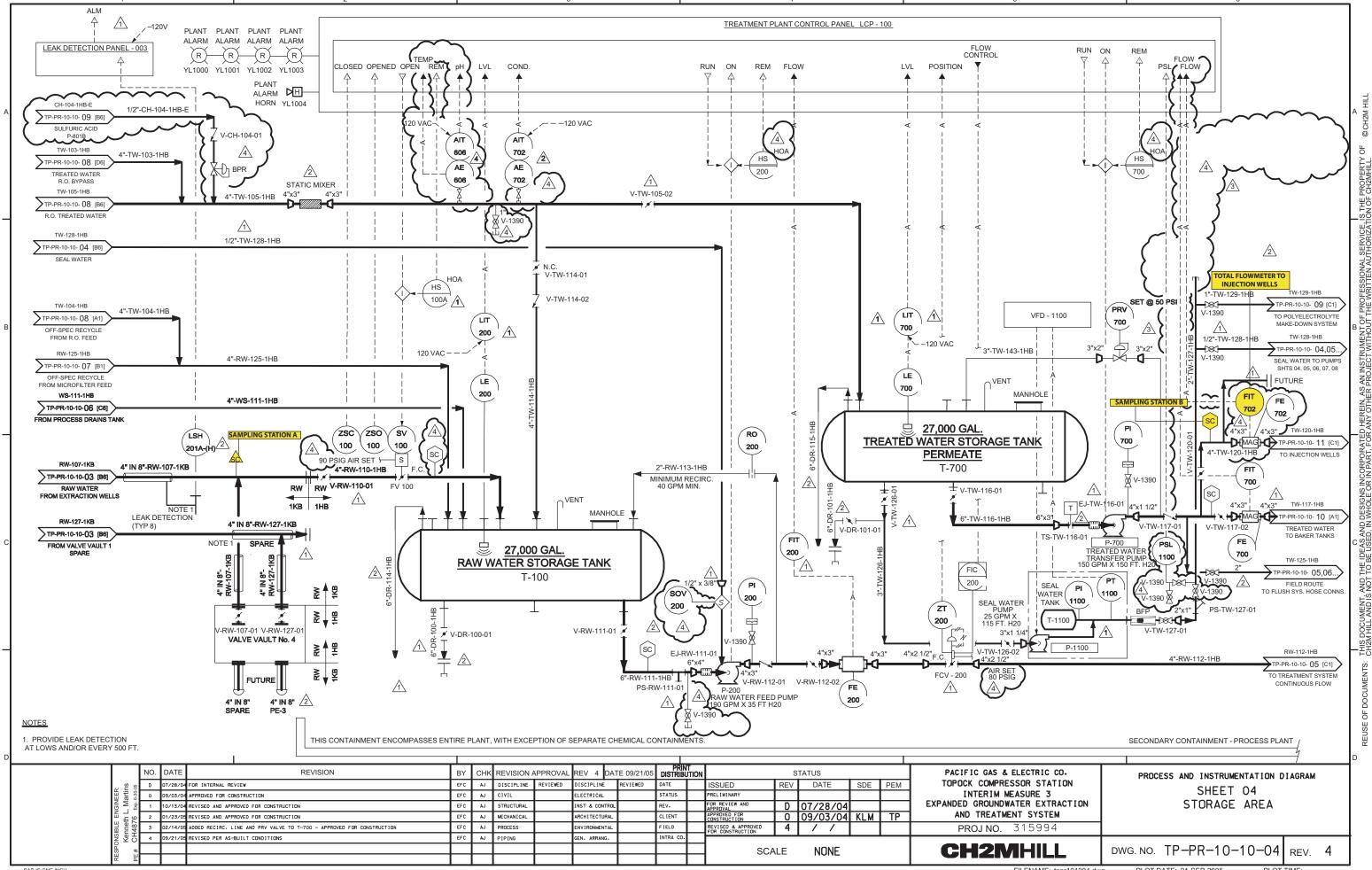
PH = TDS = TRB = CR = CR6 = FL = AL = B = FE = MN = ZN =	iron manganese zinc		molybdenum nickel lead mercury selenium thallium cobalt cadmium beryllium silver vanadium nitrate (as N) ammonia (as N)
MN =	manganese	V =	vanadium
SB =	antimony	NH3N =	ammonia (as N)
AS =	arsenic	NO2N =	nitrite (as N)
BA =	barium	SO4 =	sulfate
CU =	copper		

