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April 13, 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

March 2007 and First Quarter 2007 Monitoring Report

Dear Mr. Perdue:

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

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

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

Sincerely,

Curt Russell

Topock Onsite Project Manager

Enclosures:

March 2007 and First Quarter 2007 Monitoring Report for the IM No. 3 Groundwater Treatment System.

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

March 2007 and First Quarter 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

April 13, 2007

CH2MHILL 155 Grand Avenue, Suite 1000 Oakland, CA 94612

March 2007 and First Quarter 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

April 13, 2007

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

Doug Landfear, P.E. No. 66545

Project Engineer

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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

BAO\071020001

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 March 2007 and, by reference, the first quarter of 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.

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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 (successor to Order R7-2004-0103), includes the following components:

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

During March 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). The target pump rates during January 2007 and February 2007 were presented in the January 2007 and February 2007 monthly monitoring reports submitted to the Water Board February 15, 2007 and March 15, 2007, respectively.

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

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

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4.0 Groundwater Treatment System Flow Rates

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

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

The IM No. 3 facility treated approximately 5,870,160 gallons of extracted groundwater during March 2007. The rates of extracted groundwater treatment at IM-3 during January 2007 and February 2007 were presented in the January 2007 and February 2007 monthly monitoring reports submitted to the Water Board on February 15, 2007 and March 15, 2007, respectively.

The IM No. 3 facility also treated approximately 3,200 gallons of water generated from the groundwater monitoring program and 6,990 gallons of water generated from injection well re-development during March 2007. One container of solids from the IM No. 3 facility was taken offsite during March 2007.

Periods of planned and unplanned extraction system down time (that together resulted in 2 percent downtime during March 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.

- March 12, 2007 (planned): The extraction well system was offline from 6:45 am until 6:44 pm to complete a scheduled chemical cleaning of the reverse osmosis unit membranes. Extraction system downtime was 11 hours 59 minutes.
- March 14, 2007 (unplanned): The extraction well system was temporarily offline from 12:45 pm until 12:50 pm while switching to generator power. Extraction system downtime was 5 minutes.
- March 14, 2007 (unplanned): The extraction well system was temporarily offline from 2:19 pm until 2:20 pm while switching to Needles Power. Extraction system downtime was 2 minutes.
- March 22, 2007 (unplanned): The extraction well system was temporarily offline from 12:33 pm until 12:36 pm while switching to generator power. Extraction system downtime was 3 minutes.

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- March 22, 2007 (unplanned): The extraction well system was temporarily offline from 5:03 pm until 5:06 pm while switching to Needles power. Extraction system downtime was 3 minutes.
- March 26, 2007 (unplanned): The extraction well system was temporarily offline from 4:03 pm until 6:52 pm while replacing a failed polymer feed pump with a spare pump. Extraction system downtime was 2 hours 49 minutes.
- March 27, 2007 (unplanned): The extraction well system was temporarily offline from 1:39 pm until 1:40 pm while switching to generator power. Extraction system downtime was 2 minutes.
- March 28, 2007 (unplanned): The extraction well system was temporarily offline from 7:33 am until 7:39 am while switching to Needles power. Extraction system downtime was 6 minutes.
- March 30, 2007 (unplanned): The extraction well system was temporarily offline from 1:20 am until 1:57 am while reprogramming the microfilter PLC. Extraction system downtime was 37 minutes.

The periods of planned and unplanned extraction system downtime during January 2007 and February 2007 were presented in the January 2007 and February 2007 monthly monitoring reports submitted to the Water Board on February 15, 2007 and March 15, 2007, respectively.

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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 for samples collected in March 2007 were prepared by certified analytical laboratories, and are presented in Appendix A. Laboratory reports for samples collected during January 2007 and February 2007 were presented in the January 2007 and February 2007 monthly monitoring reports submitted to the Water Board February 15, 2007 and March 15, 2007, respectively.

The March 2007 analytical results from groundwater treatment system influent, effluent, reverse osmosis concentrate, and sludge samples are presented in Tables 3, 4, 5, and 6, respectively. Analytical results from samples collected during January 2007 and February 2007 were presented in the January 2007 and February 2007 monthly monitoring reports submitted to the Water Board on February 15, 2007 and March 15, 2007, respectively.

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

- The influent was sampled monthly; the sample date was March 7, 2007. Results are presented in Table 3.
- The effluent was sampled weekly; the sample dates were March 7, 14, 21, and 28, 2007. Results are presented in Table 4.
- The reverse osmosis concentrate was sampled monthly; the sample date was March 7, 2007. Results are presented in Table 5.
- The sludge was sampled monthly; the sample date was March 7, 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 on 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

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- Analysis date
- Laboratory technician

In addition to the WDR required parameters, six 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:

- Influent, collected March 7, 14, 21, and 28, 2007
- Effluent, collected March 7, 2007
- Reverse osmosis concentrate (brine), collected March 7, 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:	April 13, 2007

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TABLE 1 Sampling Station Descriptions March 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

March 2007 and First Quarter 2007 Monitoring Report for Interim Measure No. 3 Groundwater Treatment System

Parameter	System Influent ^{a,b} (gpm)	System Effluent ^{b,c} (gpm)	Reverse Osmosis Concentrate ^b (gpm)
March 2007 Average Monthly Flowrate	131.5	123.8	9.7

Notes:

gpm: gallons per minute.

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

^b The difference between influent flow rate and the sum of the effluent and reverse osmosis concentrate flow rates during March 2007 was approximately 1.5 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 March 2007.

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

Required Sampli	ng Frequency											ı	Vonthly											
	Analytes Units ^b	TDS mg/L	Turbidity NTU	Specific Conductance µmhos/cm	pH pHunits	Chromium µg/L	Hexavalent Chromium µg/L	Aluminium μg/L	Ammonia (as N) mg/L	Antimony µg/L	Arsenic µg/L	Barium µg/L	Boron mg/L	Copper µg/L	Fluoride mg/L	Lead µg/L	Manganese µg/L	Molybdenum μg/L	Nickel µg/L	Nitrate (as N) mg/L	Nitrite (as N) mg/L	Sulfate mg/L	lron μg/L	Zinc µg/L
Sample ID	MDL Date	64	0.016	0.7	0.057	0.75	1.8	1.8	0.1	0.28	0.25	0.87	0.000087	0.36	0.018	0.25	0.2	0.2	0.53	0.017	0.001	1.5	0.99	2.0
SC-100B-WDR-08	9 3/7/2007	5790	0.114	8780	7.40	1840	1820	ND	ND	ND	ND	ND	1.23	ND	2.43	ND	ND	20.1	ND	3.32	0.0132	630	ND	ND
RL		250	0.1	2.0	2.0	52	20	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

NOTES:

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

μg/L = micrograms per liter mg/L = milligrams per liter

NTU = nephelometric turbidity units

μmhos/cm = micromhos per centimeter
ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

MDL = method detection limit

RL = project reporting limit

^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 March 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 Sampli	ing Frequency			We	ekly											Mont	thly							
	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
i I	MDLd	64	0.016	0.7	0.057	0.31	0.088	1.8	0.1	0.28	0.25	0.87	0.000087	0.36	0.018	0.25	0.2	0.2	0.53	0.017	0.001	1.5	0.99	2.0
Sample ID	Date																							
SC-700B-WDR-08	89 3/7/2007	4770	ND	7060	8.17	ND	ND	ND	ND	ND	ND	ND	1.16	ND	1.98	ND	ND	14.7	ND	2.78	0.0122	482	ND	ND
RL		250	0.1	2.0	2.0	1.0	0.2	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-09	90 3/14/2007	4020	ND	7040	8.10	ND	0.29																	
RL		250	0.1	2.0	2.0	1.0	0.2																	
SC-700B-WDR-09	91 3/21/2007	3890	ND	6370	8.02	ND	ND																	
RL		140	0.1	2.0	2.0	1.0	0.2																	
SC-700B-WDR-08	88 3/28/2007	3800	ND	6350	8.10	ND	ND																	
RL		140	0.1	2.0	2.0	1.0	1.0																	

NOTES:

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

μg/L = micrograms per liter

mg/L = milligrams per liter

NTU = nephelometric turbidity units

µmhos/cm = micromhos per centimeter

ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

RL = project reporting limit

MDL = method detection limit.

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

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

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

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

TABLE 5

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

Reverse Osmosis Concentrate Results ^a

March 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	0.000018	0.0014	0.0012	0.0017	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	0.004
SC-701-WDR-089 3/7/2007	26900	31900	7.91	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.4	ND	0.0947	ND	ND	0.0139	0.0057	ND	ND	ND
RL	1250	2.00	2.00	0.001	0.0002	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	0.0208

NOTES:

(---) = not required by the WDR Monitoring and Reporting Program $\mu g/L$ = micrograms per liter

mg/L = milligrams per liter

µmhos/cm = micromhos per centimeter

ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation

MDL = method detection limit

RL = project reporting limit

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

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

TABLE 6

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

Sludge Monitoring Results^a

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

Required Sample	ing Frequency	,									Monthly	С										Quarterly ⁰	I
	Analytes	Chromiun	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
	MD	∟ 1.1	0.57	3.4	2.3	0.57	0.34	0.46	1.1	2.3	0.36	1.4	1.7	0.057	1.7	2.8	0.57	2.8	1.1	5.7	100	100	100
Sample ID	Date																						
SC-SLUDGE-WDR	R-089 3/7/2007	13000	37.0	ND	33.0	67.0	ND	ND	ND	ND	20.5	ND	ND	ND	ND	ND	ND	9.80	73.0	13.0			
RL		5.7	1.1	34	5.7	11	2.8	2.8	28	14	4.0	2.8	23	0.28	23	2.8	5.7	5.7	28	11			

NOTES:

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

ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

mg/kg = milligrams per killogram

mg/L = milligrams per liter

MDL = method detection limit

RL = project reporting limit

^a Sampling Location for all Sludge Samples is the Sludge Collection Bin (see attached P&ID TP-PR-10-10-06)

b Units reported in this table are those units required in the WDR

c Sludge shall be tested for the listed constituents each time sludge is transported offsite, unless transport is more frequent than monthly, in which case the sampling frequency shall be monthly

d Sludge shall have an aquatic bioassay test performed each time sludge is transported offsite, unless transport is more frequent than quaterly, in which case the sampling frequency shall be quarterly.

^e Concentration of sludge per 1 liter of water.

TABLE 7
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Monitoring Information
March 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-089	David Chaney	3/7/2007	1:40:00 PM	TLI	EPA 120.1	SC	3/8/2007	Hope Trinidad
		•			TLI	EPA 150.1	PH	3/8/2007	Hope Trinidad
					TLI	EPA 160.1	TDS	3/13/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	3/8/2007	Gautam Savani
					TLI	EPA 200.7	ZN	3/22/2007	Laureen Tan
					TLI	EPA 200.7	В	3/22/2007	Laureen Tan
					TLI	EPA 200.7	BA	3/22/2007	Laureen Tan
					TLI	EPA 200.7	FE	3/26/2007	Laureen Tan
					TLI	EPA 200.7	CR	3/26/2007	Laureen Tan
					TLI	EPA 200.8	NI	3/9/2007	Mark Kotani
					TLI	EPA 200.8	AL	3/22/2007	Mark Kotani
					TLI	EPA 200.8	AS	3/22/2007	Mark Kotani
					TLI	EPA 200.8	CU	3/9/2007	Mark Kotani
					TLI	EPA 200.8	MN	3/22/2007	Mark Kotani
					TLI	EPA 200.8	MO	3/22/2007	Mark Kotani
					TLI	EPA 200.8	РВ	3/22/2007	Mark Kotani
					TLI	EPA 200.8	SB	3/22/2007	Mark Kotani
					TLI	EPA 218.6	CR6	3/8/2007	Faisal Raihan
					TLI	EPA 300.0	SO4	3/8/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	NO3N	3/8/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	FL	3/8/2007	Gaiwad Ghenniwa
					TLI	EPA 350.2	NH3N	3/13/2007	Iordan Stavrev
					TLI	EPA 354.1	NO2N	3/8/2007	Kim Luck
SC-700B	SC-700B-WDR-088	Joe Aide	3/28/2007	3:00:00 PM	TLI	EPA 120.1	SC	3/29/2007	Tina Acquiat
					TLI	EPA 150.1	PH	3/29/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	3/29/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	3/29/2007	Gautam Savani
					TLI	EPA 200.7	CR	4/2/2007	Laureen Tan
					TLI	EPA 218.6	CR6	3/28/2007	Jean-Paul Gleeson
SC-700B	SC-700B-WDR-089	David Chaney	3/7/2007	1:30:00 PM	TLI	EPA 120.1	SC	3/8/2007	Hope Trinidad
					TLI	EPA 150.1	PH	3/8/2007	Hope Trinidad
					TLI	EPA 160.1	TDS	3/13/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	3/8/2007	Gautam Savani
					TLI	EPA 200.7	FE	3/26/2007	Laureen Tan
					TLI	EPA 200.7	ZN	3/22/2007	Laureen Tan
					TLI	EPA 200.7	BA	3/22/2007	Laureen Tan
					TLI	EPA 200.7	В	3/22/2007	Laureen Tan

