



**Pacific Gas and
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August 15, 2007

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

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

Dear Mr. Perdue:

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

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

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

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

Sincerely,

Curt Russell
Topock Onsite Project Manager

Enclosures:

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

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

July 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

August 15, 2007

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**July 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

August 15, 2007

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



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



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Acronyms and Abbreviations

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

1.0 Introduction

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

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

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

2.0 Sampling Station Locations

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

3.0 Description of Activities

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

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

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

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

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

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

4.0 Groundwater Treatment System Flow Rates

The July 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 5,141,928 gallons of extracted groundwater during July 2007. The IM No. 3 facility also treated approximately 4,335 gallons of water generated from the groundwater monitoring program.

One container of solids (approximately 11 cubic yards) was removed from the IM No. 3 facility during July 2007, and taken to an off site facility for disposal.

Periods of planned and unplanned extraction system down time (that together resulted in 0.4 percent downtime during July 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.

- **July 3, 2007 (unplanned):** The extraction well system was temporarily offline from 11:14 am until 11:19 am to switch to generator power after a Needles power outage. Extraction system downtime was 5 minutes.
- **July 9, 2007 (unplanned):** The extraction well system was temporarily offline from 12:00 pm until 12:05 pm to return operations to Needles power supply from generator power supply. Extraction system downtime was 5 minutes.
- **July 11, 2007 (planned):** The extraction well system was temporarily offline from 8:30 am until 9:00 am to replace an air relief valve on the air compressor storage tank. The repairs were completed with onsite parts. The extraction system downtime was 30 minutes.
- **July 15, 2007 (unplanned):** The extraction well system was temporarily offline from 7:21 pm until 9:02 pm to replace the drive belts on the iron oxidation system air blower and replace a fitting on the seal water distribution system. The repairs were completed with onsite spare parts. The extraction system downtime was 1 hour 41 minutes.
- **July 23, 2007 (unplanned):** The extraction well system was temporarily offline from 9:52 pm until 9:57 pm to switch to generator power after a Needles power outage. Extraction system downtime was 5 minutes.

- **July 24, 2007 (planned):** The extraction well system was temporarily offline from 10:37 am until 10:46 am to switch microfilter module banks and begin clean-in-place procedure for the offline microfilter modules. The extraction system downtime was 9 minutes.
- **July 28, 2007 (unplanned):** The extraction well system was temporarily offline from 8:12 pm until 8:17 pm to return operations to Needles power supply from generator power supply. Extraction system downtime was 5 minutes.
- **July 29, 2007 (unplanned):** The extraction well system was temporarily offline from 5:40 am until 5:45 am to switch to generator power after a Needles power outage. Extraction system downtime was 5 minutes.
- **July 30, 2007 (unplanned):** The extraction well system was temporarily offline from 4:50 pm until 4:55 pm to return operations to Needles power supply from generator power supply. Extraction system downtime was 5 minutes.

5.0 Sampling and Analytical Procedures

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

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

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

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

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

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

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

6.0 Analytical Results

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

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

- The influent was sampled monthly; the sample date was July 2, 2007. Results are presented in Table 3.
- The effluent was sampled weekly; the sample dates were July 2, 11, 18, and 25, 2007. Results are presented in Table 4.
- The reverse osmosis concentrate was sampled monthly; the sample date was July 2, 2007. Results are presented in Table 5.
- The sludge was sampled monthly; the sample date was July 2, 2007. In accordance with the WDRs, sludge is sampled each time it is transported offsite (unless sludge is transported offsite more frequently than monthly, in which case the sampling frequency is monthly). Results are presented in Table 6.
- The sludge is required to have an aquatic bioassay test quarterly; the 3rd Quarter 2007 aquatic bioassay test was performed on a sludge sample collected July 2, 2007. Results are presented in Table 6.

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

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

In addition to the WDR required parameters, three influent samples (collected July 2, 18, and 25, 2007) were analyzed for manganese, and three influent samples (collected July 11, 18, and 25, 2007) were analyzed for total organic carbon (TOC). The additional analyses were completed for IM No. 3 facility treatment process evaluation and overall water chemistry characterization. The concentrations are comparable to historic influent conditions and the laboratory reports are included in Appendix A.

7.0 Conclusions

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

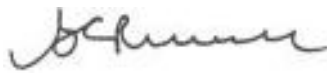
In addition, no incidents of non-compliance were identified during the reporting period, and no events that caused an immediate or potential threat to human health or the environment, or new releases of hazardous waste or hazardous waste constituents, or new solid waste management units, were identified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

8.0 Certification

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

Certification Statement:

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

Signature:  _____

Name: _____ Curt Russell

Company: _____ Pacific Gas and Electric Company

Title: _____ Topock Onsite Project Manager

Date: _____ August 15, 2007

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

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

Note:

= Sequential sample identification number at each sample station.

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

TABLE 2
Flow Monitoring Results
July 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) |
|------------------------------------|---|---|--|
| July 2007 Average Monthly Flowrate | 132.2 | 122.1 | 8.7 |

Notes:

gpm: gallons per minute.

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

^b The difference between influent flow rate and the sum of the effluent and reverse osmosis concentrate flow rates during July 2007 was 1 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 July 2007. Flow meter FIT-702 located on the injection well pipeline was used to record injection well flow measurements for July 2007 due to communication problems with standard effluent flow meters FIT-1202 and FIT-1203 located at the injection wellheads. The injection well flow measurement on July 31, 2007 is based on manual readouts from FIT-702 as the electronic data logging system was being reprogrammed.

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

| Required Sampling Frequency | | Monthly | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---------|-----------|-------------------------|-----------------|----------|------------------------|-----------|-------------------|----------|---------|--------|---------|--------|----------|------|-----------|-------------------------------------|------------|--------|-------------------|-------------------|---------|------|------|
| | Analytes Units ^b MDL | TDS | Turbidity | Specific Conductance | pH ^c | Chromium | Hexavalent Chromium | Aluminium | Ammonia (as N) | Antimony | Arsenic | Barium | Boron | Copper | Fluoride | Lead | Manganese | Manganese ^d Dissolved | Molybdenum | Nickel | Nitrate (as N) | Nitrite (as N) | Sulfate | Iron | Zinc |
| | | mg/L | NTU | µmhos/cm | pHunits | µg/L | µg/L | µg/L | mg/L | µg/L | µg/L | µg/L | mg/L | µg/L | mg/L | µg/L | µg/L | µg/L | µg/L | µg/L | mg/L | mg/L | mg/L | µg/L | µg/L |
| | | 64.0 | 0.0160 | 0.153 | 0.0700 | 0.38 | 1.8 | 4.2 | 0.0090 | 0.67 | 0.60 | 0.48 | 0.00084 | 0.86 | 0.0181 | 0.60 | 0.47 | 1.5 | 0.47 | 1.3 | 0.0168 | 0.0010 | 1.54 | 0.95 | 4.1 |
| Sample ID | Date | | | | | | | | | | | | | | | | | | | | | | | | |
| SC-100B-WDR-106 | 7/2/2007 | 5160 | ND | 8370 | 7.55 J | 1560 | 1530 | ND | ND | ND | ND | ND | 1.60 | ND | 2.82 | ND | 1.4 | ND | 20.7 | ND | 3.11 | 0.0066 | 596 | 38.5 | ND |
| RL | | 250 | 0.100 | 2.00 | 2.00 | 1.0 | 20.0 | 50.0 | 0.500 | 3.0 | 5.0 | 300 | 0.200 | 10.0 | 0.200 | 2.0 | 1.0 | 1.0 | 5.0 | 20.0 | 0.200 | 0.0050 | 25.0 | 20.0 | 20.0 |
| SC-100B-WDR-108 | 7/18/2007 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ND | --- | --- | --- | --- | --- | --- | --- |
| RL | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10.0 | --- | --- | --- | --- | --- | --- | --- |
| SC-100B-WDR-109 | 7/25/2007 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ND | --- | --- | --- | --- | --- | --- | --- |
| RL | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10.0 | --- | --- | --- | --- | --- | --- | --- |

NOTES:

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

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

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

| WDRs Effluent Limits ^b | Ave. Monthly | NA | NA | NA | 6.5-8.4 | 25 | 8 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
|-----------------------------------|---|--------|-----------|----------------------|-----------------|----------|---------------------|-----------|----------------|----------|---------|--------|---------|--------|----------|------|-----------|------------|--------|----------------|----------------|---------|------|------|------|
| | Max Daily | NA | NA | NA | 6.5-8.4 | 50 | 16 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Required Sampling Frequency | | Weekly | | | | | | Monthly | | | | | | | | | | | | | | | | | |
| <div><div></div></div> | Analytes Units ^c MDL ^d | TDS | Turbidity | Specific Conductance | pH ^e | Chromium | Hexavalent Chromium | Aluminium | Ammonia (as N) | Antimony | Arsenic | Barium | Boron | Copper | Fluoride | Lead | Manganese | Molybdenum | Nickel | Nitrate (as N) | Nitrite (as N) | Sulfate | Iron | Zinc | |
| | | mg/L | NTU | µmhos/cm | pHunits | µg/L | µg/L | µg/L | mg/L | µg/L | µg/L | µg/L | µg/L | mg/L | µg/L | mg/L | µg/L | µg/L | µg/L | µg/L | mg/L | mg/L | mg/L | µg/L | µg/L |
| | | 35.6 | 0.0160 | 0.153 | 0.0700 | 0.72 | 0.088 | 4.2 | 0.0090 | 0.67 | 0.60 | 0.48 | 0.00084 | 0.86 | 0.0181 | 0.60 | 0.47 | 0.47 | 1.3 | 0.0168 | 0.0010 | 1.54 | 0.95 | 4.1 | |
| Sample ID | Date | | | | | | | | | | | | | | | | | | | | | | | | |
| SC-700B-WDR-106 | 7/2/2007 | 3980 | ND | 6800 | 8.13 J | ND | ND | ND | ND | ND | ND | ND | 1.40 | ND | 2.18 | ND | 15.3 | 17.5 | ND | 2.60 | ND | 477 | ND | ND | |
| | RL | 139 | 0.100 | 2.00 | 2.00 | 1.0 | 0.20 | 50.0 | 0.500 | 3.0 | 5.0 | 300 | 0.200 | 10.0 | 0.200 | 2.0 | 1.0 | 5.0 | 20.0 | 0.200 | 0.0050 | 25.0 | 20.0 | 20.0 | |
| SC-700B-WDR-107 | 7/11/2007 | 4030 | ND | 6720 | 8.16 J | ND | 1.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| | RL | 139 | 0.100 | 2.00 | 2.00 | 1.0 | 1.0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| SC-700B-WDR-108 | 7/18/2007 | 4060 | ND | 6670 | 8.11 J | ND | ND | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| | RL | 139 | 0.100 | 2.00 | 2.00 | 1.0 | 0.20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| SC-700B-WDR-109 | 7/25/2007 | 3870 | ND | 6720 | 8.08 J | ND | ND | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| | RL | 139 | 0.100 | 2.00 | 2.00 | 1.0 | 0.20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |

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

^a Sampling location for all Effluent Samples is tap on pipe downstream from tank T-700 to injection well IW-2 (see attached P&ID TP-PR-10-10-04)
^b In addition to the listed effluent limits, the WDRs state that the effluent shall not contain heavy metals, chemicals, pesticides or other constituents in concentrations toxic to human health
^c Units reported in this table are those units required in the WDRs
^d MDL listed is the target MDL by analysis method; however, the MDL may change for each sample analysis due to the dilution required by the matrix to meet the method QC requirements. The target MDL for each method/analyte combination is calculated annually.
^e pH results are J flagged because recent EPA requirements for pH analysis have 15-minute holding time.

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

| Required Sampling Frequency | | Monthly | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-----------------|---|-------|----------------------|-----------------|----------|---------------------|----------|---------|---------|-----------|---------|---------|---------|----------|---------|------------|----------|--------|----------|--------|----------|----------|--------|
| <div>Sample ID</div> | <div>Date</div> | <div>Analytes Units ^b MDL</div> | TDS | Specific Conductance | pH ^c | Chromium | Hexavalent Chromium | Antimony | Arsenic | Barium | Beryllium | Cadmium | Cobalt | Copper | Fluoride | Lead | Molybdenum | Mercury | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc |
| | | | mg/L | µmhos/cm | pHunits | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L | mg/L |
| | | | 640 | 0.153 | 0.0700 | 0.00038 | 0.000088 | 0.00067 | 0.00060 | 0.00048 | 0.00036 | 0.00060 | 0.00036 | 0.00086 | 0.0905 | 0.00060 | 0.00047 | 0.000049 | 0.0013 | 0.0032 | 0.0014 | 0.00047 | 0.00043 | 0.0041 |
| SC-701-WDR-106 | 7/2/2007 | | 22400 | 30700 | 7.91 J | 0.0055 | ND | ND | ND | ND | 0.0020 | ND | 0.0055 | ND | 12.1 | ND | 0.0826 | ND | ND | 0.0192 | ND | 0.0010 | ND | 0.0252 |
| RL | | | 2500 | 2.00 | 2.00 | 0.0010 | 0.0010 | 0.0030 | 0.0050 | 0.300 | 0.0010 | 0.0020 | 0.0050 | 0.0100 | 0.500 | 0.0020 | 0.0050 | 0.00020 | 0.0200 | 0.0050 | 0.0050 | 0.0010 | 0.0050 | 0.0200 |

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

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

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

| Required Sampling Frequency | | Monthly ^c | | | | | | | | | | | | | | | | | | | Quarterly ^d | | |
|--|--------------------|----------------------|---------------------|----------|---------|--------|-----------|---------|--------|--------|----------|-------|------------|---------|--------|----------|--------|----------|----------|-------|--------------------------|--------------------------|--------------------------|
| <div><div></div><div></div><div></div></div> | Analytes | Chromium | Hexavalent Chromium | Antimony | 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 |
| | MDL | 0.70 | 0.87 | 2.1 | 2.1 | 0.35 | 0.21 | 0.28 | 0.70 | 1.4 | 0.362 | 0.87 | 1.0 | 0.070 | 1.0 | 1.7 | 0.35 | 3.5 | 0.70 | 3.5 | 100 | 100 | 100 |
| Sample ID | Date | | | | | | | | | | | | | | | | | | | | | | |
| SC-SLUDGE-WDR-106 | 7/2/2007 | 8800 | 130 | ND | 16 J | 100 | ND | ND | ND | 15 | 20.6 | 3.2 J | 21 J | 1.1 | ND | ND | ND | ND | 77 | 53 | 100 | 100 | 100 |
| RL | | 3.5 | 1.7 | 21 | 4.2 | 7.0 | 1.7 | 1.7 | 17 | 8.7 | 2.00 | 1.7 | 14 | 0.35 | 14 | 3.5 | 3.5 | 7.0 | 17 | 7.0 | 100 | 100 | 100 |

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

July 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-106 | Chris Knight | 7/2/2007 | 2:10:00 PM | TLI | EPA 120.1 | SC | 7/3/2007 | Tina Acquiat |
| | | | | | TLI | EPA 180.1 | TRB | 7/3/2007 | Gautam Savani |
| | | | | | TLI | EPA 200.7 | B | 7/12/2007 | Mark Kotani |
| | | | | | TLI | EPA 200.7 | FE | 7/12/2007 | Mark Kotani |
| | | | | | TLI | EPA 200.8 | MN | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | AL | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | AS | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | BA | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | CU | 7/29/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | SB | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | MND | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | MO | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | NI | 7/29/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | PB | 8/1/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | ZN | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | CR | 8/1/2007 | Michel Mendoza |
| | | | | | TLI | EPA 218.6 | CR6 | 7/3/2007 | Jean-Paul Gleeson |
| | | | | | TLI | EPA 300.0 | SO4 | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | EPA 300.0 | NO3N | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | EPA 300.0 | FL | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | EPA 350.2 | NH3N | 7/3/2007 | Iordan Stavrev |
| | | | | | TLI | SM2540C | TDS | 7/5/2007 | Tina Acquiat |
| | | | | | TLI | SM4500-HB | PH | 7/3/2007 | Tina Acquiat |
| | | | | | TLI | SM4500NO2B | NO2N | 7/3/2007 | Tina Acquiat |
| SC-100B | SC-100B-WDR-108 | Joe Aide | 7/18/2007 | 2:10:00 PM | TLI | EPA 200.7 | MND | 7/27/2007 | Mark Kotani |
| SC-100B | SC-100B-WDR-109 | David Chaney | 7/25/2007 | 1:05:00 PM | TLI | EPA 200.7 | MND | 7/31/2007 | Daisy Duyan |
| SC-700B | SC-700B-WDR-106 | Chris Knight | 7/2/2007 | 2:10:00 PM | TLI | EPA 120.1 | SC | 7/3/2007 | Tina Acquiat |
| | | | | | TLI | EPA 180.1 | TRB | 7/3/2007 | Gautam Savani |
| | | | | | TLI | EPA 200.7 | B | 7/12/2007 | Mark Kotani |
| | | | | | TLI | EPA 200.7 | FE | 7/12/2007 | Mark Kotani |
| | | | | | TLI | EPA 200.8 | AS | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | ZN | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | SB | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | PB | 7/24/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | NI | 7/29/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | MO | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | MN | 7/27/2007 | Michel Mendoza |