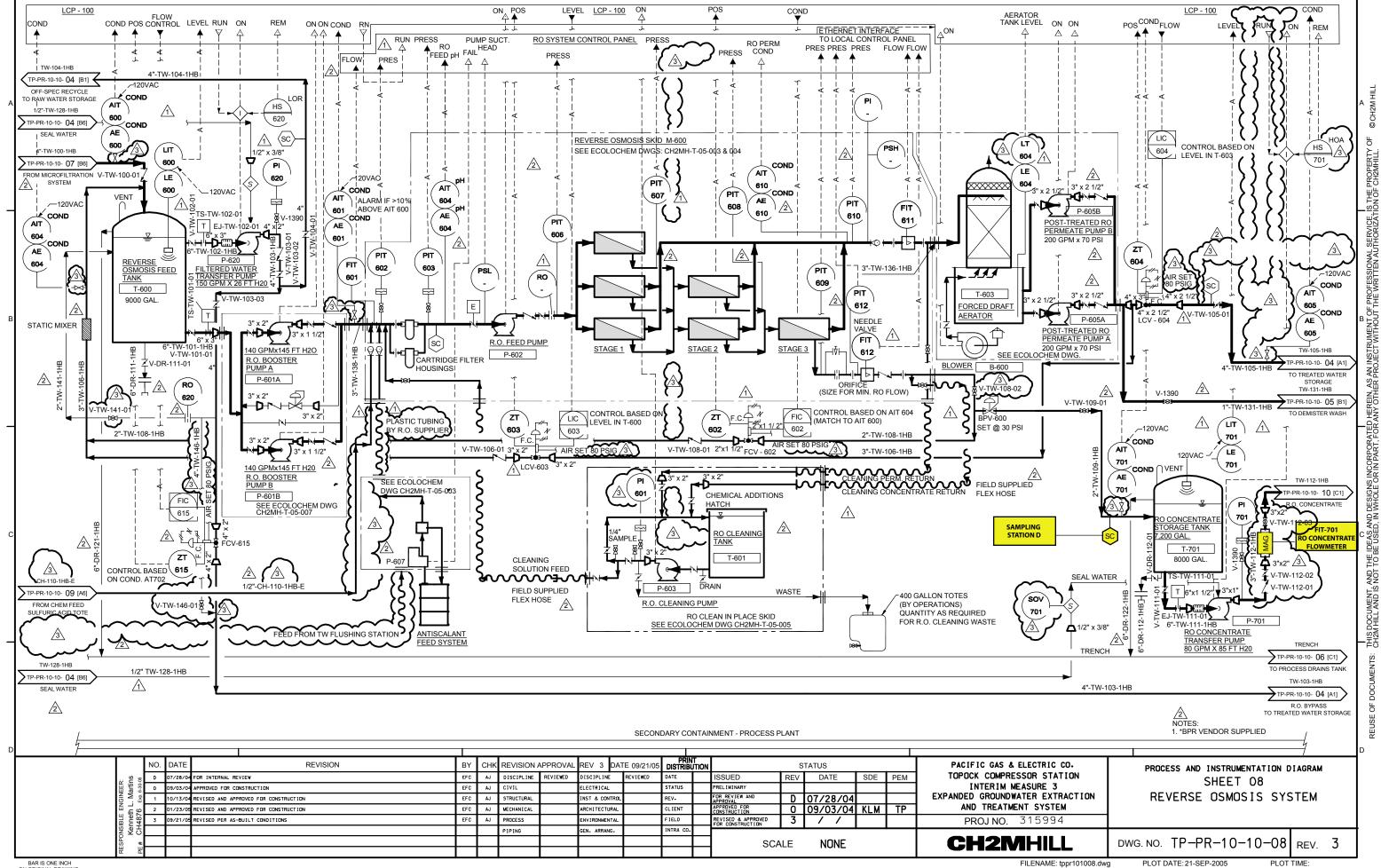


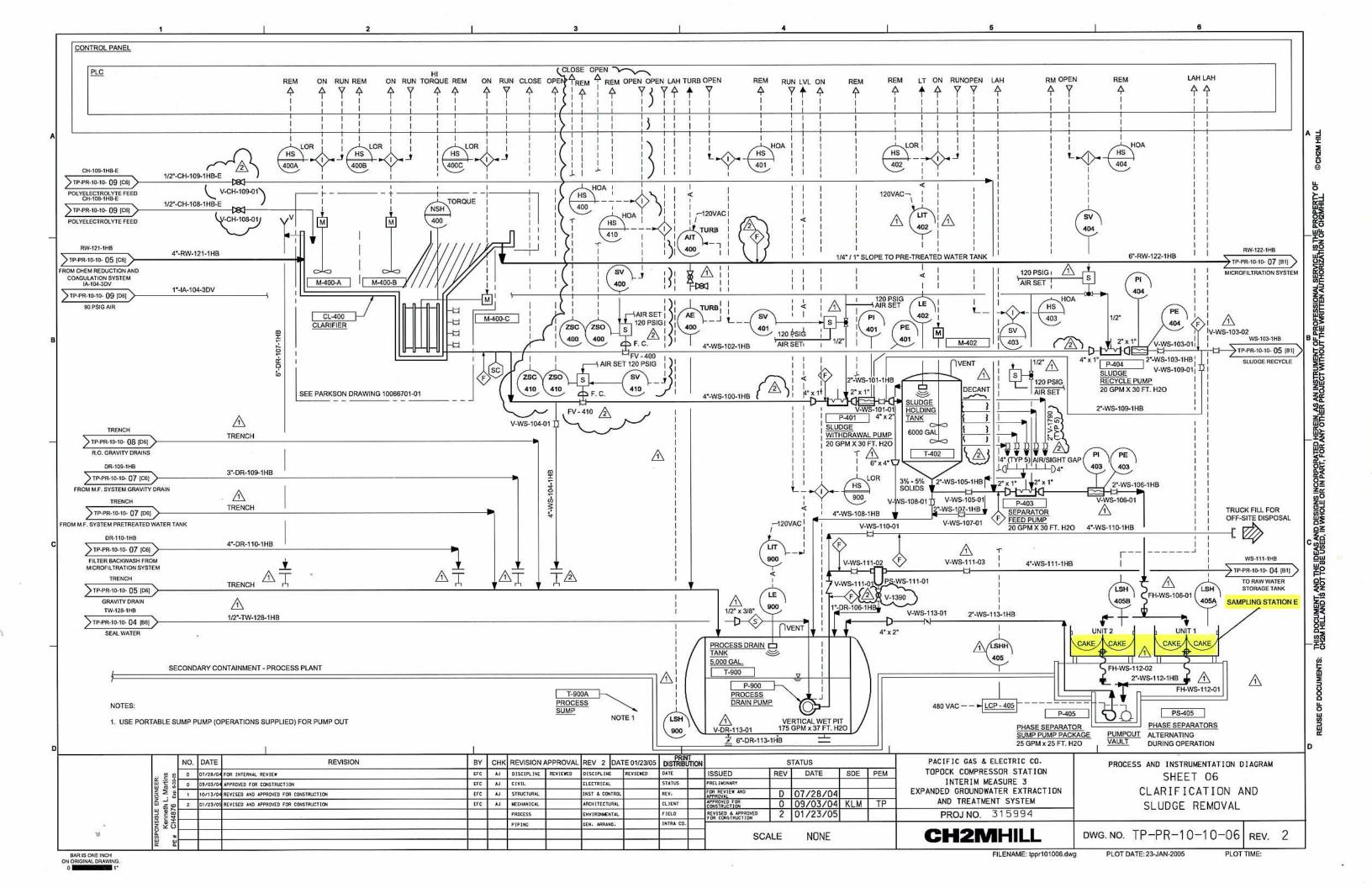


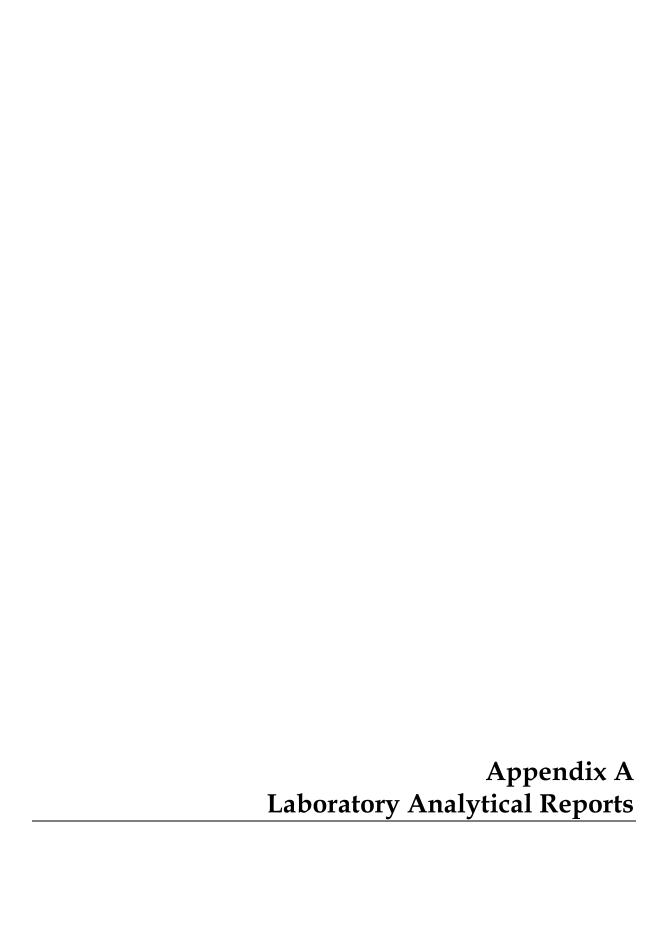












TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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:

March 1, 2007

SUBJECT:

CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-085 PROJECT, GROUNDWATER AND

SOIL MONITORING,

TLI No.: 963004

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-085 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Anions, Ammonia, Total Dissolved Solids, Total Organic Carbon, and Title 22 Metals and soil monitoring for Fluoride. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on February 6, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

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

Respectfully Submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi — Manager, Analytical Services

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K. R. P. gger

K.R.P. Iyer

Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

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Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

Laboratory No.: 963004

Date: March 1, 2007 Collected: February 6, 2007 Received: February 6, 2007

ANALYST LIST

METHOD	PARAMETER	ÄNALYST				
E PA 120.1	Specific Conductivity	Tina Acquiat				
E PA 150.1	Н .	Tina Acquiat				
PA 160.1 Total Dissolved Solids		Tina Acquiat				
E PA 180.1	Turbidity	lordan Stavrev				
E PA 300.0	Anions	Giawad Ghenniwa				
E PA 350.2	Ammonia	lordan Stavrev				
E PA 354.1	Nitrite as N	Tina Acquiat				
E PA 415.2	Total Organic Carbon	Hope Trinidad				
E PA 200.7	Metals by ICP	Riddhi Patel / David Blackburn				
E PA 200.8	Metals by ICP/MS	Laureen Tan				
E PA 245.1	Mercury	Aksiniya Dimitrova				
E PA 218.6	Hexavalent Chromium	Stanley Hsieh				

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.JM.02.F2



Established 1931

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

Laboratory No.: 963004

Date: March 1, 2007 Collected: February 6, 2007

Received: February 6, 2007 Prep/ Analyzed: February 7, 2007

Analytical Batch: 02PH07E

Investigation:

pH by EPA 150.1

REPORT

Analytical Results pH

TLII.D.	Field I.D.	Run Time	<u>Units</u>	<u>MDL</u>	<u>RL</u>	Results
963004-1	SC-100B-WDR-085	08:10	pH Units	0.0570	2.00	7.31
963004-2	SC-700B-WDR-085	08:15	pH Units	0.0570	2.00	7.98
963004-3	SC-701-WDR-085	08:20	pH Units	0.0570	2.00	7.80

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	963004-1	7.31	7.32	0.01	± 0.100 Units	Yes

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

TRUEȘDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

REPORT Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Established 1931

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

Laboratory No.: 963004

Date: March 1, 2007

Collected: February 6, 2007 Received: February 6, 2007

Prep/ Analyzed: February 7, 2007

Analytical Batch: 02EC07G

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.	Field I.D.	<u>Units</u>	<u>Method</u>	DF	<u>RL</u>	Results
963004-1	SC-100B-WDR-085	μmhos/cm	EPA 120.1	1.00	2.00	8580
963004-2	SC-700B-WDR-085	μmhos/cm	EPA 120.1	1.00	2.00	6890
963004-3	SC-701-WDR-085	μmhos/cm	EPA 120.1	1.00	2.00	30500

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963005-2	8610	8630	0.23%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
CCS	686	706	97.2%	90% - 110%	Yes
CVS#1	944	1000	94.4%	90% - 110%	Yes
LCS	686	706	97.2%	90% - 110%	Yes

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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www.truesdail.com

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project
 Project No.: 346129.IM.02.E2
 P.O. No.: 346129.IM.02.E2

Laboratory No.: 963004

Date: March 1, 2007

Collected: February 6, 2007 Received: February 6, 2007

Prep/ Analyzed: February 7, 2007

Analytical Batch: 02TDS07D

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D.	Field I.D.	<u>Units</u>	<u>Method</u>	RL	Results
963004-1	SC-100B-WDR-085	mg/L	EPA 160.1	250	5500
963004-2	SC-700B-WDR-085	mg/L	EPA 160.1	250	4370
963004-3	SC-701-WDR-085	mg/L	EPA 160.1	1250	22200

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	963004-3	22200	21300	2.07%	<u><</u> 5%	Yes

QC Std I.D.	Measured	Theoretical	Percent	Acceptance	QC Within
	Concentration	Concentration	Recovery	Limits	Control
LCS 1	497	500	99.4%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Massimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

REPORT

Established 1931

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

Laboratory No.: 963004

Date: March 1, 2007 Collected: February 6, 2007

Received: February 6, 2007 Prep/ Analyzed: February 7, 2007

Analytical Batch: 02TUC07F

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

TLI I.D.	Field I.D.	Sample Time	<u>Units</u>	<u>DF</u>	RL	Results
963004-1	SC-100B-WDR-085	08:30	NTU	1.00	0.100	0.306
963004-2	SC-700B-WDR-085	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	962987-21	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.36	8.00	92.0%	90% - 110%	Yes
LCS	7.48	8.00	93.5%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF· Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Prep. Batch: 02CrH07D

Laboratory No.: 963004

Date: March 1, 2007

Collected: February 6, 2007 Received: February 6, 2007

Prep/ Analyzed: February 6-7, 2007

Analytical Batch: 02CrH07D

In vestigation:

