**Xtra Oil Company**
2307 Pacific Avenue, Alameda, CA 94501
Tel. (510) 865-9565, FAX (510) 865-4807

93 SEP 21 PM 1:07

September 21, 1993

Mr. Scott Seary
Hazardous Materials Program
Department of Environmental Health
80 Swan Way, Room 200
Oakland, Ca. 94621

Regarding: 3495 Castro Valley Blvd. Castro Valley

Dear Mr. Seary,

Please find enclosed the quarterly report for the above location. This reports is for the second quarter of 1993. If you have any questions feel free to contact us.

Sincerely,

Keith Simas

# P & D ENVIRONMENTAL

300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916


September 9, 1993
Report No. 0014.R4

93 SEP 21 PM 4:07

Mr. Ted Simas
Mr. Keith Simas
XTRA OIL COMPANY
2307 Pacific Ave.
Alameda, CA 94501

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report
XTRA OIL COMPANY
3495 Castro Valley Blvd.
Castro Valley, CA

Gentlemen:

P&D Environmental (P&D) is pleased to present this report documenting the results of the most recent quarterly monitoring and sampling of the wells at the subject site. This work was performed in accordance with our proposal 051793.P1 dated May 17, 1993. The reporting period is for March through May, 1993. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

BACKGROUND

The site is currently used as a gasoline station. Four 10,000 gallon underground fuel storage tanks are present at the site. Three of the tanks contain gasoline and the fourth tank contains diesel fuel. A 550 gallon waste oil tank was removed from the site in November, 1988. The fuel tanks were replaced during August, 1992.

Three monitoring wells, designated as MW1, MW2 and MW3 were installed at the site on February 15, 1990 by Wedge Western Geo-Engineers. The locations of the monitoring wells are shown in Figure 2. Soil samples collected during drilling of the boreholes for the monitoring wells revealed the presence of total petroleum hydrocarbons as gasoline (TPH-G) and total petroleum hydrocarbons as diesel (TPH-D). TPH-G was encountered in boreholes MW1 and MW3 at depths ranging from 5 to 15 feet below grade and at concentrations ranging from 40 to 1,400 ppm at MW1 and concentrations ranging from 25 to 250 ppm at MW3. In MW2, TPH-G was encountered at depths ranging from 10 to 15 feet below grade and at concentrations ranging from 95 to 230 ppm. In borehole MW3, TPH-D was encountered at concentrations ranging up to 1,200 ppm. Groundwater was encountered in the boreholes at a depth of 15 feet below grade.

On February 15, 1990 Wedge Western Geo-Engineers drilled three exploratory boreholes at the site designated as SB1, SB2 and SB3. Soil samples were collected from the exploratory boreholes at depths of 10 and 12 feet. TPH-G was detected in SB1 at a depth of 10 feet and at a concentration of 1,700 ppm. In SB2 and SB3, TPH-G was detected at depths of 10 and 12 feet. TPH-G concentrations in both boreholes were 800 ppm at a depth of 10 feet and 2,000 ppm at a depth of 12 feet. A groundwater monitoring and sampling program was initiated at the site on February 20, 1990.

During fuel tank replacement activities in August, 1992 soil surrounding the tank pit was removed and disposed of offsite. An extraction well, designated as EW1, was constructed in one corner of the new tank pit at the time of installation for the new tanks. The location of EW1 is shown on Figure 2.

FIELD ACTIVITIES

On May 18, 1993 all of the monitoring wells at the site were monitored and sampled by P&D personnel. Extraction well EW1 was not monitored or sampled during the quarter. The wells were monitored for depth to water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of free product or sheen was evaluated using a transparent bailer. No sheen was observed in wells MW1 and MW3. However, a sheen was observed in well MW2. Depth to water level measurements are presented in Table 1.

Prior to sampling, the monitoring wells were purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged, water samples were collected using a clean Teflon bailer.

The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials and bottles were then transferred to a cooler with ice, until they were transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report.