TABLE 7
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Monitoring Information
March 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-089	David Chaney	3/7/2007	1:30:00 PM	TLI	EPA 200.8	AS	3/22/2007	Mark Kotani
					TLI	EPA 200.8	NI	3/9/2007	Mark Kotani
					TLI	EPA 200.8	РВ	3/22/2007	Mark Kotani
					TLI	EPA 200.8	SB	3/22/2007	Mark Kotani
					TLI	EPA 200.8	MN	3/22/2007	Mark Kotani
					TLI	EPA 200.8	AL	3/22/2007	Mark Kotani
					TLI	EPA 200.8	CR	3/28/2007	Mark Kotani
					TLI	EPA 200.8	MO	3/22/2007	Mark Kotani
					TLI	EPA 200.8	CU	3/9/2007	Mark Kotani
					TLI	EPA 218.6	CR6	3/8/2007	Faisal Raihan
					TLI	EPA 300.0	FL	3/8/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	NO3N	3/8/2007	Gaiwad Ghenniwa
					TLI	EPA 300.0	SO4	3/8/2007	Gaiwad Ghenniwa
					TLI	EPA 350.2	NH3N	3/13/2007	Iordan Stavrev
					TLI	EPA 354.1	NO2N	3/8/2007	Kim Luck
SC-700B	SC-700B-WDR-090	Joe Aide	3/14/2007	11:31:00 AM	TLI	EPA 120.1	SC	3/15/2007	Tina Acquiat
					TLI	EPA 150.1	PH	3/15/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	3/16/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	3/15/2007	Gautam Savani
					TLI	EPA 200.8	CR	3/28/2007	Mark Kotani
					TLI	EPA 218.6	CR6	3/14/2007	Faisal Raihan
SC-700B	SC-700B-WDR-091	David Chaney	3/21/2007	1:15:00 PM	TLI	EPA 120.1	SC	3/22/2007	Tina Acquiat
					TLI	EPA 150.1	PH	3/22/2007	Tina Acquiat
					TLI	EPA 160.1	TDS	3/26/2007	Tina Acquiat
					TLI	EPA 180.1	TRB	3/22/2007	Gautam Savani
					TLI	EPA 200.8	CR	3/23/2007	Mark Kotani
					TLI	EPA 218.6	CR6	3/21/2007	David Blackburn
SC-701	SC-701-WDR-089	David Chaney	3/7/2007	2:00:00 PM	TLI	EPA 120.1	SC	3/8/2007	Hope Trinidad
					TLI	EPA 150.1	PH	3/8/2007	Hope Trinidad
					TLI	EPA 160.1	TDS	3/13/2007	Tina Acquiat
					TLI	EPA 200.7	BA	3/22/2007	Laureen Tan
					TLI	EPA 200.7	CR	4/2/2007	Laureen Tan
					TLI	EPA 200.7	ZN	3/22/2007	Laureen Tan
					TLI	EPA 200.8	CU	3/9/2007	Mark Kotani
					TLI	EPA 200.8	V	3/22/2007	Mark Kotani
					TLI	EPA 200.8	TL	3/22/2007	Mark Kotani

TABLE 7
Board Order No. R7-2006-0060 Waste Discharge Requirements (WDRs)
Monitoring Information
March 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-089	David Chaney	3/7/2007	2:00:00 PM	TLI	EPA 200.8	SE	3/22/2007	Mark Kotani
					TLI	EPA 200.8	SB	3/22/2007	Mark Kotani
					TLI	EPA 200.8	РВ	3/22/2007	Mark Kotani
					TLI	EPA 200.8	MO	3/22/2007	Mark Kotani
					TLI	EPA 200.8	CO	3/22/2007	Mark Kotani
					TLI	EPA 200.8	CD	3/22/2007	Mark Kotani
					TLI	EPA 200.8	BE	3/22/2007	Mark Kotani
					TLI	EPA 200.8	AS	3/22/2007	Mark Kotani
					TLI	EPA 200.8	AG	3/9/2007	Mark Kotani
					TLI	EPA 200.8	NI	3/9/2007	Mark Kotani
					TLI	EPA 218.6	CR6	3/8/2007	Faisal Raihan
					TLI	EPA 245.1	HG	3/12/2007	Michel Mendoza
					TLI	EPA 300.0	FL	3/8/2007	Gaiwad Ghenniwa
SC-Sludge	SC-SLUDGE-WDR-089	David Chaney	3/7/2007	1:30:00 PM	STL	EPA 160.3	MOIST	3/14/2007	Janice Salenga
					TLI	EPA 300.0	FL	3/19/2007	Gaiwad Ghenniwa
					STL	EPA 6010B	NI	3/12/2007	Hao Ton
					STL	EPA 6010B	ZN	3/12/2007	Hao Ton
					STL	EPA 6010B	V	3/12/2007	Hao Ton
					STL	EPA 6010B	TL	3/12/2007	Hao Ton
					STL	EPA 6010B	SE	3/12/2007	Hao Ton
					STL	EPA 6010B	AG	3/12/2007	Hao Ton
					STL	EPA 6010B	PB	3/12/2007	Hao Ton
					STL	EPA 6010B	MO	3/12/2007	Hao Ton
					STL	EPA 6010B	CU	3/12/2007	Hao Ton
					STL	EPA 6010B	CR	3/12/2007	Hao Ton
					STL	EPA 6010B	CO	3/12/2007	Hao Ton
					STL	EPA 6010B	CD	3/12/2007	Hao Ton
					STL	EPA 6010B	BE	3/12/2007	Hao Ton
					STL	EPA 6010B	BA	3/12/2007	Hao Ton
					STL	EPA 6010B	AS	3/12/2007	Hao Ton
					STL	EPA 6010B	SB	3/12/2007	Hao Ton
					STL	EPA 7471A	HG	3/15/2007	Hao Ton
					STL	SW 7199	CR6	3/9/2007	Yuriy Zakhrabov

TABLE 7

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

Monitoring Information

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

NOTES:

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

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

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

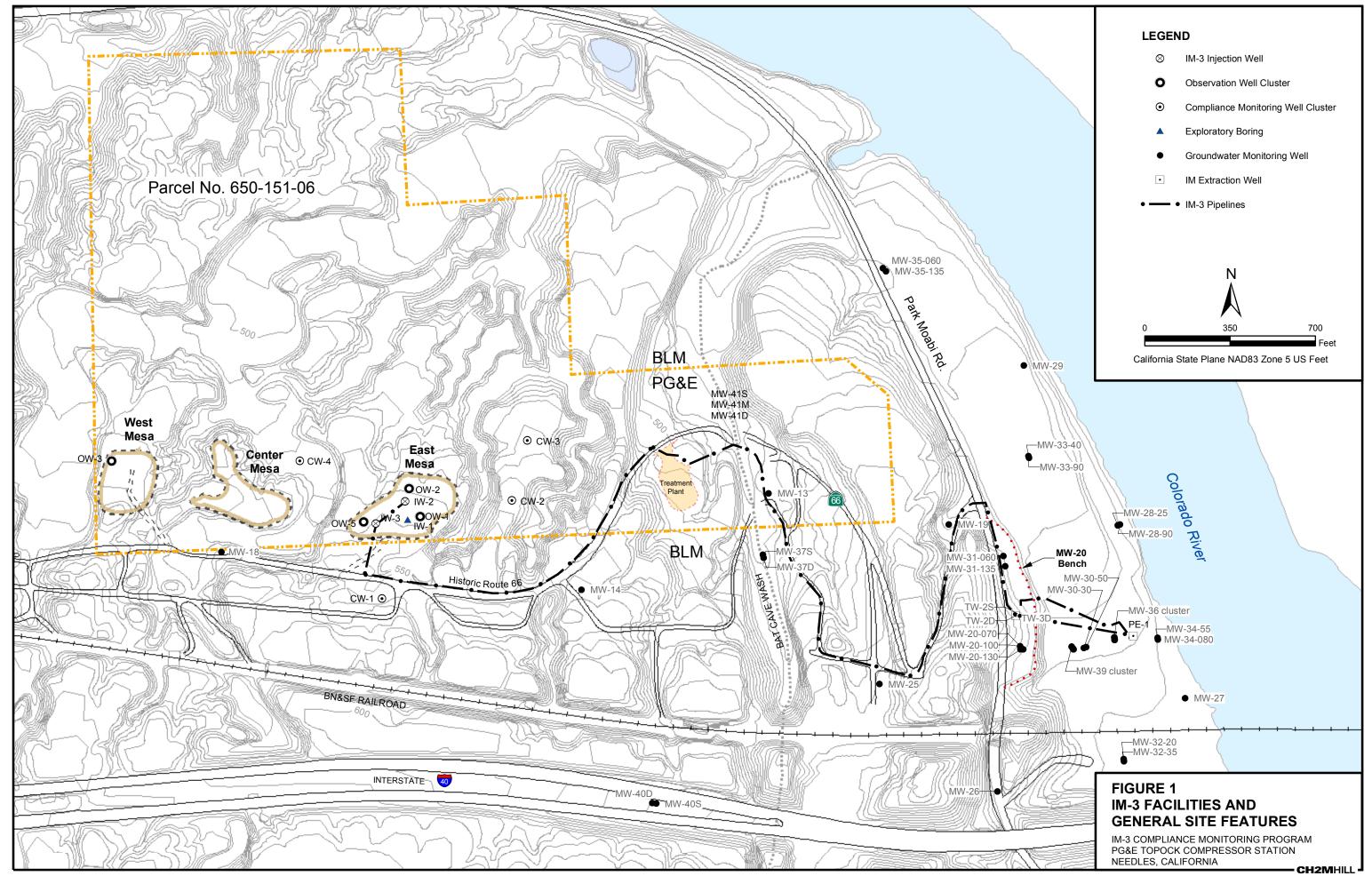
TLI = Truesdail Laboratories, Inc.

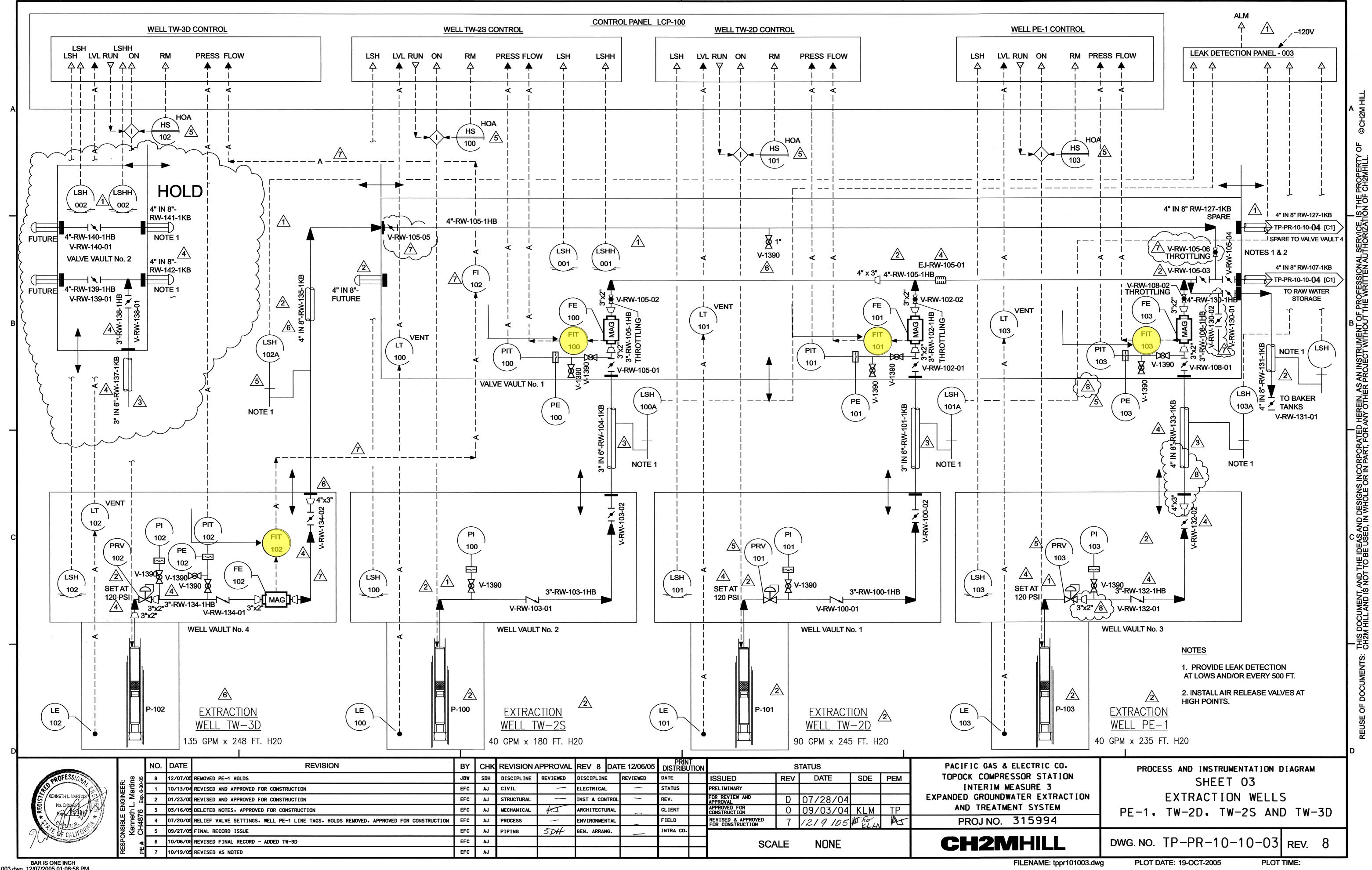
STL = Severn Trent Laboratories, Inc.

