

Pacific Gas and Electric Company

San Francisco Bay Power Plants
1000 Evans Avenue
San Francisco, CA 94124
415/695-2200
Fax 415/695-2267

Gregg L. Lemler
Manager

STW 64

October 26, 1995



Ms. Jennifer Eberle
Hazardous Materials Specialist
Alameda County Department of Environmental Health
UST Local Oversight Program
1131 Harbor Way Parkway, 2nd Floor
Alameda, CA 94502-6577

Dear Ms. Eberle:

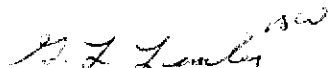
Please find attached herewith a copy of the Quarterly Subsurface Investigation Report for Pacific Gas and Electric Company, Oakland Power Plant at 50 Martin Luther King Jr. Way, Oakland, California, 94621. This report is submitted to your office as requested in your letter dated April 23, 1993.

Results of the quarterly sampling show that unknown hydrocarbons in the diesel range (reported as TPH-D) were detected in the samples collected from all three wells. We will continue to monitor these wells on a quarterly basis.

Well No. MW-2-3 was sampled and tested for Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX), BTEX were not detected in this well. Based on four consecutive quarters of non-detectable concentrations of BTEX from this well, we request not to sample Well MW-2-3 for BTEX anymore.

Should you have any questions regarding this matter, please contact Mr. Avtar S. Virdee of my staff at (415) 695-2205.

Sincerely,


Gregg L. Lemler
Plant Manager

ASV:bjr
Attachment

NOV 01 1995
10:00 AM
STW 64

**GROUNDWATER MONITORING AND SAMPLING
REPORT
Oakland Power Plant
Oakland, California**

Prepared for
Pacific Gas and Electric Company

October 1995

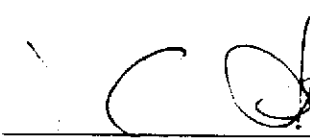
Prepared by
EMCON
1433 North Market Boulevard
Sacramento, California 95834

Project 0143-117.01

**Groundwater Monitoring and Sampling Report
PG&E Oakland Power Plant
Oakland, California**

The material and data in this report were prepared under the supervision and direction of the undersigned.

EMCON



J. C. Isham
Geology manager
C.H.G. 007



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1 INTRODUCTION

This report presents data collected during the third quarter 1995 monitoring period at Pacific Gas and Electric Company (PG&E) Oakland Power Plant, 50 Martin Luther King, Jr. Way, Oakland, California (see Figure 1).

2 GROUNDWATER GRADIENT AND DIRECTION

Third quarter groundwater levels were measured at PG&E's Oakland Power Plant on October 12, 1995, using an electronic sounding device, and recorded on the monitoring well data form included in Appendix A. The groundwater elevations are summarized in the table. The October data were used in constructing a groundwater contour map (see Figure 2). October water levels ranged from a low of 8.58 feet above mean sea level (MSL) in well MW-1-3 to a high of 8.61 feet above MSL in well MW-2-3. The estimated groundwater gradient is approximately 0.0005 foot per foot (ft/ft) to the north.

3 SAMPLING, ANALYSIS, AND MONITORING PROGRAM RESULTS

Groundwater samples were collected from wells MW-1-2, MW-1-3, and MW-2-3 on October 12, 1995, consistent with the protocol presented in Figure 3. Samples collected from wells MW-1-2, MW-1-3, and MW-2-3 were analyzed for diesel by USEPA Method 3510/8015M. Samples collected from well MW-2-3 were also analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8020. Field readings from the third quarter 1995 monitoring event are recorded on the water sample field data sheets (see Appendix A) and summarized in the table.

The analytical results are discussed below. Third quarter 1995 and historical analytical data are summarized in the table. Certified analytical reports and chain-of-custody records are included in Appendix B.

Samples collected from well MW-2-3 did not contain any detectable constituents of BTEX. Including the October 15, 1995, sampling date, BTEX has been reported for four consecutive quarters for well MW-2-3. TPHD was detected from wells MW-1-2, MW-1-3, and MW-2-3 at concentrations of 230, 190, and 290 micrograms per liter ($\mu\text{g/L}$), respectively.