TABLE 7

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

Monitoring Information

July 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-106 | Chris Knight | 7/2/2007 | 2:10:00 PM | TLI | EPA 200.8 | CU | 7/29/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | AL | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | BA | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | CR | 7/24/2007 | Michel Mendoza |
| | | | | | TLI | EPA 218.6 | CR6 | 7/3/2007 | Jean-Paul Gleeson |
| | | | | | TLI | EPA 300.0 | SO4 | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | EPA 300.0 | FL | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | EPA 300.0 | NO3N | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | SM2540C | TDS | 7/5/2007 | Tina Acquiat |
| | | | | | TLI | SM4500-HB | PH | 7/3/2007 | Tina Acquiat |
| | | | | | TLI | SM4500NH3D | NH3N | 7/3/2007 | Iordan Stavrev |
| | | | | | TLI | SM4500NO2B | NO2N | 7/3/2007 | Tina Acquiat |
| SC-700B | SC-700B-WDR-107 | David Chaney | 7/11/2007 | 10:30:00 AM | TLI | EPA 120.1 | SC | 7/12/2007 | Tina Acquiat |
| | | | | | TLI | EPA 180.1 | TRB | 7/12/2007 | Gautam Savani |
| | | | | | TLI | EPA 200.7 | CR | 7/25/2007 | Mark Kotani |
| | | | | | TLI | EPA 218.6 | CR6 | 7/12/2007 | Jean-Paul Gleeson |
| | | | | | TLI | SM2540C | TDS | 7/12/2007 | Tina Acquiat |
| | | | | | TLI | SM4500-HB | PH | 7/12/2007 | Tina Acquiat |
| SC-700B | SC-700B-WDR-108 | Joe Aide | 7/18/2007 | 2:10:00 PM | TLI | EPA 120.1 | SC | 7/19/2007 | Tina Acquiat |
| | | | | | TLI | EPA 180.1 | TRB | 7/19/2007 | Gautam Savani |
| | | | | | TLI | EPA 200.7 | CR | 7/25/2007 | Mark Kotani |
| | | | | | TLI | EPA 218.6 | CR6 | 7/19/2007 | Jean-Paul Gleeson |
| | | | | | TLI | SM2540C | TDS | 7/20/2007 | Tina Acquiat |
| | | | | | TLI | SM4500-HB | PH | 7/19/2007 | Tina Acquiat |
| SC-700B | SC-700B-WDR-109 | David Chaney | 7/25/2007 | 1:05:00 PM | TLI | EPA 120.1 | SC | 7/26/2007 | Tina Acquiat |
| | | | | | TLI | EPA 180.1 | TRB | 7/26/2007 | Gautam Savani |
| | | | | | TLI | EPA 200.7 | CR | 7/31/2007 | Daisy Duyan |
| | | | | | TLI | EPA 218.6 | CR6 | 7/26/2007 | Jean-Paul Gleeson |
| | | | | | TLI | SM2540C | TDS | 7/26/2007 | Tina Acquiat |
| | | | | | TLI | SM4500-HB | PH | 7/26/2007 | Tina Acquiat |
| SC-701 | SC-701-WDR-106 | Chris Knight | 7/2/2007 | 2:20:00 PM | TLI | EPA 120.1 | SC | 7/3/2007 | Tina Acquiat |
| | | | | | TLI | EPA 200.8 | CU | 7/29/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | ZN | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | AS | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | BA | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | BE | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | CD | 7/27/2007 | Michel Mendoza |

TABLE 7

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

Monitoring Information

July 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-106 | Chris Knight | 7/2/2007 | 2:20:00 PM | TLI | EPA 200.8 | CR | 8/1/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | MO | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | NI | 7/29/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | PB | 7/24/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | SB | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | SE | 7/24/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | TL | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | V | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | CO | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 200.8 | AG | 7/27/2007 | Michel Mendoza |
| | | | | | TLI | EPA 218.6 | CR6 | 7/3/2007 | Jean-Paul Gleeson |
| | | | | | TLI | EPA 245.1 | HG | 7/10/2007 | Connie Chinn |
| | | | | | TLI | EPA 300.0 | FL | 7/3/2007 | Giawad Ghenniwa |
| | | | | | TLI | SM2540C | TDS | 7/5/2007 | Tina Acquiat |
| | | | | | TLI | SM4500-HB | PH | 7/3/2007 | Tina Acquiat |
| Phase Separator | SC-SLUDGE-WDR-106 | Chris Knight | 7/2/2007 | 12:20:00 PM | TLI | EPA 300.0 | FL | 7/3/2007 | Giawad Ghenniwa |
| | | | | | STL | EPA 6010B | PB | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | AG | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | ZN | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | V | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | TL | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | SE | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | SB | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | NI | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | MO | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | CU | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | CR | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | CO | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | CD | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | BE | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | AS | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 6010B | BA | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | EPA 7471A | HG | 7/11/2007 | Josephine Asuncion |
| | | | | | STL | SM2540B | MOIST | 7/10/2007 | Florian Zimmermann |
| | | | | | STL | SW 7199 | CR6 | 7/10/2007 | Yuriy Zakhrabov |

TABLE 7

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

Monitoring Information

July 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 |
|-----------------|-------------------|--------------|-------------|-------------|-----|---|-----------|-------------------------|-----------------------------|
| Phase Separator | SC-Sludge-WDR-106 | Chris Knight | 07/2/2007 | 12:20:00 PM | MBC | 96-Hour Acute Aquatic Toxicity Screening Test | BIO | 7/20//2007 - 07/24/2007 | Chris Lim, Sarah Winterrowd |

NOTES:

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

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

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

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

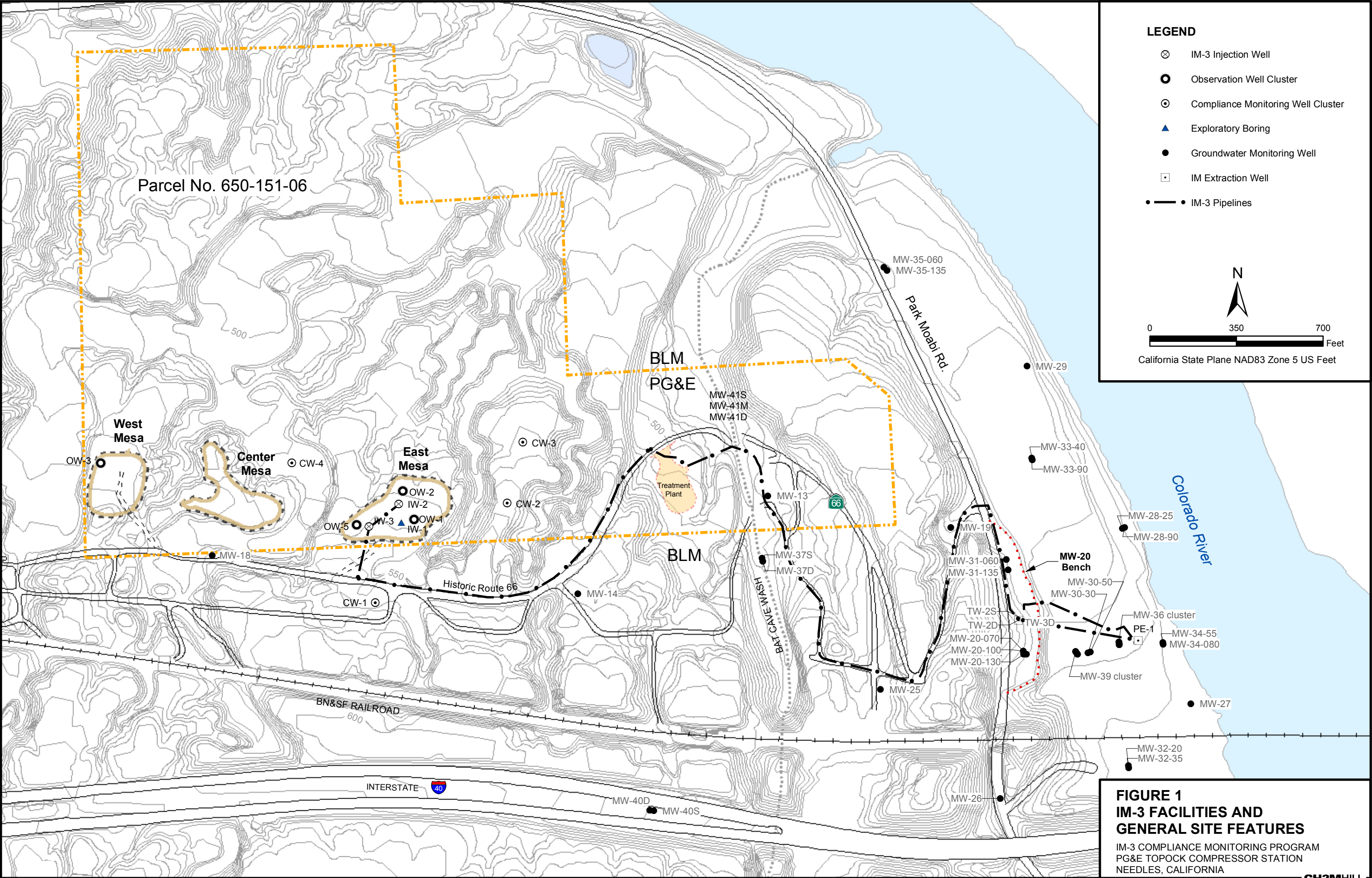
TLI = Truesdail Laboratories, Inc.

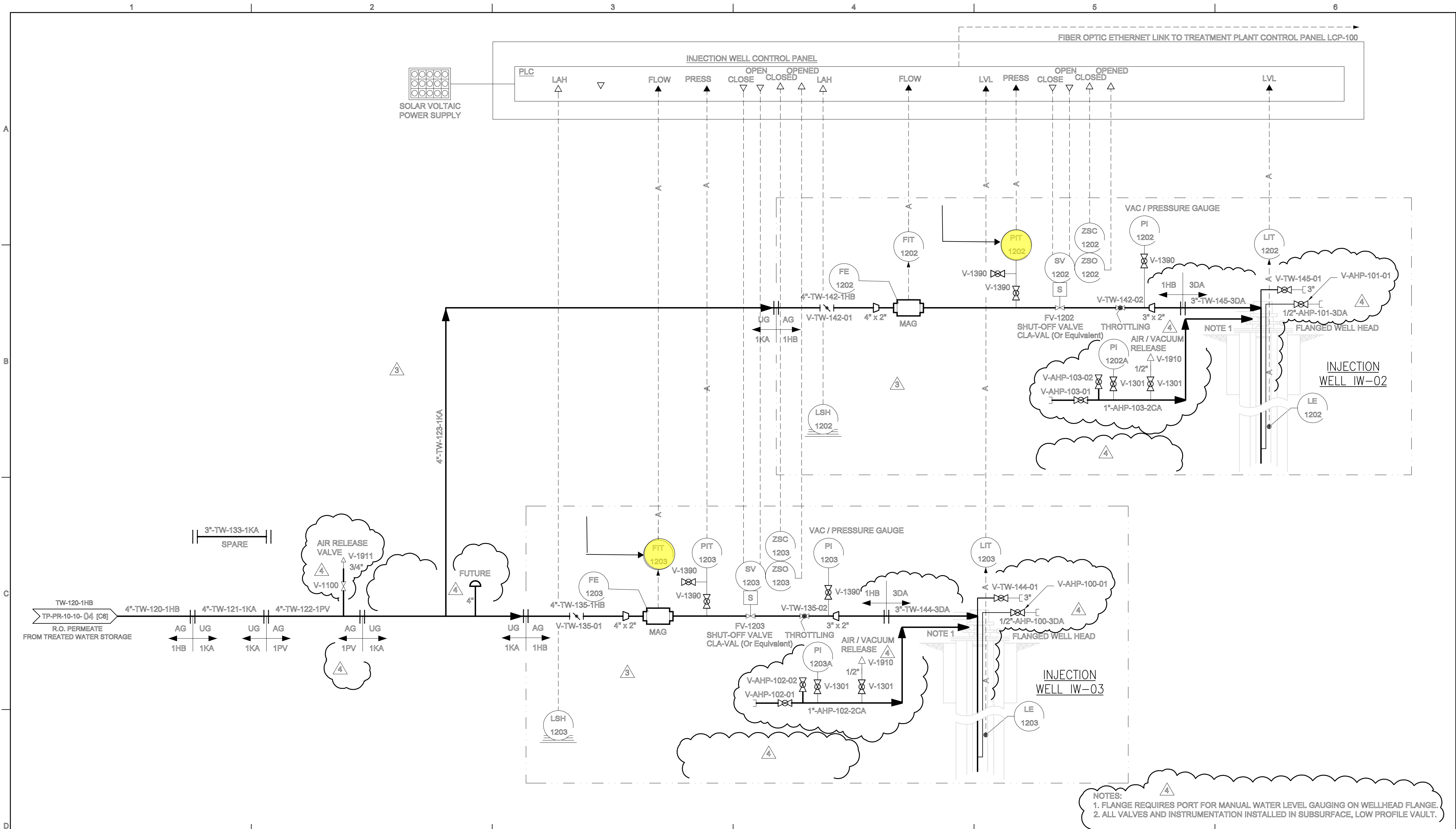
STL = Severn Trent Laboratories, Inc.

