ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO2955

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH

ALAMEDA COUNTY CC4580
DEPT. OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY #250
ALAMEDA C

RACC (CLOSURE)
RO2955
PG&E Service Center
4801 Oakport St.
Oakland. CA 94601.

February 15, 1995
StID # 1421

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Joseph De Young
1919 Webster St.
Oakland CA 94612

RE: Pacific Gas and Electric Service Center, 4801 Oakport St., Oakland CA 94601

Dear Mr. De Young:

This letter confirms the completion of site investigation and remedial action for the one 6000 gallon diesel tank, the one 6000 gallon gasoline tank, the two 5000 gallon gasoline tanks and the one 500 waste oil tank removed from the above described location in December 1988.

Based upon the available information and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the undeground tank release is required.

This notice is issued pursuant to the regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,

Rafat A. Shahid
Assistant Agency Director

c: Edgar B. Howell, Chief, Hazardous Materials Division-files
Kevin Graves, RWQCB
Mike Harper, SWRCB

RACC4801

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| | |
|---|---|
| To FFlint | From BChan |
| Co. | Co. ACEH LOP |
| Dept. | Phone # 567-6765 |
| Fax # 866-5681 | Fax # |

**CASE CLOSURE SUMMARY**
**Leaking Underground Fuel Storage Tank Program**

**I. AGENCY INFORMATION** **Date:** 1/26/95

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Parkway Rm 250, Alameda CA 94502**

City/State/Zip: **Alameda** Phone: **(510) 567-6700**

Responsible staff person: Barney Chan Title: **Hazardous Materials Spec.**

**II. CASE INFORMATION**

Site facility name: Pacific Gas and Electric Service Center

Site facility address: 4801 Oakport St., Oakland CA 94601

RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: 1421

ULR filing date: 8/1/87 SWEEPS No: **N/A**

| Responsible Parties: | Addresses: | Phone Numbers: |
|---|---|---|
| Mr. Joseph De Young | 1919 Webster St., Oakland CA 94612 | |

| Tank No: | Size in gal.: | Contents: | Closed in-place or removed?: | Date: |
|---|---|---|---|---|
| 1 | 6000 | diesel | Removed | 12/13/88 |
| 2 | 6000 | gasoline | Removed | 12/13/88 |
| 3 | 5000 | gasoline | Removed | 12/13/88 |
| 4 | 5000 | gasoline | Removed | 12/13/88 |
| 5 | 500 | waste oil | Removed | 12/13/88 |

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and type of release: presumed from a piping leak

Site characterization complete? Yes

Date approved by oversight agency: 4/29/94

Monitoring Wells installed? YES Number: 8 installed, one destroyed leaving 7 currently at site.

Proper screened interval? Yes, 3.5-8.0'

Highest GW depth: 1.7'BGS Lowest depth: 5.7' BGS

Flow direction: northwesterly to northeasterly

**Treatment and Disposal of Affected Material:**

| Material | Amount (include units) | Action (Treatment of Disposal w/destination) | Date |
|---|---|---|---|
| Tanks & Piping | 1-6000 gallon diesel | All tanks removed | 12/13/88 |
| | 1-6000 gallon gasoline | and disposed at | 12/13/88 |
| | 2-5000 gallon gasoline | Erickson, Richmond | 12/13/88 |
| | 1-500 gallon waste oil | under manifest | 12/13/88 |
| Soil | 433 cy | Disposed at Durham Landfill, Fremont | 10/23/90 |
| Water | 5460 gallons | Recycled at Gibson Oil | 12/15/88 |

**Maximum Documented Contaminant Concentrations - - Before and After Cleanup**

| Contaminant | Soil (ppm) | | Water (ppm) | |
|---|---|---|---|---|
| | Before | After | Before | After |
| TPH (Gas) | 13,000 | ND | 7.0 | ND |
| TPH (Diesel) | 503 | 503 | 10 | 0.61* |
| Benzene | 16 | 0.25 | 1.3 | ND |
| Toluene | 250 | 0.104 | 2.7 | ND |
| Ethylbenzene | 120 | 0.064 | 0.72 | ND |
| Xylenes | 980 | 0.22 | 4.5 | ND |
| Oil and Grease | ND | --- | | |

**Comments (Depth of Remediation, etc.):**
* reported as kerosene
No chlorinated HC or metals run for the waste oil sample, see October 20, 1994 letter attached.