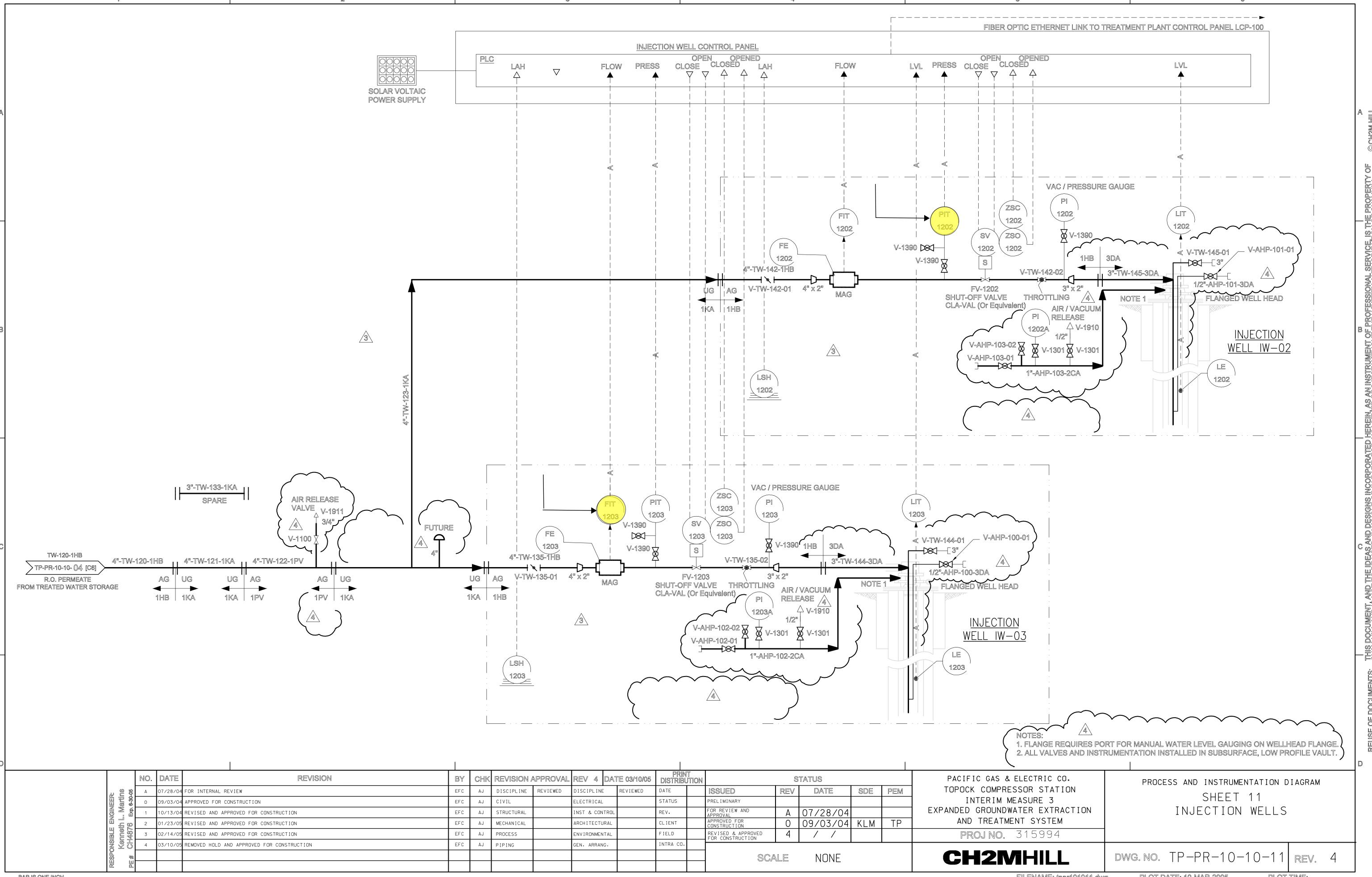
MBC = MBC Applied Environmental Sciences

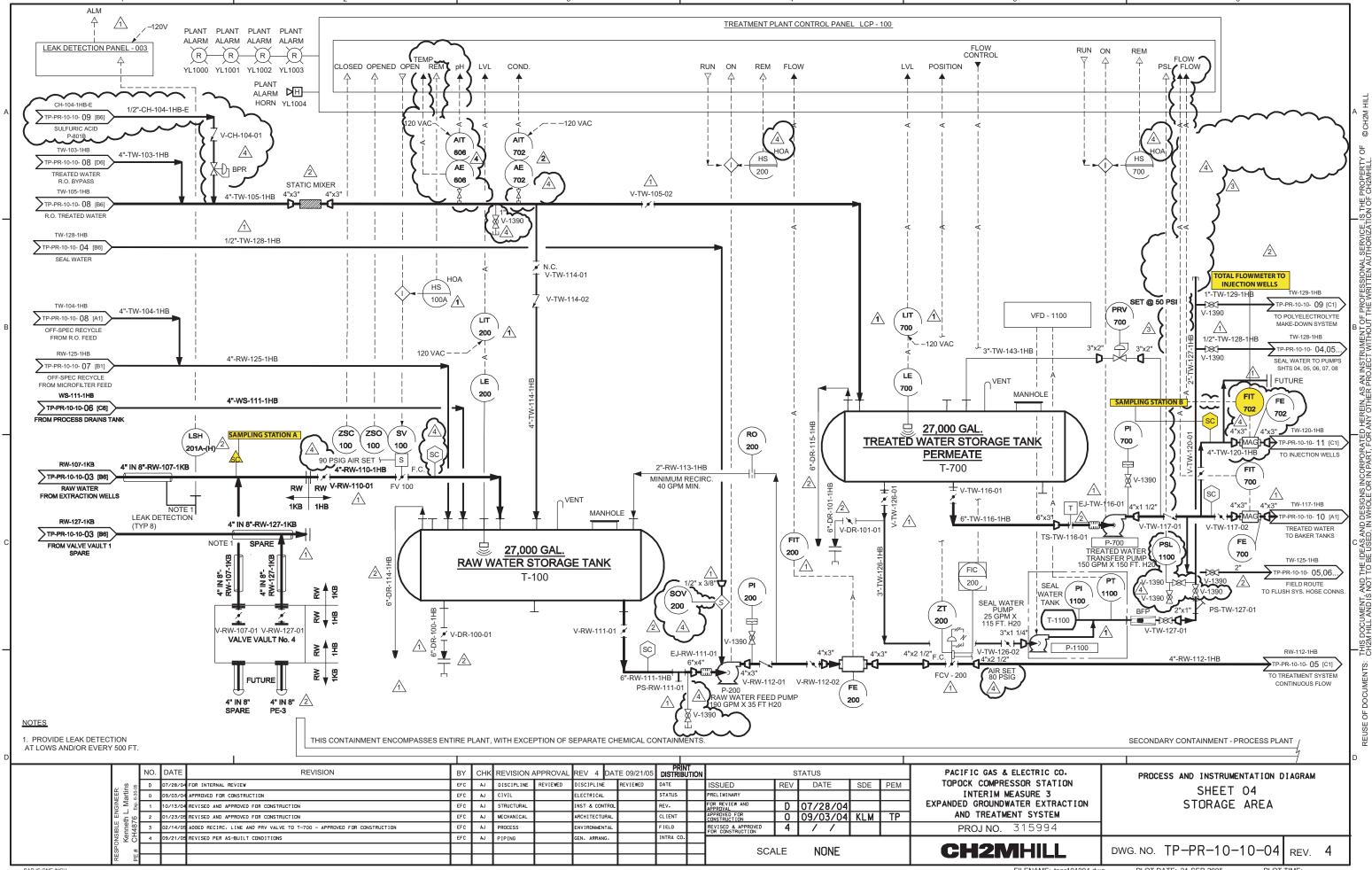
PH = TDS = TRB = CR = CR6 = FL =	aluminum boron iron manganese zinc antimony arsenic	NH3N = NO2N =	molybdenum nickel lead mercury selenium thallium cobalt cadmium beryllium silver vanadium nitrate (as N) ammonia (as N) nitrite (as N)
	barium	NO2N = SO4 =	sulfate
CU =	copper	00 r =	Janato

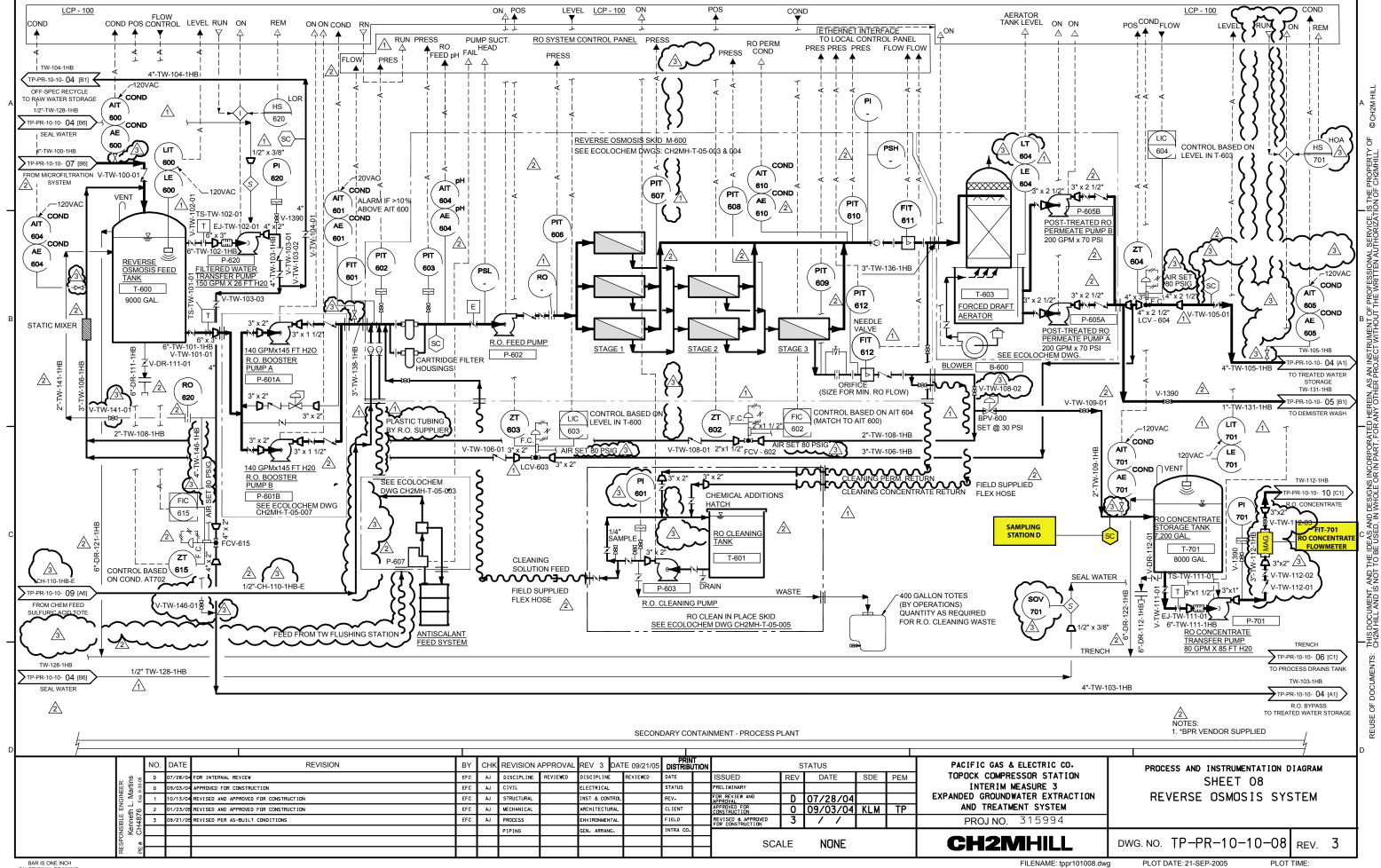


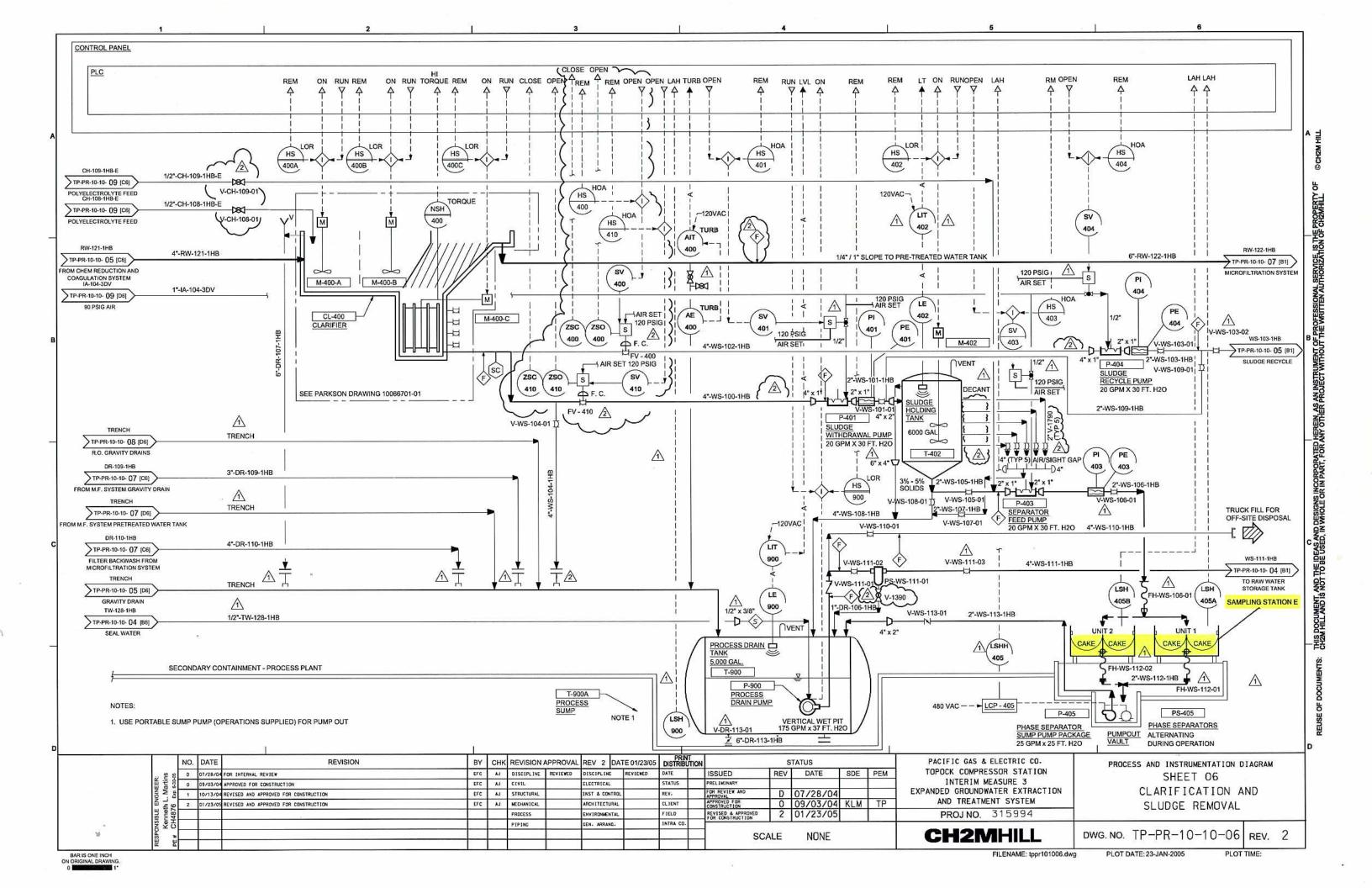


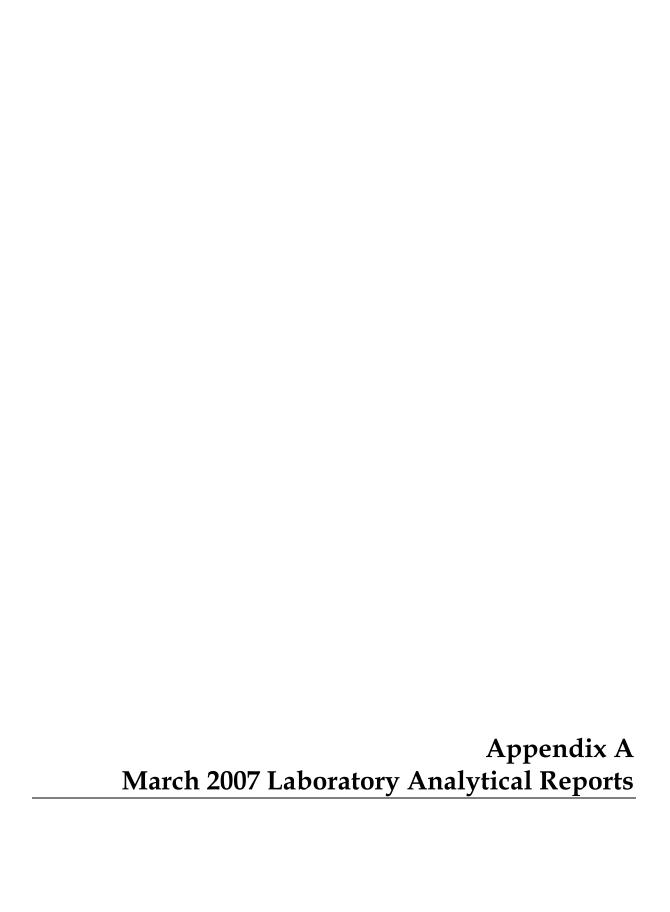












INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

April 4, 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-088 PROJECT, GROUNDWATER