Hexavalent Chromium by IC Using Method EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	<u>Units</u>	DF	RL	Results
963004-1	SC-100B-WDR-085	08:30	2/6/07; 23:20	mg/L	100	0.0200	1.83
963004-2	SC-700B-WDR-085	08:30	2/7/07; 00:44	mg/L	5.00	0.0010	ND
963004-3	SC-701-WDR-085	08:30	2/7/07; 03:27	mg/L	25.0	0.0050	ND

QA/QC Summary

***************************************	QC STD I.D.	Laboratory Number	Sample Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
	Duplicate	963004-1	1.83	1.84	0.54%	< 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	963004-1	1.83	100	0.0200	2.00	3.90	3.83	104%	90-110%	Yes
MS	963004-2	0.00	1.06	0.00100	0.00106	0.00086	0.00106	81.1%	90-110%	No
MS	963004-2	0.00	5.00	0.00100	0.00500	0.00458	0.00500	91.6%	90-110%	Yes
MS	963004-3	0.00	1.06	0.00100	0.00106	0.00	0.00106	0.00%	90-110%	No
MS	963004-3	0.00	5.00	0.00100	0.00500	0.00544	0.00500	109%	90-110%	Yes
MS	963004-3	0.00	10.0	0.00100	0.0100	0.00881	0.0100	88.1%	90-110%	No
MS	963004-3	0.00	25.0	0.00100	0.0250	0.0234	0.0250	93.6%	90-110%	Yes

				***	00.070
QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00485	0.00500	97.0%	90% - 110%	Yes
MRCVS#1	0.0101	0.0100	101%	95% - 105%	Yes
MRCVS#2	0.0100	0.0100	100%	95% - 105%	Yes
MRCVS#3	0.0101	0.0100	101%	95% - 105%	Yes
LCS	0.00484	0.00500	96.8%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

TRUESDAIL LABORATORIES, INC.

Analytical Services

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2 Laboratory No.: 963004

Date: March 1, 2007

. Collected: February 6, 2007

Received: February 6, 2007 Prep/ Analyzed: February 8, 2007

Analytical Batch: 02NH307A

Investigation:

Ammonia as N by Method EPA 350.2

Analytical Results Ammonia as N

TLI I.D.	Field I.D.	Sample Time	<u>Method</u>	<u>Units</u>	<u>DF</u>	<u>RL</u>	<u>Results</u>
5 963004-1	SC-100B-WDR-085	08:30	EPA 350.2	mg/L	1.00	0.500	ND
± 963004-2	SC-700B-WDR-085	08:30	EPA 350.2	mg/L	1.00	0.500	ND

QA/QC Summary

	QC STE) I.D.		oratory umber	Concentra	ition		olicate entration	Relative Percent Difference	eptance limits	QC Within Control	
	Duplic	ate	96	3049-1	ND			ND	0.00%	≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc. unspik samp	ed	Dilution Factor	Added Spike Conc.		MS nount	Measured Conc. of spiked sample	Theoretica Conc. of spiked sample	MS% ecovery	Acceptance limits	QC Within Control
MS	963049-2	0.00		1.00	10.0		10.0	10.4	10.0	104%	75-125%	Yes
				5.5		·				 00 11/11	. 1	

QC Std I.D.	Measured	Theoretical	Percent	Acceptance	QC Within
	Concentration	Concentration	Recovery	Limits	Control
LCS	9.66	10.0	96.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

I RUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

Analytical Services

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

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

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2 Laboratory No.: 963004

Date: March 1, 2007

Collected: February 6, 2007 Received: February 6, 2007

Prep/ Analyzed: February 7, 2007

Analytical Batch: 02AN07E

Investigation:

Fluoride by Ion Chromatography using EPA 300.0

REPORT

Analytical Results Fluoride

TLI I.D.	Field I.D.	Sample Time	Run Time	<u>Units</u>	<u>DF</u>	<u>RL</u>	Results
963004-1	SC-100B-WDR-085	08:30	12:49	mg/L	1.00	0.200	2.74
963004-2	SC-700B-WDR-085	08:30	13:01	mg/L	1.00	0.200	1.96
963004-3	SC-701-WDR-085	08:30	13:58	mg/L	10.0	2.00	12.0

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963004-1 25x	2.57	2.45	4.78%	≤ 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	963004-1	2.57	25.0	4.00	100	105	103	102%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	4.15	4.00	104%	90% - 110%	Yes
MRCVS#1	3.13	3.00	104%	90% - 110%	Yes
MRCVS#2	3.12	3.00	104%	90% - 110%	Yes
MRCVS#3	3.12	3.00	104%	90% - 110%	Yes
MRCVS#4	3.12	3.00	104%	90% - 110%	Yes
LCS	4.16	4.00	104%	90% - 110%	Yes
LCSD	4.16	4.00	104%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

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Morta Nassimi, Manager

Analytical Services

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Laboratory

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963004

Date: March 1, 2007

Collected: February 6, 2007 Received: February 6, 2007

QC Within

Prep/ Analyzed: February 7, 2007

Analytical Batch: 02AN07E

Acceptance

Investigation:

Sulfate by Method EPA 300.0

Analytical Results Sulfate

TLI I.D.	Field I.D.	Sample Time	Run Time	<u>Units</u>	DF	<u>RL</u>	Results
963004-1	SC-100B-WDR-085	08:30	13:35	mg/L	25.0	25.0	635
963004-2	SC-700B-WDR-085	08:30	15:36	mg/L	50.0	50.0	485

QA/QC Summary

Relative

	QCSIL		Number	Concentration	Con	centration	Percent Difference	limits	Control	
	Duplic	ate S	63004-2	485		486	0.21%	≤ 20%	Yes	
QC Std	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	963004-2	485	50.0	10.0	500	970	985	97.0%	75-125%	Yes

					31.070
QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	20.0	20.0	100%	90% - 110%	Yes
MRCVS#1	15.1	15.0	101%	90% - 110%	Yes
MRCVS#2	15.1	15.0	101%	90% - 110%	Yes
MRCVS#3	15.0	15.0	100%	90% - 110%	Yes
LCS	20.0	20.0	100%	90% - 110%	Yes
LCSD	20.0	20.0	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2 Laboratory No.: 963004

Date: March 1, 2007 Collected: February 6, 2007

Received: February 6, 2007 Prep/ Analyzed: February 7, 2007

Analytical Batch: 02AN07E

Investigation:

Nitrate as N by Ion Chromatography using EPA 300.0

Analytical Results Nitrate as N

TLII.D.	<u>Field I.D.</u>	Sample Time	Run Time	<u>Units</u>	<u>DF</u>	<u>RL</u>	Results
9 63004-1	SC-100B-WDR-085	08:30	12:49	mg/L	1.00	0.200	3.42
\$ 63004-2	SC-700B-WDR-085	08:30	13:01	mg/L	1.00	0.200	2.83

QA/QC Summary

	QCSID	I.D.	Number	Concentra	tion Cond	centration	Percent Difference	limits	Control	
	Duplica	ate	962997-1	2.99		2.99	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		MS% Recovery	Acceptance limits	QC Within Control
MS	962997-1	2.99	1.00	4.00	4.00	6.91	6.99	98.0%	75-125%	Yes
			·		···					

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	4.00	4.00	100%	90% - 110%	Yes
MRCVS#1	2.99	3.00	99.7%	90% - 110%	Yes
MRCVS#2	3.00	3.00	100%	90% - 110%	Yes
LCS	4.00	4.00	100%	90% - 110%	Yes
LCSD	4.00	4.00	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

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REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2

Laboratory No.: 963004

Date: March 1, 2007

Collected: February 6, 2007

Received: February 6, 2007 Prep/ Analyzed: February 8, 2007

Analytical Batch: 02NO207D

Investigation:

Nitrite as N by Method EPA 354.1

Analytical Results for Nitrite as N

TLI I.D.	Field I.D.	Sample Time	Run Time	<u>Units</u>	DF	RL	Results
963004-1	SC-100B-WDR-085	08:30	09:57	mg/L	1.00	0.0050	0.0096
963004-2	SC-700B-WDR-085	08:30	09:58	mg/L	1.00	0.0050	ND

QA/QC Summary

	QC STE) I.D.		iboratory Number	Concentra	ition		plicate entration	Relative Percent Difference	Acceptance limits	QC Within Control	
	Duplic	ate	9	63049-3	ND			ND	0.00%	≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc unspil samp	ked	Dilution Factor	Added Spike Conc.		MS nount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	963049-3	0.00)	1.00	0.100	0	.100	0.0946	0.100	94.6%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0904	0.0900	100%	90% - 110%	Yes
MRCVS#1	0.0930	0.100	93.0%	90% - 110%	Yes
LCS	0.166	0.180	92.2%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2

Prep. Batch: 02TOC07D

Laboratory No.: 963004

Date: March 1, 2007 Collected: February 6, 2007

Received: February 6, 2007 Prep/ Analyzed: February 13, 2007

Analytical Batch: 02TOC07D

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

TLI I.D.	Field I.D.	Sample Time	Run Time	<u>Units</u>	<u>DF</u>	<u>RL</u>	Results
963004-1	SC-100B-WDR-085	08:30	14:32	mg/L	1.00	0.300	0.790
963004-2	SC-700B-WDR-085	08:30	14:43	mg/L	1.00	0.300	0.482
963004-3	SC-701-WDR-085	08:30	14:57	mg/L	1.00	0.300	1.89

QA/QC Summary

QC STD I.D.	Laboratory Number	Sample Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963004-3	1.89	1.86	1.60%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.50	10.0	95.0%	90% - 110%	Yes
MRCVS#1	9.94	10.0	99.4%	90% - 110%	Yes
LCS	19.2	20.0	96.0%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Truesdail Laboratories, Inc.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2

Laboratory No.: 963004 Date: March 1, 2007 Collected: February 6, 2007 Received: February 6, 2007

Established 1931

Prep/ Analyzed: February 7, 2007

Analytical Batch: 02AN07E

Investigation:

Fluoride by Ion Chromatography using EPA 300.0

Analytical Results Fluoride

TLI I.D. Field I.D. Sample Time Run Time <u>Units</u> DF RL Results 963004-4 SC-Sludge-WDR-085 08:30 16:11 mg/kg 20.0 4.00 18.0

QA/QC Summary

Relative

	QC STE) I.D.	Number 963004-1	Concentra 2.57	tion	Concentration 2.45	Percent Difference 4.78%	limits	Control	
QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution	Added Spike Conc.	MS Amo	Measured Conc. of	Theoretica		Acceptance limits	QC Within Control
MS	963004-1	2.57	25.0	4.00	10	0 105	103	102%	75-125%	Yes
					**1.					