**IV. CLOSURE**

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? YES

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? YES

Does corrective action protect public health for current land use? YES

Site management requirements:

## Leaking Underground Fuel Storage Tank Program

Should corrective action be reviewed if land use changes? Yes

Monitoring wells Decommisioned: One of eight

Number Decommisioned: 1 Number Retained: 7

List enforcement actions taken: None

List enforcement actions rescinded:None

**V. LOCAL AGENCY REPRESENTATIVE DATA**

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: Barney M Chan Date: 2/1/95

**Reviewed by**

Name: Jennifer Eberle Title: Hazardous Materials Specialist

Signature: J Eberle Date: 1-30-95

Name: Eva Chu Title: Haz. Mat. Specialist

Signature: Eva Chu Date: 1/27/95

**VI. RWQCB NOTIFICATION**

Date Submitted to RB: RB Response:

RWQCB Staff Name: K. Graves Title: AWRCE Date:

**VII. ADDITIONAL COMMENTS, DATA, ETC.**

Site Summary for 4801 Oakport, Oakland 94601, STID #1421
PG&E Service Center

This site is located on Oakport Street, the frontage road on the west side of Interstate 880. It had five underground tanks, four of which were located in a common tank pit. The fifth tank was a waste oil tank slightly west of this common pit. It currently has three underground storage tanks, all double walled. Groundwater is shallow at this site ranging from 3-8' BGS.

August 1987- PG&E identified a pipe leak in tank 4, the 6k UL gasoline tank in the northeast corner of the tank pit, through a failed precision test. This leak was subsequently repaired.

August 25, 1987- 14 borings around and within the tank complex were advanced which confirmed the soil contamination near tank #4.

Nov. 21, 1987- In response to the above leak, three shallow monitoring wells were installed at this site, one within the tank pit (P-1) and two to the northeast and southeast of the tank pit. A shallow groundwater survey was performed at 32 points around the tank complex and throughout the property. Gasoline up to 7.9 mg/l and benzene up to 1.3 mg/l was detected to the west of the complex, while diesel was detected on both the east and west sides of the complex in grab groundwater samples.

Dec. 13, 1988- The five USTs were removed, 5460 gallons of water was removed from the tank pit and approximately 300 cubic yards of soil. The soil was subsequently aerated and bioremediated and later disposed at the Durham Rd. landfill.

September 1990- TES provided a work plan for the installation of 3 additional wells to further define the petroleum plume. Well P1, located within the tank pit was destroyed during the tank removal activity. Well P4 was installed to replace P1. The two other wells were located to the east of the tank complex. The soil borings from these three wells were ND for TPHg,d and BTEX, however, the groundwater samples detected up to 0.3 mg/l diesel, 0.22mg/l gasoline and 0.015, 0.006, 0.002 and 0.007 mg/l BTEX respectively. Gradient has varied from northwest to northeast and is thought to be tidally influenced, though the predominant direction is northwesterly.

August 14, 1991- TES proposed to install 2 additional monitoring wells for further characterization of the aquifer. Wells P-7 and P-8 were installed in September of 1991.

Due to the low levels or non-detectable levels of TPHg and d and BTEX in wells P2 and P3 over three years of semi-annual monitoring, these wells were not sampled after the 1/90 event, however, they were used for calculating groundwater gradient. See attached monitoring well results.

Extensive groundwater monitoring has occurred at this site with little to no detectable concentrations of TPHg,d and BTEX, see attached monitoring results. Considerable water and contaminated soil was removed at the time of the tank removals. It appears that the release may have come from a piping leak which was subsequently repaired. The groundwater quality has not been significantly impacted as evidenced by long term monitoring and closure for the five tanks removed in 1988 is recommended.

**Pacific Gas and Electric Company**

Technical and Ecological Services
3400 Crow Canyon Road
San Ramon, CA 94583
510/820-2000

October 20, 1994

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County, Division of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502

RE: PG&E Oakland Service Center
4801 Oakport Road, Oakland
Former Underground Task Closure Request

Dear Mr. Chan:

This letter is in response to your request for additional information regarding the case summary of the above mentioned site. For clarification I have reiterated your questions raised during a telephone conversation on September 20, 1994, followed by our answer.