MONITORING,

TLI NO.: 964578

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-088 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 March 28, 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

Ali Khange

For K.R.P. Iyer

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.: 964578

Date: April 6, 2007 Collected: March 28, 2007 Received: March 28, 2007

Revision 1

ANALYST LIST

	Notes to the second second	
EPA 120.1	Specific Conductivity	Tina Acquiat
EPA 150.1	рH	Tina Acquiat
EPA 160.1	Total Dissolved Solids	Tina Acquiet
EPA 180.1	Turbidity	Gautam Savani
EPA 415.2	Total Organic Carbon	Hope Trinidad
EPA 200.7	Total Chromium	Laureen Tan
EPA 218.6	Hexavalent Chromium	Jean-Paul Gleeson

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

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

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

Prep. Batch: 040207A

Laboratory No.: 964578

Date: April 4, 2007

14201 FRANKLIN AVENUE

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

Collected: March 28, 2007 Received: March 28, 2007

Prep/ Analyzed: April 2, 2007

Analytical Batch: 040207A

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

Analytical Results Total Chromium

TLI I.D. Field I.D. Units Method Run Time DF RL Results mg/L 964578-2 SC-700B-WDR-088 **EPA 200.7** 16:56 1.04 0.0010 ND

QA/QC Summary

	QC STD	ILD. I	boratory lumber	Concentra	tion i	plicate entration	Relative Percent Difference	Acceptance limits	QC Within Control	
Economic States	Duplic	ate 9	64578-2	ND		ND	0.00%	<u><</u> 20%	Yes	
QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretica Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	964578-2	0,00	1.04	0.0100	0.0104	0.00993	0.0104	95.5%	70-130%	Yes
		QC Std	II.D. I	Measured incentration	Theoretics Concentrati					

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0101	0.0100	101%	90% - 110%	Yes
MRCVS#1	0.00929	0.0100	92.9%	90% - 110%	Yes
ICS	0.00844	0.0100	84.4%	80% - 120%	Yes
LCS	0.00960	0.0100	96.0%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted.

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

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14201 FRANKLIN AVENUE

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

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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.: 964578

Date: April 4, 2007

Collected: March 28, 2007 Received: March 28, 2007

Prep/ Analyzed: March 28, 2007

Analytical Batch: 03CrH07R

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D. Fleid I.D. Sample Time **Run Time** Units DF RL Results 964578-2 SC-700B-WDR-088 15:00 21:48 ma/L 5.00 0.0010 ND

QA/QC Summary

	QC STI		N	oratory umber	Concentrati	ion	Dupli	tration	Relative Percent Difference	Acceptance limits	QC Within Control	
	Duplic	ate	96	4572-1	0.00341		0.003	341	0.00%	≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc unspi sam	ked	Dilution Factor	Added Spike Conc.	12.00		Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	964578-2	0.0	0	1.06	0.00100	0.0	00106	0.00094	0.00106	88.7%	90-110%	N-
MS	964578-2	0.0	0	5.00	0.00100	0.0		0.00499	0.00500	99.8%	90-110%	No Yes
		QC	Std	I.D. C	Measured oncentration	110225	eoretical centration	Percent		T	nin	

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00484	0.00500	96.8%	90% - 110%	Yes
MRCVS#1	0.0102	0.0100	102%	95% - 105%	Yes
MRCVS#2	0.0103	0.0100	103%	95% - 105%	Yes
MRCVS#3	0.0104	0.0100	104%	95% - 105%	Yes
LCS	0.00483	0.00500	96.6%	90% - 110%	Yes
LCSD	0.00484	0.00500	06.8%	000/ 4409/	V

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

008

Mona Nassimi, Manager

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: 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.; 964578

14201 FRANKLIN AVENUE

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

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Date: April 4, 2007

Collected: March 28, 2007

Received: March 28, 2007 Prep/ Analyzed: March 29, 2007

Analytical Batch: 03TUC07W

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

TLI I.D. Field I.D.

Sample Time

<u>Units</u>

<u>DF</u>

<u>RL</u>

Results

964578-2

SC-700B-WDR-088

15:00

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	964572-37	ND	ND	0.00%	< 20%	Yes

QC Std I.D,	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.60	8.00	95.0%	90% - 110%	Yes
LCS	7.63	8.00	95.4%	90% - 110%	Yes
LCS	7.25	8.00	90.6%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF; Dilution Factor.

Respectfully submitted.

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

Laboratory No.: 964578

Date: April 4, 2007 Collected: March 28, 2007

14201 FRANKLIN AVENUE

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

www.truesdail.com

Received: March 28, 2007 Prep/ Analyzed: March 29, 2007

Analytical Batch: 03PH07CC

Investigation:

pH by EPA 150.1

Analytical Results pH

TLI I.D. 964578-2 Field I.D. SC-700B-WDR-088

Sample Time 15:00 Run Time 14:00

Units pH Units

MDL 0.0570 <u>RL</u> 2.00

Results 8.10

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within
Duplicate	964578-2	8.10	8.10	0.00	± 0.100 Units	Yes

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

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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REPORT

Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000 Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

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

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

www.truesdail.com

Laboratory No.: 964578

Date: April 4, 2007 Collected: March 28, 2007

14201 FRANKLIN AVENUE

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

Received: March 28, 2007

Prep/ Analyzed: March 29, 2007

Analytical Batch: 03EC07R

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D. 964578-2 Fleid I.D.

SC-700B-WDR-088

Units µmhos/cm

Method **EPA 120.1**

DF 1.00

RL 2.00 Results 6350

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	on Duplica Concentra		Relative Percent Difference	Acceptance Ilmits	QC Within
Duplicate	964578-2	6350	6370		0.31%	1% ≤10%	
0	C Std I.D.	Measured	Theoretical	Percent	Acceptanc	e QC With	ıln

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	946	1000	94.6%	90% - 110%	Yes
LCS	685	706	97.0%	90% - 110%	Yes

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

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

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

Laboratory No.: 964578

14201 FRANKLIN AVENUE

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

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Date: April 4, 2007

Collected: March 28, 2007 Received: March 28, 2007

Prep/ Analyzed: March 29, 2007 Analytical Batch: 03TDS07P

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> 139 Results 3800

964578-2

SC-700B-WDR-088

mg/L EPA 160.1

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	964578	3800	3770	0.40%	≤ 5%	Yes

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

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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REPORT

Cllent: 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: 03TOC07G

Laboratory No.: 964578

Date: April 4, 2007 Collected: March 28, 2007

14201 FRANKLIN AVENUE

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

Received: March 28, 2007 Prep/ Analyzed: March 30, 2007

Analytical Batch: 03TOC07G

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

TLI I.D. Field I.D. Units Method Run Time DF RL Results 964578-1 SC-100B-WDR-088 mg/L EPA 415.2 09:58 1.00 0.300 ND

QA/QC Summary

QC STD	1.0.		boratory lumber	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplica	ate	ę	64568	5.14	5.07	1.37%	<u><</u> 20%	Yes
	Cone	r of		Added	Measured	Theoretica	1	

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	964568	5.14	1.00	12.5	12.5	18.7	17.6	108%	75-125%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within
MRCCS	9.77	10.0	97.7%	90% - 110%	Yes
MRCVS#1	10.9	10.0	109%	90% - 110%	Yes
LCS	20.1	20.0	101%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

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TRUESDAIL LABORATORIES, INC. 14201 Franklin Avenue, Tustin, CA 92730-7008 (714)730-6239 FAX: (714) 730-6462 www.truesdeil.com

COMPANY

CHAIN OF CUSTODY RECORD [IM3Plant-WDR-088]

5 Days PAGE TURNAROUND TIME DATE 3.28-03 COC Number

COMMENTS 12/20 NUMBER OF CONTAINERS S 7 964578 03/28/07 Rec'd (1,081) Vibidius Total Organic Carbon (415.2) × (109L) SQL × Specific Conductance (120 1) Total Metals (2003) Jose Chromiun × × CA6 (2186) Lab Filler × × Groundwater Groundwater DESCRIPTION FAX (530) 339-3303 TEAM 3 1290 H 155 Grand Ave Ste 1000 3.28-07 3280 DATE Oakland, CA 94612 346129.IM.02.00 (530) 229-3303 PG&E Topock SC-700B-WDR-088 SC-100B-WDR-088 SAMPLERS (SIGNATURE €2 PROJECT NAME

P.O. NUMBER

ADDRESS

PHONE

SAMPLE 1.D.



TOTAL NUMBER OF CONTAINERS

e

SAMPLE CONDITIONS	RECEIVED COOL WARM F	CUSTODY SEALED YES NO	SPECIAL REQUIREMENTS:				
TURE RECORD	panyl Date/ 3.2x-07	Company! TLT Date! 3(28107)	nyi Datei Time	bate/ Time	Por Co. Time	Social Canditions	ce rorm Attached
CHAIN OF CUSTODY SIGNATU	Name Jose H. Dur Agency (Name Dave Blackbulkgency	Printed Company/	Printed Company/	Printed Company!	Printed Compary, Name Agency	7
3	Signature (Relinquished)	Signature Be Bluff	Signature (Relinquished)	Signature (Received)	Signature (Relinquished)	Signature (Received)	

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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

March 6, 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-089 PROJECT,

GROUNDWATER AND SOIL MONITORING,

TLI No.: 963891

Truesdail Laboratorics, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-089 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 March 7, 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.

Sample SC-701-WDR-089 was initially analyzed for Total Chromium by EPA 200.8 at a dilution of 10.4 but was reanalyzed without a dilution by EPA 200.7 to meet the contract required detection limit.

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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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.: 963891 Date: April 4, 2007

Collected: March 7, 2007 Received: March 7, 2007

ANALYST LIST

anakan salahan salah tan	and the second of the second o			
EPA 120.1	Specific Conductivity	Hope Trinidad		
EPA 150.1	рH	Hope Trinidad		
EPA 160.1	Total Dissolved Solids	Tina Acquiat		
EPA 180,1	Turbidity	Gautam Savani		
EPA 300.0	Anions	Giawad Ghenniwa		
EPA 350.2	Ammonia	lordan Stavrev		
EPA 354.1	Nitrite as N	Kim Luck		
EPA 415.2	Total Organic Carbon	Hope Trinidad		
EPA 200.7	Metals by ICP	Laureen Tan		
EPA 200.8	Metals by ICP/MS	Mark Kotani		
EPA 245.1	Mercury	Michel Mendoza		
EPA 218.6	Hexavalent Chromium	Faisal Raihan		

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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

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

REPORT

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

Laboratory No.: 963891

Date: April 4, 2007

Collected: March 7, 2007 Received: March 7, 2007

Prep/ Analyzed: March 8, 2007

Analytical Batch: 03EC07H

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.	Field I.D.	<u>Units</u>	Method	DF	RL	Results
963891-1	CC 4000 IMPD 000			<u> </u>	177	Mesuits
	SC-100B-WDR-089	μmhos/cm	EPA 120.1	1.00	2.00	8780
963891-2	SC-700B-WDR-089	μmhos/cm	EPA 120.1	1.00	2.00	7060
963891-3	SC-701-WDR-089	umhos/cm	EPA 120.1			
		μιτιιουνσιτ	EFA 120.1	1.00	2.00	31900

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within
Duplicate	963891-3	31900	31800	0.31%	≤ 10%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within
ccs	698	706	98.9%	90% - 110%	Yes
CVS#1	980	1000	98.0%	90% - 110%	Yes
CV\$#2	986	1000	98.6%	90% - 110%	Yes
LCS	695	706	98.4%	90% - 110%	Yes

Respectfully submitted.

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

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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 P.O. No.: 346129.IM.02.E2 Laboratory No.: 963891

Date: April 4, 2007 Collected: March 7, 2007 Received: March 7, 2007

Prep/ Analyzed: March 8, 2007 Analytical Batch: 03PH07H

Investigation:

pH by EPA 150.1

REPORT

Analytical Results pH

TLI I.D.	Field I.D.	Run Time	<u>Units</u>	MDL	<u>RL</u>	Results
963891-1	SC-100B-WDR-089	09:32	pH Units	0.0570	2.00	7.40
963891-2	SC-700B-WDR-089	09:33	pH Units	0.0570	2.00	7.40 8.17
963891-3	SC-701-WDR-089	09:35	pH Units	0.0570	2.00	7.91

QA/QC Summary

QC SYD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance	QC Within
				(6/11(5)	limits	Control
Duplicate	963891-2	8.17	8.20	0.03	+ 0,100 Units	Yes

QC Std I,D,	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within
LCS	7,02	7.00	0.02	± 0.100 Units	Yes
LCS #1	6.99	7.00	0.01	+ 0.100 Units	Yes
LCS #2	6.99	7.00	0.01	+ 0.100 Units	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

TRUESPAIL LABORATORIES, INC

Mona Massimi, Manager

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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Client: E2 Consulting Engineers, Inc.