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	4.15	4.00	104%	90% - 110%	Yes
MRCVS#1	3.13	3.00	104%	90% - 110%	Yes
MRCVS#2	3.12	3.00	104%	90% - 110%	Yes
MRCVS#3	3.12	3.00	104%	90% - 110%	Yes
MRCVS#4	3.12	3.00	104%	90% - 110%	Yes
LCS	4.16	4.00	104%	90% - 110%	Yes
LCSD	4.16	4.00	104%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

TRUESDAIL LABORATORIES. INC.

Mona Nassimi, Manager

Analytical Services

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

Laboratory No.: 963004
Reported: March 1, 2007
Collected: February 6, 2007
Received: February 6, 2007
Analyzed: February 14 - 28, 2007

REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000 Oakland, CA 94612

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2

Investigation: Total Metal Analyses as Requested

Analytical Results

SAMPLE ID:	SC-100B-WDR-085	Time Colle	ected:	08:30		LAB ID:	963004-1	
		Reported		4 4 4			Date	Time
Parameter	Method	Value	DF	Units	RL	Batch	Analyzed	Analyzed
Aluminum	EPA 200.8	ND	2.08	mg/L	0.0500	022607A	02/26/07	12:27
Antimony	EPA 200.8	ND	2.08	mg/L	0.0030	022607A	02/26/07	12:00
Arsenic	EPA 200.8	ND	2.08	mg/L	0.0050	022607A	02/26/07	12:27
Barium	EPA 200.7	ND	1.04	mg/L	0.300	021607A	02/16/07	13:38
Chromium	EPA 200.7	1.68	1.04	mg/L	0.0104	021407A	02/14/07	11:08
Copper	EPA 200.8	0.0180	2.08	mg/L	0.0100	022607A	02/26/07	12:27
Lead	EPA 200.8	ND	2.08	mg/L	0.0021	022807A	02/28/07	11:49
Manganese	EPA 200.7	ND	1.04	mg/L	0.500	021607A	02/16/07	13:38
Molybdenum	EPA 200.8	0.0168	2.08	mg/L	0.0050	022607A	02/26/07	12:27
Nickel	EPA 200.8	ND	2.08	mg/L	0.0200	022607A	02/26/07	12:27
Zinc	EPA 200.7	ND	1.04	mg/L	0.0200	021607A	02/16/07	13:38
Baron	EPA 200.7	1.15 🏑	1.04	mg/L	0.200	021607A	02/16/07	13:38
Iron	EPA 200.7	ND	1.04	mg/L	0.300	021607A	02/16/07	13:38

SAMPLE ID:	SC-700B-WDR-085	Time Colle	ected:	08:30		LAB ID:	963004-2	
-		Reported					Date	Time
Parameter	Method	Value	DF	Units	RL	Batch	Analyzed	Analyzed
Aluminum	EPA 200.8	ND	2.08	mg/L	0.0500	022607A	02/26/07	12:46
Antmony	EPA 200.8	ND	2.08	mg/L	0.0030	022607A	02/26/07	12:46
Arsenic	EPA 200.8	ND	2.08	mg/L	0.0050	022607A	02/26/07	12:46
Baium	EPA 200.7	ND-	1.04	mg/L	0.300	021607A	02/16/07	13:54
Chromium	EPA 200.7	ND	1.04	mg/L	0.0010	021507A	02/15/07	12:52
Copper	EPA 200.8	ND	2.08	mg/L	0.0100	022607A	02/26/07	12:46
Le ad	EPA 200.8	0.0058	2.08	mg/L	0.0021	022807A	02/28/07	11:55
Mænganese	EPA 200.7	ND	1.04	mg/L	0.500	021607A	02/16/07	13:54
M c ybdenum	EPA 200.8	0.0106	2.08	mg/L	0.0050	022607A	02/26/07	12:46
Ni del	EPA 200.8	ND	2.08	mg/L	0.0200	022607A	02/26/07	12:46
Ziano	EPA 200.7	0.0282 🚽	1.04	mg/L	0.0200	021607A	02/16/07	13:54
Boon	EPA 200.7	1.12 🗸	1.04	mg/L	0.200	021607A	02/16/07	13:54
Iron	EPA 200.7	ND	1.04	mg/L	0.300	021607A	02/16/07	13:54

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Report Continued

SA_MPLE ID:	SC-701-WDR-085	Time C	ollected:	08:30		LAB ID:	963004-3	
		Reported					Date	Time
Pa rameter	Method	Value	DF	Units	RL	Batch	Analyzed	Analyzed
Antimony	EPA 200.8	ND	10.4	mg/L	0.0052	022607A	02/26/07	13:23
Arsenic	EPA 200.8	ND	10.4	mg/L	0.0104	022607A	02/26/07	13:23
Ba rium	EPA 200.7	ND	1.04	mg/L	0.300	021607A	02/16/07	14:05
Be ryllium	EPA 200.8	ND	10.4	mg/L	0.0052	022807A	02/28/07	12:01
Cadmium	EPA 200.8	ND	10.4	mg/L	0.0052	022607A	02/26/07	13:23
Cheromium	EPA 200.7	ND	1.04	mg/L	0.0010	021507A	02/15/07	12:57
C > balt	EPA 200.8	ND	10.4	mg/L	0.0052	022607A	02/26/07	13:23
C ∞ pper	EPA 200.8	NDND_	10.4	mg/L	0.0104	022607A	02/26/07	13:23
Le = ad	EPA 200.8	ND	10.4	mg/L	0.0104	022807A	02/28/07	12:01
Mercury	EPA 245.1	ND	1.00	mg/L	0.00020	02HG07Ba	02/13/07	12:45
Molybdenum	EPA 200.8	0.0708	10.4	mg/L	0.0052	022607A	02/26/07	13:23
Ni⊂keI	EPA 200.8	ND	10.4	mg/L	0.0200	022607A	02/26/07	13:23
Selenium	EPA 200.8	ND	10.4	mg/L	0.0104	022807A	02/28/07	12:01
Silver	EPA 200.8	ND	10.4	mg/L	0.0052	022807A	02/28/07	12:01
Th allium	EPA 200.8	ND	10.4	mg/L	0.0052	022607A	02/26/07	13:23
Va≋nadium	EPA 200.8	ND	10.4	mg/L	0.0052	022807A	02/28/07	12:01
Zinc	EPA 200.7	ND	1.04	mg/L	0.0200	021607A	02/16/07	14:05

ND: Not detected,or below limit of detection.

DF:Dilution factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

TRUESDAUL LABORATORIES, INC. 14201 Frankin Avenue, Tustin, CA 92780-7008 (714)730-6239 FAX: (714) 730-6462 www.tuccodall.com

CHAIN OF CUSTODY RECORD [IM3Plant-WDR-085]

COC Number

TURNAROUND TIME

10 Days PAGE 1 DATE 2-6-67

OF

TOTAL NUMBER OF CONTAINERS	Ñ								THE STATE OF THE S	***************************************	To the same of	ļ.,									
	5880	2								•		_		×	-		Soil	830	2-6-07 830	WDR-085	SC-Sludge-WDR-085
ph-2	7				×			×	×	×	×		×		×		Groundwater	8:30	2-6-67 8:30	R-085	SC-701-WDR-085
04-2	7			×	×	×	×		×	×	×	×			×		Groundwater	8:30	2-6-07 830	/DR-085	SC-700B-WDR-085
bx-2	4			×	×	×	×	-	×	×	×	×			×		Groundwater	8:30	2-6-07 8:30	0.₹-⊎ks	SC-100B-₩₽₩-₩
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MIATV				(S.214)		N.SON			_	(150:1)	SINOMI	SS 9/1/1	_	POL					94612	Oakland, CA 94612	
SE	<u> </u>	Ŏ		passed passed	010		7			UZ 33							FAX (530) 339-3303	FAX (530)3	(530) 229-3303	PHONE
COMMENTS		- I	H)	Y	O'		- -				;			E POSE Topock	PROJECT NAME
STABARACO			-	5	\		6	7	\	C	N	6	_							The second secon	COMPANY

For Sample Conditions See Form Attached

	다.				•	
SNOILIONS	WARM [ON				
SAMPLE CONDITIONS	000	YES \square				
	RECEIVED COOL	CUSTODY SEALED	SPECIAL REQUIREMENTS:			
	Date/ Time	Date/ 02 : 06 : 03 Time /2: 45	Date/ Time	Date/ Time	Date/ Time	Date/ Time
RECORD		1.7.1				
DY SIGNATURE	Company/ Agency	Know BARW D. Agency	Company/ Agency	Company/ Agency	Company/ Agency	Company/ Agency
CHAIN OF CUSTODY SIGNATURE RECORD	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
CH,	A COLON OF THE COL	BREFOUR				
	Signature (Relinquished)	Signature (Received)	Signature (Relinquished)	Signature (Received)	Signature (Relinquished)	Signature

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

March 7, 2007

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

Dear Mr. Duffy:

SUBJECT:

REVISED CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-086 PROJECT,

GROUNDWA'I'ER MONITORING,

TLI No.: 963284

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-086 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, and Total Organic Carbon. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on February 14, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

The sample for Total Chromium analysis was received with a pH of 10. The sample was preserved in the lab.