1. *What are the well screen intervals of the existing wells on site?*

   Existing wells are screened as follows: P2 (2ft.-7ft.); P3 (2ft.-7ft.); P4 (3.5ft.-8.5ft.); P5 (3.5ft.-8.5ft.); P6 (3.5ft.-8.5ft.), P7 (3ft.-8ft ); P8 (3ft -8ft.). Boring logs for wells P2 and P3 can be found in TES Report 402 331-88.40, dated November, 1988. Boring logs for wells P4-P6 can be found in TES Report 402.331-90.57, dated February 26, 1991. Boring logs for wells P7 and P8 can be found in TES Report 402.331-91.81, dated April 2, 1992.

2. *Approximately 5000 gallons of waste water was removed during the tank excavation. Where was the water sent to? Is there documentation?*

   Approximately 5460 gallons of waste water were transported under hazardous waste manifest to Gibson Oil in Bakersfield. The manifest is attached.

3. *During the excavation of the waste oil tank, were soil and groundwater sampled for chlorinated solvents and metals? If not, why?*

   Samples from the waste oil tank area were not sampled for chlorinated solvents or metals. A representative from Alameda County Division of Environmental Health was on site and did not require those samples to be analyzed for the above parameters.

where are the after TOG, TPHd + BTEX results

4. *During the tank excavation were all dispenser and vapor recovery lines removed? Were samples were collected in these locations?*

   All product lines were removed as stipulated in the attached specification. A total of 11 soil samples were collected from the tank excavation. Although the location of the product lines are not evident in the attached report, samples #1C and #4C appear to correspond to these locations.

I hope this information allows you to proceed with your case summary. Should you require additional information please contact me at (510) 866-5808.

Sincerely,

Frederick F. Flint
Registered Geologist

pc: Mr. Steven Ritchie
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

## Table 1.

**Summary of analytical results of groundwater samples collected from monitoring wells P1, P2, P3, P4, P5, and P6 at PG&E's Oakland Service Center.**

| Sample Date | Sample Location | B (µg/L) | T (µg/L) | E (µg/L) | X (µg/L) | TPH as Gasoline (µg/L) | TPH as Diesel (µg/L) |
|---|---|---|---|---|---|---|---|
| 12/1/1987† | P1 | 1,400 | 8 | 100 | 28 | 24,000 | <250 |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <250 |
| 1/7/88 | P1 | 1,500 | 85 | 130 | 440 | 14,000 | 60,000 |
| 1/7/88 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <250 |
| 1/7/88 | P3 | <0.5 | 3.0 | <0.5 | <0.5 | 3.0 | <250 |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <250 |
| 6/1/88 | P1 | 250 | 97 | <0.5* | 420 | 9,100 | 140,000 |
| 6/1/88 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 6/1/88 | P3 | <0.5 | 5.0 | <0.5 | <0.5 | 5.0 | <10.0 |
| 6/1/88 | BL1 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | -- |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 6/29/88 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | <1.5 | <1.5 |
| 6/29/88 | P3 | <0.5 | <0.5 | <0.5 | <0.5 | <1.5 | <1.5 |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | 0.75 | 0.75 |
| 6/29/88 | BL2 | -- | -- | -- | -- | <1.5 | -- |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.5 | <1.5 |
| 1/11/89 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | 5.0 | <10.0 |
| 1/11/89 | P3 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | 150 |
| 1/11/89 | BL3 | 1.0 | 2.0 | <0.5 | <0.5 | 30 | -- |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 4/11/89 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 4/11/89 | P3 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 4/11/89 | BL4 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | -- |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 7/11/89 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | 2.0 | <10.0 |
| 7/11/89 | P3 | <0.5 | 1.0 | <0.5 | <0.5 | 3.0 | <10.0 |
| 7/11/89 | BL5 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | -- |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 1/10/90 | P2 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 1/10/90 | D(P2) | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 1/10/90 | P3 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 1/10/90 | BL6 | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | -- |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | <10.0 |
| 11/8/90 | P4 | 2.4 | 0.8 | 2.8 | 1.3 | 110.0 | 150.0 |
| 11/8/90 | P5 | 15.0 | 2.4 | 6.1 | 6.6 | 220.0 | 300.0 |
| 11/8/90 | P6 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | 230.0 |
| 11/8/90 | FB | <0.5 | 0.8 | <0.5 | <0.5 | <50 | <50 |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| 2/15/91 | P4 | 1.2 | <0.5 | 3.1 | 5.9 | 230.0 | 310.0 |
| 2/15/91 | P5 | 8.2 | 1.0 | 22.0 | 38.0 | 900.0 | 930.0 |
| 2/15/91 | P6 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | 110.0 |
| 2/15/91 | FB | <0.5 | 1.3 | <0.5 | 1.5 | <50 | <50 |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| 4/30/91 | P4 | 0.6 | <0.5 | <0.5 | <0.5 | 130.0 | 210.0 |
| 4/30/91 | P5 | 4.0 | 3.3 | <0.5 | 3.9 | 1000.0 | 590.0 |
| 4/30/91 | P6 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | 80.0 |
| 4/30/91 | FB | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| Detection Limits: | | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
TPH = Total Petroleum Hydrocarbons
FB = Field Blank
BL = Field blank