155 Grand Ave. Suite 1000

Oakland, CA 94612

Attention: Shawn Duffy

Sample: 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

REPORT

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

Laboratory No.: 963891

Date: April 4, 2007 Collected: March 7, 2007

Received: March 7, 2007 Prep/ Analyzed: March 13, 2007

Analytical Batch: 03TDS07F

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D.	Field I.D.	<u>Units</u>	Method	RL	Results
963891-1	SC-100B-WDR-089	mg/L	EPA 160.1	250	5790
963891-2	SC-700B-WDR-089	mg/L	EPA 160.1	250	4770
963891-3	SC-701-WDR-089	mg/L	ÉPA 160.1	1250	26900

QA/QC Summary

QC STD I.D. Laborato Number Duplicate 963945-		Concontra	Concentration Duplicate Concentration 8510 8620				eptance limits	QC Within Control
		8510			0.64%	≤ 5%		Yes
	QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent			QC Within	

ND: Below the reporting limit (Not Detected).

LCS 1

488

RL: Reporting Limit.

Respectfully submitted,

90% - 110%

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Laboratory No.: 963891

Date: April 4, 2007 Collected: March 7, 2007

Received: March 7, 2007 Prep/ Analyzed: March 8, 2007

Analytical Batch: 03TUC07H

155 Grand Ave. Suite 1000 Oakland, CA 94612

Attention: Shawn Duffy

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

Client: E2 Consulting Engineers, Inc.

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

TU1.D.	Field I.D.	Alialytical Resu	<u>lts Turbid</u>	ity		
963891-1 963891-2	SC-100B-WDR-089 SC-700B-WDR-089	<u>Sample Time</u> 13:40 13:30	<u>Units</u> NTU NTU	<u>DF</u> 1.00 1.00	<u>RL</u> 0.100 0.100	Results 0.114 ND
		A				

QA/QC Summary

QC STD I		ratory mber	Concentr	ation	Dupli		Rel	ative cent	Ac	ceptance	QC Within
Duplicate	9638	83-29	ND.		NI	5	200300	o%			Control
	QC Std I,		Measured encentration		oretical entration	Percent Recover		Cceptar	ICO	QC Within	Yes
	LCS		7,90		3.00	98.8%	ا _				1
-	LCS LCS		8.05	7	3.00	101%		0% - 110 0% - 110	_	Yes	1
-			8.10	8	3.00	101%		0% - 110		Yes	1

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

Respectfully submitted,

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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.: 963891

Date: April 4, 2007 Collected: March 7, 2007

Received: March 7, 2007 Prep/ Analyzed: March 8, 2007 Analytical Batch: 03NO207D

Investigation:

Nitrite as N by Method EPA 354.1

Analytical Results for Nitrite as N

TLI 1.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
963891-1	SC-100B-WDR-089	13:40	16:32	mg/L	1.00	0.0050	0.0132
963891-2	SC-700B-WDR-089	13:30	16:33	mg/L	1.00	0.0050	0.0122

QA/QC Summary

	QC STE	I.D.	Laboratory Number	Concentra	non I	uplicate centration	Relative Percent Difference	Acceptance limits	QC Within Control	
	Duplic	ate	963891-2	0.0122		0.0122	0.00%	≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limits	QC Within Control
MS	963891-2	0.0122	1:00	0.100	0.100	0.116	0.112	104%	75-125%	Yes
									_	

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.0946	0.0900	105%	90% - 110%	Yes
MRCVS#1	0.0999	0.100	99.9%	90% - 110%	Yes
LCS	0.188	0.180	104%	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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TUSTIN, CALIFORNIA 92780-7008

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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.: 963891 Date: April 4, 2007 Collected: March 7, 2007

Received: March 7, 2007 Prep/ Analyzed: March 13, 2007 Analytical Batch: 03NH307C

Investigation:

Ammonia as N by Method EPA 350.2

Analytical Results Ammonia as N

TLI I.D.	Field I.D.	Sample Time	Method	<u>Units</u>	<u>DF</u>	RL	Results
963891-1	SC-100B-WDR-089	13:40	EPA 350.2	mg/L	1.00	0.500	ND
963891-2	SC-700B-WDR-089	13:30	EPA 350.2	mg/L	1.00	0.500	ND

OA/OC Summany

					<u> </u>	141	2 Jul	illiai	y				
	QC STD		Laborat Numb	er	Concentr	ation		licate ntration	Relative Percent Difference		ceptance limits	QC Within Control	
	Duplic	ate	963944	-3	6.07		6.	30	3.72%		≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc.of unspiked sample	Dil	ution	Added Spike Conc.	400	MS nount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample		MS%	Acceptance limits	QC Within Control
MS	963914-13	1.54	1	.00	10.0	_ ^	10.0	11.5	11.5		99.6%	75-125%	Yes
		QC S	d I.D.		easured centration	- August (1905)	eoretical centration	Percer Recove			QC Within	7	1.00
		LC	s		9.52		10.0	95.2%	90% - 110	0%	Yes	1	

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

Mona Nassimi, Manage

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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: 03TOC07C

Laboratory No.: 963891

Date: April 4, 2007

Collected: March 7, 2007

Received: March 7, 2007 Prep/ Analyzed: March 9, 2007

Analytical Batch: 03TOC07C

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

TLI I.D.	Fleid I.D.	Sample Time	Run Time	Units	DF	RL	Results
963891-1	SC-100B-WDR-089	13:40	13:48	mg/L	1.00	0.300	0.438
963891-2	SC-700B-WDR-089	13:30	14:06	mg/L	1.00	0.300	0.318
963891-3	SC-701-WDR-089	14:00	14:26	mg/L	1.00	0.300	1.49

OA/OC Summary

QC STD I.E). Labor Num		Sample Concentra	50	Duplic		Relative Percent Difference	Ac	ceptance limits	QC Within
Duplicate	9638	963891-1		0.438		5	1.59%		≤ 20%	Yes
	QC Std I.D.	Me	asured	Th	eoretical	Percer	nt Acce	ptance	QC Within	7

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within
MRCCS	9.62	10.0	96.2%	90% - 110%	Yes
MRCV\$#1	9.80	10.0	98.0%	90% - 110%	Yes
LCS	18.6	20.0	93.0%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF; Dilution Factor.

Respectfully submitted,

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Relative

Established 1931

REPORT

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

Oakland, CA 94612

Attention: Shawn Duffy

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

Laboratory

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

Prep. Batch: 03CrH07F

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

Laboratory No.: 963891

Date: April 4, 2007

Collected: March 7, 2007 Received: March 7, 2007

Prep/ Analyzed: March 8, 2007 Analytical Batch: 03CrH07F

Acceptance

Investigation:

Hexavalent Chromium by IC Using Method EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RL	Results
963891-1	SC-100B-WDR-089	13:40	10:46	mg/L	100	0.0200	1.82
963891-2	SC-700B-WDR-089	13:30	10:37	mg/L	1.05	0.00020	ND
963891-3	SC-701-WDR-089	14:00	10:56	mg/L	1.05	0.00020	ND

QA/QC Summary

Duplicate

Sample

	Duplic	nto .	963891-1	Concentra	tion Con	centration	Difference	limits	Control	
	Cupiic	ate	963891-1	1.82		1.79	1.66%	≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc.of unspiked sample	Dilution Factor	Added Spike Conc.	MS Amount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	M\$% Recovery	Acceptance limits	QC Within Control
MS	963891-1	1.82	100	0.0200	2.00	3.83	3.82	101%	90-110%	Yes
MS	963891-2	0.00	1.06	0.00100	0.00106	0.00098	0.00106	92.5%	90-110%	Yes
MS	963891-3	0.00	1.06	0.00100	0.00106	0.00099	0.00106	93.4%	90-110%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00529	0.00500	106%	90% - 110%	Yes
MRCV\$#1	0.0104	0.0100	104%	95% - 105%	Yes
MRCV\$#2	0.0103	0.0100	103%	95% - 105%	Yes
MRCV\$#3	0.00958	0.0100	95.8%	95% - 105%	Yes
LCS	0.00530	0.00500	106%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected),

QC STD I.D.

OF: Dilution Factor.

Respectfully submitted,

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Relative

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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: 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.: 963891

Date: April 4, 2007 Collected: March 7, 2007 Received: March 7, 2007

Prep/ Analyzed: March 8, 2007 Analytical Batch: 03AN07F

Investigation:

Nitrate as N by Ion Chromatography using EPA 300.0

Analytical Results Nitrate as N

<u>TL1 I.D.</u>	Field I.D.	Sample Time	Run Time	<u>Units</u>	<u>DF</u>	RL	Results
963891-1	SC-100B-WDR-089	13:40	12:01	mg/L	1.00	0.200	3.32
963891-2	SC-700B-WDR-089	13:30	12:12	mg/L		0.200	2.78

	QC STD		Numb	er	Concentra		Concer	tration	Percent Difference		limits	Control	
	Duplic	ate	96389	1-1	3.32		3.3	32	0.00%		≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc.of unspiked sample	I DII	ution	Added Spike Conc.		Sount	Measured Conc. of spiked sample	Theoretical Conc. of spiked sample		M\$% ecovery	Acceptance limits	QC WithIn Control
MS	963891-1	3.32	1	.00	4.00	4.0	00	7.18	7.32	-	96.5%	75-125%	Yes
		QC St	d I.D.	1000	easured centration		oretical entration	Percen			QC Withi Control		
		MO	***		4 00						1,0,000,000,00	_	

QC Std I.D.	Measured Concentration	Theoretical Concentration	Recovery	Acceptance Limits	QC Within Control
MRCCS	4.00	4.00	100%	90% - 110%	Yes
MRCVS#1	3,00	3.00	100%	90% - 110%	Yes
MRCVS#2	3.00	3.00	100%	90% - 110%	Yes
MRCVS#3	3.00	3.00	100%	90% - 110%	Yes
MRCVS#4	3,00	3.00	100%	90% - 110%	Yes
LCS	4.01	4.00	100%	90% - 110%	Yes
LCSD	4.01	4.00	100%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted.

IL LABORATORIES, INC.

Analytical Services 016

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

Laboratory

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

QC STD I.D.

Laboratory No.: 963891

Date: April 4, 2007 Collected: March 7, 2007

Received: March 7, 2007
Prep/ Analyzed: March 8, 2007
Analytical Batch: 03AN07F

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
963891-1	SC-100B-WDR-089	13:40	12:01	mg/L	1.00	0.200	2.43
963891-2	SC-700B-WDR-089	13:30	12:12	mg/L	1.00	0.200	1.98
963891-3	SC-701-WDR-089	14:00	14;42	mg/L	10.0	2.00	11.4

QA/QC Summary

Duplicate

	-		Number		Cor	centration	Difference	limits	Control	
	Duplic	cate	963911	0.160		0.161	0.62%	<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	963911	0.160	1.00	2.00	2.00	2 29	2.16	107%	75_40E9/	Van

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within
MRCCS	4.16	4.00	104%	90% - 110%	Yes
MRCVS#1	3.13	3.00	104%	90% - 110%	Yes
MRCVS#2	3.13	3.00	104%	90% - 110%	Yes
MRCVS#3	3.11	3.00	104%	90% - 110%	Yes
LCS	4.18	4.00	105%	90% - 110%	Yes
LCSD	4.19	4.00	105%	90% - 110%	Vec

ND: Below the reporting limit (Not Detected).

DF: Ollution Factor.

Respectfully submitted,

Acceptance

TRUESDAIL LABORATORIES, INC.

Selle Ce Free

Analytical Services

17 Analytical Se

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Relative

Established 1931

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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.: 963891

Date: April 4, 2007

Collected: March 7, 2007 Received: March 7, 2007

Prep/ Analyzed: March 8, 2007 Analytical Batch: 03AN07F

Investigation:

Sulfate by Method EPA 300.0

Analytical Results Sulfate

TLI I.D.	Fleid I.D.	Sample Time	Run Time	<u>Units</u>	DF	RL	Results
963891-1	SC-100B-WDR-089	13:40	14:08	mg/L	50.0	50.0	630
963891-2	SC-700B-WDR-089	13:30	14:19	mg/L	50.0	50.0	482

QA/QC Summary

	Duplic		Numb	er	Concentra 482	ation	Concent 487	ration	Percent Difference	J)	limits	Control	
QC Std I.D.	Lab Number	Conc.of unspiked sample	100	ution	Added Spike Conc.	1000000	IS (leasured Conc. of spiked sample	Theoretical Conc. of spiked sample		MS% ecovery	Acceptance limits	QC Within Control
MS	963891-2	482	5	0,0	10.0	5	00	978	982	-	99.2%	75-125%	Yes
		QC Std	I.D.	2000	easured centration	2400	entration	Percen			QC Withi Control		

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
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.

TRUESDATL LABORATORIES, INC.

Mona Nassimi, Manager

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: 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.F2

Laboratory No.: 963891

Date: April 4, 2007 Collected: March 7, 2007 Received: March 7, 2007 Prep/ Analyzed: March 19, 2007

Analytical Batch: 03AN07N

Investigation:

Fluoride by Ion Chromatography using EPA 300.0

Analytical Results Fluoride

TLI I.D. Field I.D. Sample Time Run Time Units DF RL. Results 963891-4 SC-Sludge-WDR-089 13:30 13:37 mg/kg 20.0 4.00 20.5

CAICO C.