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.

Mona Nassimi

Manager, Analytical Services

for K.R.P. Iyer

Quality Assurance/Quality Control Officer

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

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

Laboratory No.: 963284

Date: February 27, 2007 Collected: February 14, 2007 Received: February 14, 2007

ANALYST LIST

METHOD	PARAMETER	ANALYST
EPA 120.1	Specific Conductivity	Tina Acquiat
EPA 150.1	рН	Tina Acquiat
EPA 160.1	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
EPA 180.1	Total Organic Carbon	Hope Trinidad
EPA 200.7	Total Chromium	Riddhi Patel
EPA 218.6	Hexavalent Chromium	Faisal Raihan

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2

Prep. Batch: 021507A

Laboratory No.: 963284

Date: February 27, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Collected: February 14, 2007 Received: February 14, 2007

Prep/ Analyzed: February 15, 2007

Analytical Batch: 021507A

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

using EPA 200.7

Analytical Results Total Chromium

TLII.D. Field I.D. Units Method Run Time DF RL Results 963284-2 SC-700B-WDR-086 mg/L EPA 200.7 13:01 1.04 0.0010 ND

QA/QC Summary

	QC STE) I.D. I	aboratory Number	Concentra	ation	Dupli Concen	tration	Relative Percent Difference	Acceptance limits	QC Within Control
	Duplic	ate	963284-2	ND		NI		0.00%	<u>≤</u> 20%	Yes
JC Std	Lab	Conc.of	Diller	Added			Measured	Theoretical		

	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
ı	MS	963284-2	0.00	1.04	0.0100	0.0404	0.000.0	·			
٠	······································	· · · · · · · · · · · · · · · · · · ·		1.04	0.0100	0.0104	0.00842	0.0104	81.0%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00964	0.0100	96.4%	95% - 105%	Yes
MRCVS#1	0.0103	0.0100	103%	90% - 110%	Yes
ICS	0.00983	0.0100	98.3%	80% - 120%	Yes
LCS	0.0101	0.0100	101%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

67 Analytical Services

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963284

Date: February 27, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Collected: February 14, 2007 Received: February 14, 2007

Prep/ Analyzed: February 14, 2007

Analytical Batch: 02CrH07K

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D. Field I.D. Sample Time Run Time Units DF RLResults 963284-2 SC-700B-WDR-086 17:00 22:35 mg/L 1.05 0.00020 ND

QA/QC Summary

						——————————————————————————————————————	~ ~		uı	mina	ď	y					
	QC ST		i	oratorumber	- 1	Concentrati	on	Du Conc	plica entr		F	Relative Percent ifference		eptance limits		QC Within Control	
	Duplic	ate	96	3284-2	2	ND_			ND			0.00%		≤ 20%		Yes	
QC Std I.D.	Lab Number	unsp	nc.of piked nple	Diluti Fact		Added Spike Conc.		MS nount	C	easured conc. of spiked sample		Theoretical Conc. of spiked sample		MS% ecovery	Ac	cceptance limits	QC Within Control
MS	963284-2	0.	00	1.0	6	0.00100	0.0	00106	С	0.00103	\top	0.00106		97.2%		90-110%	Yes
		Q	C Std	I.D.	С	Measured oncentration	_	eoretica centrati		Percei Recove		Acceptan Limits		QC Wit			
		<u> </u>	MRC	cs		0.00503	(0.00500		101%)	90% - 110	 0%	Yes			
		N	//RCV	S#1		0.0102		0.0100		102%)	95% - 105		Yes			
		V	/RCV	S#2		0.0102		0.0100		102%	,	95% - 108	5%	Yes			

102%

102%

101%

101%

ND: Below the reporting limit (Not Detected).

MRCVS#3

MRCVS#4

LCS

LCSD

0.0102

0.0102

0.00505

0.00505

DF: Dilution Factor.

Respectfully submitted,

95% - 105%

95% - 105%

90% - 110%

90% - 110%

TRUESDAIL LABORATORIES, INC.

Yes

Yes

Yes

Yes

Mona Nassimi, Manager Analytical Services

008

0.0100

0.0100

0.00500

0.00500

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963284

Date: February 27, 2007 Collected: February 14, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Received: February 14, 2007

Prep/ Analyzed: February 15, 2007

Analytical Batch: 02TUC070

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

TLI I.D.

Field I.D.

Sample Time

<u>Units</u>

<u>DF</u>

RL Re

Results

963284-2

SC-700B-WDR-086

17:00

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	963255-1	0.192	0.190	1.05%	< 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.32	8.00	91.5%	90% - 110%	Yes
LCS	7.35	8.00	91.9%	90% - 110%	Yes
LCS	7.30	8.00	91.3%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963284

Date: February 27, 2007

Collected: February 14, 2007

Received: February 14, 2007 Prep/ Analyzed: February 15, 2007

Analytical Batch: 02PH07N

Investigation:

pH by EPA 150.1

Analytical Results pH

TLI I.D.

Field I.D.

Sample Time

Run Time

Units

MDL

RL

Results

963284-2

SC-700B-WDR-086

17:00

08:46

pH Units

0.0570

2.00

8.05

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	963284-2	8.05	8.05	0.00	<u>+</u> 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.01	7.00	0.01	± 0.100 Units	Yes
LCS #1	7.03	7.00	0.03	± 0.100 Units	Yes
LCS #2	7.03	7.00	0.03	± 0.100 Units	Yes

Respectfully submitted.

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963284

Date: February 27, 2007

Collected: February 14, 2007 Received: February 14, 2007

Prep/ Analyzed: February 20, 2007

Analytical Batch: 02EC07N

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

<u>TLI I.D.</u> 963284-2

Field I.D.

SC-700B-WDR-086

<u>Units</u> µmhos/cm

Method EPA 120.1

<u>DF</u>

<u>RL</u> 2.00 Results 6940

QA/QC Summary

QC S	- 1	Laborato Numbe	- 1	Concentrati	Oncentration i		nte	1	ative Percent		ceptance	QC Within
Duplic	ate	963284-	2	6940		Concentration 6960			Difference		limits < 10%	Control
	Q	C Std I.D.		Measured oncentration		heoretical ncentration	Perce Recov		0.29% Acceptance Limits	<u>-</u>	QC Withi	
		ccs		690		706	97.79	%	90% - 110%	·	Yes	-
		CVS#1		972	•	1000	97.2	%	90% - 110%		Yes	-
		LCS		690 l		706	07.70	/	000/ 4400		1	

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

011

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

REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963284

Date: February 27, 2007

Collected: February 14, 2007

Received: February 14, 2007

Prep/ Analyzed: February 20, 2007

Analytical Batch: 02TDS07J

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D.

Field I.D.

Units

Method

RL

Results

963284-2

SC-700B-WDR-086

mg/L

EPA 160.1

250

4150

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	963284-2	4150	4080	0.85%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	505	500	101%	90% - 110%	Yes
LCS 2	502	500	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129,IM.02.E2

Prep. Batch: 02TOC07F

Laboratory No.: 963284

Date: February 27, 2007 Collected: February 14, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 FAX (714) 730-6462

www.truesdail.com

Received: February 14, 2007

Prep/ Analyzed: February 16, 2007

Analytical Batch: 02TOC07F

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

TLI I.D. Field I.D. Units Method Run Time <u>DF</u> RL Results 963284-1 SC-100B-WDR-086 mg/L EPA 415.2 01:23 1.00 0.300 0.497

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Withir Control
Duplicate	963284-1	0.497	0.454	9.04%	≤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	963055	5.60	1.00	20.0	20.0	23.6	25.6	90.0%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.46	10.0	94.6%	90% - 110%	Yes
MRCVS#1	10.0	10.0	100%	90% - 110%	Yes
LCS	18.7	20.0	93.5%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

Analytical Services

013

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

[IM3Plant-WDR-086]

COMPANY

ADDRESS

PHONE

9F 10 Days PAGE TURNAROUND TIME COC Number DATE

COMMENTS

NUMBER OF CONTAINERS 6321 Total Organic Carbon (475.2). (1091) SQ1 DESCRIPTION FAX (530) 339-3303 TEAM TIME 155 Grand Ave Ste 1000 DATE Oakland, CA 94612 346129.IM.02.p0 (530) 229-3303 PG&E Topock SAMPLERS (SIGNATURE E2 PROJECT NAME P.O. NUMBER SAMPLE I.D.