ug/L = micrograms per liter
-- = not tested
ND = Not Detected
* = Detection limit raised to 5 ppb; sample was diluted due to foaming
D = Duplicate
† = P2 and P3 had not been developed by this date

P1 DESTROYED DECEMBER 1988
P2 & P3 USED FOR WATER LEVEL MEASUREMENTS ONLY

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
PACIFIC GAS AND ELECTRIC COMPANY'S OAKLAND SERVICE CENTER
4901 OAKPORT ROAD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-111

| WELL ID | DATE OF SAMPLING/ MONITORING | CASING ELEVATION (a) (Feet) | DEPTH TO WATER (Feet) | GROUNDWATER ELEVATION (b) (Feet) | TPH-G (ug/L) | TPH-D (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | LAB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P-1 | 11/25/87 | 5.89 | 4.70 | 1.19 | — | — | — | — | — | — | — |
| P-1 | 12/01/87 | 5.89 | 4.66 | 1.23 | — | — | — | — | — | — | — |
| P-1 | 01/07/88 | 5.89 | 3.63 | 2.26 | — | — | — | — | — | — | — |
| P-1 | 02/04/88 | 5.89 | 3.67 | 2.22 | — | — | — | — | — | — | — |
| P-1 (c) | 02/09/88 | 5.89 | 3.76 | 2.13 | | | | | | | |
| P-2 | 11/25/87 | 6.17 | 4.87 | 1.30 | — | — | — | — | — | — | — |
| P-2 | 12/01/87 | 6.17 | 4.88 | 1.29 | — | — | — | — | — | — | — |
| P-2 | 01/07/88 | 6.17 | 4.01 | 2.16 | — | — | — | — | — | — | — |
| P-2 | 02/04/88 | 6.17 | 4.22 | 1.95 | — | — | — | — | — | — | — |
| P-2 | 02/09/88 | 6.17 | 4.26 | 1.91 | — | — | — | — | — | — | — |
| P-2 | 06/01/88 | 6.17 | 4.01 | 2.16 | — | — | — | — | — | — | — |
| P-2 | 12/11/90 | 6.17 | 4.59 | 1.58 | — | — | — | — | — | — | — |
| P-2 | 02/15/91 | 6.17 | 3.68 | 2.49 | — | — | — | — | — | — | — |
| P-2 | 04/30/91 | 6.17 | 3.08 | 3.09 | — | — | — | — | — | — | — |
| P-2 | 07/11/91 | 6.17 | 3.98 | 2.19 | — | — | — | — | — | — | — |
| P-2 | 09/24/91 | 6.17 | 4.54 | 1.63 | — | — | — | — | — | — | — |
| P-2 | 01/31/92 | 6.17 | 4.22 | 1.95 | — | — | — | — | — | — | — |
| P-2 | 04/01/92 | 6.17 | 3.00 | 3.17 | — | — | — | — | — | — | — |
| P-2 | 07/02/92 | 6.17 | 4.10 | 2.07 | — | — | — | — | — | — | — |
| P-2 | 10/02/92 | 6.17 | 3.95 | 2.22 | — | — | — | — | — | — | — |
| P-2 | 01/15/93 | 6.17 | 3.02 | 3.15 | — | — | — | — | — | — | — |
| P-2 | 04/30/93 | 6.17 | 2.90 | 3.27 | — | — | — | — | — | — | — |
| P-2 | 07/30/93 | 6.17 | 3.98 | 2.19 | — | — | — | — | — | — | — |
| P-2 | 10/25/93 | 6.17 | 4.55 | 1.62 | — | — | — | — | — | — | — |
| P-2 | 02/07/94 | 6.17 | 3.57 | 2.60 | — | — | — | — | — | — | — |
| P-2 | 04/29/94 | 6.17 | 3.17 | 3.00 | — | — | — | — | — | — | — |