HYDROGEOLOGY

Water levels were measured in the monitoring wells once during the quarter. The measured depth to water at the site on May 18, 1993 ranged from 7.12 to 8.12 feet. Groundwater levels have decreased in wells MW1 and MW2 by 0.78 and 1.34 feet, respectively, and increased in well MW3 by 0.89 feet since the previous monitoring on February 23, 1993. The calculated groundwater flow direction on May 18, 1993 was to the east-northeast with a gradient of 0.011. The groundwater flow direction has reversed and the gradient has decreased since the previous monitoring on February 23, 1993.

Groundwater level data collected during the quarter are presented in Table 1. The groundwater flow direction at the site on May 18, 1993 is shown on Figure 2.

LABORATORY RESULTS

All of the groundwater samples collected from the monitoring wells were analyzed for TPH-G using EPA Method 5030 and Modified EPA Method 8015; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020; and for TPH-D using EPA Method 3510 in conjunction with Modified EPA Method 8015.

The laboratory analytical results for the groundwater samples from MW1, MW2 and MW3 show TPH-G at concentrations of 92, 67 and 130 ppm, respectively, benzene concentrations of 4.0, 9.2 and 36 ppm, respectively, and TPH-D at concentrations of 30, 44 and 7.2 ppm, respectively. Since the previous quarter, TPH-G and benzene concentrations have decreased in wells MW1 and MW2, and increased in well MW3. TPH-D concentrations have decreased in well MW3 and increased in wells MW1 and MW2 since the previous quarter. The laboratory analytical results are summarized in Table 2. Copies of the laboratory analytical results and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

The groundwater flow direction has reversed since the previous quarter. Based on the laboratory analytical results of the water samples collected from the monitoring wells, P&D recommends that the quarterly groundwater monitoring and sampling program be continued.

DISTRIBUTION

Copies of this report should be sent to Mr. Richard Hiett at the Regional Water Quality Control Board, San Francisco Bay Region, and to Mr. Scott Seery at the Alameda County Department of Environmental Health. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of the XTRA OIL Company.

LIMITATIONS

This report was prepared solely for the use of XTRA OIL. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact Paul King at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
Hydrogeologist

REGISTERED PROFESSIONAL ENGINEER
SHERBAN A. DUNCAN
No. 32972
Exp. 6/94
CIVIL
STATE OF CALIFORNIA

Sherban A. Duncan
Registered Civil Engineer
Registration No.: 32972
Expiration Date: 6/30/94

PHK
0014.R4

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Field Parameter Forms
Laboratory Analytical Results
Chain of Custody Documentation

TABLE 1

WELL MONITORING DATA

| Well No. | Date Monitored | Top of Casing Elev. (ft.) | Depth to Water (ft.) | Water Table Elev. (ft.) |
|---|---|---|---|---|
| MW1 | 5/18/93 | 177.43* | 8.12 | 169.31 |
| | 2/23/93 | | 7.34 | 170.09 |
| | 11/13/92 | 200.00** | 9.13 | 190.87 |
| | 5/29/92 | 175.73 | 8.59 | 167.14 |
| | 1/14/92 | | 8.57 | 167.16 |
| | 12/23/91 | | 9.65 | 166.08 |
| | 11/25/91 | | 9.41 | 166.32 |
| | 10/10/91 | | 9.70 | 166.03 |
| | 9/17/91 | | 9.50 | 166.23 |
| | 8/19/91 | | 9.31 | 166.42 |
| MW2 | 5/18/93 | 176.04* | 7.73 | 168.31 |
| | 2/23/93 | | 6.39 | 169.65 |
| | 11/13/92 | 198.61** | 8.70 | 189.91 |
| | 5/29/92 | 175.45 | 9.31 | 166.14 |
| | 1/14/92 | | 8.97 | 166.48 |
| | 12/23/91 | | 10.39 | 165.06 |
| | 11/25/91 | | 9.81 | 165.64 |
| | 10/10/91 | | 10.39 | 165.06 |
| | 9/17/91 | | 10.23 | 165.22 |
| | 8/19/91 | | 9.60 | 165.85 |
| MW3 | 5/18/93 | 176.41* | 7.12 | 169.29 |
| | 2/23/93 | | 8.01 | 168.40 |
| | 11/13/92 | 190.97** | 7.86 | 191.12 |
| | 5/29/92 | 175.00 | 8.45 | 166.55 |
| | 1/14/92 | | 8.24 | 166.55 |
| | 12/23/91 | | 9.37 | 165.63 |
| | 11/25/91 | | 9.19 | 165.81 |
| | 10/10/91 | | 9.43 | 165.57 |
| | 9/17/91 | | 9.20 | 165.80 |
| | 8/19/91 | | 8.95 | 166.05 |