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K	becaused
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(Carl Sankowy)	

TOTAL NUMBER OF CONTAINERS

01 " KO

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8 367

Groundwater Groundwater

2-12-02

SC-100B-WDR-086 SC-700B-WDR-086

り

SAMPLE CONDITIONS	RECEIVED COOL WARM *F	CUSTODY SEALED YES \square NO \square	SPECIAL REQUIREMENTS.	101 2311001	See Explications		
RE RECORD	(HPW Hill OM) Time (200	Cocochice Time 1200	inyl Executive Time 2145	Tol/ 1767 Date/2/1920 7	N/ Date/ Time ///	y/ Date/ Time	
CHAIN OF CUSTODY SIGNATU	Printed / f(D ← Compan Name / Agency	L Printed Charecail Compan	Printed Compa	hydrame & M. Chellen Rome	Printed Compan Name Agency	Printed Company Name Agency	
	Signature (Relinquished)	Signature Muchaell He	Signature Machael As	Signature (Received) X, Shabun,	Signature (Relinquished)	Signature (Received)	(popposit)

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

14201 FRANKLIN AVENUE

www.truesdail.com

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 March 5, 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-087 PROJECT, GROUNDWATER

MONITORING,

TLI No.: 963465

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-087 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, and Total Organic Carbon. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on February 21, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

Due to instrumental problems the test for EPA 200.7 was run using EPA 200.8.

In Batch 02TOC07H for Total Organic Carbon, the analyst disregarded the first run for sample 963465-1 due to analyst error. Analyst reran sample on the same batch including it with a duplicate. The second result with the duplicate was reported in this data package

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.

Mona Nassimi

Manager, Analytical Services

K.R.P. Iyer

Quality Assurance/Quality Control Officer

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

Date: March 5, 2007 Collected: February 21, 2007 Received: February 21, 2007

Laboratory No.: 963465

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
EPA 150.1	рН	Tina Acquiat
EPA 160.1	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
EPA 180.1	Total Organic Carbon	Hope Trinidad
EPA 200.8	Total Chromium	Laureen Tan
EPA 218.6	Hexavalent Chromium	Faisal Raihan

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

Established 1931

REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Laboratory No.: 963465

Date: March 5, 2007

Collected: February 21, 2007 Received: February 21, 2007

Prep/ Analyzed: February 21, 2007

Analytical Batch: 02CrH07T

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

Field I.D. TLI I.D. Sample Time **Run Time** DF RL Results Units 963465-2 SC-700B-WDR-087 12:55 22:53 mg/L 1.05 0.00020 ND

QA/QC Summary

Relative

	QC STE) I.D.	Nu	imber 3417	Concentrati ND	on	Concer	ntration	Percent Difference 0.00%	ì	imits 20%	Control	
QC Std	Lab Number	Conc. unspik samp	be	Dilution Factor	Added Spike Conc.			Measured Conc. of spiked sample	Theoretical Conc. of spiked sample		MS% covery	Acceptance limi	QC Within Control
MS	963465-2	0.00		1.06	0.00100	0.0	0106	0.00110	0.00106		104%	90-110%	Yes
		oc.	Std	LD.	Measured	Th	eoretical	Percen	t Acceptai	nce	QC With	nin	

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00503	0.00500	101%	90% - 110%	Yes
MRCV\$#1	0.0102	0.0100	102%	95% - 105%	Yes
MRCVS#2	0.0103	0.0100	103%	95% - 105%	Yes
MRCVS#3	0.0103	0.0100	103%	95% - 105%	Yes
LCS	0.00508	0.00500	102%	90% - 110%	Yes
LCSD	0.00509	0.00500	102%	90% - 110%	Yes

NO: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

Truesdail Laboratories, Inc.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

Established 1931

REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Prep. Batch: 022507A

Laboratory No.: 963465

Date: March 5, 2007

Collected: February 21, 2007 Received: February 21, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

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Prep/ Analyzed: February 25, 2007

Analytical Batch: 022507A

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

using EPA 200.8

Analytical Results Total Chromium

RL **Run Time** Results TLI I.D. Field I.D. <u>Units</u> Method DF EPA 200.7 1.04 0.0010 0.0013 SC-700B-WDR-087 mg/L 12:18 963465-2

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Dupilcate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963004-1	1.54	1.53	0.26%	_≤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 fimits	QC Within Control
MS	963004-1	0.00	2.08	0.0500	0.104	0.0949	0.104	91.2%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0477	0.0500	95.5%	95% - 105%	Yes
MRCVS#1	0.0463	0.0500	92.5%	90% - 110%	Yes
ics	0,101	0.100	101%	80% - 120%	Yes
LCS	0.0475	0.0500	95.1%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager **Analytical Services**

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

moo,lisbaeurt.www

REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

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

PGSE Topock Project

Laboratory No.: 963465

Date: March 5, 2007

Collected: February 21, 2007 Received: February 21, 2007

Prep/ Analyzed: February 22, 2007

Analytical Batch: 02PH07Q

Investigation:

pH by EPA 150.1

Analytical Results pH

Field I.D. TLI I.D. Sample Time Run Time Units MDL RL Results 963465-2 SC-700B-WDR-087 12:55 10.35 pH Units 0.0570 2.00 8.06

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	963465-2	8.06	8.05	0.01	<u>+</u> 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.02	7,00	0.02	+ 0.100 Units	Yes
LCS #1	7.04	7.00	0.04	+ 0.100 Units	Yes
LCS #2	7.06	7.00	0.06	+ 0.100 Units	Yes

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963465

Date: March 5, 2007

Collected: February 21, 2007 Received: February 21, 2007

Prep/ Analyzed: February 27, 2007

Analytical Batch: 02TDS07N

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D. 963465-2 Field I.D.

SC-700B-WDR-087

Units mg/L

Method EPA 160.1 RL

Results 4460

1 250

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	963465-2	4460	4470	0.11%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	487	500	97.4%	90% - 110%	Yes
LCS 2	489	500	97.8%	90% - 110%	Yes

ND; Below the reporting timit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

Analytical Services

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963465

Date: March 5, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Collected: February 21, 2007 Received: February 21, 2007

Prep/ Analyzed: February 26, 2007

Analytical Batch: 02EC07Q

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.

Field I.D.

<u>Units</u>

<u>Method</u>

<u>DF</u>

<u>RL</u>

Results

963465-2

SC-700B-WDR-087

μmhos/cm

EPA 120.1

1.00

2.00

6940

QA/QC Summary

1 '	QC STD Laborator, I,D, Number		Conc	entration	n Duplicate Concentration		Relative Percent Difference		Acceptance limits		QC Within Control
Duplic	ate	963465-2		3940	6950			0.14%	4	10%	Yes
	ă	C Std I.D.	Measure Concentra		Theoretical oncentration	Perce Recov		Acceptanc Limits	e	QC Withi Control	1
		ccs	690		706	97.7	%	90% - 110%	6	Yes]
		CVS#1	946		1000	94.6	%	90% - 1109	6	Yes	
		LCS	690		706	97.7	%	90% - 1109	6	Yes	

Respectfully submitted,

TRÙESDÁIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Prep. Batch: 02TOC07H

Laboratory No.: 963465

Laboratory No.: 903400

Date: March 5, 2007 Collected: February 21, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Received: February 21, 2007 Prep/ Analyzed: 02/28/07-03/01/07

Analytical Batch: 02TOC07H

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

TLI I.D.

Field I.D.

<u>Units</u>

<u>Method</u>

Run Date/Time

<u>DF</u>

RL

Results

963465-1

SC-100B-WDR-087

mg/L

EPA 415.2

03/01/07;09:39

1.00

0.300

0.396

QA/QC Summarv

QC \$TD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963465-1	0.396	0,345	13.8%	<u>≺</u> 20%	Yes

QC \$td I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.30	10.0	93.0%	90% - 110%	Yes
MRÇVS#1	10.2	10.0	102%	90% - 110%	Yes
MRCVS#2	10.1	10.0	101%	90% - 110%	Yes
LCS	19.0	20.0	95.0%	90% - 110%	Yes
LCSD	18.6	20.0	93.0%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2 Laboratory No.: 963465

Date: March 5, 2007 Collected: February 21, 2007

14201 FRANKLIN AVENUE

TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Received: February 21, 2007 Prep/ Analyzed: February 22, 2007

Analytical Batch: 02TUC07V

investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

 TLI I.D.
 Field I.D.
 Sample Time
 Units
 DF
 RL
 Results

 963465-2
 SC-700B-WDR-087
 12:55
 NTU
 1.00
 0.100
 ND

QA/QC Summarv

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963460-10	0.066	0.067	1.50%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	8.35	8.00	104%	90% - 110%	Yes
LCS	8.42	8.00	105%	90% - 110%	Yes
LCS	8.45	8.00	106%	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. 14261 Franklin Avenue, Tustin, CA 92780-7008 (714)730-6239 FAX: (714) 730-6462 www.truesdail.com