MBC = MBC Applied Environmental Sciences

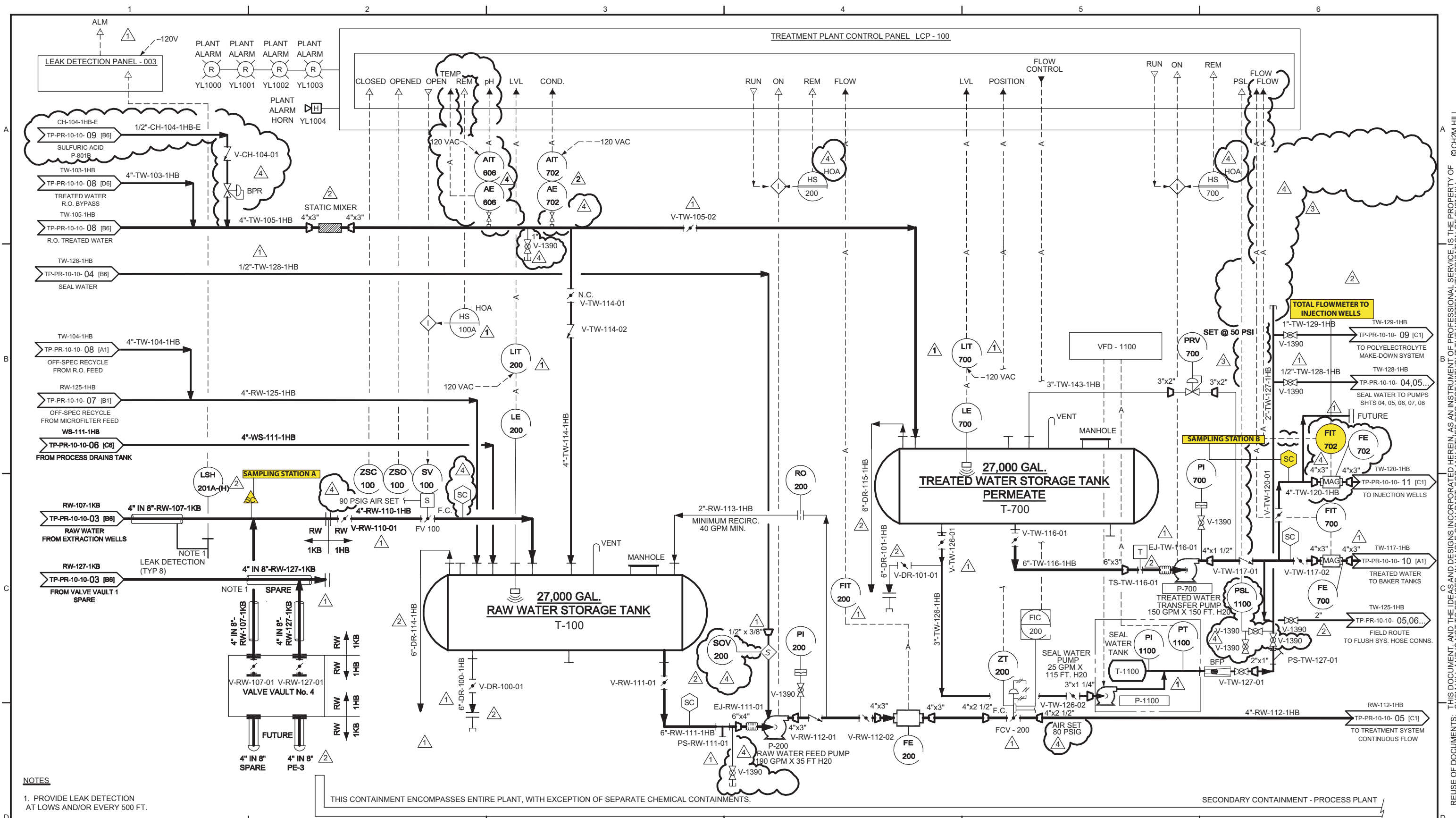
| | |
|------------------------------|-----------------------|
| SC = specific conductance | MO = molybdenum |
| PH = pH | NI = nickel |
| TDS = total dissolved solids | PB = lead |
| TRB = turbidity | HG = mercury |
| CR = chromium | SE = selenium |
| CR6 = hexavalent chromium | TL = thallium |
| FL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

Figures

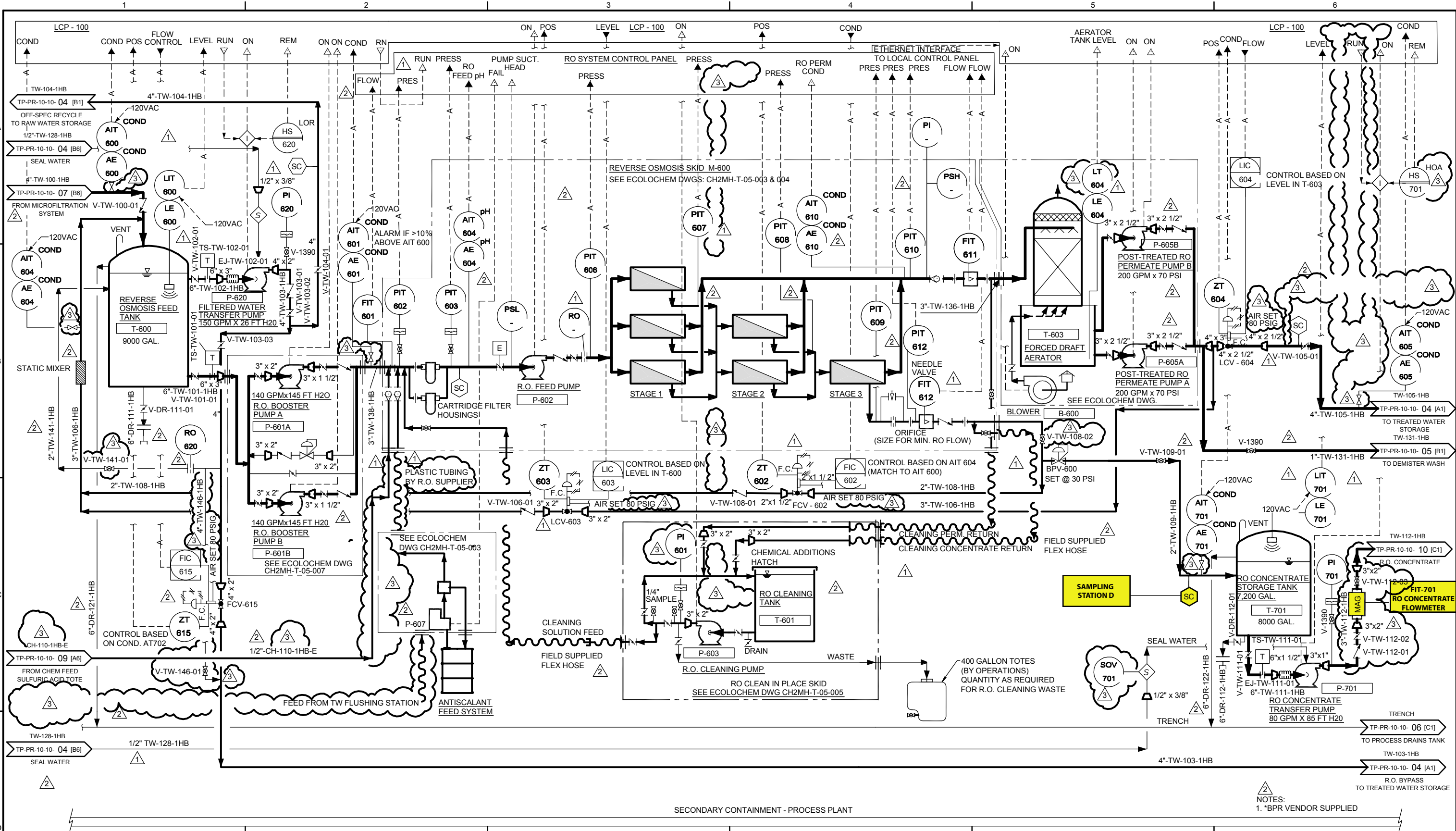




| | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|----------|--|-----|-----|-------------------|----------|----------------|---------------|--------------------|------------|-------------------------------------|-----|----------|-----|----------|--|--|--|-------------------------|--|--------|--|
| RESPONSIBLE ENGINEER: Kenneth L. Martins PE # CH4876 Exp 6-04 | NO. | DATE | REVISION | BY | CHK | REVISION APPROVAL | | REV 4 | DATE 03/10/05 | PRINT DISTRIBUTION | | STATUS | | | | | PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994 | | | | PROCESS AND INSTRUMENTATION DIAGRAM SHEET 11 INJECTION WELLS | | |
| | A | 07/28/04 | FOR INTERNAL REVIEW | EFC | AJ | DISCIPLINE | REVIEWED | DISCIPLINE | REVIEWED | DATE | | ISSUED | REV | DATE | SDE | PEM | | | | | | | |
| | 0 | 09/03/04 | APPROVED FOR CONSTRUCTION | EFC | AJ | CIVIL | | ELECTRICAL | | STATUS | | PRELIMINARY | | | | | | | | | | | |
| | 1 | 10/13/04 | REVISED AND APPROVED FOR CONSTRUCTION | EFC | AJ | STRUCTURAL | | INST & CONTROL | | REV. | | FOR REVIEW AND APPROVAL | A | 07/28/04 | | | | | | | | | |
| | 2 | 01/23/05 | REVISED AND APPROVED FOR CONSTRUCTION | EFC | AJ | MECHANICAL | | ARCHITECTURAL | | CLIENT | | APPROVED FOR CONSTRUCTION | 0 | 09/03/04 | KLM | TP | | | | | | | |
| | 3 | 02/14/05 | REVISED AND APPROVED FOR CONSTRUCTION | EFC | AJ | PROCESS | | ENVIRONMENTAL | | FIELD | | REVISED & APPROVED FOR CONSTRUCTION | 4 | / / | | | | | | | | | |
| | 4 | 03/10/05 | REMOVED HOLD AND APPROVED FOR CONSTRUCTION | EFC | AJ | PIPING | | GEN. ARRANG. | | INTRA CO. | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | SCALE NONE | | | | | CH2MHILL | | | | DWG. NO. TP-PR-10-10-11 | | REV. 4 | |



| NO. | | DATE | REVISION | BY | CHK | REVISION APPROVAL | REV 4 | DATE 09/21/05 | PRINT DISTRIBUTION | STATUS | | | | PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 EXPANDED GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PROJ NO. 315994 | | PROCESS AND INSTRUMENTATION DIAGRAM SHEET 04 STORAGE AREA | |
|-----|----------|------|---|-----|-----|-------------------|----------|----------------|--------------------|-----------|-------------------------------------|-----|----------|--|-----|---|--|
| D | 07/28/04 | | FOR INTERNAL REVIEW | EFC | AJ | DISCIPLINE | REVIEWED | DISCIPLINE | REVIEWED | DATE | ISSUED | REV | DATE | SDE | PEM | DWG. NO. TP-PR-10-10-04 REV. 4 | |
| 0 | 09/03/04 | | APPROVED FOR CONSTRUCTION | EFC | AJ | CIVIL | | ELECTRICAL | | STATUS | PRELIMINARY | | | | | | |
| 1 | 10/13/04 | | REVISED AND APPROVED FOR CONSTRUCTION | EFC | AJ | STRUCTURAL | | INST & CONTROL | | REV. | FOR REVIEW AND APPROVAL | D | 07/28/04 | | | | |
| 2 | 01/23/05 | | REVISED AND APPROVED FOR CONSTRUCTION | EFC | AJ | MECHANICAL | | ARCHITECTURAL | | CLIENT | APPROVED FOR CONSTRUCTION | 0 | 09/03/04 | KLM | TP | | |
| 3 | 02/14/05 | | ADDED RECIRC. LINE AND PRV VALVE TO T-700 - APPROVED FOR CONSTRUCTION | EFC | AJ | PROCESS | | ENVIRONMENTAL | | FIELD | REVISED & APPROVED FOR CONSTRUCTION | 4 | / / | | | | |
| 4 | 09/21/05 | | REVISED PER AS-BUILT CONDITIONS | EFC | AJ | PIPING | | GEN. ARRANG. | | INTRA CO. | | | | | | SCALE NONE | |
| | | | | | | | | | | | | | | CH2MHILL | | | |



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

Appendix A
July 2007 Laboratory Analytical Reports

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

August 3, 2007

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

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

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-106 PROJECT, GROUNDWATER
MONITORING,
TLI NO: 967425

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-106 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Anions, Ammonia, Total Dissolved Solids, Total Organic Carbon, and Title 22 Metals. 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 July 2, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

A result for Total Boron by EPA 200.7 is reported in the matrix spike calculation although it is below the contract required detection limit due to the Boron detected in the samples.

Truesdail Laboratories detection limit for Ammonia by SM 4500-NH3 D, which is reported on the analysis forms, is 0.05 mg/L. The contract required detection limit for Ammonia is 0.5 mg/L. Therefore, Ammonia is reported to a reporting limit of 0.5 mg/L on the final report page.

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

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

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi
Manager, Analytical Services

Ali Khanna
for K.R.P. Iyer
Quality Assurance/Quality Control Officer

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project

Project No.: 348129.IM.02.E2

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6482
www.truesdail.com

Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

ANALYST LIST

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

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EXCELLENCE IN INDEPENDENT TESTING



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155 Grand Ave., Suite 1000
Oakland, CA 94612

Attention: Shawn Duffy

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

Laboratory No.: 967425
Date Received: July 2, 2007

Analytical Results Summary

| Lab I.D. | Sample I.D. | Sample Time | SM 4500-H.B pH | EPA 120.1 EC | SM 2540C TDS | EPA 180.1 Turbidity | EPA 218.6 Hexavalent Chromium | SM 4500-NH3.B Ammonia |
|----------|-------------------|-------------|-------------------|-----------------|-----------------|------------------------|-------------------------------------|--------------------------|
| | | | Units | μ mhos/cm | mg/L | NTU | mg/L | mg/L |
| 967425-1 | SC-100B-WDR-106 | 14:10 | 7.55 | 8370 | 5160 | ND | 1.53 | ND |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 8.13 | 6800 | 3980 | ND | ND | ND |
| 967425-3 | SC-701-WDR-106 | 14:20 | 7.91 | 30700 | 22400 | — | ND | — |
| 967425-4 | SC-Sludge-WDR-106 | 12:20 | — | — | — | — | — | — |

| Lab I.D. | Sample I.D. | Sample Time | EPA 300.0 Fluoride | EPA 300.0 Sulfate | EPA 300.0 Nitrate as N | SM 4500-NO2.B Nitrite as N | EPA 300.0 Fluoride | EPA 200.8 Manganese Dissolved |
|----------|-------------------|-------------|-----------------------|----------------------|---------------------------|-------------------------------|-----------------------|-------------------------------------|
| | | | mg/L | mg/L | mg/L | mg/L | mg/kg | mg/L |
| 967425-1 | SC-100B-WDR-106 | 14:10 | 2.82 | 586 | 3.11 | 0.0066 | — | ND |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 2.18 | 477 | 2.60 | ND | — | — |
| 967425-3 | SC-701-WDR-106 | 14:20 | 12.1 | — | — | — | — | — |
| 967425-4 | SC-Sludge-WDR-106 | 12:20 | — | — | — | — | 20.6 | — |

ND: Non Detected (below reporting limit)
mg/L: Milligrams per liter.

Note: The following "Significant Figures" rule has been applied to all results:
Results below 0.01ppm will have two (2) significant figures.
Result above or equal to 0.01ppm will have three (3) significant figures.
Quality Control data will always have three (3) significant figures.