NOTES:
* = Surveyed on March 24, 1993
** = Surveyed on December 5, 1992

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS

| Well No. | TPH-D | TPH-G | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|---|---|---|---|---|---|---|
| | | | Samples Collected on May 18, 1993 | | | |
| MW1 | 30 | 92 | 4.0 | 11 | 2.5 | 15 |
| MW2 | 44 | 67 | 9.2 | 12 | 1.4 | 9.3 |
| MW3 | 7.2 | 130 | 36 | 21 | 2.1 | 12 |
| EW1 | Not Sampled. | | 36,000 ppb | | | |
| | | | Samples Collected on February 23, 1993 | | | |
| MW1 | 14 | 100 | 4.5 | 11 | 2.1 | 12 |
| MW2 | 7.0 | 76 | 12 | 17 | 1.6 | 9.6 |
| MW3 | 8.1 | 110 | 31 | 18 | 1.9 | 11 |
| EW1 | 9.6 | 66 | 14 | 8.5 | 1.4 | 9.8 |
| | | | Samples Collected on November 13, 1992 | | | |
| MW1 | 4.4 | 120 | 5.8 | 10 | 2.1 | 13 |
| MW2 | 8.2 | 79 | 10 | 13 | 1.4 | 8.6 |
| MW3 | 4.7 | 140 | 38 | 24 | 2.0 | 12 |
| EW1 | 13 | 62 | 11 | 9.2 | 1.1 | 9.6 |
| | | | Samples Collected On May 27, 1992 | | | |
| MW1 | 11 | 120 | 8.8 | 16 | 2.3 | 15 |
| MW2 | 130 | 89 | 15 | 19 | 1.7 | 14 |
| MW3 | 27 | 370 | 91 | 57 | 3.0 | 21 |
| | | | Samples Collected On January 14, 1992 | | | |
| MW1 | 19 | 39 | 7.3 | 8.7 | 1.3 | 8.9 |
| MW2 | 1600 | 59 | 17 | 14 | 1.8 | 15 |
| MW3 | 270 | 130 | 76 | 30 | 3.4 | 21 |

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
Results in parts per million (ppm), unless otherwise indicated.

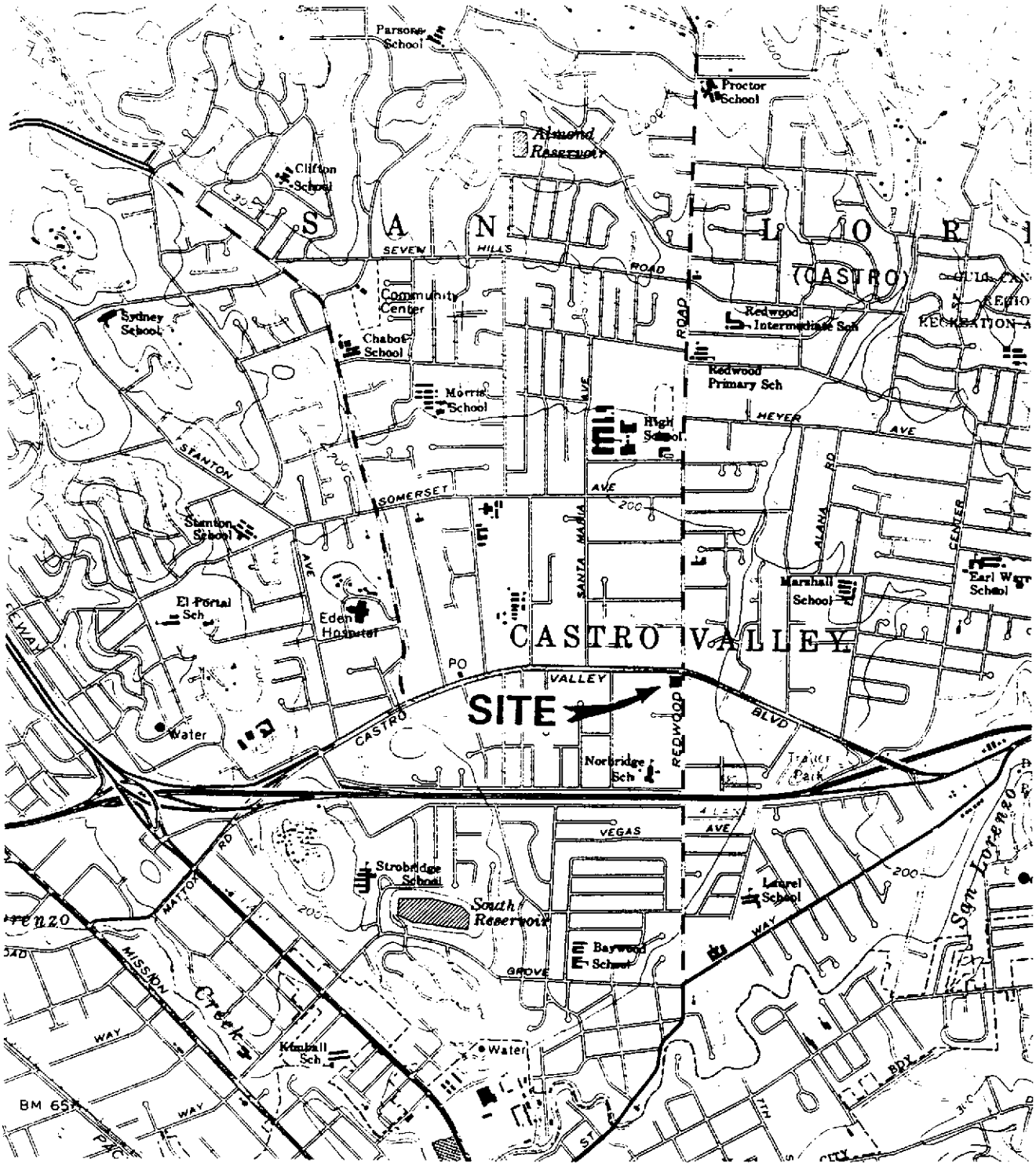
TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
(Continued)

| Well No. | TPH-D | TPH-G | Benzene | Toluene | Ethyl-benzene | Total Xylenes |
|---|---|---|---|---|---|---|
| | | | Samples Collected On December 23, 1991 | | | |
| MW1 | 34 | 78 | 9.3 | 7.3 | 0.54 | 13 |
| MW2 | 700 | 2100 | 36 | 130 | 79 | 560 |
| MW3 | 540 | 740 | 30 | 61 | 31 | 180 |
| | | | Samples Collected On November 25, 1991 | | | |
| MW1 | 36 | 170 | 5.5 | 5.6 | 1.6 | 8.4 |
| MW2 | 130 | 230 | 11 | 9.7 | 1.4 | 9.7 |
| MW3 | 74 | 150 | 65 | 31 | 3.4 | 18 |
| | | | Samples Collected On October 10, 1991 | | | |
| MW1 | 19 | 28 | 4.1 | 4.7 | 1.0 | 4.8 |
| MW2 | 360 | 85 | 21 | 25 | 2.1 | 14 |
| MW3 | 39 | 140 | 57 | 31 | 2.2 | 14 |
| | | | Samples Collected On September 17, 1991 | | | |
| MW1 | 19 | 39 | 4.9 | 4.1 | 1.2 | 5.9 |
| MW2 | 56 | 74 | 10 | 11 | 1.4 | 8.1 |
| MW3 | 140 | 180 | 47 | 25 | 2.6 | 15 |
| | | | Samples Collected On August 19, 1991 | | | |
| MW1 | 47 | 48 | 13 | 8.4 | 0.99 | 29 |
| MW2 | 19 | 69 | 26 | 22 | 2.1 | 18 |
| MW3 | 150 | 170 | 82 | 31 | 4.4 | 22 |

TPH-G = Total Petroleum Hydrocarbons as Gasoline.
TPH-D = Total Petroleum Hydrocarbons as Diesel.
Results in parts per million (ppm), unless otherwise indicated.

# P & D ENVIRONMENTAL

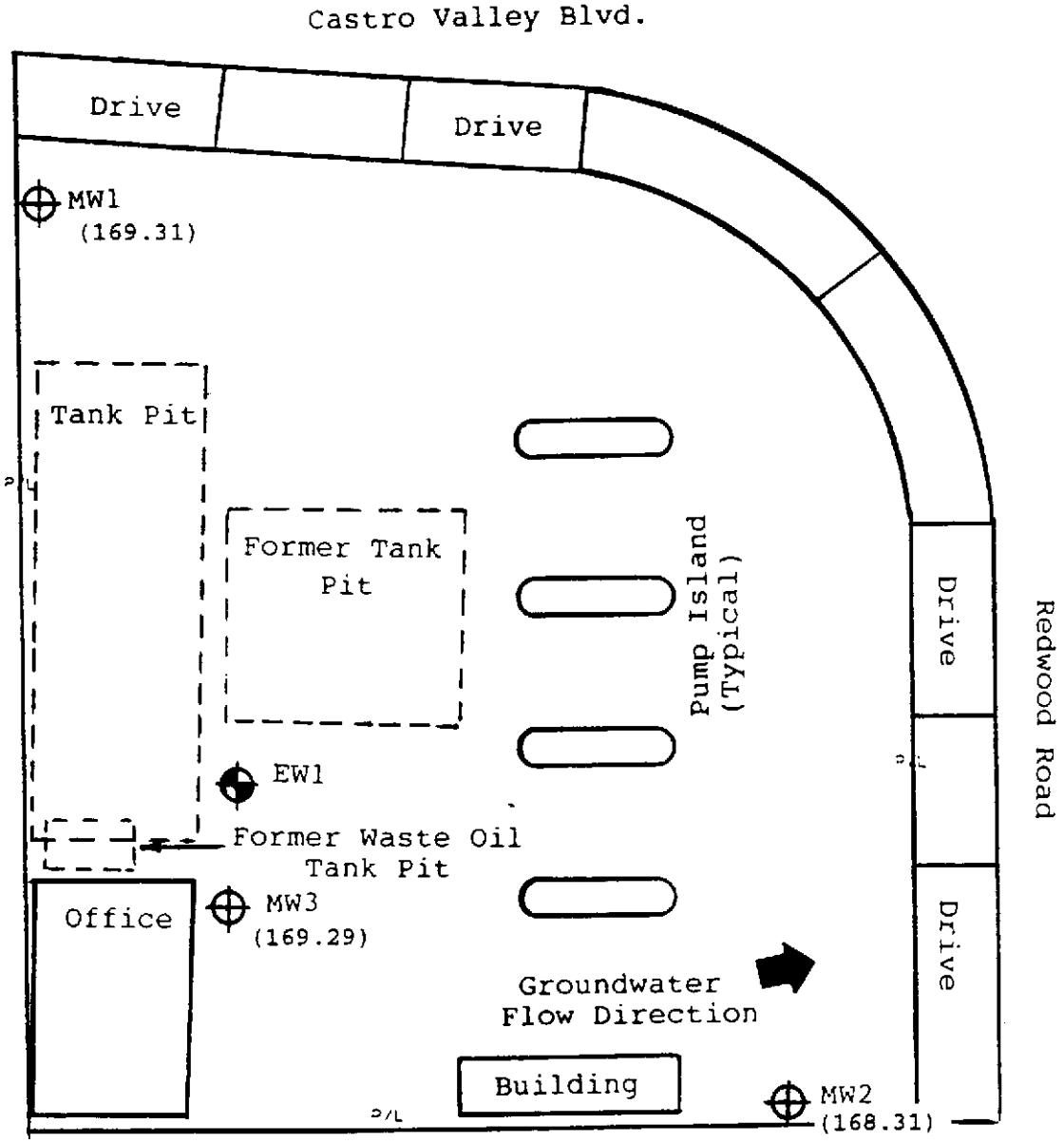
300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916


Base Map from:
U.S. Geological Survey
Hayward, Calif.
7.5 Minute Quadrangle
Photorevised 1980

Figure 1
**SITE LOCATION MAP**
XTRA OIL Company
3195 Castro Valley Blvd.
Alameda, California

P & D ENVIRONMENTAL
300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916




LEGEND

- Extraction Well Location
- Monitoring Well Location
- Groundwater Flow Direction
- ( ) Groundwater Surface Elevation on May 18, 1993

P/L Proprety Line

Base Map From:
K&B Environmental
Dated 9/14/92

N

0 10 20 30 60

Scale in Feet

Figure 2
**SITE PLAN**
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, CA

0.66
12
132
66
7.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name XTRA OIL - Castro Valley | Well No. MW1

Job No. 0014 | Date 5/18/93

8.12 4:57PM

TOC to Water (ft.) ~~8.47~~ 11.40AM | Sheen None

Well Depth (ft.) 20.2 | Free Product Thickness ∅

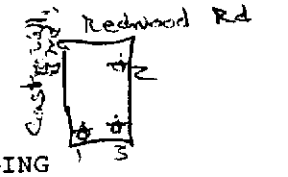
Well Diameter 4" | Sample Collection Method

Gal./Casing Vol. 7.9 Σ = 23.7 | Teflon Bailer

| TIME | GAL. PURGED | pH | TEMPERATURE (°F) | ELECTRICAL CONDUCTIVITY (µS/cm) |
|---|---|---|---|---|
| 5:17 | 3.0 | 6.81 | 76.7 | 2.17 X1000 |
| 5:18 | 6.0 | 6.70 | 73.4 | 2.01 |
| 5:19 | 9.0 | 6.66 | 71.8 | 2.00 |
| 5:20 | 12.0 | 6.65 | 71.0 | 2.01 |
| 5:21 | ~~15.0~~ 14.5 | well Purged Dry. | | |
| 5:26 | 15.0 | 6.82 | 75.5 | 2.25 |
| 5:27 | 17.0 | well Purged Dry | | |
| 5:38 | 18.0 | 6.85 | 75.0 | 2.21 |
| 5:39 | 21.0 | 6.78 | 72.9 | 1.87 |
| 5:40 | 22.0 | well Purged Dry | | |
| 5:50 | 22.5 | 6.82 | 75.3 | 2.15 |
| 5:51 | 23.0 | 6.76 | 76.5 | 2.02 |
| 5:54 | 24.0 | 6.76 | 76.0 | 1.75 |
| 5:57 | 25.0 | 6.75 | 77.0 | 1.73 |
| 6:05 | Collect Samples | | | |

NOTES: Purge w. Honda pump & PVC foolvalve
PHK

PURGE10.92




18.4
7.7
10.7

10.7
.66
64 2
64 2
2.06 2

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name XTRA OIL - Castro Valley  Well No. MW2

Job No. 0014  Date 5/18/93

TOC to Water (ft.) 7.73 5:01 PM  Sheen Yes

Well Depth (ft.) 18.34  Free Product Thickness ϕ

Well Diameter 4"  Sample Collection Method

Gal./Casing Vol. 7.1 Σ = 21.3  Teflon Bailer

| TIME | GAL. PURGED | pH | TEMPERATURE (°F) | ELECTRICAL CONDUCTIVITY (mS/cm) |
|---|---|---|---|---|
| 7:21 | 3.0 | 6.54 | 69.6 | 1.92 x 1000 |
| 7:22 | 6.0 | 6.61 | 68.9 | 1.86 |
| 7:23 | 9.0 | 6.57 | 68.6 | 1.87 |
| 7:25 | 12.0 | 6.49 | 68.5 | 1.85 |
| 7:26 | 14.0 | Well Dewatered. | | |
| 7:30 | ~~13.0~~ 15.0 | 6.50 | 70.2 | 1.83 |
| 7:32 | ~~21.0~~ 18.0 | 6.49 | 70.0 | 1.72 |
| 7:33 | ~~24.0~~ 19.0 | Well Purged Dry. | | |
| 7:40 | 22.0 | 6.50 | 69.3 | 1.69 |
| 7:43 | 24.0 | 6.48 | 69.0 | 1.68 |
| 7:50 | Collect Samples | | | |

NOTES: Purge with Honda pump & PVC footvalve
TPHK Strong TPH odor in purge water.

PURGE10.92

18.2
- 7.1
11.1

11.1
.66
666
666
7.32

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name Texaco OIL - Castro Valley | Well No. MW3

Job No. 0014 | Date 5/18/93

TOC to Water (ft.) ~~7.16~~ 7.12 5:00 PM | Sheen None

Well Depth (ft.) 18.2 | Free Product Thickness ∅

Well Diameter 4" | Sample Collection Method

Gal./Casing Vol. 7.3 ε=21.9 | Teflon Bailer

| TIME | GAL. PURGED | pH | TEMPERATURE (°F) | ELECTRICAL CONDUCTIVITY (µS/cm) |
|---|---|---|---|---|
| 6.18 | 3.0 | 6.46 | 74.5 | 3.38 X1000 |
| 6.20 | 6.0 | 6.26 | 70.3 | 3.14 |
| 6:21 | 9.0 | 6.67 | 69.5 | 2.78 |
| 6:23 | 12.0 | 6.63 | 70.6 | 3.06 |
| 6:24 | 13.0 | Well Purged Dry | | |
| 6:43 | 15.0 | 6.80 | 73.7 | 3.19 |
| 6:44 | 16.0 | Well Purged Dry | | |
| 6:55 | 17.0 | Well Purged Dry | | |
| 7:00 | Collect Samples | | | |

NOTES: Purge w. Honda pump & PVC foot valve
PHK. Petroleum Hydrocarbon odor (moderate) in purge water

PURGE10.92

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

| | | |
|---|---|---|
| P & D Environmental<br>300 Monte Vista, #101<br>Oakland, CA 94611 | Client Project ID: #0014; Xtra Oil, Castro Valley | Date Sampled: 05/18/93 |
| | | Date Received: 05/19/93 |
| | Client Contact: Paul King | Date Extracted: |
| | Client P.O: | Date Analyzed: 05/21/93 |

**Low Boiling Point (C6-C12) TPH* as Gasoline and BTEX***

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

| Lab ID | Client ID | Matrix | TPH(G)+ | Benzene | Toluene | Ethyl Benzene | Xylenes | % Rec. Surrogate |
|---|---|---|---|---|---|---|---|---|
| 30568 | MW1 | W | 92,000,a | 4000 | 11,000 | 2500 | 15,000 | 90 |
| 30569 | MW2 | W | 67,000,a | 9200 | 12,000 | 1400 | 9300 | 95 |
| 30570 | MW3 | W | 130,000,a | 36,000 | 21,000 | 2100 | 12,000 | 93 |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| Detection Limit unless otherwise stated; ND means Not Detected | | W | 50 ug/L | 0.5 | 0.5 | 0.5 | 0.5 | |
| | | S | 1.0 mg/kg | 0.005 | 0.005 | 0.005 | 0.005 | |

*water samples are reported in ug/L and soils in mg/kg

#cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.

Edward Hamilton, Lab Director

| McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553<br>Tele: 510-798-1620 Fax: 510-798-1622 |
|---|---|

| | | |
|---|---|---|
| P & D Environmental<br>300 Monte Vista, #101<br>Oakland, CA 94611 | Client Project ID: #0014; Xtra Oil, Castro Valley | Date Sampled: 05/18/93 |
| | | Date Received: 05/19/93 |
| | Client Contact: Paul King | Date Extracted: 05/26/93 |
| | Client P.O: | Date Analyzed: 05/26/93 |

**Medium Boiling Point (C10-C23) TPH* as Diesel**

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

| Lab ID | Client ID | Matrix | TPH(D)+ |
|---|---|---|---|
| 30568 | MW1 | W | 30,000,d |
| 30569 | MW2 | W | 44,000,a,d |
| 30570 | MW3 | W | 7200,d,a |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |
| | | | |
| Detection Limit unless otherwise stated; ND means Not Detected | | W | 50 ug/L |
| | | S | 10 mg/kg |

*water samples are reported in ug/L and soils in mg/kg

# cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified diesel; b) diesel range compounds predominate; no recognizable pattern; c) diesel range compounds together with gasoline range compounds; d) gasoline range compounds predominate; e) medium boiling point pattern that does not match diesel(); f) one to a few isolated peaks present; g) oil range compounds predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

# QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/21/93 Matrix: Water

| Analyte | Concentration (ug/L) | | | Amount Spiked | % Recovery | | RPD |
|---|---|---|---|---|---|---|---|
| | Sample | MS | MSD | | MS | MSD | |
| TPH (gas) | 0.0 | 97.5 | 94.8 | 101 | 97 | 94 | 2.8 |
| Benzene | 0.0 | 10.4 | 10.0 | 10 | 104 | 100 | 3.9 |
| Toluene | 0.0 | 11.0 | 10.5 | 10 | 110 | 105 | 4.7 |
| Ethyl Benzene | 0.0 | 10.6 | 10.3 | 10 | 106 | 103 | 2.9 |
| Xylenes | 0.0 | 31.6 | 30.4 | 30 | 105 | 101 | 3.9 |
| TPH (diesel) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TRPH (oil & grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

# QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/24/-05/28/93 Matrix: Water

| Analyte | Concentration (ug/L) | | | Amount Spiked | % Recovery | | RPD |
|---|---|---|---|---|---|---|---|
| | Sample | MS | MSD | | MS | MSD | |
| TPH (gas) | 0.0 | 94.9 | 90.8 | 101 | 94 | 90 | 4.4 |
| Benzene | 0.0 | 10.8 | 10.5 | 10 | 108 | 105 | 2.8 |
| Toluene | 0.0 | 11.3 | 10.8 | 10 | 113 | 108 | 4.5 |
| Ethyl Benzene | 0.0 | 10.9 | 10.5 | 10 | 109 | 105 | 3.7 |
| Xylenes | 0.0 | 32.4 | 31.1 | 30 | 108 | 104 | 4.1 |
| TPH (diesel) | 0 | 134 | 138 | 150 | 89 | 92 | 3.2 |
| TRPH (oil & grease) | 0 | 26 | 27 | 20.8 | 126 | 130 | 2.6 |

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

P & D ENVIRONMENTAL
300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916

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# CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

| PROJECT NUMBER: | PROJECT NAME: |
|---|---|
| 0014 | XTRA OIL - Castro Valley |

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

| SAMPLE NUMBER | DATE | TIME | TYPE | SAMPLE LOCATION | NUMBER OF CONTAINERS | ANALYSIS(ES): TPH-Gas, BTEX | TPH-diesel | PRESERVATIVE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| MW1 | 5/12/93 | | water | | 3 | X | X | ICE | Normal Turnaround |
| MW2 | " | | " | | " | X | X | " | " |
| MW3 | " | | " | | " | X | X | " | " |
| | | | | | | | | | 30568 |
| | | | | | | | | | 30569 |
| | | | | | | | | | 30570 |

VOAS 1086

ICE/T° ✓ PRESERVATIVE ✓
GOOD CONDITION ✓ APPROPRIATE
HEAD SPACE ABSENT ✓ CONTAINERS ✓

| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED BY: (SIGNATURE) |
|---|---|---|---|
| Paul H. King | 5/13/93 | 5:25 | James R Hamilton |
| James R Hamilton | 5/13/93 | 6:10 | |
| RELINQUISHED BY: (SIGNATURE) | DATE | TIME | RECEIVED FOR LABORATORY BY: (SIGNATURE) |

TOTAL NO. OF SAMPLES (THIS SHIPMENT): 3
TOTAL NO. OF CONTAINERS (THIS SHIPMENT): 9
LABORATORY: McCampbell Analytical
LABORATORY CONTACT: Ed Hamilton
LABORATORY PHONE NUMBER: (510) 798-1620
SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES ( )NO

REMARKS: Note: VOA's preserved w. HCl in field.