4 FIELD AND LABORATORY QUALITY CONTROL RESULTS

Analytical data were evaluated for accuracy and precision based on field and laboratory quality control (QC) sample performance. The field QC consisted of collecting one field blank and analyzing it for gasoline and BTEX.

Field blanks are collected to assess the effect of field environments on the analytical results and to identify false positives. No parameters were detected above their respective method reporting limits in the field blank, indicating no adverse effects from sampling or analytical procedures.

The laboratory QC consisted of checking adherence to holding times and evaluating method blanks and matrix spike (MS) and matrix spike duplicate (MSD) results.

Holding times are established by the USEPA and refer to the maximum time allowed to pass between sample collection and analysis by the laboratory. These limits assist in determining data validity. The method blank results are used to assess the effect of the laboratory environment on the analytical results. The MS and MSD recoveries are used to assess accuracy, and the relative percent difference (RPD) between the MS and MSD is used to assess the precision of the analytical results.

All analyses were done within the holding times specified by the USEPA. No compounds were detected in the daily method blanks. Recoveries of MS and MSD, and the RPDs between the duplicate results, were within the laboratory acceptance limits.

The field and laboratory QC results indicate that the analytical data are of acceptable quality.

Table

Oakland Power Plant
Third Quarter 1995 Monitoring Data

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD ug/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Total Xylenes ug/L
MW-1-2	06/22/93	13.95	5.05	8.90	1,500 ¹	<0.5	<0.5	<0.5	<0.5
MW-1-2	09/22/93		5.91	8.04	240	<0.5	<0.5	<0.5	<0.5
Dup	09/22/93		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-1-2	12/28/93		4.77	9.18	200	<0.5	<0.5	<0.5	<0.5
Dup	12/28/93		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-1-2	04/11/94		4.66	9.29	---	<0.5	<0.5	<0.5	<0.5
Dup	04/11/94		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-1-2	04/20/94		4.86	9.09	600	---	---	---	---
MW-1-2	06/29/94		5.18	8.77	520	---	---	---	---
MW-1-2	10/07/94		4.55	9.40	590	---	---	---	---
MW-1-2	01/03/95		4.11	9.84	650 ¹	---	---	---	---
MW-1-2	03/24/95		3.57	10.38	740 ¹	---	---	---	---
MW-1-2	06/30/95		4.69	9.26	540	---	---	---	---
MW-1-2	10/12/95		5.35	8.60	230 ¹	---	---	---	---
MW-1-3	06/22/93	14.01	5.15	8.86	160 ¹	<0.5	<0.5	<0.5	<0.5
MW-1-3	09/22/93		5.57	8.44	430	<0.5	<0.5	<0.5	<0.5
MW-1-3	12/28/93		5.13	8.88	<50	<0.5	<0.5	<0.5	<0.5
MW-1-3	04/11/94		5.01	9.00	---	<0.5	<0.5	<0.5	<0.5
MW-1-3	04/20/94		5.09	8.92	<50	---	---	---	---
MW-1-3	06/29/94		5.30	8.71	280 ¹	---	---	---	---
MW-1-3	10/07/94		5.69	8.32	160 ¹	---	---	---	---
MW-1-3	01/03/95		4.62	9.39	210 ¹	---	---	---	---
MW-1-3	06/30/95		4.89	9.12	231 ¹	---	---	---	---
MW-1-3	10/12/95		5.43	8.58	190 ¹	---	---	---	---
MW-2-3	06/22/93	13.91	5.00	8.91	560 ²	3	<0.5	<0.5	<0.5
MW-2-3	09/22/93		5.50	8.41	460	<0.5	<0.5	<0.5	<0.5
MW-2-3	12/28/93		4.74	9.17	<50 ³	<0.5	<0.5	<0.5	<0.5

**Oakland Power Plant
Third Quarter 1995 Monitoring Data**

Sample Designation	Sampling Date	Top of Casing (ft/MSL)	Depth to Groundwater (ft)	Groundwater Elevation (ft/MSL)	TPHD ug/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Total Xylenes ug/L
MW-2-3	04/11/94		5.62	8.29	---	<0.5	<0.5	<0.5	<0.5
MW-2-3	04/20/94		5.83	8.08	<50	---	---	---	---
MW-2-3	06/29/94		5.14	8.77	920 ^{1,4}	<0.5	<0.5	<0.5	<0.5
MW-2-3	10/07/94		5.50	8.41	<50	16	13	6	24
MW-2-3	01/03/95		4.11	9.80	190 ¹	<0.5	<0.5	<0.5	<0.5
MW-2-3	03/24/95		3.47	10.44	110 ¹	<0.5	<0.5	<0.5	<0.5
Dup	03/24/95		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-2-3	06/30/95		4.66	9.25	187 ¹	<0.5	<0.5	<0.5	<0.5
Dup	06/30/95		---	---	---	<0.5	<0.5	<0.5	<0.5
MW-2-3	10/12/95		5.30	8.61	290 ¹	<0.5	<0.5	<0.5	<0.5
Travel Blank	09/22/93	---	---	---	---	<0.5	<0.5	<0.5	<0.5
Travel Blank	12/28/93	---	---	---	---	<0.5	<0.5	<0.5	<0.5
Travel Blank	04/11/94	---	---	---	---	<0.5	<0.5	<0.5	<0.5
Travel Blank	01/03/95	---	---	---	---	<0.5	<0.5	<0.5	<0.5
Travel Blank	03/24/95	---	---	---	---	<0.5	0.5	<0.5	<0.5
Travel Blank	06/30/95	---	---	---	---	<0.5	<0.5	<0.5	<0.5
Travel Blank	10/12/95	---	---	---	---	<0.5	<0.5	<0.5	<0.5

TPHD = Total petroleum hydrocarbons as diesel.

ft/MSL = Feet with respect to mean sea level.

ug/L = Micrograms per liter.

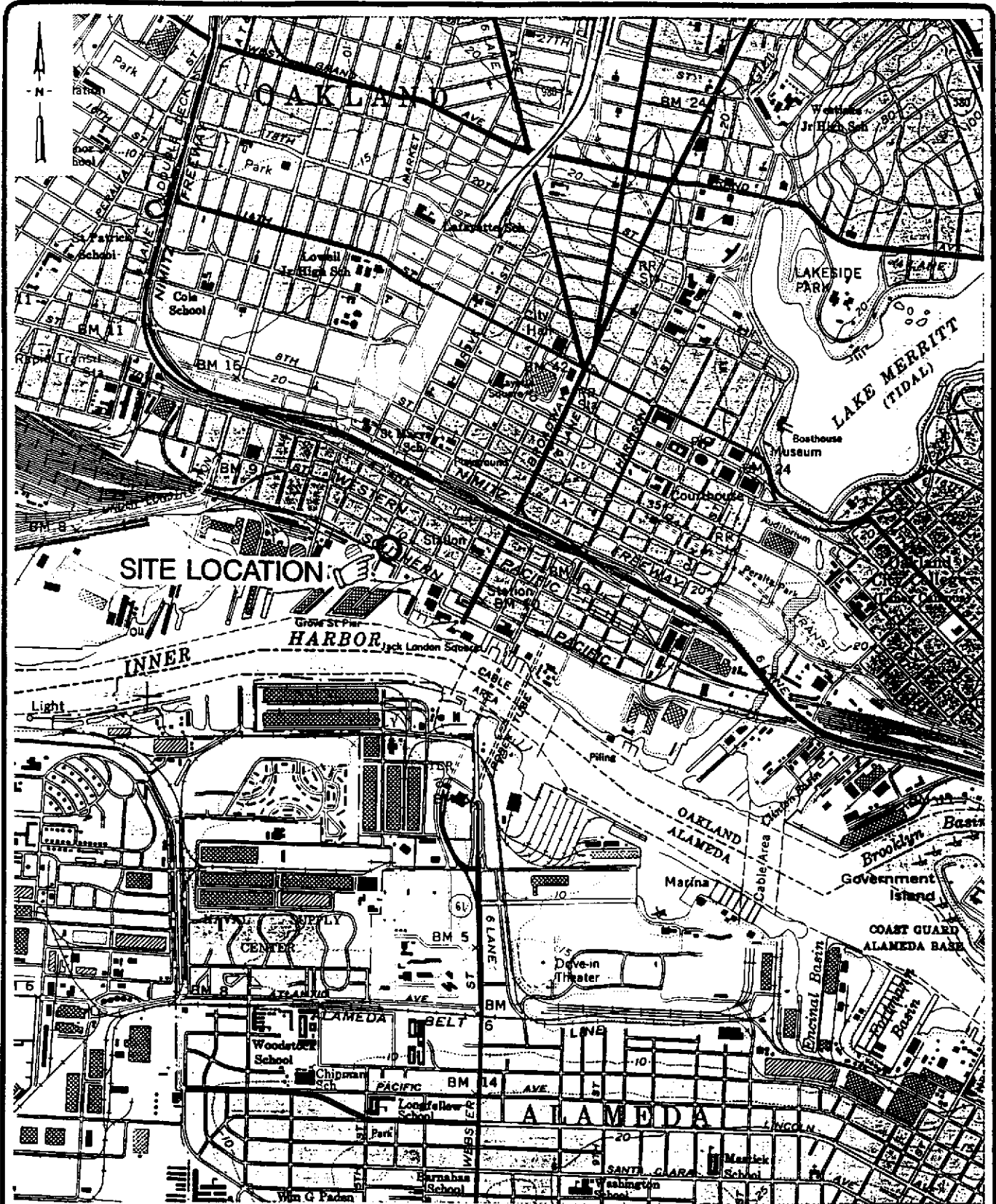
Dup = Blind duplicate.

¹ Unknown hydrocarbon in diesel range quantified as diesel.

² Motor oil at a concentration of 3.1 milligrams per liter detected in sample.

³ Motor oil at a concentration of 2.9 milligrams per liter detected in sample.

⁴ Unknown hydrocarbon in motor oil range was also observed in sample.



Base map from U.S. Geologic Survey 7.5 minute series quadrangle: Oakland West, California

SCALE: 0 2000 FEET



EMCON

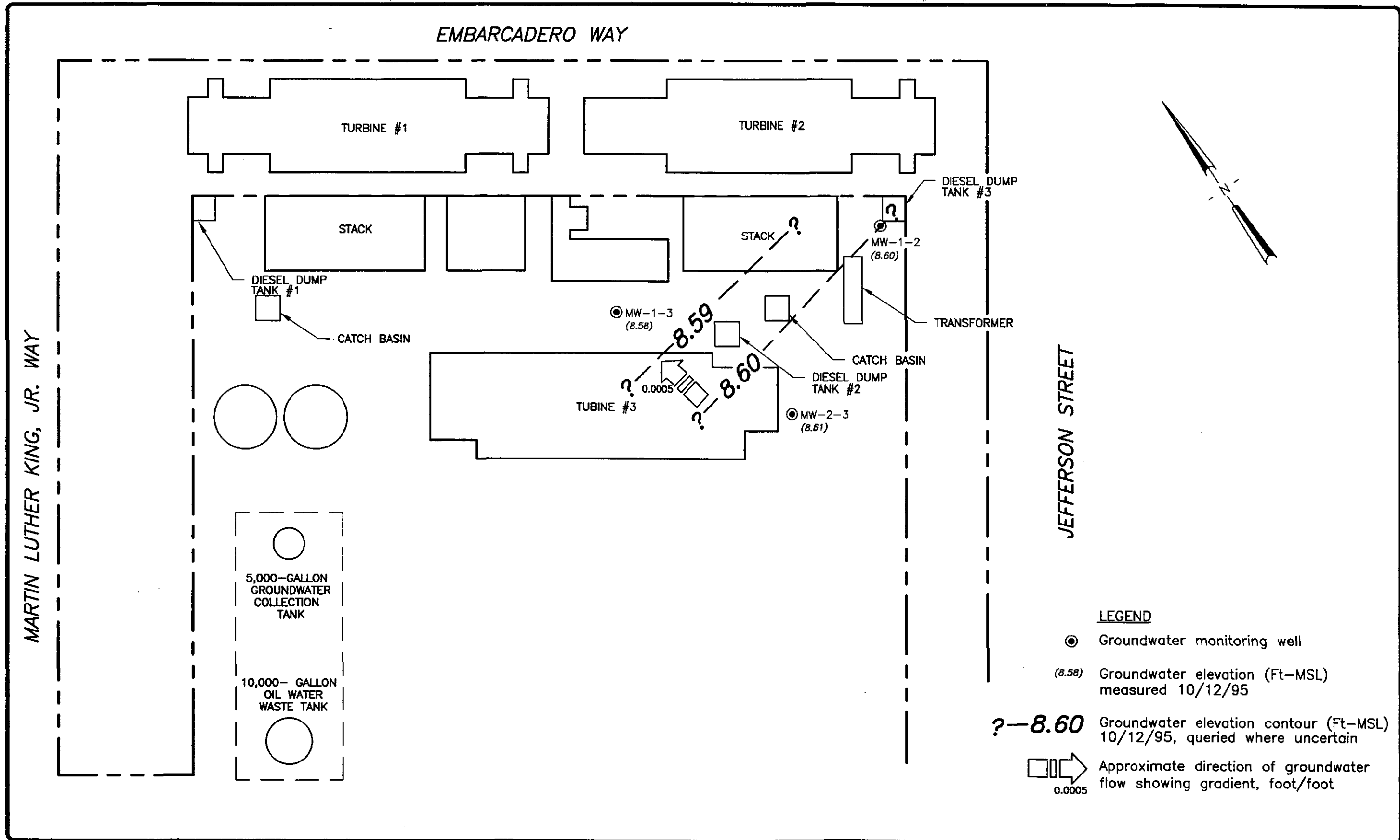
PACIFIC GAS AND ELECTRIC COMPANY
 OAKLAND POWER PLANT
 50 MARTIN LUTHER KING, JR. WAY
 OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE

1

PROJECT NO.
 0143-117.01



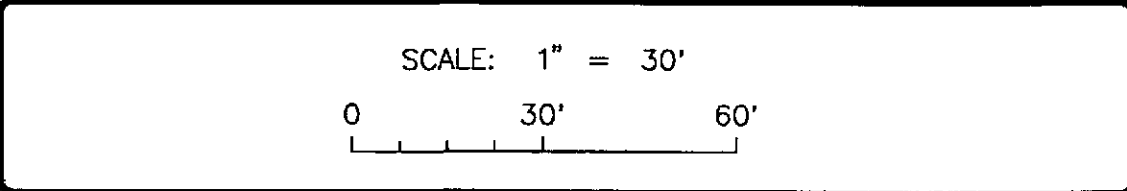
LEGEND

⊙ Groundwater monitoring well

(8.58) Groundwater elevation (Ft-MSL) measured 10/12/95

?-8.60 Groundwater elevation contour (Ft-MSL) 10/12/95, queried where uncertain

➡ 0.0005 Approximate direction of groundwater flow showing gradient, foot/foot



PACIFIC GAS AND ELECTRIC
 OAKLAND POWER PLANT
 50 MARTIN LUTHER KING JR. WAY
 OAKLAND, CALIFORNIA

GROUNDWATER CONTOUR MAP, THIRD QUARTER 1995

FIGURE NO.
2
 PROJECT NO.
 0143-117.01



MONITORING WELL PURGING PROTOCOL

MEASURE AND RECORD DEPTH TO WATER AND WELL TOTAL DEPTH

CHECK FOR FLOATING PRODUCT

YES

MEASURE AND DOCUMENT FLOATING PRODUCT THICKNESS. DO NOT SAMPLE WELL FOR DISSOLVED CONSTITUENTS.

NO

CALCULATE PURGE VOLUME BY USING THE FOLLOWING EQUATION:

$$P = \pi r^2 h \times 7.48 \times 3$$

where:

P = calculated purge volume (gallons)

π = 3.14

r = radius of well casing in feet

h = height of water column in feet

WELL EVACUATED TO PRACTICAL LIMITS OF DRYNESS BEFORE REMOVING CALCULATED PURGE VOLUME

EVACUATE WATER FROM WELL EQUAL TO THE CALCULATED PURGE VOLUME WHILE MONITORING GROUND-WATER STABILIZATION INDICATOR PARAMETERS (pH, CONDUCTIVITY, TEMPERATURE) AND TURBIDITY AT INTERVALS OF ONE CASING VOLUME.

NO

FINAL TWO SETS OF GROUND-WATER STABILIZATION INDICATOR PARAMETER MEASUREMENTS MEET THE FOLLOWING CRITERIA:

pH = ± 0.05 pH units

COND. = ± 3 %

TEMP. = ± 1.0 °F

TURBIDITY = ± <5 NTU

YES

WELL PURGING CRITERIA MET; PROCEED TO WELL SAMPLING

NO

CONTINUE PURGING; EVACUATE ADDITIONAL CASING VOLUME OF WATER, MONITORING INDICATOR PARAMETERS FOR STABILITY.

YES

WELL RECHARGES TO A LEVEL SUFFICIENT FOR SAMPLE COLLECTION WITHIN 24 HOURS OF EVACUATION TO DRYNESS.

YES

FIELD TEST FIRST RECHARGE WATER FOR INDICATOR PARAMETERS AND TURBIDITY, THEN PROCEED TO WELL SAMPLING.

NO

RECORD WELL AS DRY FOR PURPOSES OF SAMPLING.



EMCON

MONITORING WELL PURGING PROTOCOL

FIGURE

3



WATER SAMPLE FIELD DATA SHEET

EMCON ASSOCIATES

PROJECT NO: 0143-117.007
PURGED BY: J WILLIAMS
SAMPLED BY: J WILLIAMS

SAMPLE ID: M112-1-2
CLIENT NAME: DPG&G OAKLAND
LOCATION: OAKLAND CA

TYPE: Ground Water Surface Water Treatment Effluent Other

CASING DIAMETER (inches): 2 3 4 4.5 6 Other

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 4.04
DEPTH TO WATER (feet): 5.35 CALCULATED PURGE (gal.): 12.14
DEPTH OF WELL (feet): 13.5 ACTUAL PURGE VOL. (gal.): 7

DATE PURGED: 10-12-95 Start (2400 Hr) 1336 End (2400 Hr) 1543
DATE SAMPLED: 10-12-95 Start (2400 Hr) --- End (2400 Hr) 1404

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>1339</u>	<u>4</u>	<u>7.08</u>	<u>1272</u>	<u>69.3</u>	<u>CLRY</u>	<u>HEAVY</u>
	<u>DEIED</u>	<u>7 GALLONS</u>	<u>1343</u>			
<u>1416</u>	<u>Recharge</u>	<u>7.32</u>	<u>1407</u>	<u>68.4</u>	<u>BROWN</u>	<u>HEAVY</u>

D. O. (ppm): NR ODOR: STENCH NR NR
 Field QC samples collected at this well: NR Parameters field filtered at this well: NR
 (COBALT 0 - 500) (NTU 0 - 200 or 0 - 1000)

PURGING EQUIPMENT

SAMPLING EQUIPMENT

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input checked="" type="checkbox"/> Bailer (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input checked="" type="checkbox"/> Bailer (PVC) | <input type="checkbox"/> ODL Sampler | <input type="checkbox"/> Bailer (Stainless Steel) |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
- Other: _____ Other: _____

WELL INTEGRITY: OK LOCK #: 3190

REMARKS: _____

Meter Calibration: Date: 10-12-95 Time: _____ Meter Serial #: 9020 Temperature °F: 69.9
(EC 1000 1002 / 1000) (DI _____) (pH 7 6.82 / 7.00) (pH 10 10.01 / 10.00) (pH 4 3.61)

Location of previous calibration: _____

Signature: [Signature] Reviewed By: KR Page 1 of 3



EMCON ASSOCIATES

WATER SAMPLE FIELD DATA SHEET

Rev. 3, 2/94

PROJECT NO: 0143-117-001
PURGED BY: J WILLIAMS
SAMPLED BY: ↓

SAMPLE ID: MW-1-3
CLIENT NAME: PG&E
LOCATION: OAKLAND EA

TYPE: Ground Water Surface Water Treatment Effluent Other

CASING DIAMETER (inches): 2 3 4 4.5 6 Other

CASING ELEVATION (feet/MSL): N/A VOLUME IN CASING (gal.): 87
DEPTH TO WATER (feet): 5.43 CALCULATED PURGE (gal.): 2.65
DEPTH OF WELL (feet): 7.2 ACTUAL PURGE VOL (gal.): 1

DATE PURGED: 10-12-95 Start (2400 Hr) 13:58 End (2400 Hr) 15:51
DATE SAMPLED: 10-12-95 Start (2400 Hr) — End (2400 Hr) 14:29

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>13:51</u>	<u>1</u>	<u>7.36</u>	<u>2610</u>	<u>69.2</u>	<u>YELLOW</u>	<u>HEAVY</u>
<u>DRIED 1 GALLON 13:51</u>						
<u>14:29</u>	<u>Recharge</u>	<u>7.79</u>	<u>2530</u>	<u>69.6</u>	<u>BROWN</u>	<u>MOD</u>

D. O. (ppm): NR ODOR: Slight
Field QC samples collected at this well: NR Parameters field filtered at this well: NR
(COBALT 0 - 500) (NTU 0 - 200 or 0 - 1000)

PURGING EQUIPMENT

- 2" Bladder Pump
- Centrifugal Pump
- Submersible Pump
- Well Wizard™
- Bailer (Teflon®)
- Bailer (PVC)
- Bailer (Stainless Steel)
- Dedicated

Other: _____

SAMPLING EQUIPMENT

- 2" Bladder Pump
- DDL Sampler
- Dipper
- Well Wizard™
- Bailer (Teflon®)
- Bailer (Stainless Steel)
- Submersible Pump
- Dedicated

Other: _____

WELL INTEGRITY: OK LOCK #: 3490

REMARKS: _____

Meter Calibration: Date: _____ Time: _____ Meter Serial #: _____ Temperature °F: _____
(EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)

Location of previous calibration: _____

Signature: [Signature] Reviewed By: KR Page 2 of 3



WATER SAMPLE FIELD DATA SHEET

Rev. 3, 2/94

PROJECT NO: C143-107-001
PURGED BY: S WILLIAMS
SAMPLED BY: L

SAMPLE ID: MW-2-3
CLIENT NAME: PG&E
LOCATION: OAKLAND CA

TYPE: Ground Water Surface Water Treatment Effluent Other
CASING DIAMETER (inches): 2 3 4 4.5 6 Other

CASING ELEVATION (feet/MSL): NR VOLUME IN CASING (gal.): 3.97
DEPTH TO WATER (feet): 5.30 CALCULATED PURGE (gal.): 11.92
DEPTH OF WELL (feet): 13.3 ACTUAL PURGE VOL. (gal.): 6

DATE PURGED: 10-12-95 Start (2400 Hr) 1357 End (2400 Hr) 1402
DATE SAMPLED: 10-12-95 Start (2400 Hr) --- End (2400 Hr) 1440

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25° C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (visual)
<u>1400</u>	<u>4</u>	<u>7.16</u>	<u>2920</u>	<u>70.4</u>	<u>GRAY</u>	<u>HEAVY</u>
<u>DRIED 6 GALLONS 1402</u>						
<u>1441</u>	<u>Recharge</u>	<u>7.37</u>	<u>2980</u>	<u>71.2</u>	<u>GRAY</u>	<u>HEAVY</u>
D. O. (ppm): <u>NR</u> ODOR: <u>STRONG</u> <u>UA</u> <u>NR</u>						
Field QC samples collected at this well: <u>FB-1</u>			Parameters field filtered at this well: <u>NR</u>			

- | PURGING EQUIPMENT | | SAMPLING EQUIPMENT | |
|---|---|--|--|
| <input type="checkbox"/> 2" Bladder Pump | <input type="checkbox"/> Bailer (Teflon®) | <input type="checkbox"/> 2" Bladder Pump | <input checked="" type="checkbox"/> Bailer (Teflon®) |
| <input type="checkbox"/> Centrifugal Pump | <input checked="" type="checkbox"/> Bailer (PVC) | <input type="checkbox"/> ODL Sampler | <input type="checkbox"/> Bailer (Stainless Steel) |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel) | <input type="checkbox"/> Dipper | <input type="checkbox"/> Submersible Pump |
| <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated | <input type="checkbox"/> Well Wizard™ | <input type="checkbox"/> Dedicated |
| Other: _____ | | Other: _____ | |

WELL INTEGRITY: OK LOCK #: 3490

REMARKS: _____

Meter Calibration: Date: _____ Time: _____ Meter Serial #: _____ Temperature °F: _____
(EC 1000 _____ / _____) (DI _____) (pH 7 _____ / _____) (pH 10 _____ / _____) (pH 4 _____ / _____)
Location of previous calibration: _____

Signature: [Signature] Reviewed By: KR Page 3 of 3

CHROMALAB, INC.