0051

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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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

Laboratory No.: 967425
Date Received: July 2, 2007
Revision 1

Analytical Results Summary

METALS ANALYSIS: Total Metal Analyses as Requested

| Lab I.D. | Sample ID | Time Coll. | Date of Analysis: | | | | | | | | | | Lead | | | |
|----------|-----------------|------------|-------------------|----------|------------|--------|-----------|---------|----------|----------|--------|--------|--------|--------|--------|--------|
| | | | Aluminum | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Copper | | | | |
| 967425-1 | SC-100B-WDR-106 | 14:10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 967425-2 | SC-700B-WDR-106 | 14:10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 967425-3 | SC-701-WDR-106 | 14:20 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Lab I.D. | Sample ID | Time Coll. | Date of Analysis: | | | | | | | | | | Zinc | | | |
| | | | Manganese | Mercury | Molybdenum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc | Zinc | | | | |
| 967425-1 | SC-100B-WDR-106 | 14:10 | 0.0014 | ND | 0.0207 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 0.0153 | ND | 0.0175 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 967425-3 | SC-701-WDR-106 | 14:20 | ND | ND | 0.0826 | ND | 0.0192 | ND | 0.0010 | ND | 0.0252 | 0.0252 | 0.0252 | 0.0252 | 0.0252 | 0.0252 |

| Lab I.D. | Sample ID | Time Coll. | Date of Analysis: | | Date of Analysis: | |
|----------|-----------------|------------|-------------------|--------|-------------------|--------|
| | | | Boron | Iron | Boron | Iron |
| 967425-1 | SC-100B-WDR-106 | 14:10 | 1.60 | 0.0385 | 1.60 | 0.0385 |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 1.40 | ND | 1.40 | ND |
| 967425-3 | SC-701-WDR-106 | 14:20 | ND | ND | ND | ND |

NOTES:

ND: Not detected, or below limit of detection

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-8239 · FAX (714) 730-6462
www.truesdail.com

Attention: Shawn Duffy

Laboratory No.: 967425

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

Date: August 3, 2007
Collected: July 2, 2007
Received: July 2, 2007
Prep/ Analyzed: July 3, 2007
Analytical Batch: 07PH07B

Investigation:

pH by SM 4500-H B

Analytical Results pH

| TLI I.D. | Field I.D. | Run Time | Units | MDL | RL | Results |
|----------|-----------------|----------|----------|--------|------|---------|
| 967425-1 | SC-100B-WDR-106 | 09:00 | pH Units | 0.0700 | 2.00 | 7.55 |
| 967425-2 | SC-700B-WDR-106 | 09:06 | pH Units | 0.0700 | 2.00 | 8.13 |
| 967425-3 | SC-701-WDR-106 | 09:13 | pH Units | 0.0700 | 2.00 | 7.91 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Difference (Units) | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 967425-3 | 7.91 | 7.92 | 0.01 | + 0.100 Units | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Difference (Units) | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|--------------------|-------------------|-------------------|
| LCS | 7.04 | 7.00 | 0.04 | + 0.100 Units | Yes |
| LCS #1 | 7.05 | 7.00 | 0.05 | + 0.100 Units | Yes |
| LCS #2 | 7.05 | 7.00 | 0.05 | + 0.100 Units | Yes |

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

000

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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155 Grand Ave. Suite 1000
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Attention: Shawn Duffy

REPORT

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www.truesdail.com

Laboratory No.: 967425

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

Date: August 3, 2007
Collected: July 2, 2007
Received: July 2, 2007
Prep/ Analyzed: July 3, 2007
Analytical Batch: 07EC07A

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

| TLI I.D. | Field I.D. | Units | Method | DF | RL | Results |
|----------|-----------------|----------|-----------|------|------|---------|
| 967425-1 | SC-100B-WDR-106 | µmhos/cm | EPA 120.1 | 1.00 | 2.00 | 8370 |
| 967425-2 | SC-700B-WDR-106 | µmhos/cm | EPA 120.1 | 1.00 | 2.00 | 6800 |
| 967425-3 | SC-701-WDR-106 | µmhos/cm | EPA 120.1 | 1.00 | 2.00 | 30700 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967425-3 | 30700 | 30800 | 0.33% | ≤ 10% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| CCS | 696 | 706 | 98.6% | 90% - 110% | Yes |
| CVS#1 | 990 | 999 | 99.1% | 90% - 110% | Yes |
| LCS | 696 | 706 | 98.4% | 90% - 110% | Yes |

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

009

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project

Project No.: 348129.IM.02.E2

P.O. No.: 348129.IM.02.E2

REPORT

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-0239 - FAX (714) 730-6462
www.truesdail.com

Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 5, 2007

Analytical Batch: 07TDS07A

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

| <u>TL I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>RL</u> | <u>Results</u> |
|----------------|-------------------|--------------|---------------|-----------|----------------|
| 967425-1 | SC-100B-WDR-106 | mg/L | SM 2540C | 250 | 5160 |
| 967425-2 | SC-700B-WDR-106 | mg/L | SM 2540C | 139 | 3980 |
| 967425-3 | SC-701-WDR-106 | mg/L | SM 2540C | 2500 | 22400 |

QA/QC Summary

| <u>QC STD I.D.</u> | <u>Laboratory Number</u> | <u>Concentration</u> | <u>Duplicate Concentration</u> | <u>Percent Difference</u> | <u>Acceptance Limits</u> | <u>QC Within Control</u> |
|--------------------|--------------------------|----------------------|--------------------------------|---------------------------|--------------------------|--------------------------|
| Duplicate | 967425-3 | 22400 | 22500 | 0.44% | ≤ 5% | Yes |

| <u>QC Std I.D.</u> | <u>Measured Concentration</u> | <u>Theoretical Concentration</u> | <u>Percent Recovery</u> | <u>Acceptance Limits</u> | <u>QC Within Control</u> |
|--------------------|-------------------------------|----------------------------------|-------------------------|--------------------------|--------------------------|
| LCS 1 | 495 | 500 | 99.0% | 90% - 110% | Yes |
| LCS 2 | 498 | 500 | 99.6% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

010

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

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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
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www.truesdail.com

Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07TUC07A

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Units</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|--------------|-----------|-----------|----------------|
| 967425-1 | SC-100B-WDR-106 | 14:10 | NTU | 1.00 | 0.100 | ND |
| 967425-2 | SC-700B-WDR-106 | 14:10 | NTU | 1.00 | 0.100 | ND |

QA/QC Summary

| <u>QC STD I.D.</u> | <u>Laboratory Number</u> | <u>Concentration</u> | <u>Duplicate Concentration</u> | <u>Relative Percent Difference</u> | <u>Acceptance limits</u> | <u>QC Within Control</u> |
|--------------------|--------------------------|----------------------|--------------------------------|------------------------------------|--------------------------|--------------------------|
| Duplicate | 967413-16 | ND | ND | 0.00% | ≤ 20% | Yes |

| <u>QC Std I.D.</u> | <u>Measured Concentration</u> | <u>Theoretical Concentration</u> | <u>Percent Recovery</u> | <u>Acceptance Limits</u> | <u>QC Within Control</u> |
|--------------------|-------------------------------|----------------------------------|-------------------------|--------------------------|--------------------------|
| LCS | 7.38 | 8.00 | 92.3% | 90% - 110% | Yes |
| LCS | 7.50 | 8.00 | 93.8% | 90% - 110% | Yes |
| LCS | 7.53 | 8.00 | 94.1% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

011

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INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

Attention: Shawn Duffy

Sample: Three (3) Groundwaters + One (1) Soil Sample
Project Name: PG&E Topock Project
Project No.: 348129.IM.02.E2
P.O. No.: 348129.IM.02.E2
Prep. Batch: 07CrH07A

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www.truesdail.com

Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07CrH07A

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 |
|----------|-----------------|-------------|----------|-------|------|---------|---------|
| 967425-1 | SC-100B-WDR-106 | 14:10 | 06:27 | mg/L | 100 | 0.0200 | 1.53 |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 06:36 | mg/L | 1.06 | 0.00020 | ND |
| 967425-3 | SC-701-WDR-106 | 14:20 | 07:34 | mg/L | 5.00 | 0.0010 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Sample Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|----------------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967425-1 | 1.53 | 1.54 | 0.65% | < 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 | 967425-1 | 1.53 | 100 | 0.0150 | 1.50 | 3.06 | 3.03 | 102% | 90-110% | Yes |
| MS | 967425-2 | 0.00 | 1.06 | 0.00100 | 0.00106 | 0.00110 | 0.00106 | 104% | 90-110% | Yes |
| MS | 967425-3 | 0.00 | 1.06 | 0.00100 | 0.00106 | 0.00 | 0.00106 | 0.00% | 90-110% | No |
| MS | 967425-3 | 0.00 | 5.00 | 0.00100 | 0.00300 | 0.00490 | 0.00500 | 98.0% | 90-110% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.00516 | 0.00500 | 103% | 90% - 110% | Yes |
| MRCVS#1 | 0.0102 | 0.0100 | 102% | 95% - 105% | Yes |
| LCS | 0.00518 | 0.00500 | 103% | 90% - 110% | Yes |
| LCSD | 0.00513 | 0.00500 | 103% | 90% - 110% | Yes |

ND: below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
Per Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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

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TUSTIN, CALIFORNIA 92780-7008
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Laboratory No.: 987425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07NH3-E07A

Investigation:

Ammonia as N by Method SM 4500-NH3 D

Analytical Results Ammonia as N

| TLI I.D. | Field I.D. | Sample Time | Method | Units | DF | RL | Results |
|----------|-----------------|-------------|---------------|-------|------|-------|---------|
| 987425-1 | SC-100B-WDR-106 | 14:10 | SM 4500-NH3 D | mg/L | 1.00 | 0.500 | ND |
| 987425-2 | SC-700B-WDR-106 | 14:10 | SM 4500-NH3 D | mg/L | 1.00 | 0.500 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 987340-1 | ND | ND | 0.00% | ≤ 20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance Limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 987340-1 | 0.00 | 1.00 | 6.00 | 6.00 | 6.63 | 6.00 | 111% | 75-125% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| LCS | 10.9 | 10.0 | 109% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

013

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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: 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.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07AN07A

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 |
|----------|-------------------|-------------|----------|-------|------|-------|---------|
| 967425-1 | SC-100B-WDR-106 | 14:10 | 10:54 | mg/L | 1.00 | 0.200 | 2.82 |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 11:17 | mg/L | 1.00 | 0.200 | 2.18 |
| 967425-3 | SC-701-WDR-106 | 14:20 | 10:32 | mg/L | 5.00 | 0.500 | 12.1 |
| 967425-4 | SC-Sludge-WDR-106 | 12:20 | 10:43 | mg/kg | 20.0 | 2.00 | 20.6 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967425-2 | 2.18 | 2.18 | 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 | 967425-2 | 2.18 | 1.00 | 4.00 | 4.00 | 5.93 | 6.18 | 93.8% | 75-125% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCSS | 4.17 | 4.00 | 104% | 90% - 110% | Yes |
| MRCVS#1 | 3.13 | 3.00 | 104% | 90% - 110% | Yes |
| MRCVS#2 | 3.14 | 3.00 | 105% | 90% - 110% | Yes |
| MRCVS#3 | 3.14 | 3.00 | 105% | 90% - 110% | Yes |
| LCS | 4.18 | 4.00 | 104% | 90% - 110% | Yes |
| LCSD | 4.19 | 4.00 | 105% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon

014

for Mona Nassimi, Manager
Analytical Services

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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

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

Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07AN07A

Investigation:

Sulfate by Method EPA 300.0

Analytical Results Sulfate

| TLI I.D. | Field I.D. | Sample Time | Run Time | Units | DF | RL | Results |
|----------|-----------------|-------------|----------|-------|------|------|---------|
| 967425-1 | SC-100B-WDR-106 | 14:10 | 11:40 | mg/L | 50.0 | 25.0 | 596 |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 11:52 | mg/L | 50.0 | 25.0 | 477 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967425-2 | 477 | 477 | 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 | 967425-2 | 477 | 50.0 | 20.0 | 1000 | 1490 | 1477 | 101% | 85-115% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCOS | 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 | 19.9 | 20.0 | 99.5% | 90% - 110% | Yes |
| LCSD | 20.1 | 20.0 | 101% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon
for Mona Nassimi, Manager
Analytical Services

015

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

Attention: Shawn Duffy

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

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TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07AN07A

Investigation: Nitrate as N by Ion Chromatography using EPA 300.0

Analytical Results Nitrate as N

| TLI I.D. | Field I.D. | Sample Time | Run Time | Units | DF | RL | Results |
|----------|-----------------|-------------|----------|-------|------|-------|---------|
| 967425-1 | SC-100B-WDR-106 | 14:10 | 10:54 | mg/L | 1.00 | 0.200 | 3.11 |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 11:17 | mg/L | 1.00 | 0.200 | 2.60 |

QA/QC Summary

| QC STD I.D. | | Laboratory Number | | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control | |
|-------------|--|-------------------|--|---------------|-------------------------|-----------------------------|-------------------|-------------------|--|
| Duplicate | | 967425-2 | | 2.60 | 2.60 | 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 | 967425-2 | 2.60 | 1.00 | 4.00 | 4.00 | 6.60 | 6.60 | 97.5% | 75-125% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 4.03 | 4.00 | 101% | 90% - 110% | Yes |
| MRCVS#1 | 3.01 | 3.00 | 100% | 90% - 110% | Yes |
| MRCVS#2 | 3.01 | 3.00 | 100% | 90% - 110% | Yes |
| LCS | 4.02 | 4.00 | 101% | 90% - 110% | Yes |
| LCSD | 4.05 | 4.00 | 101% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seam Condon
for Mona Nassimi, Manager
Analytical Services

016

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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

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TUSTIN, CALIFORNIA 92780-7008
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Laboratory No.: 967425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 3, 2007

Analytical Batch: 07NO207A

Investigation:

Nitrite as N by Method SM 4500-NO2-B

Analytical Results for Nitrite as N

| TLI I.D. | Field I.D. | Sample Time | Run Time | Units | DF | RL | Results |
|----------|-----------------|-------------|----------|-------|------|--------|---------|
| 967425-1 | SC-100B-WDR-106 | 14:10 | 10:55 | mg/L | 1.00 | 0.0050 | 0.0066 |
| 967425-2 | SC-700B-WDR-106 | 14:10 | 10:58 | mg/L | 1.00 | 0.0050 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967425-2 | ND | ND | 0.00% | < 20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 967425-2 | 0.00 | 1.00 | 0.0200 | 0.0200 | 0.0212 | 0.0200 | 106% | 75-125% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MROCS | 0.0225 | 0.0210 | 107% | 90% - 110% | Yes |
| MRCVS#1 | 0.0189 | 0.0200 | 94.5% | 90% - 110% | Yes |
| LCS | 0.0276 | 0.0270 | 102% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Sean Condon

for Mona Nassimi, Manager
Analytical Services

017

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

Attention: Shawn Duffy

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

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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

Prep. Batch: 072707A

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
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Laboratory No.: 987425

Date: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Prep/ Analyzed: July 27, 2007

Analytical Batch: 072707A

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

Analytical Results Total Dissolved Manganese

| TLI I.D. | Field I.D. | Sample Time | Run Time | Units | DF | RL | Results |
|----------|-----------------|-------------|----------|-------|------|--------|---------|
| 967426-1 | SC-100B-WDR-106 | 14:10 | 13:17 | mg/L | 5.00 | 0.0010 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Sample Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|----------------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 987426-1 | 0.0188 | 0.0186 | 12.43% | < 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 | 987426-1 | 0.0188 | 5.00 | 0.0500 | 0.250 | 0.273 | 0.269 | 102% | 70-130% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.0496 | 0.0500 | 99.2% | 95% - 105% | Yes |
| MRCVS#1 | 0.0492 | 0.0500 | 98.4% | 90% - 110% | Yes |
| MRCVS#2 | 0.0477 | 0.0500 | 95.4% | 90% - 110% | Yes |
| ICS | 0.0422 | 0.0500 | 84.4% | 80% - 120% | Yes |
| LCS | 0.0498 | 0.0500 | 99.2% | 90% - 110% | Yes |

ND: below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Shawn Condon
for Mona Nassimi, Manager
Analytical Services

018

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

REPORT

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

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

Attention: Shawn Duffy

Laboratory No.: 967425

Reported: August 7, 2007

Collected: July 2, 2007

Received: July 2, 2007

Analyzed: July 10 - August 1, 2007

Revision 1

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

Investigation: Total Metal Analyses as Requested

Analytical Results

| SAMPLE ID: SC-100B-WDR-106 | | Time Collected: 14:10 | | LAB ID: 967425-1 | | | | |
|----------------------------|-----------|-----------------------|------|------------------|--------|---------|----------|----------|
| Parameter | Method | Reported | | Units | RL | Batch | Date | Time |
| | | Value | DF | | | | Analyzed | Analyzed |
| Aluminum | EPA 200.8 | ND | 5.00 | mg/L | 0.0500 | 072707A | 07/27/07 | 12:59 |
| Antimony | EPA 200.8 | ND | 5.00 | mg/L | 0.0030 | 072707A | 07/27/07 | 12:59 |
| Arsenic | EPA 200.8 | ND | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 12:59 |
| Barium | EPA 200.8 | ND | 5.00 | mg/L | 0.300 | 072707A | 07/27/07 | 12:59 |
| Chromium | EPA 200.8 | 1.56 | 5.00 | mg/L | 0.0010 | 080107A | 08/01/07 | 10:28 |
| Copper | EPA 200.8 | ND | 5.00 | mg/L | 0.0100 | 072907A | 07/29/07 | 19:19 |
| Lead | EPA 200.8 | ND | 5.00 | mg/L | 0.0020 | 080107A | 08/01/07 | 10:28 |
| Manganese | EPA 200.8 | 0.0014 | 5.00 | mg/L | 0.0010 | 072707A | 07/27/07 | 12:59 |
| Molybdenum | EPA 200.8 | 0.0207 | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 12:59 |
| Nickel | EPA 200.8 | ND | 5.00 | mg/L | 0.0200 | 072907A | 07/29/07 | 19:19 |
| Zinc | EPA 200.8 | ND | 5.00 | mg/L | 0.0200 | 072707A | 07/27/07 | 12:59 |
| Boron | EPA 200.7 | 1.60 | 1.00 | mg/L | 0.200 | 071207A | 07/12/07 | 13:40 |
| Iron | EPA 200.7 | 0.0385 | 1.00 | mg/L | 0.0200 | 071207A | 07/12/07 | 13:40 |

| SAMPLE ID: SC-700B-WDR-106 | | Time Collected: 14:10 | | LAB ID: 967425-2 | | | | |
|----------------------------|-----------|-----------------------|------|------------------|--------|---------|----------|----------|
| Parameter | Method | Reported | | Units | RL | Batch | Date | Time |
| | | Value | DF | | | | Analyzed | Analyzed |
| Aluminum | EPA 200.8 | ND | 5.00 | mg/L | 0.0500 | 072707A | 07/27/07 | 13:05 |
| Antimony | EPA 200.8 | ND | 5.00 | mg/L | 0.0030 | 072707A | 07/27/07 | 13:05 |
| Arsenic | EPA 200.8 | ND | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:05 |
| Barium | EPA 200.8 | ND | 5.00 | mg/L | 0.300 | 072707A | 07/27/07 | 13:05 |
| Chromium | EPA 200.8 | ND | 5.00 | mg/L | 0.0010 | 072407A | 07/24/07 | 15:04 |
| Copper | EPA 200.8 | ND | 5.00 | mg/L | 0.0100 | 072907A | 07/29/07 | 19:25 |
| Lead | EPA 200.8 | ND | 5.00 | mg/L | 0.0020 | 072407A | 07/24/07 | 15:04 |
| Manganese | EPA 200.8 | 0.0153 | 5.00 | mg/L | 0.0010 | 072707A | 07/27/07 | 13:05 |
| Molybdenum | EPA 200.8 | 0.0175 | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:05 |
| Nickel | EPA 200.8 | ND | 5.00 | mg/L | 0.0200 | 072907A | 07/29/07 | 19:25 |
| Zinc | EPA 200.8 | ND | 5.00 | mg/L | 0.0200 | 072707A | 07/27/07 | 13:05 |
| Boron | EPA 200.7 | 1.40 | 1.00 | mg/L | 0.200 | 071207A | 07/12/07 | 13:44 |
| Iron | EPA 200.7 | ND | 1.00 | mg/L | 0.0200 | 071207A | 07/12/07 | 13:44 |

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TRUESDAIL LABORATORIES, INC.