TURNAROUND TIME COC Number CHAIN OF CUSTODY RECORD [IM3Plant-WDR-087] 963 465

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10 Days PAGE 1

	COMPANY	27						****	******	-	- 400	***	ļ.,	-	-	_			-		
	PROJECT NAME	PG&E Topock						*****	*****	_			•	Rec	Rec' A		,	*****	-	COMMENTS	ENTS
	PHONE	(530) 229-3303		*x (530	FAX (530) 339-3303		Thereade	*********	U	******	•	•	-	3		634	6 5		-		
	ADDRESS	155 Grand Ave Ste 1000 Oakland, CA 94612	Ste 1000 4612	 			al Chromiu	el Chrom.	(102)	*********	15.2							SHAVE	810		
	P.O. NUMBER	346129.IM.02.00	30	TEAM			SP FIRE B	101 (10)	() equips		b) uoque		-	-				CONT			
	SAMPLERS (SIGNATURE	ITURE				198	7 6	npuo:		U	08L) Daur		******	*****	~~~~~	-		30 Y			
	SAMPLE 1.D.		DATE	3MIT	DESCRIPTION	CGB (2)	TOBING CAS (21)	Specific		105 (76) 105 (76)	Vibidius Vibidius			******			SAM	TY COMMENT			
T	SC-100B-WDR-087	2-087	2-21-07	5521	2-21-07 (255 Groundwater		\vdash	+-		×	-	+	\downarrow	I	\dagger	+	y c				
2	-2 SC-700B-WDR-087	1-087	5521 20-12-2	1235	Groundwater	×	×	×	×		×		-		╁	-	2 4				
		**************************************			1			_	_	_	-						``			シーン	•

Level III QC ALERTII

For Sample Conditions

036

See Form Attached

TOTAL NUMBER OF CONTAINERS

S

	SAMPLE CONDITIONS	MARM [] T	CUSTODY SEALED YES \(\Boxed{\omega}\) NO \(\Boxed{\omega}\)	SPECIAL REQUIREMENTS:	0/		
Y SIGNATURE RECORD	Danyl CHEN HILL Cate 2/2/07	Company, Datel	Agency Occupant Fine July (142	Agency 22 Edutive 11mm /2/07 2/10	The Extra Company TT/ Date ditto & La! 10	any <i>t</i>	any/ cy
CHAIN OF CUSTODY SIGNA	(Relinatished) (1/1/8)	Mr. Jan Jan		hed) Holichart Mitty	(Received) A, Mak win was Name of Hall	Printed hed) Name	Signature Printed (Received) Name

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

March 7, 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-092 PROJECT, GROUNDWATER

:;

MONITORING,

TLI NO.: 963648

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-092 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, and Total Organic Carbon. A summary table for this sample delivery group is included in Section 2. Complete laboratory reports, quality control data and chain of custody forms for sampling period are included in Sections 3 and 4. Analytical raw data have been included under Section 5.

The samples were received and delivered with the chain of custody on February 27, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

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

Respectfully Submitted,

TRUESPAIL LABORATORIES, INC.

Mona Nassimi

Manager, Analytical Services

-O K.R.P. Iver

Quality Assurance/Quality Control Officer

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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: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 Laboratory No.: 963648

Date: March 7, 2007 Collected: February 27, 2007 Received: February 27, 2007

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
EPA 150.1	рН	Tina Acquiat
EPA 160.1	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
EPA 180.1	Total Organic Carbon	Hope Trinidad
EPA 200.7	Total Chromium	David Blackburn
EPA 218.6	Hexavalent Chromium	Faisal Raihan

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REPORT

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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: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2 P.O. No.: 346129.IM.02.E2

Prep. Batch: 030707A

Laboratory No.: 963648

Date: March 7, 2007 Collected: February 27, 2007 Received: February 27, 2007 Prep/ Analyzed: March 7, 2007

Analytical Batch: 030707A

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

Analytical Results Total Chromium

TLI I.D. Fleid I.D. Units <u>Method</u> Run Time DF RL Results 963648-2 SC-700B-WDR-092 mg/L EPA 200.7 15:29 1.04 0.0010 ND

QA/QC Summarv

				<i></i>		
QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963648-2	מא	ND.	0.00%	<u>≤</u> 20%	Yes

QC Std	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	963648-2	0.00	1.04	0.0100	0.0104	0.00961	0.0104	92.4%	70-130%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0103	0.0100	103%	95% - 105%	Yes
MRCVS#1	0.0109	0.0100	109%	90% - 110%	Yes
ics	0.00989	0.0100	98.9%	80% - 120%	Yes
LCS	0.0104	0.0100	104%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

007 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 these laboratories.

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REPORT

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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: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963648

Date: March 7, 2007

Collected: February 27, 2007 Received: February 27, 2007

Prep/ Analyzed: February 28, 2007

Analytical Batch: 02CrH07Z

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D. Field I.D. Sample Time Run Time Units DF <u>RL</u> Results 963648-2 SC-700B-WDR-092 15:45 10:39 mg/L 1.05 0.00020 ND

QA/QC Summary

			wow outlined y					Y								
	QC STD) I.D.		orator	-	Concentrati	on	Dupli Concen			Relative Percent ifference		ceptance limits		QC Within Control	
	Duplic	ate	96	3648-2	<u>. </u>	ND ND		N	D		0.00%		≤ 20%		Yes	
QC Std I.D.	Lab Number	ពបនវ	c.of oiked nple	Diluti Fact		Added Spike Conc.		MS nount	Measured Conc. of spiked sample		Theoretical Conc. of spiked sample		MS% ecovery	Ac	ceptance limits	QC Withir Control
MS	963648-2	0.	00	1.00	8	0.00100	0.0	0106	0.00106	I	0.00106		100%		90-110%	Yes
		Q	C Std	i, D.	c	Measured oncentration	_ `	eoretical centration	Perce Recov		Acceptan Limits		QC Wit			-
			MRC	ÇS		0.00472		0.00500	94.49	%	90% - 110)%	Yes			
		\\	/IRCV	S#1		0.0101		0.0100	101%	6	95% - 105	5%	Yes			
			IRCV	S#2		0.0102		0.0100	1029	6	95% - 105	5%	Yes			
			IRCV	S#3		0.0103		0.0100	103%	6	95% - 105	5%	Yes			
			IRCV	\$#4		0.0101		0.0100	1019	6	95% - 108	5%	Yes			
		<u> </u>	LCS	3		0.00508	(0.00500	1029	6	90% - 110	0%	Yes			
		<u> </u>	LCS	D		0.00506	(0.00500	1019	6	90% - 110)%	Yes			

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

TRUFSDAIL LABORATORIES, INC.

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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 these laboratories.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963648

Date: March 7, 2007

Collected: February 27, 2007 Received: February 27, 2007

Prep/ Analyzed: February 28, 2007

Analytical Batch: 02TUC07Y

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

 TLI I.D.
 Field I.D.
 Sample Time
 Units
 DF
 RL
 Results

 963648-2
 SC-700B-WDR-092
 15:45
 NTU
 1.00
 0.100
 ND

QA/QC Summarv

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963623-16	0.263	0.265	0.76%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	8.20	8.00	103%	90% - 110%	Yes
LCS	8.17	8.00	102%	90% - 110%	Yes
LCS	8.10	8.00	101%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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REPORT.



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

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963648

Date: March 7, 2007 Collected: February 27, 2007

Received: February 27, 2007

Prep/ Analyzed: February 28, 2007

Analytical Batch: 02PH07W

Investigation:

pH by EPA 150.1

Analytical Results pH

TLI I.D. Field I.D. Sample Time Run Time Units MDL RL Results 963648-2 SC-700B-WDR-092 15:45 10:15 pH Units 0.0570 2.00 8.12

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	963649	8.24	8.24	0.00	± 0.100 Units	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within Control
LCS	7.00	7.00	0.00	± 0.100 Units	Yes
LCS #1	7.00	7.00	0.00	+ 0.100 Units	Yes
LCS #2	7.01	7.00	0.01	+ 0.100 Units	Yes

Respectfully submitted,

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

REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

QC STD

Laboratory No.: 963648

Date: March 7, 2007

Collected: February 27, 2007 Received: February 27, 2007

Prep/ Analyzed: February 28, 2007

Analytical Batch: 02EC07U

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.

Field I.D.

CVS#2

LCS

946

690

Units

<u>Method</u>

94.6%

97.7%

<u>DF</u>

<u>RL</u>

<u>Results</u>

963648-2

SC-700B-WDR-092

Laboratory

μmhos/cm

EPA 120.1

1.00

90% - 110%

90% - 110%

2.00

6890

QA/QC Summary

Duplicate

L	I.D.	Num	ber	Concentrati	on	Concentra	ation		Difference	ı	imits	Control
(Duplica	ate 9636	45-3	90.1		90.1			0.00%	<u> </u>	10%	Yes
		QC Std I.I). c	Measured Concentration		heoretical encentration	Percei Recove		Acceptance Limits	8	QC Within Control	1
		ccs		689		706	97.6%	6	90% - 1109	6	Yes	
		CVS#1		948		1000	94.89	6	90% - 110%	,	Yes	

1000

706

Respectfully submitted,

Relative Percent | Acceptance | QC Within

TRUESDAIL LABORATORIES, INC.

Yes

Yes

Mona Nassimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129.IM.02.E2

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

Laboratory No.: 963648

14201 FRANKLIN AVENUE TUSTIN, CALIFORNIA 92780-7008

(714) 730-6239 · FAX (714) 730-6462

www.truesdail.com

Date: March 7, 2007 Collected: February 27, 2007

Received: February 27, 2007 Prep/ Analyzed: February 28, 2007

Analytical Batch: 02TDS07O

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D.

Field I.D.

. .