							U (4)	V Vu	mmar	_					
	QC STC	I.D.		borat Numb		Concentr	ation		licate ntration	F	Relative Percent Ifference		eptance limits	QC Within	n
	Duplic	ate	9	64230)-4	0.980		0.	987		0.71%		≤ 20%	Yes	7
QC Std I.D.	Lab Number	Conc unspi sam	ked		ution	Added Spike Conc.		MS nount	Measured Conc. of spiked sample	1	Theoretical Conc. of spiked sample	777	MS% ecovery	Acceptano limits	e QC Withir Control
MS	964230-4	0.98	30	1	.00	2.00	:	2.00	3.14		2.98		108%	75-125%	Yes
		QC	Std	I.D.		easured centration	100-200	eoretical centratio			Acceptant Limits		QC With		
		, N	MRCC	S		4.27		4.00	107%		90% - 110	0%	Yes	7	
		M	RCVS	#1		3.29		3.00	110%	,	90% - 110	0%	Yes		
		M	RCV5	#2	,	3.28		3.00	109%	5	90% - 110	0%	Yes		
			LCS	_		4.08		4.00	102%	,	90% - 110	2%	Yes	7	
			LCSI)		4.27		4.00	107%	,	90% - 110	0%	Yes		

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manage

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

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

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

Investigation: Total Metal Analyses as Requested

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

Laboratory No.: 963891 Reported: April 6, 2007 Collected: March 7, 2007 Received: March 7, 2007

Analyzed: March 9 - April 2, 2007

Revision 1

Analytical Results

SAMPLE ID: S	C-100B-WDR-089	Time Coll	ected:	13:40		LAB ID	963891-1	
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200,8	ND	2.08	mg/L	0.0500	032207A	03/22/07	12:00
Antimony	EPA 200.8	ND .	2.08	mg/L	0.0030	032207A	03/22/07	12:00
Arsenic	EPA 200.8	ND	2.08	mg/L	0.0050	032207A	03/22/07	12:00
Barium	EPA 200.7	ND	1.04	mg/L	0.300	032207B	03/22/07	15:23
Chromium	EPA 200.7	1.84	1.04	mg/L	0.0520	032607A	03/26/07	11:02
Copper	EPA 200.8	ND	2.08	mg/L	0.0100	030907A	03/09/07	13:34
Lead	EPA 200.8	ND	2.08	mg/L	0.0021	032207A	03/22/07	12:00
Manganese	EPA 200.8	ND	2.08	mg/L	0.500	032207A	03/22/07	12:00
Molybdenum	EPA 200.8	0.0201	2.08	mg/L	0.0050	032207A	03/22/07	12:00
Nickel	EPA 200.8	ND	2.08	mg/L	0.0200	030907A	03/09/07	13:34
Zinc	EPA 200.7	NĎ	1.04	mg/L	0.0200	032207B	03/22/07	15:23
Boron	EPA 200.7	1.23	1.04	mg/L	0.200	032207B	03/22/07	15:23
Iron	EPA 200.7	ND	1.04	mg/L	0.300	032607A	03/26/07	11:02

SAMPLE ID:	SC-700B-WDR-089	Time Coll	ected:	13:30		LAB ID;	963891-2	
Parameter	Method	Reported Value	DF	Units	RL	Batch	Date Analyzed	Time Analyzed
Aluminum	EPA 200.8	ND	2.08	mg/L	0.0500	032207A	03/22/07	12:06
Antimony	EPA 200.8	ND	2.08	mg/L	0.0030	032207A	03/22/07	12:06
Arsenic	EPA 200.8	ND	2.08	mg/L	0.0050	032207A	03/22/07	12:06
Barium	EPA 200.7	ND	1.04	mg/L	0.300	032207B	03/22/07	15:27
Chromium	EPA 200.8	ND	2.08	mg/L	0.0010	032807A	03/28/07	16:51
Copper	EPA 200.8	ND	2.08	mg/L	0.0100	030907A	03/09/07	13:41
Lead	EPA 200.8	ND	2.08	mg/L	0.0021	032207A	03/22/07	12:06
Manganese	EPA 200.8	ND	2.08	mg/L	0.500	032207A	03/22/07	12:06
Molybdenum	EPA 200.8	0.0147	2.08	mg/L	0.0050	032207A	03/22/07	12:06
Nickel	EPA 200.8	ND	2.08	mg/L	0.0200	030907A	03/09/07	13:41
Zinc	EPA 200,7	ND	1.04	mg/L	0.0200	032207B	03/22/07	15:27
Boron	EPA 200,7	1.16	1.04	mg/L	0.200	032207B	03/22/07	15:27
Iron	EPA 200.7	ND	1,04	mg/L	0.300	032607A	03/26/07	11:07



Report Continued

SAMPLE ID:	SC-701-WDR-089	Time Coll	lected:	14:00		LAB ID:	963891-3	
_		Reported				1	Date	Time
Parameter	Method	Value	DF	Units	RL	Batch	Analyzed	Analyzed
Antimony	EPA 200.8	ND	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Arsenic	EPA 200.8	ND	10,4	mg/L	0.0104	032207A	03/22/07	13:34
Barium	EPA 200.7	ND	2.08	mg/L	0.300	032207B	03/22/07	16:11
Beryllium	EPA 200.8	ND	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Cadmium	EPA 200.8	ND	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Chromium	EPA 200.7	ND	1.04	mg/L,	0.0010	040207A	04/02/07	17:35
Cobalt	EPA 200.8	ND	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Copper	EPA 200.8	ND	10.4	mg/L	0.0104	030907A	03/09/07	13:47
Lead	EPA 200.8	ND	10.4	mg/L	0.0104	032207A	03/22/07	13:34
Mercury	EPA 245.1	ND	1.00	mg/L	0.00020	03HG07Cd	03/12/07	12:32
Mołybdenum	EPA 200.8	0.0947	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Nickel	EPA 200.8	ND	10.4	mg/L	0.0200	030907A	03/09/07	13:47
Selenium	EPA 200.8	0.0139	10.4	mg/L	0.0104	032207A	03/22/07	13:34
Silver	EPA 200.8	0.0057	10.4	mg/L,	0.0052	030907A	03/09/07	13:47
Thallium	EPA 200.8	ND	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Vanadium	EPA 200.8	ND	10.4	mg/L	0.0052	032207A	03/22/07	13:34
Zinc	EPA 200.7	ND	2.08	mg/L	0.0208	032207B	03/22/07	16:11

ND: Not detected, or below limit of detection.

DF: Dilution factor.

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager

963891 coc Number

CHAIN OF CUSTODY RECORD

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

[IM3Plant-WDR-089]

9

Days

10 PAGE

FURNAROUND TIME

DATE 3-7-0

COMMENTS 03/07/07 88383 Rec'd

TOTAL NUMBER OF CONTAINERS 7=H0 OHer アードゥ NUMBER OF CONTAINERS 3 0 (1.081) Vibidius × F. SO4, NO2, NO3 × × × × × × Specific Conductance (120, × × × × × × × × × Groundwater Groundwater Groundwater DESCRIPTION FAX (530) 339-3303 Soil TEAM 아.은 13:30 TIME 133 300 3-7-07 3-76 3-7-67 155 Grand Ave Ste 1000 3-1-01 DATE Oakland, CA 94612 346129.IM.02.00 (530) 229-3303 PG&E Topock -4 SC-Sludge-WDR-089 SAMPLERS (SIGNATURE SC-100B-WDR-089 -2 SC-700B-WDR-089 E2 -3 SC-701-WDR-089 PROJECT NAME P.O. NUMBER SAMPLE I.D. COMPANY ADDRESS PHONE

-evel III QC ALERT

For Sample Conditions

See Form Attached

۲ WARM [2 SAMPLE CONDITIONS YES 0000 SPECIAL REQUIREMENTS: CUSTODY SEALED RECEIVED OMICHAMHIII Time 3-7-07 Date/ Time Date/ Time Date/ Time Date/ Time Date/ Time CHAIN OF CUSTODY SIGNATURE RECORD Company/ Agency Company/ Company Company Company Company/ Agency Agency Agency Agency Printed Printed Printed Name Printed Name Printed Name Name (Relinquished) (Relinquished) (Relinquished) Signature (Received) (Received) Signature Signature (Received) Signature Signature Signature

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

March 30, 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-090 PROJECT, GROUNDWATER

MONITORING,

TLI No.: 964142

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-090 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 March 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.

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

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

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

Respectfully Submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi

Manager, Analytical Services

K. R. P. gger

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.truesdaii.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.: 964142

Date: April 6, 2007 Collected: March 14, 2007 Received: March 14, 2007

Revision 1

ANALYST LIST

EPA 120.1	Specific Conductivity	Tina Acquiat
EPA 150.1	pH	Tina Acquiat
EPA 160.1	Total Dissolved Solids	Tina Acquiat
EPA 180.1	Turbidity	Gautam Savani
EPA 415.2	Total Organic Carbon	Hope Trinidad
EPA 200.8	Total Chromium	Mark Kotani
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

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

Prep. Batch: 032807A

Laboratory No.: 964142

Date: March 30, 2007

14201 FRANKLIN AVENUE

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

www.truesdail.com

Collected: March 14, 2007 Received: March 14, 2007

Prep/ Analyzed: March 28, 2007

Analytical Batch: 032807A

Investigation:

Total Chromium by Inductively Coupled Argon Plasma Mass Spectrometer using

EPA 200.8

Analytical Results Total Chromium

TLI I.D.	Field I.D.	<u>Units</u>	Method	Run Time	DF	DI	42
964142-2	SC-700B-WDR-090			<u>ixair june</u>	<u> </u>	<u>RL</u>	<u>esults</u>
0011122	00-700B-WDR-090	mg/L	EPA 200.8	16:45	1.04	0.0010	ND

QA/QC Summarv

	QC ST	O I.D.		orator umber	-	Concentra	ition	Duj Conce		ration	P	Relative Percent fference		eptance limits	QC Within Control	
	Duplic	ate	96	3984-3		0.0170		0.	016			4.82%		≤20%	Yes	
QC Std I.D.	Lab Number	Conc unspi sam	ked	Dilutio Facto	3322	Added Spike Conc.		MS nount	C	leasured Conc. of spiked sample		heoretical Conc. of spiked sample		MS% covery	Acceptance limits	QC Within
MS	963984-3	0.01	70	1.04		0.0500	0.	0520	(0.0626		0.0690	-	37.7%	70-130%	
		QC	Std	I.D.		easured centration		eoretical centratio		Percent Recover	- 1	Acceptan Limits		QC With	in	Yes
		M	IRCC	S		0.0519		0.0500		104%	+	95% - 105	04	Yes		
		MF	RCVS	#1	. (0.0476	()	0.0500		95.2%	7	90% - 110	_	Yes	\dashv	
		MF	RCVS	#2	(0.0498		0.0500		99.6%		90% - 110	-	Yes	-	
			ICS			0.100		0.100		100%	1	80% - 120	_	Yes	-	
			LCS		(0.0493		0.0500		98.6%		90% - 110		Vec	-	

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

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 04040

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.: 964142

Date: March 30, 2007

Collected: March 14, 2007 Received: March 14, 2007

Prep/ Analyzed: March 14, 2007

Analytical Batch: 03CrH07O

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D.	Field I.D.	Sample Time	Run Time	Units	DF	RI	Populto
964142-2	SC-700B-WDR-090	11.01				17.	Results
	00 100P-MDK-090	11:31	22:31	mg/L	1.05	0.00020	0.00029

QA/QC Summary

	QC STI		N	ooratory umber 4142-2	Concentrat		Dupli Concen	tration	Relative Percent Difference	Acceptanc limits	e QC Within Control	
					0.00023		0.000	030	3.39%	≤ 20%	Yes	
QC Std I.D.	Lab Number	Conc unspi samp	ked	Dilution Factor	- I opine	MS Amou		Measured Conc. of spiked sample	Theoretical Conc. of spiked sample	MS% Recovery	Acceptance limit	QC Within Control
MS	964142-2	0.000	29	1.06	0.00100	0.001	06	0.00136	0.00135	40404	12/2/10/10/10	
								0.00100	0.00135	101%	90-110%	Yes
		QC	Std	I.D.	Measured Concentration		retical	Percent	,ptui	ce QC Wi	thin	

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	0.00494	0.00500	98.8%	90% - 110%	Van
MRCVS#1	0.01009	0.0100	101%	95% - 105%	Yes Yes
MRCVS#2	0.01036	0.0100	104%	95% - 105%	Yes
LCS	0.00492	0.00500	98%	90% - 110%	Yes
LCSD	0.00493	0.00500	99%	90% - 110%	Vec

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

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.: 964142

Date: March 30, 2007

14201 FRANKLIN AVENUE

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

www.truesdail.com

Collected: March 14, 2007 Received: March 14, 2007

Prep/ Analyzed: March 15, 2007

Analytical Batch: 03TUC07O

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

TLI I.D. Field I.D.

Sample Time **Units** DF RL Results 964142-2 SC-700B-WDR-090 11:31 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
Duplicate	964145-23	0.457		Difference		
	001110-20	0.157	0.155	1.28%	< 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Withir
LCS	7.50	8.00	93.8%	90% - 110%	Vee
LCS	7.53	8.00	94.1%	90% - 110%	Yes
LCS	7.23	8.00	90.4%	90% - 110%	Yes 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



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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.: 964142

Date: March 30, 2007

Collected: March 14, 2007

14201 FRANKLIN AVENUE

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

www.truesdail.com

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

Analytical Batch: 03PH07N

Investigation:

pH by EPA 150.1

Analytical Results pH

TLI I.D. Field I.D. Sample Time Run Time Units MDL RL Results 964142-2 SC-700B-WDR-090 11:31 08:59 pH Units 0.0570 2.00 8.10

QA/QC Summary

GC SID LD.	aboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate 9	964142-2	8.10	8.12	0.02	± 0.100 Units	

QC Std I.D.	Measured Concentration	Theoretical Concentration	Difference (Units)	Acceptance Limits	QC Within
LCS	7.02	7.00	0.02	± 0.100 Units	V
LCS #1	7.00	7.00	0.00	± 0.100 Units	
LCS #2	7.01	7.00			Yes
	7.01	7.00	0.01	± 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.: 964142

Date: March 30, 2007

Collected: March 14, 2007

14201 FRANKLIN AVENUE

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

www.truesdail.com

Received: March 14, 2007

Prep/ Analyzed: March 15, 2007

Analytical Batch: 03EC07L

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.	Field I.D.	<u>Units</u>	Method	DF	RL	Results
964142-2	SC-700B-WDR-090	μ mhos/cm	EPA 120.1	1.00	2.00	7040

QA/QC Summary

QC ST I.D.	0.025	Laborato Number	-	Concentrati	on	Duplica Concentr	2000		ntive Percent Difference		eptance limits	QC Withir Control
Duplica	ate	964027-7		1450		1460			0.69%		≤ 10%	Yes
	QC	Std I.D.		Measured Incentration		heoretical ncentration	Percen Recover		Acceptance Limits	9	QC Withi Control	n
-		ccs		690		706	97.7%	T	90% - 110%	,	Yes	1
-		CVS#1		948		1000	94.8%		90% - 110%	,	Yes	1
		LCS		692		706	98.0%		90% - 110%		Yes	7

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 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.: 964142

Date: March 30, 2007

Collected: March 14, 2007 Received: March 14, 2007

Prep/ Analyzed: March 19, 2007

Analytical Batch: 03TDS07H

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D.	Field I.D.	<u>Units</u>	Method	RL	Results
964142-2	SC-700B-WDR-090	mg/L	EPA 160.1	250	4020