Report Continued

| SAMPLE ID: SC-701-WDR-106 | | Time Collected: 14:20 | | LAB ID: 967425-3 | | | | |
|---------------------------|-----------|-----------------------|------|------------------|---------|----------|----------|----------|
| Parameter | Method | Reported | DF | Units | RL | Batch | Date | Time |
| | | Value | | | | | Analyzed | Analyzed |
| Antimony | EPA 200.8 | ND | 5.00 | mg/L | 0.0030 | 072707A | 07/27/07 | 13:11 |
| Arsenic | EPA 200.8 | ND | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:11 |
| Barium | EPA 200.8 | ND | 5.00 | mg/L | 0.300 | 072707A | 07/27/07 | 13:11 |
| Beryllium | EPA 200.8 | 0.0020 | 5.00 | mg/L | 0.0010 | 072707A | 07/27/07 | 13:11 |
| Cadmium | EPA 200.8 | ND | 5.00 | mg/L | 0.0020 | 072707A | 07/27/07 | 13:11 |
| Chromium | EPA 200.8 | 0.0055 | 5.00 | mg/L | 0.0010 | 072407A | 07/24/07 | 10:37 |
| Cobalt | EPA 200.8 | 0.0056 | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:11 |
| Copper | EPA 200.8 | ND | 5.00 | mg/L | 0.0100 | 072907A | 07/29/07 | 19:31 |
| Lead | EPA 200.8 | ND | 5.00 | mg/L | 0.0020 | 072407A | 07/24/07 | 15:10 |
| Mercury | EPA 245.1 | ND | 1.00 | mg/L | 0.00020 | 07HG07Aa | 07/10/07 | 03:47 |
| Molybdenum | EPA 200.8 | 0.0826 | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:11 |
| Nickel | EPA 200.8 | ND | 5.00 | mg/L | 0.0200 | 072907A | 07/29/07 | 19:31 |
| Selenium | EPA 200.8 | 0.0192 | 5.00 | mg/L | 0.0050 | 072407A | 07/24/07 | 15:10 |
| Silver | EPA 200.8 | ND | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:11 |
| Thallium | EPA 200.8 | 0.0010 | 5.00 | mg/L | 0.0010 | 072707A | 07/27/07 | 13:11 |
| Vanadium | EPA 200.8 | ND | 5.00 | mg/L | 0.0050 | 072707A | 07/27/07 | 13:11 |
| Zinc | EPA 200.8 | 0.0252 | 5.00 | mg/L | 0.0200 | 072707A | 07/27/07 | 13:11 |

ND: Not detected, or below limit of detection.

DF: Dilution factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Seon Condon
for Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



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

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

Laboratory No.: 967425

Reported: August 3, 2007

Collected: July 2, 2007

Received: July 2, 2007

Quality Control/Quality Assurance Report

| DIGESTED BLANK | | | | IPC | | | | LFB | | | |
|-------------------|-----------|-----------|---------|-----------|---------|----------------|------------|---------------|---------------------|----------------|----------------------------|
| Parameter | Method | Batch | Units | LRB | RL | Observed Value | TRUE Value | % Rec | Control Limits | Observed Value | TRUE Value |
| Mercury | EPA 245.1 | 07HG07Aa | mg/L | ND | 0.00020 | 0.00049 | 0.00050 | 98.0% | 95-105% | 0.00047 | 0.00050 |
| SAMPLE DUPLICATES | | | | | | | | | | | |
| Parameter | Method | Units | LCS | Ther. | % Rec. | Control Limits | SAMPLE ID | SAMPLE RESULT | DUP RESULT | % RPD | Precision Control Limits % |
| Mercury | EPA 245.1 | mg/L | 0.00049 | 0.00050 | 98.0% | 90-110% | 967428-1 | ND | ND | 0.00% | <20 |
| MATRIX SPIKE | | | | | | | | | | | |
| Sample ID | Parameter | Method | Units | Method | Units | Sample Result | DF | Spike Level | Total Amt. of Spike | Theo. Value | MS Obs. |
| 967428-1 | Mercury | EPA 245.1 | mg/L | EPA 245.1 | mg/L | 0.00 | 1.00 | 0.00050 | 0.00050 | 0.00048 | 0.00048 |
| | | | | | | | | | | % Rec. | Accuracy Control Limits % |
| | | | | | | | | | | 96.0% | 75-125% |

021

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

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

CHAIN OF CUSTODY RECORD

IM3 Plant-WDR-106

COC Number

TURNAROUND TIME 10 Days

DATE 7-2-07 PAGE 1 OF 1

COMPANY E2
PROJECT NAME PG&E Topock
PHONE (530) 229-3303 FAX (530) 339-3303
ADDRESS 155 Grand Ave Ste 1000
Oakland, CA 94612
P.O. NUMBER 346129 IM.02.00 TEAM 1
SAMPLERS (SIGNATURE)

Rec'd 07/02/07

Lab.# 967425

| COMPANY | PROJECT NAME | PHONE | ADDRESS | P.O. NUMBER | SAMPLERS (SIGNATURE) | SAMPLE I.D. | DATE | TIME | DESCRIPTION | CR6 (218.6) Lab Filtered | Amions (300.0) FI | Total Metals (200.7) Take 22 | Al, As, Ba, B, Cr, Cu, Pb, Mn, Ni, Sb, Fe, Zn | Specific Conductance (120.1) | pH (150.1) | TDS (160.1) | Amions (300) FI | Amions (300) FI, SO4, NO2, NO3 | Ammonia (350.2) | Turbidity (180.1) | Bioassay 96hr acute | NUMBER OF CONTAINERS | COMMENTS |
|---------|--------------|----------------|---|-----------------|----------------------|-------------------|--------|------|-------------|--------------------------|-------------------|------------------------------|---|------------------------------|------------|-------------|-----------------|--------------------------------|-----------------|-------------------|---------------------|----------------------|----------|
| E2 | PG&E Topack | (530) 229-3303 | 155 Grand Ave Ste 1000 Oakland, CA 94612 | 346129.1M.02.00 | | SC-100B-WDR-106 | 7-2-07 | 1410 | Groundwater | x | | | | x | x | x | x | x | x | x | x | 5 | PH-2 |
| | | | | | | SC-700B-WDR-106 | 7-2-07 | 1410 | Groundwater | x | | | | x | x | x | x | x | x | x | x | 4 | PH-2 |
| | | | | | | SC-701-WDR-106 | 7-2-07 | 1420 | Groundwater | x | | x | | x | x | x | x | | | | | 3 | PH-2 |
| | | | | | | SC-Sludge-WDR-106 | 7-2-07 | 1420 | Soil | x | x | | | | | | | | | | x | 3 | 100- |

TOTAL NUMBER OF CONTAINERS

For Sample Condition
See Form Attached

ALERT!!

Level III QC

CHAIN OF CUSTODY SIGNATURE RECORD

| | | | |
|--------------------------|--------------|-----------------|------------|
| Signature (Relinquished) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Received) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Relinquished) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Received) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Relinquished) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Received) | Printed Name | Company/ Agency | Date/ Time |

SAMPLE CONDITIONS

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

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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14201 FRANKLIN AVENUE
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www.truesdail.com

August 2, 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-107 PROJECT, GROUNDWATER
MONITORING,

TLI NO.: 967706

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-107 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 July 11, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

The chain of custody indicated that Total Organic Carbon was to be analyzed for sample SC-700B-WDR-107 while the containers for Total Organic Carbon analysis indicated they were for sample SC-100B-WDR-107. Mr. Shawn Duffy confirmed that the samples were for SC-100B-WDR-107 and the results are reported accordingly.

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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Attention: Shawn Duffy

Sample: Two (2) Groundwater Samples

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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(714) 730-6239 · FAX (714) 730-6462
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Laboratory No.: 967706

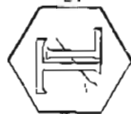
Date: August 2, 2007

Collected: July 11, 2007

Received: July 11, 2007

ANALYST LIST

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



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

Laboratory No.: 967706
Date Received: July 11, 2007

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

Analytical Results Summary

| <u>Lab I.D.</u> | <u>Sample I.D.</u> | <u>Sample Time</u> | <u>EPA 200.7</u> <u>Chromium</u> <u>Total</u> <u>mg/L</u> | <u>EPA 218.6</u> <u>Chromium</u> <u>Hexavalent</u> <u>mg/L</u> | <u>EPA 180.1</u> <u>Turbidity</u> <u>NTU</u> | <u>SM 4500-H B</u> <u>pH</u> <u>Unit</u> | <u>EPA 120.1</u> <u>EC</u> <u>µmhos/cm</u> | <u>SM 2540C</u> <u>TDS</u> <u>mg/L</u> | <u>SM 5310C</u> <u>TOC</u> <u>mg/L</u> |
|-----------------|--------------------|--------------------|--|---|--|--|--|--|--|
| 967706-1 | SC-700B-WDR-107 | 10:30 | ND | 0.0014 | ND | 8.16 | 6720 | 4030 | --- |
| 967706-2 | SC-100B-WDR-107 | 10:45 | --- | --- | --- | --- | --- | --- | 0.869 |

ND: Non Detected (below reporting limit)

Note: The following "Significant Figures" rule has been applied to all results:
Results below 0.01 will have two (2) significant figures.
Result above or equal to 0.01 will have three (3) significant figures.
Quality Control data will always have three (3) significant figures.

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

Attention: Shawn Duffy

Laboratory No.: 967706

Sample: Two (2) Groundwater Samples

Date: August 2, 2007

Project Name: PG&E Topock Project

Collected: July 11, 2007

Project No.: 346129.IM.02.E2

Received: July 11, 2007

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

Prep/ Analyzed: July 25, 2007

Prep. Batch: 072507A

Analytical Batch: 072507A

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 |
|----------|-----------------|-------|-----------|----------|------|--------|---------|
| 967706-1 | SC-700B-WDR-107 | mg/L | EPA 200.7 | 11:01 | 1.00 | 0.0010 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967706-1 | ND | ND | 0.00% | ≤20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 967706-1 | 0.00 | 1.00 | 0.0500 | 0.0500 | 0.0444 | 0.0500 | 88.8% | 70-130% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.0502 | 0.0500 | 100% | 90% - 110% | Yes |
| MRCVS#1 | 0.0479 | 0.0500 | 95.8% | 90% - 110% | Yes |
| ICS | 0.0523 | 0.0500 | 105% | 80% - 120% | Yes |
| LCS | 0.0475 | 0.0500 | 95.0% | 90% - 110% | Yes |

ND: Not detected at reporting limit

DF: Dilution Factor

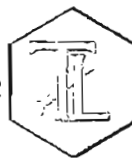
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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REPORT

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www.truesdail.com

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

Attention: Shawn Duffy

Laboratory No.: 967706

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

Date: August 2, 2007
Collected: July 11, 2007
Received: July 11, 2007
Prep/ Analyzed: July 12, 2007
Analytical Batch: 07CrH07E

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Run Time</u> | <u>Units</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|-----------------|--------------|-----------|-----------|----------------|
| 967706-1 | SC-700B-WDR-107 | 10:30 | 06:02 | mg/L | 5.00 | 0.0010 | 0.0014 |

QA/QC Summary

| QC STD I.D. | | Laboratory Number | | Concentration | | Duplicate Concentration | | Relative Percent Difference | | Acceptance limits | | QC Within Control | |
|-------------|--|-------------------|--|---------------|--|-------------------------|--|-----------------------------|--|-------------------|--|-------------------|--|
| Duplicate | | 967669-3 | | 0.00446 | | 0.00446 | | 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 | 967706-1 | 0.0014 | 5.00 | 0.00100 | 0.00500 | 0.00635 | 0.00640 | 99.0% | 90-110% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.00508 | 0.00500 | 102% | 90% - 110% | Yes |
| MRCVS#1 | 0.0101 | 0.0100 | 101% | 95% - 105% | Yes |
| MRCVS#2 | 0.00957 | 0.0100 | 95.7% | 95% - 105% | Yes |
| MRCVS#3 | 0.0104 | 0.0100 | 104% | 95% - 105% | Yes |
| MRCVS#4 | 0.0104 | 0.0100 | 104% | 95% - 105% | Yes |
| LCS | 0.00508 | 0.00500 | 102% | 90% - 110% | Yes |
| LCSD | 0.00512 | 0.00500 | 102% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

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www.truesdail.com

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

Attention: Shawn Duffy

Laboratory No.: 967706

Date: August 2, 2007

Collected: July 11, 2007

Received: July 11, 2007

Prep/ Analyzed: July 12, 2007

Analytical Batch: 07TUC07M

Sample: Two (2) Groundwater Samples
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

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Units</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|--------------|-----------|-----------|----------------|
| 967706-1 | SC-700B-WDR-107 | 10:30 | NTU | 1.00 | 0.100 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967704-18 | ND | ND | 0.00% | ≤ 20% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| LCS | 7.37 | 8.00 | 92.1% | 90% - 110% | Yes |
| LCS | 7.43 | 8.00 | 92.9% | 90% - 110% | Yes |
| LCS | 7.45 | 8.00 | 93.1% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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

Attention: Shawn Duffy

Laboratory No.: 967706

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

Date: August 2, 2007
Collected: July 11, 2007
Received: July 11, 2007
Prep/ Analyzed: July 12, 2007
Analytical Batch: 07PH07K

Investigation:

pH by SM 4500-H B

Analytical Results pH


| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Run Time</u> | <u>Units</u> | <u>MDL</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|-----------------|--------------|------------|-----------|----------------|
| 967706-1 | SC-700B-WDR-107 | 10:30 | 09:19 | pH Units | 0.0700 | 2.00 | 8.16 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Difference (Units) | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 967707-2 | 7.55 | 7.56 | 0.01 | + 0.100 Units | Yes |

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

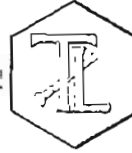
Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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

Attention: Shawn Duffy

Laboratory No.: 967706

Sample: Two (2) Groundwater Samples

Date: August 2, 2007

Project Name: PG&E Topock Project

Collected: July 11, 2007

Project No.: 346129.IM.02.E2

Received: July 11, 2007

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

Prep/ Analyzed: July 12, 2007

Analytical Batch: 07EC07G

Investigation:

Specific Conductivity by EPA 120.1


Analytical Results Specific Conductivity

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------|-----------|----------------|
| 967706-1 | SC-700B-WDR-107 | µmhos/cm | EPA 120.1 | 1.00 | 2.00 | 6720 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967707-1 | 7450 | 7460 | 0.13% | ≤ 10% | Yes |
| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control | |
| CCS | 694 | 706 | 98.3% | 90% - 110% | Yes | |
| CVS#1 | 980 | 999 | 98.1% | 90% - 110% | Yes | |
| LCS | 694 | 706 | 98.3% | 90% - 110% | Yes | |

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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

Attention: Shawn Duffy

Sample: 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.: 967706

Date: August 2, 2007

Collected: July 11, 2007

Received: July 11, 2007

Prep/ Analyzed: July 12, 2007

Analytical Batch: 07TDS07E

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------|----------------|
| 967706-1 | SC-700B-WDR-107 | mg/L | SM 2540C | 139 | 4030 |

QA/QC Summary

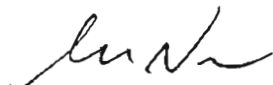
| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 967707-1 | 5390 | 5420 | 0.28% | ≤ 5% | Yes |

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

ND: Below the reporting limit (Not Detected).