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
PACIFIC GAS AND ELECTRIC COMPANY'S OAKLAND SERVICE CENTER
4801 OAKPORT ROAD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-111

| WELL ID | DATE OF SAMPLING/ MONITORING | CASING ELEVATION (a) (Feet) | | DEPTH TO WATER (Feet) | GROUNDWATER ELEVATION (b) (Feet) | TPH-G (ug/L) | TPH-D (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | LAB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P-3 | 12/01/87 | 5.76 | | 5.33 | 0.43 | — | — | — | — | — | — | — |
| P-3 | 01/07/88 | 5.76 | | 4.55 | 1.21 | — | — | — | — | — | — | — |
| P-3 | 02/04/88 | 5.76 | | 3.55 | 2.21 | — | — | — | — | — | — | — |
| P-3 | 02/09/88 | 5.76 | | 3.44 | 2.32 | — | — | — | — | — | — | — |
| P-3 | 06/01/88 | 5.76 | | 3.24 | 2.52 | — | — | — | — | — | — | — |
| P-3 | 12/11/90 | 5.76 | | 4.85 | 0.91 | — | — | — | — | — | — | — |
| P-3 | 02/15/91 | 5.76 | | 2.70 | 3.06 | — | — | — | — | — | — | — |
| P-3 | 04/30/91 | 5.76 | | 1.93 | 3.83 | — | — | — | — | — | — | — |
| P-3 | 07/11/91 | 5.76 | | 3.05 | 2.71 | — | — | — | — | — | — | — |
| P-3 | 09/24/91 | 5.76 | | 3.77 | 1.99 | — | — | — | — | — | — | — |
| P-3 | 01/31/92 | 5.76 | | 3.63 | 2.13 | — | — | — | — | — | — | — |
| P-3 | 04/01/92 | 5.76 | | 4.81 | 0.95 | — | — | — | — | — | — | — |
| P-3 | 07/02/92 | 5.76 | | 3.25 | 2.51 | — | — | — | — | — | — | — |
| P-3 | 10/02/92 | 5.76 | | 4.70 | 1.06 | — | — | — | — | — | — | — |
| P-3 | 01/15/93 | 5.70 | (d) | 2.82 | 2.88 | — | — | — | — | — | — | — |
| P-3 | 04/30/93 | 5.70 | | 2.29 | 3.41 | — | — | — | — | — | — | — |
| P-3 | 07/30/93 | 5.70 | | 2.69 | 3.01 | — | — | — | — | — | — | — |
| P-3 | 10/25/93 | 5.70 | | 3.77 | 1.93 | — | — | — | — | — | — | — |
| P-3 | 02/07/94 | 5.70 | | 2.95 | 2.75 | — | — | — | — | — | — | — |
| P-3 | 04/29/94 | 5.70 | | 2.01 | 3.69 | — | — | — | — | — | — | — |
| P-4 | 11/08/90 | 5.31 | | — | — | 110 | 150 | 2.4 | 0.8 | 2.8 | 1.3 | BCA |
| P-4 | 12/11/90 | 5.31 | | 4.00 | 1.31 | — | — | — | — | — | — | — |
| P-4 | 02/15/91 | 5.31 | | 2.86 | 2.45 | 230 | 310 | 1.2 | ND<0.5 | 3.1 | 5.9 | BCA |
| P-4 | 04/30/91 | 5.31 | | 3.62 | 1.69 | 130 | 210 | 0.6 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-4 | 07/11/91 | 5.31 | | 4.86 | 0.45 | 200 | 92 | 0.6 | ND<0.5 | ND<0.5 | 0.8 | BCA |
| P-4 | 09/24/91 | 5.31 | | 3.71 | 1.60 | 70 | 130 | ND<0.5 | ND<0.5 | 2 | 1 | BCA |
| P-4 | 01/31/92 | 5.31 | | 4.20 | 1.11 | 540 | 100 | 50 | 51 | 51 | 160 | BCA |
| P-4 | 04/01/92 | 5.31 | | 2.20 | 3.11 | ND<50 | 100 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-4 | 07/02/92 | 5.31 | | 4.17 | 1.14 | 70 | 180 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-4 | 10/02/92 | 5.31 | | 5.07 | 0.24 | 85 | 190 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-4 | 01/15/93 | 5.31 | | 2.40 | 2.91 | 130 | 170 | ND<0.5 | 0.70 | ND<0.5 | 0.92 | BCA |
| P-4 | 04/30/93 | 5.31 | | 2.09 | 3.22 | 81 | 210 | 1.8 | 1.1 | 2.8 | 7.5 | BCA |
| P-4 | 07/30/93 | 5.31 | | 4.84 | 0.47 | 60 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | 1.1 | CHR |
| P-4 | 10/25/93 | 5.31 | | 4.14 | 1.17 | 78 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| QC-1 | 10/25/93 | — | | — | — | 83 | — | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-4 | 02/07/94 | 5.31 | | 3.10 | 2.21 | 90 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-4 | 04/29/94 | 5.31 | | 4.18 | 1.13 | ND<50 | 140 (e) | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |

PAG

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
PACIFIC GAS AND ELECTRIC COMPANY'S OAKLAND SERVICE CENTER
4801 OAKPORT ROAD, OAKLAND, CALIFORNIA

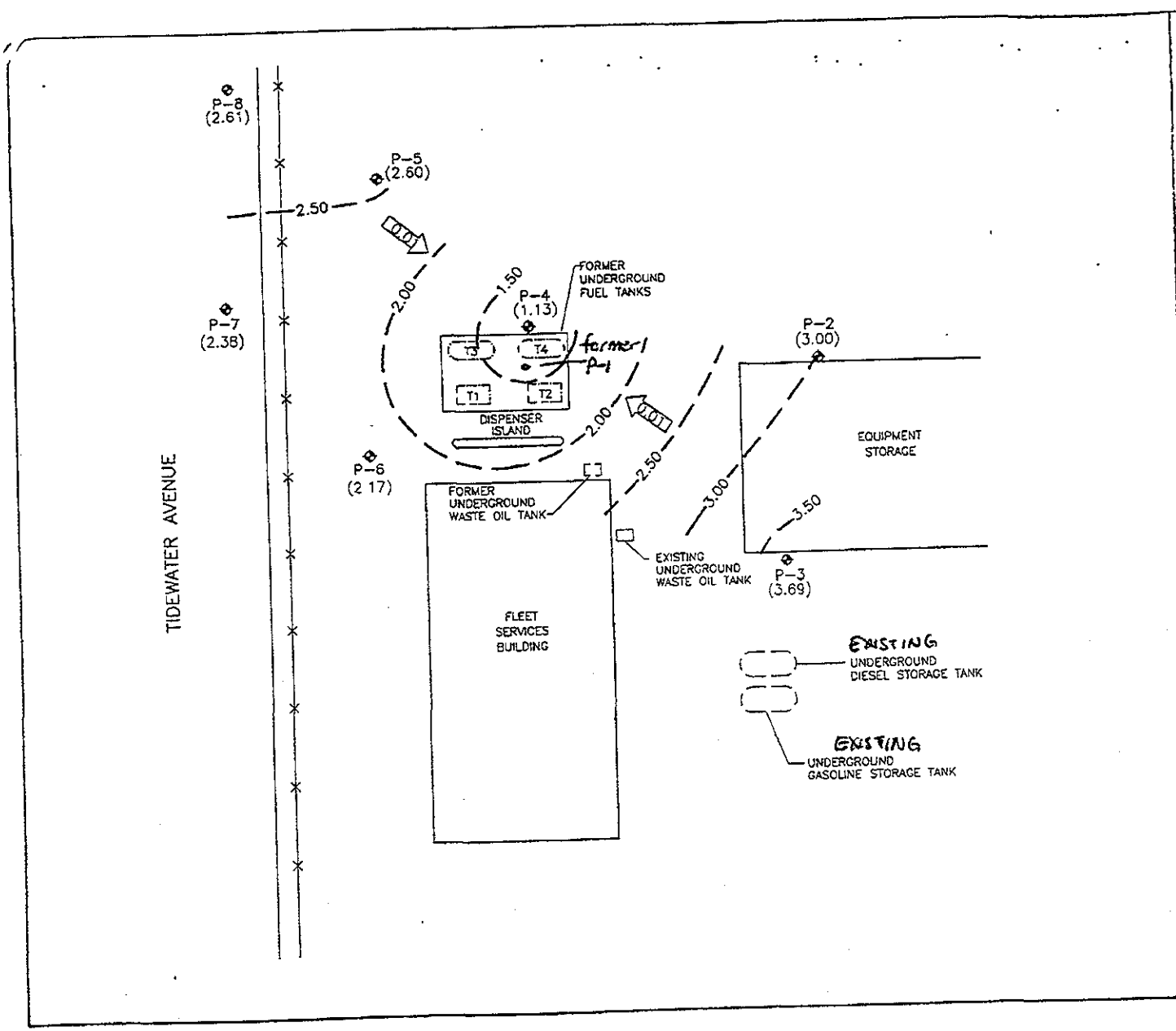
ALISTO PROJECT NO. 10-111

| WELL ID | DATE OF SAMPLING/ MONITORING | CASING ELEVATION (a) (Feet) | DEPTH TO WATER (Feet) | GROUNDWATER ELEVATION (b) (Feet) | TPH-G (ug/L) | TPH-D (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | LAB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P-5 | 11/08/90 | 5.22 | — | — | 220 | 300 | 15 | 2.4 | 6.1 | 6.6 | BCA |
| P-5 | 12/11/90 | 5.22 | 3.32 | 1.90 | — | — | — | — | — | — | — |
| P-5 | 02/15/91 | 5.22 | 2.43 | 2.79 | 900 | 930 | 8.2 | 1.0 | 22 | 38 | BCA |
| P-5 | 04/30/91 | 5.22 | 2.29 | 2.93 | 1000 | 590 | 4 | 3.3 | ND<0.5 | 3.9 | BCA |
| P-5 | 07/11/91 | 5.22 | 4.23 | 0.99 | 540 | 100 | 8.1 | 2.5 | 2 | 3.4 | BCA |
| P-5 | 09/24/91 | 5.22 | 3.69 | 1.53 | 350 | 190 | 1.4 | 1.6 | 3.0 | 6.1 | BCA |
| P-5 | 01/31/92 | 5.22 | 4.10 | 1.12 | 100 | 70 | ND<0.5 | 0.8 | ND<0.5 | 0.5 | BCA |
| P-5 | 04/01/92 | 5.22 | 2.32 | 2.90 | ND<50 | 110 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-5 | 07/02/92 | 5.22 | 3.13 | 2.09 | ND<50 | 110 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-5 | 10/02/92 | 5.22 | 3.80 | 1.42 | ND<50 | 110 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-5 | 01/15/93 | 5.22 | 1.96 | 3.26 | ND<50 | 120 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-5 | 04/30/93 | 5.22 | 2.04 | 3.18 | ND<50 | 130 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-5 | 07/30/93 | 5.22 | 3.08 | 2.14 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-5 | 10/25/93 | 5.22 | 3.60 | 1.62 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-5 | 02/07/94 | 5.22 | 2.55 | 2.67 