<u>Units</u>

Method

<u>RL</u>

<u>Results</u>

963648-2

SC-700B-WDR-092

mg/L

EPA 160.1

250

4530

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	963648-2	4530	4270	2,95%	≤ 5%	Yes

QC Std I.D.	Measured	Theoretical	Percent	Acceptance	QC Within
	Concentration	Concentration	Recovery	Limits	Control
LCS 1	488	500	97.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

www.truesdail.com

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project Project No.: 346129,IM.02.E2

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

Prep. Batch: 02TOC07H

Laboratory No.: 963648

Date: March 7, 2007

Collected: February 27, 2007

Received: February 27, 2007

Prep/ Analyzed: February 28, 2007

Analytical Batch: 02TOC07H

Investigation:

Total Organic Carbon by EPA 415.2

REPORT

Analytical Results Total Organic Carbon

TLI I.D. Field I.D. Units <u>Method</u> Run Time DF RL Results 963648-1 \$C-100B-WDR-092 mg/L EPA 415.2 18:32 1.00 0.300 0.518

QA/QC Summarv

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	963648-1	0.518	0.507	2.15%	≤20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.30	10.0	93.0%	90% - 110%	Yes
MRCVS#1	10,2	10.0	102%	90% - 110%	Yes
MRCVS#2	10.1	10.0	101%	90% - 110%	Yeş
MRCVS#2	9.91	10.0	99.1%	90% - 110%	Yes
LĊS	19.0	20.0	95.0%	90% - 110%	Yes
LCSD	18.6	20.0	93.0%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

TRUESDAL LABORATORIES, INC. 14201 Franklin Avenue, Tustin, CA 92780-7008 (714)730-8239 FAX: (714) 730-6462 www.truesdall.com

963648 (CHAIN OF CUSTODY RECORD RUSH! COC Number TURNAROUNT [IM3Plant-WDR-092]

5 Days PAGE TURNAROUND TIME

COMMENTS COMMENTS	OF CONTA
SABMATWOO 40 M	TOTAL NUMBER OF CONTAINERS
T S MUNBER	Ō
336	
963648	
Rec'd S.	
Re S.	
(I OSI) (A 15.2)	
(S.21) Openic Carbon (475.2) **Turbidity (180.1)	
(1 pay) ×	
$(l_{DSV})_{SQI} \times$	
× Specific Conductance (120.1) × Specific Conductance (120.1) × Total Metals (200.7) Total Chromium	
× Specific (7.003) 7.0(2)	
× Che (2186) Lab Filleged	
× (39 610	
See 1000 4612 1000 TEAM 1 1000 TEAM 1 DATE TIME DESCRIPTION スネン・ウフ /5・4/5 Groundwater ス・スト・ウフ /5・4/5 Groundwater	
TIME TEAM TEAM (530)	
13 94612 000 4612 001E 733707	
HONE (530) 229-3303 HONE (530) 229-3303 DDRESS 155 Grand Ave Ste 1000 Oakland, CA 94612 Oakland, CA 94612 Oakland, CA 94612 AMPLETE SAMPLETE SAMPLETE SC-100B-WDR-092 C-700B-WDR-092 SC-700B-WDR-092	

Level III QC ALERTII

For Sample Conditions See Form Attached

	~		\top			
SAMPLE CONDITIONS	RECEIVED COOL WARM	CUSTODY SEALED YES \(\Boxed{\omega}\) NO \(\Boxed{\omega}\)	SPECIAL REQUIREMENTS:	·		
TURE RECORD	ncy OUT CHAMITIME 1520	Company TLT Date 2/2767	Date/ ncy Time	pany/ Date/ ncy Time	pany/ Dale/ ncy Time	Date/ Time
CHAIN OF CUSTODY SIGNA	Printed Comp	ا کامندن	Printed Corr Name Age	Printed Com Name Aget	Printed Com Name Ager	Printed Com Name Ager
	Signature (Relinquished)	Signature (Received)	Signature (Relinquished)	Signature (Received)	Signature (Relinquished)	Signature (Received)

052



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

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

February 28, 2007

STL LOT NUMBER: E7B080235

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



Dear Ms. Kumar,

This report contains the analytical results for the sample received under chain of custody by STL Los Angeles on February 8, 2007. This sample is associated with your PG&E TOPOCK GWM / E2 project.

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

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

Preliminary results were sent via facsimile on February 20, 2007.

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

	000183	
This report contains		pages

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

Sincerely,

Marisol Tabirara Project Manager

Manuel Talenane

cc: Project File



CC1/201/21/21/21

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

CHAIN OF CUSTODY RECORD

COC Number

TURNAROUND TIME

DATE $2\sqrt{6-\sqrt{c}}$ PAGE 1

P

[IM3Plant-WDR-085]

TOTAL NUMBER OF CONTAINERS COMMENTS NUMBER OF CONTAINERS 150 Mercury (7477A) (6617) SIEJOM Metals (60708) Title 25 DESCRIPTION FAX (530) 339-3303 Soil TEAM TIME 12-6-57 155 Grand Ave Ste 1000 PG&E Topock GWM Oakland, CA 94612 346129.IM.02.00 (530) 229-3303 SC-Sludge-WDR-085 SAMPLERS (SIGNATURE PROJECT NAME P.O. NUMBER SAMPLE I.D. COMPANY ADDRESS PHONE

ᇉ WARM | 9 SAMPLE CONDITIONS YES COOL SPECIAL REQUIREMENTS: CUSTODY SEALED RECEIVED といろ Va. Date/ 2.6.6 Time (2:30 Date/ x' 'g'. Date/2/8/ Date/ Time Date/ Time Date/ Time CHAIN OF CUSTODY SIGNATURE RECORD Company/ STL Company/ Company/ Agency Company/ Company/ Company/ Agency Agency Agency 70K23 LES Printed Name Printed (Printed Printed Name Printed Printed Name Name Name (Relinquished) (Relinquished) (Relinquished) (Received) Signature (Received) Signature (Received) Signature Signature Signature Signature

000003

METHOD / ANALYST SUMMARY

E7B080235

ANALYTICA	L		ANALYST
METHOD		ANALYST	ID
34C3VVV 1.C0	2 1400	Janice Salenga	403147
MCAWW 160 SW846 601		Hao Ton	000023
SW846 719		Yuriy Zakhrabov	000022
SW846 747		Hao Ton	000023
Reference	2 S:		
MCAWW		al Analysis of Water and Wastes", arch 1983 and subsequent revisions.	
SW846		valuating Solid Waste, Physical/Chem tion, November 1986 and its updates.	ical

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-085

TOTAL Metals

Lot-Sample #...: E7B080235-001 Matrix....: SL

Date Sampled...: 02/06/07 Date Received..: 02/08/07 09:37

% Moisture....: 75

TOWN TO M MATERIANTED	RESULT	REPORTING LIMIT UNITS	METHOD	PREPARATION- WORK ANALYSIS DATE ORDER #
PARAMETER	KESULL		TILLIIOD	
Prep Batch #	.: 7046483			
Arsenic	47	4.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AA
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 704623	37
Antimony	ND	24 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AC
Ancimony	112	Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run # 70462	- 37
				•
Barium	110	8.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AD
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	37
Cadmium	ND	2.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AE
	-1-2	Dilution Factor: 1	Analysis Time: 14:13	
		Instrument ID: M01	MS Run #: 70462	37
Chromium	16000	4.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AF
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	37
Beryllium	ND	2.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AG
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	37
Lead	ND	2.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AH
Leau	IND	Dilution Factor: 1	Analysis Time: 14:13	•
		Instrument ID: M01	MS Run #: 70462	
			THE RECEIPT HERE TO THE	
Selenium	ND	2.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AJ
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	237
Silver	ND	4.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AK
Datagr	****	Dilution Factor: 1	Analysis Time: 14:13	•
		Instrument ID.:: M01	MS Run # 70462	
		instrumente in Plot	# /0402	

(Continued on next page)

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-085

TOTAL Metals

Lot-Sample #...: E7B080235-001

Matrix..... SL

		REPORTING		PREPARATION- WORK
PARAMETER	RESULT	LIMIT UNITS	METHOD	ANALYSIS DATE ORDER #
Cobalt	ND	20 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AL
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	37
Copper	15	10 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AM
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	37
Molybdenum	ND	16 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AN
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	37
Nickel	ND	16 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AP
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	237
Thallium	12	4.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AQ
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	237
Vanadium	110	20 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AR
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	237
Zinc	8.2	8.0 mg/kg	SW846 6010B	02/16-02/19/07 JN5KX1AT
		Dilution Factor: 1	Analysis Time: 14:13	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 70462	237
Prep Batch #.			~~~~	and the dam and the same and
Mercury	1.3	0.40 mg/kg	SW846 7471A	02/19/07 JN5KX1AU
		Dilution Factor: 1	Analysis Time: 16:3'	-
		Instrument ID: M04	MS Run # 70462	238

NOTE (S):
Results and reporting limits have been adjusted for dry weight.

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-085

General Chemistry

Lot-Sample #...: E7B080235-001

Work Order #...: JN5KX

Matrix..... SL

Date Sampled...: 02/06/07

Date Received..: 02/08/07 09:37

% Moisture....: 75

					PREPARATION-	PREP
PARAMETER	RESULT	RL_	UNITS	METHOD	ANALYSIS DATE	BATCH #
Hexavalent	73	1.6	mg/kg	SW846 7199	02/12/07	7039431
Chromium						
	D:	ilution Fact	or: 2	Analysis Time: 13:33	Analyst ID	.: 000022
	I	nstrument II): W18	MS Run #: 704105	59	
Percent Moisture	75	0.10	%	MCAWW 160.3 MOD	02/08-02/09/07	7039526
	מ	ilution Fact	or: 1	Analysis Time: 08:00	Analyst ID	.: 4031479
	I	nstrument II): W15	MS Run #: 703930)3	
•						

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

RL Reporting Limit