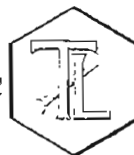
RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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155 Grand Ave. Suite 1000
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Attention: Shawn Duffy

Laboratory No.: 967706

Sample: Two (2) Groundwater Samples

Date: August 2, 2007

Project Name: PG&E Topock Project

Collected: July 11, 2007

Project No.: 346129.IM.02.E2

Received: July 11, 2007

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

Prep/ Analyzed: July 12, 2007

Prep. Batch: 07TOC07B

Analytical Batch: 07TOC07B

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

| TLI I.D. | Field I.D. | Units | Method | Run Time | DF | RL | Results |
|----------|-----------------|-------|----------|----------|------|-------|---------|
| 967706-2 | SC-100B-WDR-107 | mg/L | SM 5310C | 16:20 | 1.00 | 0.300 | 0.869 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967670 | 0.742 | 0.706 | 4.97% | ≤20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 967701 | 4.42 | 1.00 | 10.0 | 10.0 | 14.0 | 14.4 | 95.8% | 75-125% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 10.6 | 10.0 | 106% | 90% - 110% | No |
| MRCVS#1 | 10.7 | 10.0 | 107% | 90% - 110% | Yes |
| MRCVS#2 | 10.4 | 10.0 | 104% | 90% - 110% | Yes |
| LCS | 20.4 | 20.0 | 102% | 90% - 110% | Yes |
| LCSD | 20.5 | 20.0 | 103% | 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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(714) 730-6239 FAX: (714) 730-6462
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CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-107]

967706

QC Number

10 Days

TURNAROUND TIME

DATE 7-11-07

PAGE 1 OF 1

| | | | | | | | | | | | |
|------------------------------|-----------------------------|-------------------------|-----------------------|--|--------------------------------|-----------|---|--------------------------------|-----------------|---------------|----------------------------|
| COMPANY E2 | PROJECT NAME PG&E Topock | PHONE (530) 229-3303 | FAX (530) 339-3303 | ADDRESS 155 Grand Ave Ste 1000 Oakland, CA 94612 | P.O. NUMBER 346128-IM.02.00 | TEAM 1 | SAMPLERS (SIGNATURE) <i>David Chas</i> | SAMPLE I.D. SC-700B-WDR-107 | DATE 7-11-07 | TIME 10:30 | DESCRIPTION Groundwater |
| Rec'd 07/11/07 967706 | | | | | | | | | | | |
| NUMBER OF CONTAINERS | | | | | | | | | | | |
| 3 pH=2 | | | | | | | | | | | |
| 2 TOTAL NUMBER OF CONTAINERS | | | | | | | | | | | |
| 5 Total | | | | | | | | | | | |

ALERT!!
Level III QC

| | | | | | | | | | | | |
|-----------------------------------|--------------|----------------|---------------|--------------------------|--------------------------|--------------------------|----|--|--|--|--|
| CHAIN OF CUSTODY SIGNATURE RECORD | | | | | | | | | | | |
| Signature (Relinquished) | Printed Name | Company/Agency | Date/Time | RECEIVED | COOL | WARM | °F | | | | |
| <i>David Chas</i> | David Chas | CH2M Hill/OMI | 7-11-07 13:30 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| Signature (Received) | Printed Name | Company/Agency | Date/Time | CUSTODY SEALED | YES | NO | | | | | |
| <i>David S</i> | David S | TLI | 7-11-07 2:05 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | |
| Signature (Relinquished) | Printed Name | Company/Agency | Date/Time | SPECIAL REQUIREMENTS: | | | | | | | |
| <i>David S</i> | David S | Agency | | | | | | | | | |
| Signature (Received) | Printed Name | Company/Agency | Date/Time | | | | | | | | |
| <i>David S</i> | David S | Agency | | | | | | | | | |
| Signature (Relinquished) | Printed Name | Company/Agency | Date/Time | | | | | | | | |
| <i>David S</i> | David S | Agency | | | | | | | | | |
| Signature (Received) | Printed Name | Company/Agency | Date/Time | | | | | | | | |
| <i>David S</i> | David S | Agency | | | | | | | | | |

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
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www.truesdail.com

July 31, 2007

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

Dear Mr. Duffy:

SUBJECT: CASE NARRATIVE PG&E TOPOCK IM3PLANT-WDR-108 PROJECT, GROUNDWATER
MONITORING,
TLI NO.: 967955

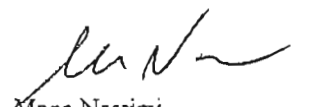
Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-108 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, Total Dissolved Manganese, and Total Organic Carbon. A summary table for 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.

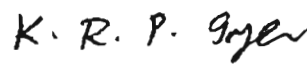
The samples were received and delivered with the chain of custody on July 18, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

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

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi
Manager, Analytical Services


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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Attention: Shawn Duffy

Sample: Two (2) Groundwater

Project Name: PG&E Topock Project

Project No.: 346129.IM.02:E2

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

Laboratory No.: 967955

Date: July 31, 2007

Collected: July 18, 2007

Received: July 18, 2007

ANALYST LIST

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

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

Laboratory No.: 967955
Date Received: July 18, 2007

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

Analytical Results Summary

| <u>Lab I.D.</u> | <u>Sample I.D.</u> | <u>Sample Time</u> | <u>EPA 200.7</u> Chromium Total mg/L | <u>EPA 218.6</u> Chromium Hexavalent mg/L | <u>EPA 180.1</u> Turbidity NTU | <u>SM 4500-H B</u> pH | <u>EPA 120.1</u> EC | <u>SM 2540C</u> TDS | <u>SM 5310C</u> TOC |
|-----------------|--------------------|--------------------|---|--|--------------------------------------|--------------------------|------------------------|------------------------|------------------------|
| 967955-1 | SC-700B-WDR-108 | 14:10 | ND | ND | ND | 8.11 | 6670 | 4060 | mg/L |
| 967955-2 | SC-100B-WDR-108 | 14:10 | --- | --- | --- | --- | --- | --- | 0.865 |

| <u>Lab I.D.</u> | <u>Sample I.D.</u> | <u>Sample Time</u> | <u>EPA 200.7</u> Manganese Dissolved mg/L |
|-----------------|--------------------|--------------------|--|
| 967955-1 | SC-700B-WDR-108 | 14:10 | --- |
| 967955-2 | SC-100B-WDR-108 | 14:10 | ND |

ND: Non Detected (below reporting limit)

Note: The following "Significant Figures" rule has been applied to all results:
Results below 0.01 will have two (2) significant figures.
Result above or equal to 0.01 will have three (3) significant figures.
Quality Control data will always have three (3) significant figures.

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REPORT

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www.truesdail.com

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

Attention: Shawn Duffy

Sample: Two (2) Groundwater
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 072507A

Laboratory No.: 967955

Date: July 31, 2007
Collected: July 18, 2007
Received: July 18, 2007
Prep/ Analyzed: July 25, 2007
Analytical Batch: 072507A

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 |
|----------|-----------------|-------|-----------|----------|------|--------|---------|
| 967955-1 | SC-700B-WDR-108 | mg/L | EPA 200.7 | 11:14 | 1.00 | 0.0010 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967706-1 | ND | ND | 0.00% | ≤20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance Limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 967706-1 | 0.00 | 1.00 | 0.0500 | 0.0500 | 0.0444 | 0.0500 | 88.8% | 70-130% | Yes |


| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.0502 | 0.0500 | 100% | 90% - 110% | Yes |
| MRCVS#1 | 0.0479 | 0.0500 | 95.8% | 90% - 110% | Yes |
| ICS | 0.0523 | 0.0500 | 105% | 80% - 120% | Yes |
| LCS | 0.0475 | 0.0500 | 95.0% | 90% - 110% | Yes |

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

007


Mona Nassimi, Manager
Analytical Services

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REPORT

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www.truesdail.com

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

Attention: Shawn Duffy

Laboratory No.: 967955

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

Date: July 31, 2007
Collected: July 18, 2007
Received: July 18, 2007
Prep/ Analyzed: July 19, 2007
Analytical Batch: 07CrH07K

Investigation:

Hexavalent Chromium by EPA 218.6

Analytical Results Hexavalent Chromium

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Run Time</u> | <u>Units</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|-----------------|--------------|-----------|-----------|----------------|
| 967955-1 | SC-700B-WDR-108 | 14:10 | 07:20 | mg/L | 1.05 | 0.00020 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967955-1 | ND | ND | 0.00% | < 20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 967955-1 | 0.00 | 1.06 | 0.00100 | 0.00106 | 0.00109 | 0.00106 | 103% | 90-110% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCES | 0.00517 | 0.00500 | 103% | 90% - 110% | Yes |
| MRCVS#1 | 0.0100 | 0.0100 | 100% | 95% - 105% | Yes |
| MRCVS#2 | 0.00991 | 0.0100 | 99.1% | 95% - 105% | Yes |
| MRCVS#3 | 0.00982 | 0.0100 | 98.2% | 95% - 105% | Yes |
| LCS | 0.00516 | 0.00500 | 103% | 90% - 110% | Yes |
| LCSD | 0.00517 | 0.00500 | 103% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

008

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www.truesdail.com

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

Attention: Shawn Duffy

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

Laboratory No.: 967955

Date: July 31, 2007

Collected: July 18, 2007

Received: July 18, 2007

Prep/ Analyzed: July 19, 2007

Analytical Batch: 07TUC07Q

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

| TLI I.D. | Field I.D. | Sample Time | Units | DF | RL | Results |
|----------|-----------------|-------------|-------|------|-------|---------|
| 967955-1 | SC-700B-WDR-108 | 14:10 | NTU | 1.00 | 0.100 | ND |

QA/QC Summary

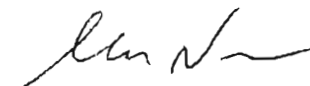
| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967935-12 | ND | ND | 0.00% | ≤ 20% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| LCS | 7.31 | 8.00 | 91.4% | 90% - 110% | Yes |
| LCS | 7.35 | 8.00 | 91.9% | 90% - 110% | Yes |
| LCS | 7.40 | 8.00 | 92.5% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

009

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

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

Attention: Shawn Duffy

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

Laboratory No.: 967955

Date: July 31, 2007
Collected: July 18, 2007
Received: July 18, 2007
Prep/ Analyzed: July 19, 2007
Analytical Batch: 07PH07R

Investigation:

pH by SM 4500-H B

Analytical Results pH

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Run Time</u> | <u>Units</u> | <u>MDL</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|-----------------|--------------|------------|-----------|----------------|
| 967955-1 | SC-700B-WDR-108 | 14:10 | 08:15 | pH Units | 0.0700 | 2.00 | 8.11 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Difference (Units) | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 967956-2 | 7.93 | 7.93 | 0.00 | + 0.100 Units | Yes |

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

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi, Manager
Analytical Services

010

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

Attention: Shawn Duffy

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

Laboratory No.: 967955

Date: July 31, 2007
Collected: July 18, 2007
Received: July 18, 2007
Prep/ Analyzed: July 19, 2007
Analytical Batch: 07EC07L

Investigation:

Specific Conductivity by EPA 120.1

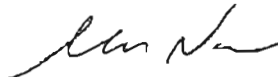
Analytical Results Specific Conductivity

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------|-----------|----------------|
| 967955-1 | SC-700B-WDR-108 | µmhos/cm | EPA 120.1 | 1.00 | 2.00 | 6670 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|------------------------|---------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967956-1 | 2690 | 2700 | 0.37% | ≤ 10% | Yes |
| | QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
| | CCS | 693 | 706 | 98.2% | 90% - 110% | Yes |
| | CVS#1 | 980 | 999 | 98.1% | 90% - 110% | Yes |
| | LCS | 693 | 706 | 98.2% | 90% - 110% | Yes |

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

011

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

Attention: Shawn Duffy

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

Laboratory No.: 967955

Date: July 31, 2007

Collected: July 18, 2007

Received: July 18, 2007

Prep/ Analyzed: July 20, 2007

Analytical Batch: 07TDS07G

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------|----------------|
| 967955-1 | SC-700B-WDR-108 | mg/L | SM 2540C | 139 | 4060 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 967955-1 | 4060 | 4030 | 0.37% | ≤ 5% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| LCS 1 | 492 | 500 | 98.4% | 90% - 110% | Yes |
| LCS 2 | 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

012

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TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 07TOC07D

Laboratory No.: 967955

Date: July 31, 2007
Collected: July 18, 2007
Received: July 18, 2007
Prep/ Analyzed: July 20, 2007
Analytical Batch: 07TOC07D

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

| TLI I.D. | Field I.D. | Units | Method | Run Time | DF | RL | Results |
|----------|-----------------|-------|----------|----------|------|-------|---------|
| 967955-2 | SC-100B-WDR-108 | mg/L | SM 5310C | 19:44 | 1.00 | 0.300 | 0.865 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967946 | 4.26 | 4.43 | 3.91% | ≤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 | 967946 | 4.26 | 1.00 | 10.0 | 10.0 | 13.7 | 14.3 | 94.4% | 75-125% | Yes |

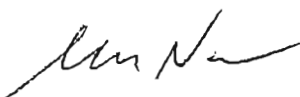
| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 9.24 | 10.0 | 92.4% | 90% - 110% | No |
| MRCVS#1 | 9.90 | 10.0 | 99.0% | 90% - 110% | Yes |
| MRCVS#2 | 9.77 | 10.0 | 97.7% | 90% - 110% | Yes |
| LCS | 19.7 | 20.0 | 98.5% | 90% - 110% | Yes |
| LCSD | 19.5 | 20.0 | 97.5% | 90% - 110% | Yes |

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

013


Mona Nassimi, Manager
Analytical Services

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REPORT

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

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

Attention: Shawn Duffy

Sample: Two (2) Groundwater
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 072707A

Laboratory No.: 967955

Date: July 31, 2007
Collected: July 18, 2007
Received: July 18, 2007
Prep/ Analyzed: July 27, 2007
Analytical Batch: 072707A

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

Analytical Results Total Dissolved Manganese

| TLI I.D. | Field I.D. | Units | Method | Run Time | DF | RL | Results |
|----------|-----------------|-------|-----------|----------|------|--------|---------|
| 967955-2 | SC-100B-WDR-108 | mg/L | EPA 200.7 | 11:42 | 1.00 | 0.0100 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 967955-2 | ND | ND | 0.00% | ≤20% | Yes |

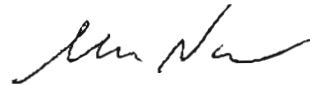
| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 967955-2 | 0.00 | 1.00 | 2.00 | 2.00 | 1.96 | 2.00 | 98.0% | 70-130% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 5.18 | 5.00 | 104% | 90% - 110% | Yes |
| MRCVS#1 | 5.07 | 5.00 | 101% | 90% - 110% | Yes |
| ICS | 2.14 | 2.00 | 107% | 80% - 120% | Yes |
| LCS | 4.66 | 5.00 | 93.2% | 90% - 110% | Yes |

ND: Not detected at reporting limit

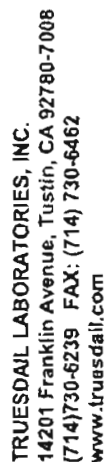
DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

014

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967955
CHAIN OF CUSTODY RECORD

CHAIN OF CUSTODY RECORD

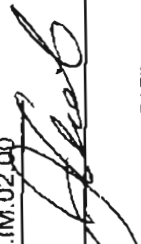
[IM3Plant-WDR-108]

COC Number

10 Days

TURNAROUND TIME

PAGE 1 OF 1

| | | | |
|----------------------|---|------|----------------|
| COMPANY | E2 | | |
| PROJECT NAME | PG&E Topock | | |
| PHONE | (530) 229-3303 | FAX | (530) 339-3303 |
| ADDRESS | 155 Grand Ave Ste 1000 Oakland, CA 94612 | | |
| P.O. NUMBER | 346129.IM.02.00 | TEAM | 1 |
| SAMPLERS (SIGNATURE) |  | | |
| SAMPLE I.D. | DATE | TIME | DESCRIPTION |
| SC-700B-WDR-108 | 7/18/07 | 1410 | Groundwater |

[illegible]

6 $\text{pH} / \text{Numb} = 2$

ALERT!!