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-5 | 04/29/94 | 5.22 | 2.62 | 2.60 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-6 | 11/08/90 | 5.42 | — | — | ND<50 | 230 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 12/11/90 | 5.42 | 4.31 | 1.11 | — | — | — | — | — | — | — |
| P-6 | 02/15/91 | 5.42 | 3.98 | 1.44 | ND<50 | 110 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 04/30/91 | 5.42 | 2.57 | 2.85 | ND<50 | 80 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 07/11/91 | 5.42 | 3.94 | 1.48 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 09/24/91 | 5.42 | 3.90 | 1.52 | ND<50 | 430 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 01/31/92 | 5.42 | 5.71 | -0.29 | ND<50 | 330 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 04/01/92 | 5.42 | 3.54 | 1.88 | ND<50 | 160 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 07/02/92 | 5.42 | 4.16 | 1.26 | ND<50 | 160 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 10/02/92 | 5.42 | 4.95 | 0.47 | ND<50 | 160 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 01/15/93 | 5.42 | 2.17 | 3.25 | ND<50 | 240 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-6 | 04/30/93 | 5.42 | 2.26 | 3.16 | ND<50 | 220 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-6 | 07/30/93 | 5.42 | 3.66 | 1.76 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-6 | 10/25/93 | 5.42 | 3.77 | 1.65 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-6 | 02/07/94 | 5.42 | 2.81 | 2.61 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-6 | 04/29/94 | 5.42 | 3.25 | 2.17 | ND<50 | 610 (e) | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
PACIFIC GAS AND ELECTRIC COMPANY'S OAKLAND SERVICE CENTER
4901 OAKPORT ROAD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-111