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Percent Difference	Acceptance limits	QC Within Control
Duplicate	964144-1	1740	1710	0.87%	≤ 5%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS 1	494	500	98.8%	90% - 110%	Yes

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

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

roject Name: PG&E Topock Project

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

Prep. Batch: 03TOC07E

Laboratory No.: 964142

Date: March 30, 2007

14201 FRANKLIN AVENUE

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

Collected: March 14, 2007

Received: March 14, 2007

Prep/ Analyzed: March 20, 2007 Analytical Batch: 03TOC07E

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

TLI I.D.	Field I.D.	<u>Units</u>	Method	Run Time	DF	RL	esults
964142-1	SC-100B-WDR-090	mg/L	EPA 415.2	16:06	1.00	0.300	ND

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within
Duplicate	964142-1	ND	ND	0.00%	≤20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
MRCCS	9.68	10.0	96.8%	90% - 110%	Yes
MRCVS#1	10.5	10.0	105%	90% - 110%	Yes
LCS	19.8	20.0	99.0%	90% - 110%	Yes

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

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012

TRUEST

COMPANY

TURNAROUND TIME DATE 3-14-0-7 CHAIN OF CUSTODY RECORD
[IM3Plant-WDR-090]
TURNAROUND

10 Days

	COMPANY	i					-														1].
	PROJECT NAME	7	Torok	X			-		\	\	\	\	\	_	_	\	\	_	<u></u>	\	_	٥	COMMENTS	"
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		=	V. 750	√ 94612	1			\	Da	150 F	11:00	\	15.21	<u></u>	\	\	_	<u> </u>	\	NA	_			
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-	SAMPLE I.D.			DATE	TIME	IE DESCRIPTION		CR6 (27	Specific	Total M.	19L) SOI	0/0/01	Total Og	_	\	_	_		BUNN	ANNBEH		a.		
7 1	SC-100B-WDR	200		3-14-07	///3	3-14-07 11:30 Groundwater	er				-	1	+	+	$oxed{\Box}$		+	\downarrow	V-					
Ź	~ C SC-700B-WDR	- A-C-		3-14-07	11:3	3-14-07 /1:3/ Groundwater	er	×	×	×	×		×	-		1	+	+	7 7		17.	1		

Level III QC

Rec'd (

TOTAL NUMBER OF CONTAINERS

		WARM L	ED YES NO	INTS:	40		
	RECEIVED		CUSTODY SEALED	SPECIAL REQUIREMENTS:		T	1
	Date/ 3-14-07	1	Date/	Time	Date/ Time	Date/	Date/ Time
GNATURE RECORD	Company! Alf Il Com!	Company/ 7/7	Company/	Agency	Company/ Agency	Company/ Agency	Company/ Agency
CHAIN OF CUSTODY SIGNATURE	Printed Name Joe HDE	Printed S	Printed	Name	Name	Printed Name	Printed Name
		7					
	Signature (Relinquished)	Signature/ (Received)	Signature (Relinquished)	Signature	(Received)	Signature (Relinquished)	Signature (Received)

045

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

April 3, 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-091 PROJECT, GROUNDWATER

MONITORING,

TLI No.: 964368

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-091 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 March 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 instrument problems, the samples for Total Chromium analysis were analyzed by method EPA 200.8 rather than EPA 200.7 as requested on the chain of custody.

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

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

Respectfully Submitted, TRUESDAIL LABORATORIES, INC.

Mona Nassimi

Manager, Analytical Services

K. R.P. gozen

K.R.P. Iyer

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.: 964368

Date: April 6, 2007 Collected: March 21, 2007 Received: March 21, 2007

Revision 1

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 415.2	Total Organic Carbon	Hope Trinidad
EPA 200.8	Total Chromium	Mark Kotani
EPA 218.6	Hexavalent Chromium	David Blackburn

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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.: 964368

Date: April 3, 2007

Collected: March 21, 2007 Received: March 21, 2007

Prep/ Analyzed: March 21, 2007 Analytical Batch: 03CrH07Q

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

TLI I.D. Field I.D. Sample Time **Run Time** Units DF RL Results 964368-2 SC-700B-WDR-091 11:15 22:08 mg/L 1.05 0.00020 ND

QA/QC Summary

_				- L	W ~	100	**************************************	MI.	1					
				Concentrati	on				Percent			1	QC Within Control	
Duplic	ate	96	4368-2	ND			ΝD		0.00%		20%	Ι	Yes	
Lab Number	unsp	iked			11		Conc. o	f	Theoretical Conc. of spiked sample			Acc	eptance limits	QC Within Control
964368-2	0.	00	1.06	0.00100	0.0	00106	0.00110		0.00106		104%		90-110%	Yes
	a	C Std	ı.D.	Measured Concentration	1							2000		
		MRC	cs	0.00496		0.00500	99.	2%	90% - 110	0%	Yes			
	I.	IRCV	\$#1	0.0103		0.0100	103	3%	95% - 108	5%	Yes			
	N	ARCV	S#2	0.0104		0.0100	104	1%	95% - 105	5%	Yes			
		LCS	3	0.00494		0.00500	98.	8%	90% - 110)%	Yes	Emisso I		
	QC STE Duplic Lab Number	964368-2 O.	QC STD I.D. Lab No Duplicate 96 Lab Number Conc.of unspiked sample 964368-2 0.00 QC Std MRCC MRCCV MRCCV	QC STD I.D. Laboratory Number Duplicate 964368-2 Lab Conc.of unspiked sample Factor 964368-2 0.00 1.06	QC STD I.D. Laboratory Number Concentration	QC STD I.D. Laboratory Number Concentration	QC STD I.D. Laboratory Concentration Dup Concentration Con	QC STD I.D. Laboratory Number Concentration Duplicate Concentration	QC STD I.D. Laboratory Number Concentration Duplicate Concentration Duplicate Concentration Concentration Duplicate Concentration Conc	Concentration	Concentration	QC STD I.D. Laboratory Number Concentration Duplicate Concentration Relative Percent Concentration Acceptance Ilmits Duplicate 964368-2 ND ND 0.00% ≤ 20% Lab Number Conc. of unspiked sample Dilution Factor Added Spike Conc. MS Conc. of Spiked Spiked Spiked Sample Conc. of Spiked Sample Recovery Sample 964368-2 0.00 1.06 0.00100 0.00106 0.00110 0.00106 104% QC Std I.D. Measured Concentration Theoretical Concentration Percent Recovery Acceptance Limits QC Witt Control MRCCS 0.00496 0.00500 99.2% 90% - 110% Yes MRCVS#1 0.0103 0.0100 104% 95% - 105% Yes MRCVS#2 0.0104 0.0100 104% 95% - 105% Yes	QC STD I.D. Laboratory Number Concentration Duplicate Concentration Relative Percent Concentration Acceptance Ilmits Duplicate 964368-2 ND ND 0.00% ≤ 20% Lab Number Conc. of unspiked sample Dilution Factor Added Spike Conc. MS Conc. of Spiked Spiked Spiked Spiked Spiked Spiked Spiked Sample Recovery Sample 964368-2 0.00 1.06 0.00100 0.00106 0.00110 0.00106 104% QC Std I.D. Measured Concentration Theoretical Concentration Percent Recovery Acceptance Limits QC Within Control MRCVS#1 0.0103 0.00500 99.2% 90% - 110% Yes MRCVS#2 0.0104 0.0100 104% 95% - 105% Yes	QC STD I.D. Laboratory Number Concentration Duplicate Concentration Duplicate Percent Difference Ilmits Control

ND: Below the reporting limit (Not Detected).

LCSD

DF: Dilution Factor.

Respectfully submitted,

90% - 110%

TRUESDAIL LABORATORIES, INC.

Yes

Mona Nassimi, Manager Analytical Services

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0.00500

0.00494

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

Prep. Batch: 032307A

Laboratory No.: 964368

Date: April 3, 2007

Collected: March 21, 2007

Received: March 21, 2007 Prep/ Analyzed: March 23, 2007

Analytical Batch: 032307A

Investigation:

Total Chromium by Inductively Coupled Argon Plasma Mass Spectrometer using

EPA 200.8

Analytical Results Total Chromium

TLI I.D. Field I.D. **Units** Run Time <u>Method</u> DF RL Results 964368-2 SC-700B-WDR-091 mg/L **EPA 200.8** 15:55 1.04 0.0010 ND

QA/QC Summary

						QA	W	<u> </u>	m	mary	_						
	QC STE	ם.ו כ	10000000	umbe		Concentrat	lion	35000	plica entr	ate ration	F	Relative Percent fference		eptance imite		Control	
	Duplic	ale	9	64367		0.642		C	0.695	5		7.93%		≤20%		Yes	
QC Std I.D.	Lab Number	uns	c.of piked nple	Dilut	100	Added Spike Conc.	Aı	MS mount	(leasured Conc. of spiked sample	1	Theoretical Conc. of spiked sample	1	MS% covery	A	cceptance limits	QC Within Control
MS	964367	0.6	42	10	4	0.0500	().520		1.06	I	1.16	Į	30.4%		70-130%	Yes
		٥	C Std	I.D.	0.00	leasured ncentration	400	heoretica ncentrati	77	Percer Recove		Acceptan Limits		QC With Contro			
			MRC	cs		0.0479		0.0500		95.8%		95% - 105	5%	Yes			
		A	/RCV	5#1		0.0465		0.0500		93.0%		90% - 110)%	Yes			
			ICS			0.100		0.100		100%	_	80% - 120)%	Yes			
			LCS	3		0.0464		0.0500		92.8%	6	90% - 110)%	Yes			

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager Analytical Services

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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

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.: 964368

Date: April 3, 2007

Collected: March 21, 2007

Received: March 21, 2007

Prep/ Analyzed: March 22, 2007

Analytical Batch: 03TUC07R

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

TLI LD. 964368-2 Field I.D.

SC-700B-WDR-091

Sample Time

11:15

Units NTU

DF 1.00 RL

Results

0.100

ND

QA/QC Summarv

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Relative Percent Difference	Acceptance limits	QC Within Control
Duplicate	964325-10	ND	ND	0.00%	≤ 20%	Yes

QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within Control
LCS	7.51	8.00	93.9%	90% - 110%	Yes
LCS	7.53	8.00	94.1%	90% - 110%	Yes
LCS	7,56	8.00	94,5%	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



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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.: 348129.IM.02.E2 P.O. No.: 346129.IM.02.E2 Laboratory No.: 964368

Date: April 3, 2007 Collected: March 21, 2007 Received: March 21, 2007 Prep/ Analyzed: March 22, 2007

Analytical Batch: 03PH07T

Investigation:

pH by EPA 150.1

Analytical Results pH

TLI I.D.

Field I.D.

Sample Time

Run Time

<u>Units</u>

MDL

<u>RL</u>

Results

964368-2

SC-700B-WDR-091

11:15

10:05

pH Units

0.0570

2.00

8.02

QA/QC Summary

QC STD I.D.	Laboratory Number	Concentration	Duplicate Concentration	Difference (Units)	Acceptance limits	QC Within Control
Duplicate	964368-2	8.02	8.02	0.00	+ 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	7.01	7.00	0.01	+ 0.100 Units	Yes
LCS#2	7.03	7.00	0.03	+ 0.100 Units	Yes

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

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Established 1931

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.: 964368

Date: April 3, 2007

Collected: March 21, 2007

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

Analytical Batch: 03EC07O

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

TLI I.D.

Field I.D.

Units

Method

DF

RL

Results

SC-700B-WDR-091 964368-2

µmhos/cm

EPA 120.1

1.00

2.00

6370

QA/QC Summary Relative Percent | Acceptance | QC Within Duplicate

I.D.	Number	Concentration	Concentra		Difference	limits	Control
Duplicate	964368-2	6370	6370		0.00%	≤ 10%	Yes
	QC Std I.D.	Measured Concentration	Theoretical Concentration	Percent Recovery	Acceptance Limits	QC Within	
	ccs	684	706	96.9%	90% - 110%	Yes]
	CVS#1	946	1000	94.6%	90% - 110%	Yes	1
	LCS	684	706	96.9%	90% - 110%	Yes	_

Respectfully submitted,

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 Laboratory No.: 964368

Date: April 3, 2007

14201 FRANKLIN AVENUE

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

Collected: March 21, 2007 Received: March 21, 2007

Prep/ Analyzed: March 26, 2007

Analytical Batch: 03TDS07L

Investigation:

Total Dissolved Solids by EPA 160.1

Analytical Results Total Dissolved Solids

TLI I.D. 964368-2 Field I.D.