Level III QC

**For Sample Conditions
See Form Attached**

| CHAIN OF CUSTODY SIGNATURE RECORD | | | |
|-----------------------------------|-----------------|--------------------|---------------|
| Signature (Relinquished) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Received) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Relinquished) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Received) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Relinquished) | Printed Name | Company/ Agency | Date/ Time |
| Signature (Received) | Printed Name | Company/ Agency | Date/ Time |

| SAMPLE CONDITIONS | | | °F |
|-------------------|-------------------------------|-------------------------------|----|
| RECEIVED | COOL <input type="checkbox"/> | WARM <input type="checkbox"/> | |
| CUSTODY SEALED | YES <input type="checkbox"/> | NO <input type="checkbox"/> | |

SPECIAL REQUIREMENTS:

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

August 1, 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-109 PROJECT, GROUNDWATER
MONITORING,
TLI NO.: 968139

Truesdail Laboratories, Inc. is pleased to submit this report summarizing the Topock IM3Plant-WDR-109 project groundwater monitoring for Hexavalent and Total Chromium, Turbidity, Specific Conductivity, pH, Total Dissolved Solids, Total Dissolved Manganese, 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 July 25, 2007, intact and in chilled condition. The samples will be kept in a locked refrigerator for 30 days; thereafter it will be kept in warm storage for an additional 2 months before disposal.

No violations or nonconformance actions occurred for this data package.

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

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

Mona Nassimi
Manager, Analytical Services

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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Attention: Shawn Duffy

Sample: Two (2) Groundwater

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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

Laboratory No.: 968139

Date: August 1, 2007

Collected: July 25, 2007

Received: July 25, 2007

ANALYST LIST

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



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

Laboratory No.: 968139
Date Received: July 25, 2007

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

Analytical Results Summary

| <u>Lab I.D.</u> | <u>Sample I.D.</u> | <u>Sample Time</u> | <u>EPA 200.7</u> Chromium Total mg/L | <u>EPA 218.6</u> Chromium Hexavalent mg/L | <u>EPA 180.1</u> Turbidity NTU | <u>SM 4500-H B</u> pH | <u>EPA 120.1</u> EC | <u>SM 2540C</u> TDS | <u>SM 5310C</u> TOC |
|-----------------|--------------------|--------------------|---|--|--------------------------------------|--------------------------|------------------------|------------------------|------------------------|
| 968139-1 | SC-700B-WDR-109 | 13:05 | ND | ND | ND | 8.08 | 6720 | 3870 | mg/L |
| 968139-2 | SC-100B-WDR-109 | 13:05 | — | — | — | — | — | — | 0.486 |

| <u>Lab I.D.</u> | <u>Sample I.D.</u> | <u>Sample Time</u> | <u>EPA 200.7</u> Manganese Dissolved mg/L |
|-----------------|--------------------|--------------------|--|
| 968139-1 | SC-700B-WDR-109 | 13:05 | — |
| 968139-2 | SC-100B-WDR-109 | 13:05 | ND |

ND: Non Detected (below reporting limit)

Note: The following "Significant Figures" rule has been applied to all results:
Results below 0.01 will have two (2) significant figures.
Result above or equal to 0.01 will have three (3) significant figures.
Quality Control data will always have three (3) significant figures.

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

Attention: Shawn Duffy

Laboratory No.: 968139

Sample: Two (2) Groundwater
Project Name: PG&E Tapock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 073107A

Date: August 1, 2007
Collected: July 25, 2007
Received: July 25, 2007
Prep/ Analyzed: July 31, 2007
Analytical Batch: 073107A

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 |
|----------|-----------------|-------|-----------|----------|------|--------|---------|
| 968139-1 | SC-700B-WDR-109 | mg/L | EPA 200.7 | 13:40 | 1.00 | 0.0010 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 968139-1 | ND | ND | 0.00% | ≤20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 968139-1 | 0.00 | 1.00 | 0.0500 | 0.0500 | 0.0518 | 0.0500 | 103% | 70-130% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.0501 | 0.0500 | 100% | 90% - 110% | Yes |
| MRCVS#1 | 0.0468 | 0.0500 | 93.6% | 90% - 110% | Yes |
| ICS | 0.0514 | 0.0500 | 103% | 80% - 120% | Yes |
| LCS | 0.0521 | 0.0500 | 104% | 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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www.truesdail.com

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

Attention: Shawn Duffy

Laboratory No.: 968139

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

Date: August 1, 2007
Collected: July 25, 2007
Received: July 25, 2007
Prep/ Analyzed: July 26, 2007
Analytical Batch: 07CrH07O

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 |
|----------|-----------------|-------------|----------|-------|------|---------|---------|
| 968139-1 | SC-700B-WDR-109 | 13:05 | 08:19 | mg/L | 1.05 | 0.00020 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 968139-1 | ND | ND | 0.00% | ≤ 20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 968139-1 | 0.00 | 1.06 | 0.00100 | 0.00106 | 0.00110 | 0.00106 | 104% | 90-110% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 0.00495 | 0.00500 | 99.0% | 90% - 110% | Yes |
| MRCVS#1 | 0.0100 | 0.0100 | 100% | 95% - 105% | Yes |
| MRCVS#2 | 0.0100 | 0.0100 | 100% | 95% - 105% | Yes |
| LCS | 0.00493 | 0.00500 | 98.6% | 90% - 110% | Yes |
| LCSD | 0.00494 | 0.00500 | 98.8% | 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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(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

Project Name: PG&E Topock Project

Project No.: 346129.IM.02.E2

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

Laboratory No.: 968139

Date: August 1, 2007

Collected: July 25, 2007

Received: July 25, 2007

Prep/ Analyzed: July 26, 2007

Analytical Batch: 07TUC07V

Investigation:

Turbidity by Method EPA 180.1

Analytical Results Turbidity

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Units</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|--------------|-----------|-----------|----------------|
| 968139-1 | SC-700B-WDR-109 | 13:05 | NTU | 1.00 | 0.100 | ND |

QA/QC Summary

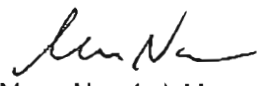
| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 968128-37 | ND | ND | 0.00% | ≤ 20% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| LCS | 7.80 | 8.00 | 97.5% | 90% - 110% | Yes |
| LCS | 7.82 | 8.00 | 97.8% | 90% - 110% | Yes |
| LCS | 7.58 | 8.00 | 94.8% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

DF: Dilution Factor.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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

Attention: Shawn Duffy

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

Laboratory No.: 968139

Date: August 1, 2007

Collected: July 25, 2007

Received: July 25, 2007

Prep/ Analyzed: July 26, 2007

Analytical Batch: 07PH07Y

Investigation:

pH by SM 4500-H B

Analytical Results pH

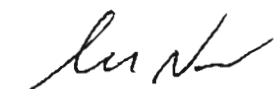
| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Sample Time</u> | <u>Run Time</u> | <u>Units</u> | <u>MDL</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------------|-----------------|--------------|------------|-----------|----------------|
| 968139-1 | SC-700B-WDR-109 | 13:05 | 09:15 | pH Units | 0.0700 | 2.00 | 8.08 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Difference (Units) | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 968139-1 | 8.08 | 8.10 | 0.02 | + 0.100 Units | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Difference (Units) | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|--------------------|-------------------|-------------------|
| LCS | 7.05 | 7.00 | 0.05 | + 0.100 Units | Yes |
| LCS #1 | 7.04 | 7.00 | 0.04 | + 0.100 Units | Yes |

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Attention: Shawn Duffy

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

Laboratory No.: 968139

Date: August 1, 2007

Collected: July 25, 2007

Received: July 25, 2007

Prep/ Analyzed: July 26, 2007

Analytical Batch: 07EC07P

Investigation:

Specific Conductivity by EPA 120.1

Analytical Results Specific Conductivity

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------|-----------|----------------|
| 968139-1 | SC-700B-WDR-109 | µmhos/cm | EPA 120.1 | 1.00 | 2.00 | 6720 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|------------------------|---------------------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 968139-1 | 6720 | 6730 | 0.15% | ≤ 10% | Yes |
| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control | |
| CCS | 696 | 706 | 98.6% | 90% - 110% | Yes | |
| CVS#1 | 964 | 999 | 96.5% | 90% - 110% | Yes | |
| LCS | 696 | 706 | 98.6% | 90% - 110% | Yes | |

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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

Laboratory No.: 968139

Date: August 1, 2007

Collected: July 25, 2007

Received: July 25, 2007

Prep/ Analyzed: July 26, 2007

Analytical Batch: 07TDS071

Investigation:

Total Dissolved Solids by SM 2540C

Analytical Results Total Dissolved Solids

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------|----------------|
| 968139-1 | SC-700B-WDR-109 | mg/L | SM 2540C | 139 | 3870 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|--------------------|-------------------|-------------------|
| Duplicate | 968139-1 | 3870 | 3930 | 0.77% | ≤ 5% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| LCS 1 | 486 | 500 | 97.2% | 90% - 110% | Yes |

ND: Below the reporting limit (Not Detected).

RL: Reporting Limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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

Attention: Shawn Duffy

Laboratory No.: 968139

Sample: Two (2) Groundwater
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 07TOC07E

Date: August 1, 2007
Collected: July 25, 2007
Received: July 25, 2007
Prep/ Analyzed: July 27, 2007
Analytical Batch: 07TOC07E

Investigation:

Total Organic Carbon by SM 5310C

Analytical Results Total Organic Carbon

| <u>TLI I.D.</u> | <u>Field I.D.</u> | <u>Units</u> | <u>Method</u> | <u>Run Time</u> | <u>DF</u> | <u>RL</u> | <u>Results</u> |
|-----------------|-------------------|--------------|---------------|-----------------|-----------|-----------|----------------|
| 968139-2 | SC-100B-WDR-109 | mg/L | SM 5310C | 16:14 | 1.00 | 0.300 | 0.486 |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 968122 | 5.24 | 5.11 | 2.51% | ≤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 | 968122 | 5.24 | 1.00 | 10.0 | 10.0 | 13.7 | 15.2 | 84.6% | 75-125% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 9.23 | 10.0 | 92.3% | 90% - 110% | No |
| MRCVS#1 | 9.21 | 10.0 | 92.1% | 90% - 110% | Yes |
| LCS | 19.3 | 20.0 | 96.5% | 90% - 110% | Yes |

ND: Not detected at reporting limit

DF: Dilution Factor

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.


Mona Nassimi, Manager
Analytical Services

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

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES



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

Laboratory No.: 968139

Sample: Two (2) Groundwater
Project Name: PG&E Topock Project
Project No.: 346129.IM.02.E2
P.O. No.: 346129.IM.02.E2
Prep. Batch: 073107A

Date: August 1, 2007
Collected: July 25, 2007
Received: July 25, 2007
Prep/ Analyzed: July 31, 2007
Analytical Batch: 073107A

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

Analytical Results Total Dissolved Manganese

| TLI I.D. | Field I.D. | Units | Method | Run Time | DF | RL | Results |
|----------|-----------------|-------|-----------|----------|------|--------|---------|
| 968139-2 | SC-100B-WDR-109 | mg/L | EPA 200.7 | 16:29 | 1.00 | 0.0100 | ND |

QA/QC Summary

| QC STD I.D. | Laboratory Number | Concentration | Duplicate Concentration | Relative Percent Difference | Acceptance Limits | QC Within Control |
|-------------|-------------------|---------------|-------------------------|-----------------------------|-------------------|-------------------|
| Duplicate | 968139-2 | ND | ND | 0.00% | ≤20% | Yes |

| QC Std I.D. | Lab Number | Conc. of unspiked sample | Dilution Factor | Added Spike Conc. | MS Amount | Measured Conc. of spiked sample | Theoretical Conc. of spiked sample | MS% Recovery | Acceptance Limits | QC Within Control |
|-------------|------------|--------------------------|-----------------|-------------------|-----------|---------------------------------|------------------------------------|--------------|-------------------|-------------------|
| MS | 968139-2 | 0.00 | 1.00 | 2.00 | 2.00 | 1.76 | 2.00 | 88.0% | 70-130% | Yes |

| QC Std I.D. | Measured Concentration | Theoretical Concentration | Percent Recovery | Acceptance Limits | QC Within Control |
|-------------|------------------------|---------------------------|------------------|-------------------|-------------------|
| MRCCS | 4.91 | 5.00 | 98.2% | 90% - 110% | Yes |
| MRCVS#1 | 4.85 | 5.00 | 97.0% | 90% - 110% | Yes |
| ICS | 2.17 | 2.00 | 109% | 80% - 120% | Yes |
| LCS | 5.04 | 5.00 | 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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(714) 730-6239 FAX: (714) 730-6462
www.truesdail.com

CHAIN OF CUSTODY RECORD

[IM3Plant-WDR-109]

COC Number

TURNAROUND TIME 5 Days

DATE 7-25-07 PAGE 1 OF 1

| | |
|----------------------|---|
| COMPANY | E2 |
| PROJECT NAME | PG&E Topock |
| PHONE | (530) 229-3303 FAX (530) 339-3303 |
| ADDRESS | 155 Grand Ave Ste 1000 Oakland, CA 94612 |
| P.O. NUMBER | 346129 JM.02.00 TEAM 1 |
| SAMPLERS (SIGNATURE) | |

| | | | |
|-------------------------------------|----------|--------|----------------------------|
| Rec'd | 07/25/07 | 968139 | COMMENTS |
| Toc | | | NUMBER OF CONTAINERS |
| Turbidity (180.1) | | | |
| TDS (160.1) | | | |
| PH (150.1) | | | |
| Specific Conductance (120.1) | | | |
| Total Metals (200.7) Total Chromium | | | |
| CR6 (218.6) Lab Filtered | | | TOTAL NUMBER OF CONTAINERS |
| X | | | |
| X | | | |
| X | | | |
| X | | | |
| X | | | |
| X | | | 3 |
| X | | | 3 |
| X | | | 6 |
| X | | | PH=2 |

RUSH!

-1 SC-700B-WDR-109

-2 SC-100B-WDR-109

ALERT!!
Level III QC

For Sample Comments
See Form Attached

CHAIN OF CUSTODY SIGNATURE RECORD

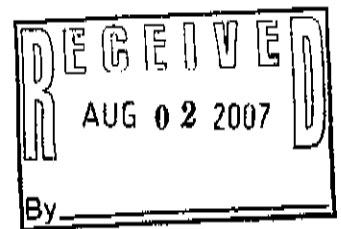
| | | | |
|--------------------------|--------------|----------------|---------------|
| Signature (Relinquished) | Printed Name | Company/Agency | Date/Time |
| | David S. TLI | Cham Hill OMI | 7-25-07 15:30 |
| Signature (Received) | Printed Name | Company/Agency | Date/Time |
| | David S. TLI | Cham Hill OMI | 7-25-07 22:00 |
| Signature (Relinquished) | Printed Name | Company/Agency | Date/Time |
| | David S. TLI | Cham Hill OMI | 7-25-07 22:00 |
| Signature (Received) | Printed Name | Company/Agency | Date/Time |
| | David S. TLI | Cham Hill OMI | 7-25-07 22:00 |
| Signature (Relinquished) | Printed Name | Company/Agency | Date/Time |
| | David S. TLI | Cham Hill OMI | 7-25-07 22:00 |
| Signature (Received) | Printed Name | Company/Agency | Date/Time |
| | David S. TLI | Cham Hill OMI | 7-25-07 22:00 |

SAMPLE CONDITIONS

RECEIVED COOL ☐ WARM ☐ °F

CUSTODY SEALED YES ☐ NO ☐

SPECIAL REQUIREMENTS:



DEPARTMENT OF HEALTH SERVICES

TITLE 22

96-HOUR ACUTE AQUATIC TOXICITY SCREEN

FATHEAD MINNOW (*Pimephales promelas*)

Prepared For:

Truesdail Laboratories, Inc.

Sample Identification:

967425-4

MBC Sample Number:

07-318

Prepared By:

MBC Applied Environmental Sciences
3000 Redhill Avenue
Costa Mesa, California 92626

July 2007

INDEX

| | Section |
|--|----------------|
| CHAIN OF CUSTODY | 1 |
| COVER LETTER | 2 |
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| SAMPLE ANALYSIS DATA | 4 |
| WATER QUALITY / ORGANISM ENUMERATION DATA | 6 |
| ORGANISM LENGTH / WEIGHT DATA | 7 |

CHAIN OF CUSTODY



Laboratory Transmittal Form

City: Costa Mesa **State:** CA **Zip:** 92626-4524

Please include Truesdail Sample ID on your invoice

ALERT

Level III OC

| Sample ID | Date | Time | Matrix | Tests/Methods Required | | | | | | | | | | | | | Container Qty. | Comments/Container Type |
|-----------|--------|-------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|-------------------------|
| | | | | Acute Aquatic Toxicity, 96 hr Acute | | | | | | | | | | | | | | |
| 967425-4 | 7/2/07 | 12:20 | Soil | X | | | | | | | | | | | | | 1 | Glass /Jar 4 oz |
| | | | | | | | | | | | | | | | | | | Level 3 |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 1 | Containers Total |

Sample Conditions:

Received on Ice?

Yes/No

Sealed

Yes/No

Special Shipment/Handling or Storage Requirements:

Relinquished by:

Signature

Printed Name

Company

Date _____

Time

Received by:

Signature

Printed Name

Company

Data

Time

COVER LETTER

25 July 2007

Truesdail Laboratories, Inc.
14201 Franklin Avenue
Tustin, CA 92780

Attention: Sean Condon



Dear Mr. Condon:

The following are the results of the DOHS 96-hour Acute Aquatic Toxicity Screening test performed on the sample labeled 967425-4 sampled on 07/02/2007.

The sample PASSED the DOHS 96-hour Acute Aquatic Toxicity Screening test. Currently, California Code of Regulations (CCR), Title 22, Section 66261.24, Article 6 requires wastes to pass the 96-hour aquatic toxicity testing with greater than 50% survival at the 500 mg/l. In addition to this regulation, the DOHS protocol requires wastes to pass the 96-hour aquatic toxicity testing with greater than 50% survival at the 500 mg/l concentration and 60% survival at the 750 mg/l concentration for compliance of hazardous waste declassification.

MBC Sample Number 07-318 - Client Identification: 967425-4

PERCENT SURVIVAL

| | |
|----------|------|
| Control | 100% |
| 250 mg/l | 100% |
| 500 mg/l | 100% |
| 750 mg/l | 100% |

LC50 > 750 mg/l

If you have any questions or require further information, please contact me at your convenience.

Cordially,

MBC Applied Environmental Sciences

Sonja M. Beck
Bioassay Manager

MBC Applied Environmental Sciences, 3000 Redhill Avenue, Costa Mesa, CA 92626

SUMMARY OF TEST CONDITIONS

Summary of Test Conditions for Acute Toxicity Test

| | |
|--|--|
| Protocol: | Polisini 1988 |
| Test Organism: | Fathead Minnow (<i>Pimephales promelas</i>) |
| Test Type: | Static non-renewal |
| Temperature (°C): | 20±1°C. Temperature should not deviate by more than 3°C during the test. |
| Photoperiod: | 16-hours light, 8-hours dark |
| Water Quality Analyzer: | Hach HQ40d multi-parameter |
| Test Solution Volume: | 6-Liters |
| Renewal of Test Solutions: | None |
| Age of Test Organisms: | Less than 90 days old |
| Percent Organisms dead in acclimatization tank: | < 1% |
| No. of Organisms/Test Chamber: | 10 |
| No. of Replicate Test Chambers/Test Concentration: | 2 |
| No. of Organisms/Test Concentration: | 20 |
| Feeding Regime: | None |
| Cleaning: | None |
| Aeration: | None, unless DO concentrations falls below 4.0 mg/L: rate should not exceed 100 bubbles/min. |
| Dilution Water: | Synthetic Soft Water |
| Test Concentrations: | 250 mg/l, 500 mg/l, and 750 mg/l |
| Test Duration: | 96 Hours |
| Endpoints: | LC ₅₀ |

Client : Truesdail Laboratories, Inc.

Date (Initial Sample): 07/02/2007

Sample Identification : 967425-4

Project Manager : Sean Condon

SAMPLE ANALYSIS

SAMPLE ANALYSIS

CLIENT: Truesdail Laboratories, Inc.

SAMPLE IDENTIFICATION: 967424-4

MBC JOB #: 07413X

MBC SAMPLE #: 07-318

SAMPLE DATE/TIME: 07/02/2007 1220

DATE SAMPLE RECEIVED: 07/05/2007

ANALYSIS REQUIRED: Title 22 DOHS 96-hour Acute Aquatic Toxicity Test

ORGANISM REQUIRED: Fathead minnow (*Pimephales promelas*)

DATE/TIME INITIATED: 07/20/2007 1630

DATE/TIME TERMINATED: 07/24/2007 1442

AMOUNT OF SAMPLE: 250 mls

SAMPLE DESCRIPTION: orange/brown colored sludge

SAMPLE PREPARATION: Dilute w/ appx. 250 mls dilution water, shake for 6 hours.

ADJUSTMENTS DURING ANALYSIS: Air added at 0 hours.

ANALYST(s): Chris Lim, Sarah Winterrowd

Reviewed By: 86

**WATER QUALITY /
ORGANISM ENUMERATION DATA**

TITLE 22 DOHS 96-HOUR ACUTE AQUATIC TOXICITY TEST

CLIENT: Truesdail Laboratories, Inc.

SAMPLE IDENTIFICATION: 967424-4

SAMPLE DATE/TIME: 07/02/2007 1220

MBC Job #: 07413X

DATE/TIME INITIATED: 07/20/2007 1630

MBC Sample #: 07-318

DATE/TIME TERMINATED: 07/24/2007 1442

| 1 | Control | 7.5 | 8.1 | 21.6 | 10 | 7.4 | 7.4 | 21.1 | 10 | 7.4 | 7.5 | 21.2 | 10 |
|---|----------|-----|-----|------|----|-----|-----|------|----|-----|-----|------|----|
| 2 | 250 mg/l | 7.6 | 8.2 | 21.5 | 10 | 7.5 | 7.4 | 21.2 | 10 | 7.6 | 7.3 | 21.1 | 10 |
| 3 | 250 mg/l | 7.6 | 8.3 | 21.7 | 10 | 7.5 | 7.3 | 21.2 | 10 | 7.5 | 7.4 | 21.1 | 10 |
| 4 | 500 mg/l | 7.6 | 8.2 | 21.5 | 10 | 7.5 | 7.3 | 21.3 | 10 | 7.5 | 7.2 | 21.3 | 10 |
| 5 | 500 mg/l | 7.6 | 8.3 | 21.6 | 10 | 7.5 | 7.2 | 21.3 | 10 | 7.5 | 7.2 | 21.3 | 10 |
| 6 | 750 mg/l | 7.6 | 8.2 | 21.4 | 10 | 7.6 | 7.3 | 21.4 | 10 | 7.6 | 7.1 | 21.2 | 10 |
| 7 | 750 mg/l | 7.6 | 8.2 | 21.6 | 10 | 7.6 | 7.4 | 21.3 | 10 | 7.6 | 7.3 | 21.2 | 10 |

| 1 | Control | 7.6 | 7.6 | 21.6 | 10 | 7.4 | 7.4 | 21.6 | 10 |
|---|----------|-----|-----|------|----|-----|-----|------|----|
| 2 | 250 mg/l | 7.5 | 7.4 | 21.6 | 10 | 7.3 | 7.2 | 21.5 | 10 |
| 3 | 250 mg/l | 7.4 | 7.2 | 21.5 | 10 | 7.3 | 7.0 | 21.4 | 10 |
| 4 | 500 mg/l | 7.5 | 7.3 | 21.2 | 10 | 7.4 | 7.2 | 21.0 | 10 |
| 5 | 500 mg/l | 7.5 | 7.4 | 21.3 | 10 | 7.3 | 7.2 | 21.2 | 10 |
| 6 | 750 mg/l | 7.6 | 7.5 | 21.0 | 10 | 7.5 | 7.2 | 21.4 | 10 |
| 7 | 750 mg/l | 7.6 | 7.6 | 21.1 | 10 | 7.4 | 7.3 | 21.4 | 10 |

ORGANISM: Fathead minnow (*Pimephales promelas*)

ACCLIMATIZATION (20°C): 9 Days

NOTES: Normal test conditions.

RESULTS:

Concentration

% Survival



RANGE:

Min.

Max.

pH Range:

DO Range:

Temp Range:



ALKALINITY:

0 HOURS

96 HOURS

Control:

750 mg/l:



HARDNESS:

0 HOURS

96 HOURS

Control:

750 mg/l:



Reviewed By: SB

ORGANISM LENGTH / WEIGHT DATA

ORGANISM LENGTH / WEIGHT DATA

CLIENT: Truesdail Laboratories, Inc.

SAMPLE IDENTIFICATION: 967424-4

MBC JOB #: 07413X

MBC SAMPLE #: 07-318

ORGANISM: Fathead minnow (*Pimephales promelas*)

| | | | | | |
|-----|----|------|-----|----|------|
| 1. | 33 | 0.37 | 11. | 29 | 0.31 |
| 2. | 37 | 0.59 | 12. | 32 | 0.37 |
| 3. | 34 | 0.40 | 13. | 31 | 0.31 |
| 4. | 31 | 0.24 | 14. | 32 | 0.33 |
| 5. | 30 | 0.23 | 15. | 30 | 0.29 |
| 6. | 30 | 0.25 | 16. | 35 | 0.44 |
| 7. | 32 | 0.31 | 17. | 32 | 0.36 |
| 8. | 32 | 0.33 | 18. | 30 | 0.26 |
| 9. | 35 | 0.49 | 19. | 30 | 0.27 |
| 10. | 32 | 0.28 | 20. | 34 | 0.40 |

| | <u>Length (mm)</u> | <u>Weight (g)</u> |
|----------|--------------------|-------------------|
| Average: | 32 | 0.34 |
| Maximum: | 37 | 0.59 |
| Minimum: | 29 | 0.23 |

Technician: CL

Date: 07/24/2007

Reviewed By: 83



STL

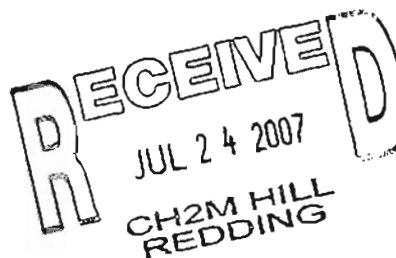
STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705

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

July 20, 2007

LOT NUMBER: E7G050268

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 TestAmerica Los Angeles (fka STL) on July 5, 2007. This sample is associated with your PG&E TOPOCK GWM / E2 project.

STL Los Angeles certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of the report. NELAP Certification Number for TestAmerica Los Angeles (fka STL) 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 July 19, 2007.

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

This report contains **000168** pages.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Marisol Tabirara". The signature is fluid and cursive, with the first name being more prominent.

Marisol Tabirara
Project Manager

cc: Project File

METHOD / ANALYST SUMMARY

E7G050268

| ANALYTICAL METHOD | ANALYST | ANALYST ID |
|----------------------|--------------------|---------------|
| SM18 2540B | FLORIAN ZIMMERMANN | 000064 |
| SW846 6010B | Josephine Asuncion | 021088 |
| SW846 7199 | Yuriy Zakhrabov | 000022 |
| SW846 7471A | Josephine Asuncion | 021088 |

References:

| | |
|-------|---|
| SM18 | "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992. |
| SW846 | "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates. |

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-106

TOTAL Metals

Lot-Sample #...: E7G050268-001

Matrix.....: SO

Date Sampled...: 07/02/07 12:20 Date Received...: 07/05/07 14:35

% Moisture.....: 71

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION- ANALYSIS DATE | WORK ORDER # |
|--------------------------|--------|----------------------|-------|-------------------------|-------------------------------|-----------------|
| Prep Batch #...: 7191301 | | | | | | |
| Arsenic | 16 | 4.2 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AA |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Antimony | ND | 21 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AC |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Barium | 100 | 7.0 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AD |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Cadmium | ND | 1.7 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AE |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Chromium | 8800 | 3.5 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AF |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Beryllium | ND | 1.7 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AG |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Lead | 3.2 | 1.7 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AH |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Selenium | ND | 3.5 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AJ |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |
| Silver | ND | 3.5 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AK |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID... M01 | | MS Run #.....: 7191172 | | |

(Continued on next page)

CH2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-106

TOTAL Metals

Lot-Sample #...: E7G050268-001

Matrix.....: SO

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD | PREPARATION- ANALYSIS DATE | WORK ORDER # |
|--------------------------|--------|-----------------------|-------|-------------------------|-------------------------------|-----------------|
| Cobalt | ND | 17 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AL |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Copper | 15 | 8.7 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AM |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Molybdenum | 21 | 14 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AN |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Nickel | ND | 14 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AP |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Thallium | ND | 7.0 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AQ |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Vanadium | 77 | 17 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AR |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Zinc | 53 | 7.0 | mg/kg | SW846 6010B | 07/10-07/11/07 | J2DV61AT |
| | | Dilution Factor: 1 | | Analysis Time...: 13:22 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M01 | | MS Run #.....: 7191172 | | |
| Prep Batch #...: 7191302 | | | | | | |
| Mercury | 1.1 | 0.35 | mg/kg | SW846 7471A | 07/11/07 | J2DV61AU |
| | | Dilution Factor: 1 | | Analysis Time...: 16:14 | Analyst ID.....: 021088 | |
| | | Instrument ID...: M04 | | MS Run #.....: 7191174 | | |

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

CE2M Hill Inc

Client Sample ID: SC-SLUDGE-WDR-106

General Chemistry

Lot-Sample #...: E7G050268-001 Work Order #...: J2DV6 Matrix.....: SO
Date Sampled...: 07/02/07 12:20 Date Received...: 07/05/07 14:35
% Moisture.....: 71

| PARAMETER | RESULT | RL | UNITS | METHOD | PREPARATION- ANALYSIS DATE | PREP BATCH # |
|------------------------|--------|------|-------|---|---|--------------------------|
| Hexavalent Chromium | 130 | 1.7 | mg/kg | SW846 7199 | 07/10/07 | 7190091 |
| | | | | Dilution Factor: 2.5 Instrument ID...: W18 | Analysis Time...: 09:35 MS Run #.....: 7190051 | Analyst ID.....: 000022 |
| Percent Moisture | 71 | 0.10 | % | SM18 2540B | 07/09-07/10/07 | 7190290 |
| | | | | Dilution Factor: 1 Instrument ID. : W15 | Analysis Time...: 10:30 MS Run #.....: 7190162 | Analyst ID.....: 0000641 |

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

000033