| WELL ID | DATE OF SAMPLING/ MONITORING | CASING ELEVATION (a) (Feet) | DEPTH TO WATER (Feet) | GROUNDWATER ELEVATION (b) (Feet) | TPH-G (ug/L) | TPH-D (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | LAB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P-7 | 09/24/91 | 4.97 | 3.67 | 1.30 | ND<50 | 350 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-7 | 01/31/92 | 4.97 | 3.20 | 1.77 | ND<50 | 220 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-7 | 04/01/92 | 4.97 | 2.30 | 2.67 | ND<50 | 110 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-7 | 07/02/92 | 4.97 | 3.13 | 1.84 | ND<50 | 400 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-7 | 10/02/92 | 4.97 | 3.72 | 1.25 | ND<50 | 560 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-7 | 01/15/93 | 4.97 | 1.80 | 3.17 | ND<50 | 410 | ND<0.5 | 0.57 | ND<0.5 | ND<0.5 | BCA |
| P-7 | 04/30/93 | 4.97 | 2.31 | 2.66 | ND<50 | 470 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-7 | 07/30/93 | 4.97 | 3.14 | 1.83 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-7 | 10/25/93 | 4.97 | 3.53 | 1.44 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-7 | 02/07/94 | 4.97 | 2.13 | 2.84 | ND<50 | 120 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-7 | 04/29/94 | 4.97 | 2.59 | 2.38 | | | | | | | |
| P-8 | 09/24/91 | 4.81 | 4.31 | 0.50 | ND<50 | 100 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-8 | 01/31/92 | 4.81 | 2.82 | 1.99 | ND<50 | 320 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-8 | 04/01/92 | 4.81 | 2.13 | 2.68 | ND<50 | 300 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-8 | 07/02/92 | 4.81 | 2.89 | 1.92 | ND<50 | 140 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-8 | 10/02/92 | 4.81 | 3.60 | 1.21 | ND<50 | 200 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-8 | 01/15/93 | 4.81 | 1.73 | 3.08 | ND<50 | 140 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | BCA |
| P-8 | 04/30/93 | 4.81 | 2.14 | 2.67 | ND<50 | 160 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-8 | 07/30/93 | 4.81 | 2.98 | 1.83 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-8 | 10/25/93 | 4.81 | 3.39 | 1.42 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-8 | 02/07/94 | 4.81 | 1.98 | 2.83 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | CHR |
| P-8 | 04/29/94 | 4.81 | 2.20 | 2.61 | | | | | | | |

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SCALE IN FEET

LEGEND

- ◈ GROUNDWATER MONITORING WELL
- (3.69) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 3.50 — GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL—0.50 FOOT)
- 0.01 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

APRIL 29, 1994

PACIFIC GAS AND ELECTRIC COMPANY
OAKLAND SERVICE CENTER
4801 OAKPORT ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 10—111

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA