MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

MPDS-UN0746-09
December 11, 1995

Unocal Corporation
2000 Crow Canyon Place, Suite 400
P.O. Box 5155
San Ramon, California 94583

Attention: Mr. Edward C. Ralston

RE: Quarterly Data Report
Unocal Service Station #0746
3943 Broadway
Oakland, California

Dear Mr. Ralston:

This data report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc.

RECENT FIELD ACTIVITIES

The monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Prior to sampling, the wells were checked for depth to water and the presence of free product or sheen. The monitoring data and the ground water elevations are summarized in Table 1. The ground water flow direction during the most recent quarter is shown on the attached Figure 1.

Ground water samples were collected on November 7, 1995. Prior to sampling, the wells were each purged of between 3.5 and 8 gallons of water. Samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. Trip blank, Equipment blank and Field blank samples (denoted as ES1, ES2 and ES3 respectively) were also collected for quality assurance and control. MPDS Services, Inc. transported the purged ground water to the Unocal Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Tables 2 and 3. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the

ground water samples collected this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

DISTRIBUTION

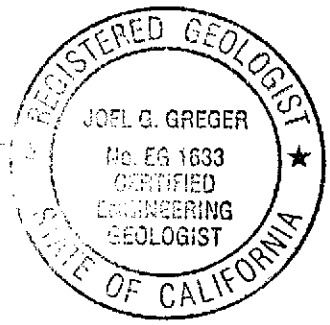
A copy of this report should be sent to the Alameda County Health Care Services.

If you have any questions regarding this report, please do not hesitate to call Mr. Nubar Srabian at (510) 602-5120.

Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian
Senior Staff Geologist




Joel G. Greger, C.E.G.
Senior Engineering Geologist

License No. EG 1633
Exp. Date 8/31/96

/bp

Attachments: Tables 1, 2 & 3
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Timothy R. Ross, Kaprealian Engineering, Inc.

**TABLE 1**

SUMMARY OF MONITORING DATA

| Well # | Ground Water Elevation (feet) | Depth to Water (feet)◆ | Total Well Depth (feet)◆ | Product Thick-ness (feet) | Sheen | Water Purged (gallons) | Product Purged (ounces) |
|---|---|---|---|---|---|---|---|
| **(Monitored and Sampled on November 7, 1995)** | | | | | | | |
| MW1 | 72.39 | 8.15 | 19.62 | 0 | No | 8 | 0 |
| MW2 | 71.67 | 9.65 | 19.85 | 0 | No | 7 | 0 |
| MW3 | 70.62 | 10.79 | 22.21 | 0 | No | 8 | 0 |
| MW4 | 71.01 | 10.28 | 20.01 | 0 | No | 7 | 0 |
| MW5 | 71.38 | 10.00 | 19.73 | 0 | No | 7 | 0 |
| MW6 | 71.96 | 7.98 | 19.58 | 0 | No | 8 | 0 |
| MW7 | 72.69 | 8.95 | 20.00 | 0 | No | 8 | 0 |
| MW8 | 70.36 | 11.05 | 21.28 | 0 | No | 7 | 0 |
| MW9 | 69.89 | 10.64 | 21.95 | 0 | No | 8 | 0 |
| MW10 | 68.63 | 12.98 | 21.71 | 0 | No | 6 | 0 |
| MW11 | 65.90 | 12.28 | 19.15 | 0 | No | 5 | 0 |
| MW12 | 66.83 | 12.78 | 17.61 | 0 | No | 3.5 | 0 |
| **(Monitored and Sampled on August 3, 1995)** | | | | | | | |
| MW1* | 72.85 | 7.69 | 19.60 | 0 | -- | 0 | 0 |
| MW2 | 71.97 | 9.35 | 19.82 | 0 | No | 7.5 | 0 |
| MW3 | 72.13 | 9.28 | 22.20 | 0 | No | 9 | 0 |
| MW4 | 72.69 | 8.60 | 20.00 | 0 | No | 8 | 0 |
| MW5 | 72.13 | 9.25 | 19.71 | 0 | No | 7.5 | 0 |
| MW6* | 72.66 | 7.28 | 19.58 | 0 | -- | 0 | 0 |
| MW7* | 73.24 | 8.40 | 20.00 | 0 | -- | 0 | 0 |
| MW8 | WELL WAS INACCESSIBLE (PARKED OVER) | | | | | | |
| MW9 | 70.83 | 9.70 | 21.93 | 0 | No | 8.5 | 0 |
| MW10* | 69.88 | 11.73 | 21.71 | 0 | -- | 0 | 0 |
| MW11* | 65.51 | 12.67 | 19.11 | 0 | -- | 0 | 0 |
| MW12* | 66.14 | 13.47 | 17.60 | 0 | -- | 0 | 0 |

## TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

| Well # | Ground Water Elevation (feet) | Depth to Water (feet)◆ | Total Well Depth (feet)◆ | Product Thick-ness (feet) | Sheen | Water Purged (gallons) | Product Purged (ounces) |
|---|---|---|---|---|---|---|---|
| **(Monitored and Sampled on May 3, 1995)** | | | | | | | |
| MW1 | 73.69 | 6.85 | 19.58 | 0 | No | 9 | 0 |
| MW2 | 73.20 | 8.12 | 19.80 | 0 | No | 8 | 0 |
| MW3 | 73.50 | 7.91 | 22.04 | 0 | No | 10 | 0 |
| MW4 | 73.00 | 8.29 | 19.98 | 0 | No | 8 | 0 |
| MW5 | 73.40 | 7.98 | 19.78 | 0 | No | 8.5 | 0 |
| MW6 | 73.47 | 6.47 | 19.55 | 0 | No | 9 | 0 |
| MW7 | 73.93 | 7.71 | 19.96 | 0 | No | 8.5 | 0 |
| MW8 | 72.81 | 8.60 | 21.22 | 0 | No | 9 | 0 |
| MW9 | 72.71 | 7.82 | 21.91 | 0 | No | 10 | 0 |
| MW10 | 71.39 | 10.22 | 21.70 | 0 | No | 8 | 0 |
| MW11 | 68.90 | 9.28 | 19.11 | 0 | No | 7 | 0 |
| MW12 | 66.23 | 13.38 | 17.57 | 0 | No | 3 | 0 |
| **(Monitored and Purged on March 14, 1995)** | | | | | | | |
| MW3 | 74.36 | 7.05 | 22.02 | 0 | -- | 50 | [<1] |
| MW5 | 74.34 | 7.04 | 19.75 | 0 | -- | 50 | 0 |
| RW1 | 74.62 | 6.01 | 16.06 | 0 | -- | 0 | 0 |
| **(Monitored and Sampled on February 7, 1995)** | | | | | | | |
| MW1 | 73.48 | 7.06 | 19.55 | 0 | No | 8.5 | 0 |
| MW2 | 73.03 | 8.29 | 19.76 | 0 | No | 8 | 0 |
| MW3 | 73.36 | 8.05 | 22.01 | 0 | No | 9.5 | 0 |
| MW4 | 73.63 | 7.66 | 19.95 | 0 | No | 8.5 | 0 |
| MW5 | 73.28 | 8.10 | 19.73 | 0 | No | 9 | 0 |
| MW6 | 73.29 | 6.65 | 19.59 | 0 | No | 9 | 0 |
| MW7 | 73.76 | 7.88 | 19.92 | 0 | No | 8.5 | 0 |
| MW8 | 72.72 | 8.69 | 21.20 | 0 | No | 9 | 0 |
| MW9 | 72.77 | 7.76 | 21.86 | 0 | No | 10 | 0 |
| MW10* | 71.32 | 10.29 | 21.66 | 0 | No | 8 | 0 |
| MW11* | 65.90 | 12.28 | 19.07 | 0 | No | 5 | 0 |
| MW12* | 67.89 | 11.72 | 17.54 | 0 | No | 4 | 0 |
| RW1* | 73.45 | 7.18 | 16.03 | 0 | -- | 0 | 0 |

**TABLE 1 (Continued)**

SUMMARY OF MONITORING DATA

| Well # | Well Casing Elevation (feet)** |
|---|---|
| MW1 | 80.54 |
| MW2 | 81.32 |
| MW3 | 81.41 |
| MW4 | 81.29 |
| MW5 | 81.38 |
| MW6 | 79.94 |
| MW7 | 81.64 |
| MW8 | 81.41 |
| MW9 | 80.53 |
| MW10 | 81.61 |
| MW11 | 78.18 |
| MW12 | 79.61 |
| RW1 | 80.63 |

◆ The depth to water level and total well depth measurements were taken from the top of the well casings.

* Monitored only.

** The elevations of the top of the well casings are relative to Mean Sea Level (MSL), per the City of Oakland Benchmark BM#1336 (elevation = 82.28 feet MSL).

[x] Amount of product purged from the skimmer.

-- Sheen determination was not performed.

## TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 11/01/89 | MW1 | ND | ND | ND | ND | 0.30 |
| 2/15/90 | MW1 | 170 | 7.9 | ND | 2.2 | 2.8 |
| 8/16/90 | MW1 | ND | ND | ND | ND | ND |
| 11/07/90 | MW1 | 45 | ND | ND | ND | ND |
| 2/25/91 | MW1 | ND | ND | ND | ND | ND |
| 5/28/91 | MW1 | ND | ND | ND | ND | ND |
| 8/28/91 | MW1 | ND | ND | ND | ND | ND |
| 11/19/91 | MW1 | ND | ND | ND | ND | ND |
| 2/06/92 | MW1 | ND | ND | ND | ND | ND |
| 5/23/92 | MW1 | ND | ND | ND | ND | ND |
| 8/26/92 | MW1 | ND | ND | ND | ND | ND |
| 11/20/92 | MW1 | ND | 0.75 | ND | ND | ND |
| 2/24/93 | MW1 | 1,100 | 280 | 4.9 | 120 | 140 |
| 5/25/93 | MW1 | 260 | 27 | 4.9 | 2.6 | 54 |
| 8/25/93 | MW1 | ND | ND | ND | ND | ND |
| 11/30/93 | MW1 | SAMPLED SEMI-ANNUALLY | | | | |
| 2/16/94 | MW1 | ND | 0.84 | ND | ND | 0.59 |
| 8/31/94 | MW1 | ND | ND | 0.98 | ND | 0.84 |
| 11/10/94 | MW1 | SAMPLED SEMI-ANNUALLY | | | | |
| 2/07/95 | MW1 | 6,100 | 670 | ND | 120 | 60 |
| 5/03/95 | MW1 | 260 | 21 | 39 | 17 | 24 |
| nt 8/03/95 | MW1 | SAMPLED SEMI-ANNUALLY | | | | |
| 11/07/95 | MW1 | ND | ND | ND | ND | ND |
| 11/01/89 | MW2 | 200 | ND | ND | 3.0 | 1.2 |
| 2/15/90 | MW2 | ND | ND | ND | ND | ND |
| 8/16/90 | MW2 | ND | ND | 6.7 | ND | ND |
| 11/07/90 | MW2 | ND | ND | ND | ND | ND |
| 2/25/91 | MW2 | ND | 0.68 | 0.42 | ND | 0.86 |
| 5/28/91 | MW2 | ND | ND | ND | ND | ND |
| 8/28/91 | MW2 | ND | ND | ND | ND | ND |
| 11/19/91 | MW2 | ND | ND | ND | ND | ND |
| 2/06/92 | MW2 | ND | 0.36 | 0.66 | ND | 0.62 |
| 5/23/92 | MW2 | ND | ND | ND | ND | ND |
| 8/26/92 | MW2 | ND | ND | ND | ND | ND |
| 11/20/92 | MW2 | 510♦ | ND | ND | ND | ND |
| 2/24/93 | MW2 | 11,000♦ | ND | ND | ND | ND |
| 5/25/93 | MW2 | 1,300♦ | ND | ND | ND | ND |
| 8/25/93 | MW2 | 190♦ | ND | ND | ND | ND |
| 11/30/93 | MW2 | 480♦ | ND | ND | ND | ND |
| 2/16/94 | MW2 | 3,200♦ | ND | ND | ND | ND |
| 5/31/94 | MW2 | 1,100♦ | ND | ND | ND | ND |

**TABLE 2 (Continued)**

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 8/31/94 | MW2 | 310♦ | ND | ND | ND | ND |
| 11/10/94 | MW2 | 95♦♦ | ND | ND | ND | ND |
| 2/07/95 | MW2 | 1,600♦ | ND | ND | ND | ND |
| 5/03/95 | MW2 | ND | ND | ND | ND | ND |
| 8/03/95 | MW2▲ | ND | ND | ND | ND | ND |
| 11/07/95 | MW2▼ | ND | ND | ND | ND | ND |
| 11/01/89 | MW3 | 13,000 | 57 | 48 | 1.7 | 120 |
| 2/15/90 | MW3 | 20,000 | 1,700 | 2,100 | 750 | 3,100 |
| 8/16/90 | MW3 | 6,800 | 600 | 660 | 760 | 160 |
| 11/07/90 | MW3 | 42,000 | 1,400 | 5,000 | 1,800 | 7,500 |
| 2/25/91 | MW3 | 37,000 | 730 | 2,900 | 1,300 | 7,300 |
| 5/28/91 | MW3 | 24,000 | 570 | 1,100 | 810 | 4,200 |
| 8/28/91 | MW3 | 16,000 | 650 | 2,200 | 1,100 | 5,400 |
| 11/19/91 | MW3 | 22,000 | 250 | 440 | 660 | 3,000 |
| 2/06/92 | MW3 | 24,000 | 600 | 1,800 | 1,200 | 5,800 |
| 5/23/92 | MW3 | 25,000 | 300 | 130 | 880 | 4,900 |
| 8/26/92 | MW3 | 20,000 | 690 | 1,900 | 1,300 | 5,700 |
| 11/20/92 | MW3 | 1,100,000♦♦ | 1,800 | 6,400 | 3,000 | 15,000 |
| 2/24/93 | MW3 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 5/25/93 | MW3 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 8/25/93 | MW3 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 11/30/93 | MW3 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 2/16/94 | MW3 | 57,000 | 910 | 2,500 | 2,100 | 9,000 |
| 5/31/94 | MW3 | 39,000 | 670 | 630 | 1,500 | 6,200 |
| 8/31/94 | MW3 | 44,000 | 500 | 240 | 1,400 | 5,700 |
| 11/10/94 | MW3 | 86,000 | 3,300 | 3,800 | 1,800 | 8,300 |
| 2/07/95 | MW3 | 45,000 | 1,400 | 1,300 | 1,500 | 5,600 |
| 5/03/95 | MW3 | 26,000 | 740 | 990 | 1,100 | 4,400 |
| 8/03/95 | MW3▲ | 18,000 | 59 | ND | 530 | 1,900 |
| 11/07/95 | MW3▼ MTBE | 17,000 | 110 | 26 | 400 | 1,500 |
| 2/15/90 | MW4 | 150 | 8.0 | 8.0 | 10 | 45 |
| 8/16/90 | MW4 | 3,600 | 480 | 17 | 230 | 260 |
| 11/07/90 | MW4 | 180 | 1.5 | 0.37 | 6.3 | 26 |
| 2/25/91 | MW4 | 22,000 | 600 | 1,300 | 780 | 2,800 |
| 5/28/91 | MW4 | 38 | ND | ND | ND | 1.9 |
| 8/28/91 | MW4 | 2,000 | 1,500 | 20 | 120 | 300 |
| 11/19/91 | MW4 | 55 | 9.2 | 4.5 | 1.4 | 6.7 |
| 2/06/92 | MW4 | 5,700 | 2,200 | 140 | 57 | 980 |
| 5/23/92 | MW4 | ND | ND | ND | ND | ND |
| 8/26/92 | MW4 | 120 | 86 | 0.52 | 0.57 | 1.6 |
| 11/20/92 | MW4 | ND | 6.2 | ND | 1.2 | 0.52 |

**TABLE 2 (Continued)**

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 2/24/93 | MW4 | 140 | 12 | 0.64 | 9.4 | 3.7 |
| 5/25/93 | MW4 | 74 | 10 | ND | 4.6 | 1.8 |
| 8/25/93 | MW4 | 640 | 100 | 1.1 | 100 | 22 |
| 11/30/93 | MW4 | 200 | 28 | ND | 17 | 8.1 |
| 2/16/94 | MW4 | 190 | 11 | 0.98 | 21 | 6.6 |
| 5/31/94 | MW4 | 1,100 | 190 | ND | 100 | 58 |
| 8/31/94 | MW4 | 400 | 17 | 0.94 | 14 | 5.2 |
| 11/10/94 | MW4 | 7,700 | 1,800 | 280 | 460 | 1,300 |
| 2/07/95 | MW4 | 540 | 47 | ND | 17 | 2.5 |
| 5/03/95 | MW4 | 160 | 8.3 | 0.52 | 1.5 | 3.7 |
| 8/03/95 | MW4▲ | 57 | 2.0 | ND | ND | ND |
| 11/07/95 | MW4 | ND | 0.71 | ND | ND | ND |
| 2/15/90 | MW5 | 24,000 | 1,500 | 1,700 | 260 | 3,600 |
| 8/16/90 | MW5 | 16,000 | 1,400 | 1,900 | 2,800 | 660 |
| 11/07/90 | MW5 | 20,000 | 640 | 1,100 | 670 | 3,000 |
| 2/25/91 | MW5 | 25,000 | 950 | 1,300 | 900 | 3,500 |
| 5/28/91 | MW5 | 24,000 | 2,300 | 3,400 | 1,300 | 6,000 |
| 8/28/91 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 11/19/91 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 2/06/92 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 5/23/92 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 8/26/92 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 11/20/92 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 2/24/93 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 5/25/93 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 8/25/93 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 11/30/93 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 2/16/94 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 5/31/94 | MW5 | 43,000 | 1,500 | 1,200 | 1,600 | 6,700 |
| 8/31/94 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 11/10/94 | MW5 | NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT | | | | |
| 2/07/95 | MW5 | 25,000 | 1,400 | 740 | 990 | 3,000 |
| 5/03/95 | MW5 | 12,000 | 680 | 160 | 600 | 1,800 |
| 8/03/95 | MW5▲ | 23,000 | 940 | 280 | 810 | 2,700 |
| 11/07/95 | MW5▼ | 40,000 | 510 | 280 | 1,000 | 5,700 |

## TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 11/07/90 | MW6 | ND | ND | ND | ND | ND |
| 2/25/91 | MW6 | ND | 0.37 | 0.40 | 0.35 | 1.5 |
| 5/28/91 | MW6 | ND | ND | ND | ND | 0.42 |
| 8/28/91 | MW6 | ND | ND | ND | ND | ND |
| 11/19/91 | MW6 | ND | ND | ND | ND | ND |
| 2/06/92 | MW6 | ND | ND | ND | ND | ND |
| 5/23/92 | MW6 | ND | ND | ND | ND | ND |
| 8/26/92 | MW6 | ND | ND | ND | ND | ND |
| 11/20/92 | MW6 | ND | ND | ND | ND | ND |
| 2/24/93 | MW6 | ND | ND | ND | ND | ND |
| 5/25/93 | MW6 | ND | ND | ND | ND | ND |
| 8/25/93 | MW6 | ND | ND | ND | ND | ND |
| 11/30/93 | MW6 | SAMPLED SEMI-ANNUALLY | | | | |
| 2/16/94 | MW6 | ND | ND | ND | ND | ND |
| 8/31/94 | MW6 | ND | ND | 1.5 | ND | 1.6 |
| 11/10/94 | MW6 | SAMPLED SEMI-ANNUALLY | | | | |
| 2/07/95 | MW6 | ND | ND | ND | ND | ND |
| 5/03/95 | MW6 | ND | ND | ND | ND | 1.0 |
| 8/03/95 | MW6 | SAMPLED SEMI-ANNUALLY | | | | |
| 11/07/95 | MW6 | ND | ND | ND | ND | ND |
| 11/07/90 | MW7 | ND | ND | ND | ND | ND |
| 2/25/91 | MW7 | 70 | ND | ND | ND | 0.52 |
| 5/28/91 | MW7 | 39 | ND | ND | ND | 0.73 |
| 8/28/91 | MW7 | ND | ND | ND | ND | ND |
| 11/19/91 | MW7 | 32 | ND | ND | ND | ND |
| 2/06/92 | MW7 | ND | ND | ND | ND | ND |
| 5/23/92 | MW7 | ND | ND | ND | ND | ND |
| 8/26/92 | MW7 | ND | ND | ND | 0.73 | ND |
| 11/20/92 | MW7 | ND | ND | ND | ND | ND |
| 2/24/93 | MW7 | ND | ND | ND | ND | ND |
| 5/25/93 | MW7 | ND | ND | ND | ND | ND |
| 8/25/93 | MW7 | ND | ND | ND | ND | ND |
| 11/30/93 | MW7 | SAMPLED SEMI-ANNUALLY | | | | |
| 2/16/94 | MW7 | ND | ND | ND | ND | 0.70 |
| 8/31/94 | MW7 | ND | ND | 0.80 | ND | 0.75 |
| 11/10/94 | MW7 | SAMPLED SEMI-ANNUALLY | | | | |
| 2/07/95 | MW7 | ND | ND | ND | ND | ND |
| 5/03/95 | MW7 | ND | ND | ND | ND | 1.0 |
| 8/03/95 | MW7 | SAMPLED SEMI-ANNUALLY | | | | |
| 11/07/95 | MW7 | ND | ND | ND | ND | ND |