SC-700B-WDR-091

Units mg/L Method EPA 160.1 <u>RL</u> 139 Results 3890

OA/OC Summary

QC STD I.	D.	Laborator Number	У	Concentration		Duplicate Concentration			ercent ference		eptance imits	QC Within Control
Duplicate		964368-2		3890		389	0		0.00%		≤ 5%	Yes
	QC	Std I.D.	5000	asured centration	3000	eoretical centration	Percen Recove		Accepta Limits		QC Within Control	
h	1	CS 1		495		500	99.0%	,	90% - 11	0%	Yes	

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,

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

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: 03TOC07F

Laboratory No.: 964368

Date: April 3, 2007

Collected: March 21, 2007

Received: March 21, 2007 Prep/ Analyzed: March 28, 2007

Analytical Batch: 03TOC07F

Investigation:

Total Organic Carbon by EPA 415.2

Analytical Results Total Organic Carbon

REPORT

TLI I.D. Field I.D. Units Method Run Time DF RL Results SC-100B-WDR-091 964368-1 mg/L EPA 415.2 10:34 1.00 0.300 ND

QA/QC Summary

QC STD I.	D.	Laborate Numbe	100 - 1	Concentra	tion	Duplica Concentr		P	elative ercent fference		eptance limits	QC Within Control
Duplicate	3	964368	-1	ФИ		ND			0.00%		≤20%	Yes
	Q	C Std I.D,		easured centration		eoretical centration	Perce Recov	1000	Accepta Limit		QC Within	
		MRCCS		9.68		10.0	96.89	%	90% - 11	10%	Yes	1
	M	IRCVS#1		11.0		10.0	1109	6	90% - 11	10%	Yes	7
6		LCS		20.8	(A) (A)	20.0	1049	6	90% - 11	10%	Yes	7

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,

TRUESDAIL LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

36V36P [IM3Plant-WDR-091]

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

TOTAL NUMBER OF CONTAINERS COMMENTS =100 NUMBER OF CONTAINERS $\overline{\mathcal{Q}}$ 4 64368 03/21/07 O Rec'd Turbidity (180.1) Total Organic Carbon (475.2) × × Specific Conductance (1201) mulmonfo lejot (1,006) desem lejot × × CRG (2186) Lab Fill Gred × × Groundwater Groundwater DESCRIPTION FAX (530) 339-3303 TEAM 13:30 置 13:15 3-2/107 3-21-07 155 Grand Ave Ste 1000 DATE Oakland, CA 94612 346129.IM.02.00 (530) 229-3303 PG&E Topock SAMPLERS (SIGNATURE SC-1008-WDR-091 A SC-700B-WDR-091 **E**2 PROJECT NAME P.O. NUMBER SAMPLE I.D. COMPANY **ADDRESS** PHONE

Level

For Sample Conditions See Form Attached

O VO VC	CHAIN OF CUSTODY SIGNATURE RECORD	SNATURE RECOR	Q	SAMPLE CONDITIONS
Signature (Relinquished)	Printed Device Chara	Fompany CHAIMH	Agency & CHAIMHT CANTED Stel 3-21-2 /	RECEIVED COOL WARM
Signature (Mallunger	Printed C. Melector	Company! 72.1	Date! 3/41/04	CUSTODY SEALED YES \(\Bar{\cappa}\) NO \(\Bar{\cappa}\)
Signature	Printed	Company/	Date/	SPECIAL REQUIREMENTS:
(Relinquished)	Name	Agency	Time	
Signature	Printed	Company/	Date/	-
(Received)	Name	Agency	Time	
Signature	Printed	Company/	Date/	
(Relinquished)	Name	Agency	Time	
Signature	Printed	Company/	Date/	
(Received)	Name	Agency	Time	

049



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

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

March 26, 2007

STL LOT NUMBER: E7C080329

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 March 8, 2007. This sample is associated with your PG&E TOPOCK GWM project.

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

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

Preliminary results were sent via facsimile on March 16, 2007.

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

This report contains _______pages.

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

Janual Talainan

Sincerely,

Marisol Tabirara Project Manager

cc: Project File



1 1 3 1 1 1 Severn Trent Laboratories 1721 Grand Ave, Santa Ana, CA 92705 (714)258-8610

CHAIN OF CUSTODY RECORD [IM3Plant-WDR-089]

COC Number

10 Days PAGE 1 TURNAROUND TIME DATE 3-7-07

OF.

COMMENTS NUMBER OF CONTAINERS Mercury (7477A) (66LL) SIEIÐW St 9 WIT (80108) 2/8 9M DESCRIPTION FAX (530) 339-3303 Soil TEAM TIME 3-7-07 155 Grand Ave Ste 1000 DATE PG&E Topock GWM Oakland, CA 94612 346129.IM.02.00 (530) 229-3303 S6-Sludge-WDR-089 SAMPLERS (SIGNATURE E2 PROJECT NAME P.O. NUMBER SAMPLE I.D. COMPANY ADDRESS PHONE

TOTAL NUMBER OF CONTAINERS

to V	CHAIN OF CUSTODY SIGNATURE RECORD	GNATURE RECORD		SAMPLE CONDITIONS
Signature (Relinquished) Any	Printed David Chure	Company/ Agency ONT Chair Hi	(Date/ 3-7-67 (Time /5/30	RECEIVED COOL WARM "F
Signature Un C	Printed Note Kall	Company/ SYZ	Date/ Time	CUSTODY SEALED YES NO
Signature / / / /	Printed ()	Company	10/ 0/ 4 loten	
(Relinquished) (fur Lell	Name Uradila	Agency ST7	Time 7255	SPECIAL REQUIREMENTS:
Signature /	Printed / / / / / /	Company/	Date/ 2/8/07	
(Received)	Name () (7/0/(62/45)	Agency ST	Time /2/5/5	
Signature (Printed	Company/	Date/	
(Relinquished)	Name	Agency	Time	
Signature	Printed	Company/	Date/	
(Received)	Name	Agency	Time	

METHOD / ANALYST SUMMARY

E7C080329

ANALYTI METHOD	CAL	ANALYST		ANALYS'T ID			
MCAWW 1	60.3 MOD	Janice Salenga		403147			
SW846 6	010B	Hao Ton	2	000023			
SW846 7	199	Yuriy Zakhrabov		000022			
SW846 7	471A	Hao Ton		000023			
Referen	ces:						
MCAWW		"Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.					
SW846		or Evaluating Solid Waste, Phy Edition, November 1986 and it		cal			

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-089

TOTAL Metals

Lot-Sample #...: E7C080329-001 Matrix....: SO

Date Sampled...: 03/07/07 13:30 Date Received..: 03/08/07 12:55

% Moisture....: 65

		REPORTING		PREPARATION- WORK
PARAMETER	RESULT	LIMIT UNITS	METHOD	ANALYSIS DATE ORDER #
Prep Batch #				
Arsenic	33	5.7 mg/kg	SW846 6010B	03/09-03/12/07 JQPAV1AA
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
		Instrument ID.,: M01	MS Run #: 706816	57
Antimony	ND G	34 mg/kg	SW846 6010B	03/09-03/12/07 JQPAV1AC
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 706816	57
Barium	67	11 mg/kg	SW846 6010B	03/09-03/12/07 JQPAVIAD
Darram	07	Dilution Factor: 2	Analysis Time: 11:31	
		Instrument ID: M01	MS Run #: 706816	
		institutent ib: Moi	ms Run # /06810	57
Cadmium	ND G	2.8 mg/kg	SW846 6010B	03/09-03/12/07 JOPAV1AE
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
	23	Instrument ID: M01	MS Run #: 706816	57
Chromium	13000	5.7 mg/kg	SW846 6010B	03/09-03/12/07 JOPAVIAF
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 706816	
Beryllium	ND G	2.8 mg/kg	SW846 6010B	03/09-03/12/07 JQPAV1AG
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
		Instrument ID: M01	MS Run # 706816	57
Lead	ND G	2.8 mg/kg	SW846 6010B	03/09-03/12/07 JQPAV1AH
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
		Instrument ID.: M01	MS Run # 706816	57
Selenium	ND G	2.8 mg/kg	GWOAC COLOR	03/00 03/13/07 7077777
serenium	ND G	2.8 mg/kg Dilution Factor: 2	SW846 6010B	03/09-03/12/07 JQPAV1AJ
		Instrument ID: M01	Analysis Time: 11:31 MS Run #: 706816	
Silver	ND G	5.7 mg/kg	SW846 6010B	03/09-03/12/07 JQPAV1AK
		Dilution Factor: 2	Analysis Time: 11:31	Analyst ID: 000023
		Instrument ID: M01	MS Run #: 706816	57

(Continued on next page)

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-089

TOTAL Metals

Lot-Sample #...: E7C080329-001

Matrix..... so

Cobalt ND G 28 mg/kg	PARAMETER	RESULT	REPORTING		PREPARATION- WORK
Dilution Factor: 2			LIMIT UNITS	METHOD	ANALYSIS DATE ORDER #
Copper	CODAIL	ND G			03/09-03/12/07 JQPAV1AL
Copper			Salara Maria Maria Maria Maria Maria Maria Maria Maria Maria Managara	[인사 전에서 2000년 개요 - 1945년 전에 1412년 - 1965년 전에 1	1100 CH 1 CH 1 CH 1 = 10 CH 1 C
Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023			Instrument ID: M01	MS Run #: 706816	7
Dilution Factor: 2 Analysis Time.: 11:31 Analyst ID: 000023	Copper	ND G	14 mg/kg	SW846 6010B	03/09-03/12/07 JQPAVIAM
Molybdenum ND G 23 mg/kg Dilution Factor: 2 Instrument ID: M01 SW846 6010B Analysis Time: 11:31 Analyst ID: 000023 Analysis Time: 7068167 Nickel ND G 23 mg/kg Dilution Factor: 2 Instrument ID: M01 SW846 6010B Analyst ID: 000023 Analyst ID: 000023 Analyst ID: 000023 Analysis Time: 11:31 Analyst ID: 000023 Analysis Time: 7068167 Thallium 9.8 5.7 mg/kg Dilution Factor: 2 Instrument ID: M01 SW846 6010B Analyst ID: 000023 Analyst ID: 000023 Analyst ID: 000023 Analyst ITme: 7068167 Vanadium 73 28 mg/kg Dilution Factor: 2 Instrument ID: M01 SW846 6010B Analyst ITme: 11:31 Analyst ID: 000023 Analyst ID: 000023 Analyst ID: 000023 Analyst ITme: 7068167 Zinc 13 11 mg/kg Dilution Factor: 2 Instrument ID: M01 SW846 6010B Analyst ITme: 11:31 Analyst ID: 000023 Analyst ID: 000023 Analyst ITme: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023			Dilution Factor: 2	Analysis Time: 11:31	
Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023			Instrument ID: M01	MS Run # 706816	
Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023	Molybdenum	ND G	23 mg/kg	SW846 6010B	03/09-03/12/07 JOPAVIAN
Nickel ND G 23 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AP			Dilution Factor: 2	Analysis Time: 11:31	
Nickel ND G 23 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AP Dilution Factor: 2 Instrument ID.: M01 MS Run #: 7068167 Thallium 9.8 5.7 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AQ Analysis Time.: 11:31 Analyst ID: 000023 Analysis Time.: 11:31 Analysis Time.: 11:31 Analyst ID: 000023 Analysis Time.: 11:31 Analysis Time.: 11:31 Analysis Time.: 11:31 Analyst ID: 000023 Analysis Time.: 11:31 Analysis Time.: 11:31 Analysis Time.: 11:31 Analyst ID: 000023 Analysis Time.: 11:31 Analysis Time.: 11:3			Instrument ID: M01	100	
Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023					7)
Dilution Factor: 2 Analysis Time 11:31 Analyst ID 000023	Nickel	ND G	23 mg/kg	SW846 6010B	03/09-03/12/07 JOPAVIAP
Thallium 9.8 5.7 mg/kg Dilution Factor: 2 Instrument ID.: M01 MS Run #: 7068167 NS Run #: 7068167 NS Run #: 7068167 NS Run #: 7068167 Vanadium 73 28 mg/kg Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 Analysis Time: 11:31 Analyst ID: 000023 Analysis Time: 11:31 Analyst ID: 000023 Instrument ID.: M01 MS Run #: 7068167 Zinc 13 11 mg/kg Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 Analysis Time: 11:31 Analyst ID: 000023 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023			Dilution Factor: 2	Analysis Time: 11:31	
Thallium 9.8 5.7 mg/kg SW846 6010B 03/09-03/12/07 JQPAVIAQ Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 Vanadium 73 28 mg/kg SW846 6010B 03/09-03/12/07 JQPAVIAR Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 Instrument ID: M01 MS Run #: 7068167 Zinc 13 11 mg/kg SW846 6010B 03/09-03/12/07 JQPAVIAT Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 Instrument ID: M01 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAVIAU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023			Instrument ID: M01		
Dilution Factor: 2					
Dilution Factor: 2 Analysis Time 11:31 Analyst ID 000023	Thallium	9.8	5.7 mg/kg	SW846 6010B	03/09-03/12/07 JOPAVIAO
Vanadium 73 28 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AR Dilution Factor: 2 Analysis Time.: 11:31 Analyst ID: 000023 Instrument ID.: M01 MS Run #: 7068167 Zinc 13 11 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AT Dilution Factor: 2 Analysis Time.: 11:31 Analyst ID: 000023 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time.: 15:43 Analyst ID: 000023			Dilution Factor: 2	Analysis Time: 11:31	
Dilution Factor: 2 Analysis Time.: 11:31 Analyst ID: 000023 Instrument ID.: M01 MS Run #: 7068167 Zinc 13 11 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AT Dilution Factor: 2 Analysis Time.: 11:31 Analyst ID: 000023 Instrument ID.: M01 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time.: 15:43 Analyst ID: 000023			Instrument ID: M01	MS Run #: 706816	
Dilution Factor: 2	Vanadium	73	28 ma/ka	SW846 6010B	03/09-03/12/07 ΤΟΡΆΤΤΑΡ
Instrument ID.: M01 MS Run #: 7068167 Zinc 13 11 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AT Dilution Factor: 2 Analysis Time.: 11:31 Analyst ID: 000023 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time.: 15:43 Analyst ID: 000023					
Zinc 13 11 mg/kg SW846 6010B 03/09-03/12/07 JQPAV1AT Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023					10 PM F 18 18 19 1 TO 10 CONTROL OF CONTROL
Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023				700 Kdii # 700810	
Dilution Factor: 2 Analysis Time: 11:31 Analyst ID: 000023 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023	Zinc	13	11 mg/kg	SW846 6010B	03/09-03/12/07 .TOPAVIATE
## Instrument ID: M01 MS Run #: 7068167 Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023				20 Control of the Con	
Prep Batch #: 7071342 Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023			Instrument ID: M01		
Mercury ND 0.28 mg/kg SW846 7471A 03/13-03/15/07 JQPAV1AU Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023					
Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023	Prep Batch #.	: 7071342			
Dilution Factor: 1 Analysis Time: 15:43 Analyst ID: 000023	Mercury	ND	0.28 mg/kg	SW846 7471A	03/13-03/15/07 JOPAVIAII
46. C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
SEED DETEN MARKETURE			Instrument ID: M04	Control of the second of the s	
				resten engligte transmissioners villatification	

Results and reporting limits have been adjusted for dry weight.

NOTE(S):

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-089

General Chemistry

Lot-Sample #...: E7C080329-001 Work Order #...: JQPAV Matrix....: SO Date Sampled...: 03/07/07 13:30 Date Received..: 03/08/07 12:55

% Moisture....: 65

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	37	1.1	mg/kg	SW846 7199	03/09/07	7068069
	D	ilution Facto	or: 2	Analysis Time: 12:37	Analyst ID	.: 000022
	Inst		: W18	MS Run #: 706803	18	
Percent Moisture	65	0.10	*	MCAWW 160.3 MOD	03/13-03/14/07	7072332
	D	ilution Facto	or: 1	Analysis Time: 08:00	Analyst ID	.: 4031478
	I	nstrument ID	: W15	MS Run #: 707224	4	

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.