Environmental Services (SDB)

October 16, 1995

Submission #: 9510195

EMCON ASSOCIATES, SACRAMENTO

Atten: O. Childs/J.C. Isham

Project: PG&E, OAKLAND

Project#: 0143-117.001

Received: October 13, 1995

re: 3 samples for Diesel analysis.

Method: EPA 3510/8015M

Sampled: October 12, 1995

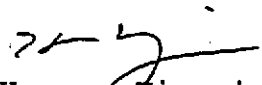
Matrix: WATER

Extracted: October 16, 1995

Run: 8915-K

Analyzed: October 16, 1995

Spl #	Sample ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE RESULT (%)
106550	MW-1-2 For above sample:	N.D. Unknown hydrocarbons in the Diesel range, conc. = 230 ug/L.	50	N.D.	82
106551	MW-1-3 For above sample:	N.D. Unknown hydrocarbons in the Diesel range, conc. = 190 ug/L.	50	N.D.	82
106552	MW-2-3 For above sample:	N.D. Unknown hydrocarbons in the Diesel range, conc. = 290 ug/L.	50	N.D.	82


Kayvan Kimyai
Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

October 16, 1995

Submission #: 9510195

EMCON ASSOCIATES, SACRAMENTO

Atten: O. Childs/J.C. Isham

Project: PG&E, OAKLAND

Project#: 0143-117.001

Received: October 13, 1995

re: 2 samples for BTEX analysis.

Method: EPA 8020

Sampled: October 12, 1995

Matrix: WATER

Run: 8913-4

Analyzed: October 16, 1995

Spl #	Sample ID	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
106552	MW-2-3	N.D.	N.D.	N.D.	N.D.
106553	QC-1	N.D.	N.D.	N.D.	N.D.

Reporting Limits

0.5

0.5

0.5

0.5

Blank Result

N.D.

N.D.

N.D.

N.D.

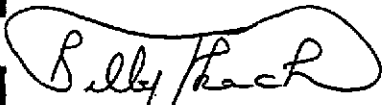
Blank Spike Result (%)

117

113

114

113



Billy Thach
Chemist



Ali Khafrazi
Organic Manager

1921 Ringwood Avenue, San Jose, CA 95131 (408) 453-7300 FAX (408) 437-9526

Date 10-12-95 Page of

Project Name: Pacific Gas & Electric, Oakland
 Project Number: 0143-117.001
 Project Manager: O Childs / J. C. Isham
 Company/Address: EMCON
 1433 North Market Blvd, Suite 2
 Sacramento, CA 95834-9014
 Phone: (916) 928-0415

Analysis Requested										
Number of Containers	BTXE (EPA 8020)	TPHD (EPA 3510/8015M)								

SUBM #: 9510195 REP: 160
 CLIENT: EMCON
 DATE: 10/16/95
 REF #: 24403

Sampler's Signature: _____

Sample I.D.	Date	Time	LAB I.D.	Sample Matrix
MW-1-2	10-12-95	1409		WATER
MW-1-3		1423		↓
MW-2-3		1440		↓
QC-1				

Number of Containers	BTXE (EPA 8020)	TPHD (EPA 3510/8015M)	ICI	NP								REMARKS
												Preservations
				X								
				X								
			X	X								
			X									

RUSH

Relinquished By <i>Joe Willie</i>	Received By <i>[Signature]</i>
Signature <i>Joe Willie</i>	Signature <i>[Signature]</i>
Printed Name EMCON	Printed Name EMCON
Firm 10-12-95 11:30	Firm Chromalab
Date/Time	Date/Time 10-13-95 12:06

TURNAROUND REQUIREMENTS
 24 hr 48 hr *Joe*
 Provide Verbal Preliminary Results
 Provide FAX Preliminary Results
 Requested Report Date 10-16-95

REPORT REQUIREMENTS
 I. Routine Report
 II. Report (includes DUP, MS MSD, as required, may be charged as samples)
 III. Data Validation Report (includes All Raw Data)
 RWQCB
 (MDLs/PQLs/TRACE#)

INVOICE INFORMATION
 P.O. # _____
 Bill to: _____

SAMPLE RECEIPT
 Shipping VIA: _____
 Shipping #: _____
 Condition: _____
 Lab No: _____

Special Instructions/Comments:
 Tier I QC