**TABLE 2 (Continued)**

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 11/07/90 | MW8 | 4,700 | 28 | 38 | 86 | 7,200 |
| 2/25/91 | MW8 | 5,300 | 17 | 6.1 | 53 | 300 |
| 5/28/91 | MW8 | 4,800 | 4.2 | 1.3 | 5.1 | 170 |
| 8/28/91 | MW8 | 1,800 | 3.2 | 1.9 | 19 | 74 |
| 11/19/91 | MW8 | 1,600 | 8.1 | 1.8 | 19 | 52 |
| 2/06/92 | MW8 | 2,600 | 4.1 | 7.0 | 31 | 93 |
| 5/23/92 | MW8 | 2,100 | 8.6 | 1.6 | 1.7 | 28 |
| 8/26/92 | MW8 | 1,800 | 12 | 8.0 | 4.0 | 13 |
| 11/20/92 | MW8 | WELL WAS INACCESSIBLE | | | | |
| 2/24/93 | MW8 | WELL WAS INACCESSIBLE | | | | |
| 5/25/93 | MW8 | 1,200 | 5.4 | ND | 9.0 | 21 |
| 8/25/93 | MW8 | 1,800 | 11 | 17 | 8.9 | 29 |
| 11/30/93 | MW8 | 3,500 | 18 | ND | ND | ND |
| 2/16/94 | MW8 | 990 | 4.9 | 1.8 | 2.4 | 4.5 |
| 5/31/94 | MW8 | 350 | 3.0 | 1.0 | 0.73 | 1.7 |
| 8/31/94 | MW8 | 1,800♦ | ND | ND | ND | ND |
| 11/10/94 | MW8 | 940 | 6.7 | 6.3 | ND | 16 |
| 2/07/95 | MW8 | 230 | 1.4 | 0.95 | 0.90 | 1.1 |
| 5/03/95 | MW8 | 75 | ND | ND | ND | 1.0 |
| 8/03/95 | MW8 | WELL WAS INACCESSIBLE (PARKED OVER) | | | | |
| 11/07/95 | MW8▼ | 210 | 1.3 | 1.2 | ND | ND |
| 11/07/90 | MW9 | 480 | 7.8 | 1.2 | 13 | 47 |
| 2/25/91 | MW9 | 390 | 13 | 1.1 | 2.8 | 14 |
| 5/28/91 | MW9 | 590 | 6.0 | 0.43 | 6.8 | 1.4 |
| 8/28/91 | MW9 | 450 | 17 | 0.9 | 13 | 14 |
| 11/19/91 | MW9 | 360 | 17 | 0.45 | 15 | 11 |
| 2/06/92 | MW9 | 660 | 41 | 1.0 | 33 | 15 |
| 5/23/92 | MW9 | 460 | 18 | 0.66 | 1.4 | 3.2 |
| 8/26/92 | MW9 | 250 | 13 | ND | 8.6 | 3.8 |
| 11/20/92 | MW9 | WELL WAS INACCESSIBLE | | | | |
| 2/24/93 | MW9 | WELL WAS INACCESSIBLE | | | | |
| 5/25/93 | MW9 | 160 | 6.1 | ND | 7.4 | 1.1 |
| 8/25/93 | MW9 | 220 | 10 | ND | 6.8 | 1.4 |
| 11/30/93 | MW9 | 200 | 5.6 | ND | 2.9 | 2.7 |
| 2/16/94 | MW9 | 250 | 5.1 | 1.3 | 4.4 | 1.5 |
| 5/31/94 | MW9 | 360 | 7.8 | 0.97 | 4.6 | 2.2 |
| 8/31/94 | MW9 | 650 | 7.7 | 2.8 | 4.4 | 5.0 |
| 11/10/94 | MW9 | ND | ND | ND | ND | ND |
| 2/07/95 | MW9 | 57 | 0.70 | ND | 0.86 | ND |
| 5/03/95 | MW9 | ND | 0.85 | 0.67 | 1.3 | 1.0 |
| 8/03/95 | MW9 | 91 | 1.1 | ND | ND | ND |
| 11/07/95 | MW9▼ | 130 | 1.5 | 0.62 | 0.71 | ND |

## TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 2/06/92 | MW10 | ND | ND | ND | ND | ND |
| 5/23/92 | MW10 | ND | ND | ND | ND | ND |
| 8/26/92 | MW10 | ND | ND | ND | ND | ND |
| 11/20/92 | MW10 | ND | ND | ND | ND | ND |
| 2/24/93 | MW10 | ND | ND | ND | ND | ND |
| 5/25/93 | MW10 | ND | ND | ND | ND | ND |
| 8/25/93 | MW10 | ND | ND | ND | ND | ND |
| 11/30/93 | MW10 | WELL WAS INACCESSIBLE | | | | |
| 2/16/94 | MW10 | ND | ND | ND | ND | ND |
| 5/31/94 | MW10 | ND | ND | 0.90 | ND | 0.91 |
| 8/31/94 | MW10 | ND | ND | 0.64 | ND | 0.54 |
| 11/10/94 | MW10 | ND | ND | ND | ND | ND |
| 2/07/95 | MW10 | SAMPLED SEMI-ANNUALLY | | | | |
| 5/03/95 | MW10 | ND | ND | ND | ND | 0.65 |
| 8/03/95 | MW10 | SAMPLED SEMI-ANNUALLY | | | | |
| 11/07/95 | MW10 | ND | ND | ND | ND | ND |
| 2/06/92 | MW11 | ND | ND | ND | ND | ND |
| 5/23/92 | MW11 | ND | ND | ND | ND | ND |
| 8/26/92 | MW11 | ND | ND | ND | ND | ND |
| 11/20/92 | MW11 | ND | ND | ND | ND | ND |
| 2/24/93 | MW11 | ND | ND | ND | ND | ND |
| 5/25/93 | MW11 | ND | ND | 0.75 | ND | 1.0 |
| 8/25/93 | MW11 | ND | ND | ND | ND | ND |
| 11/30/93 | MW11 | ND | ND | ND | ND | ND |
| 2/16/94 | MW11 | ND | ND | ND | ND | ND |
| 5/31/94 | MW11 | ND | ND | ND | ND | ND |
| 8/31/94 | MW11 | ND | ND | 1.5 | ND | 1.8 |
| 11/10/94 | MW11 | ND | ND | ND | ND | ND |
| 2/07/95 | MW11 | SAMPLED SEMI-ANNUALLY | | | | |
| 5/03/95 | MW11 | ND | ND | ND | ND | ND |
| 8/03/95 | MW11 | SAMPLED SEMI-ANNUALLY | | | | |
| 11/07/95 | MW11 | ND | ND | ND | ND | ND |
| 8/26/92 | MW12 | ND | ND | ND | ND | ND |
| 11/20/92 | MW12 | ND | ND | ND | ND | ND |
| 11/30/93 | MW12 | ND | ND | ND | ND | ND |
| 8/25/93 | MW12 | ND | ND | ND | ND | ND |
| 5/25/93 | MW12 | ND | ND | ND | ND | ND |
| 2/24/93 | MW12 | ND | ND | ND | ND | ND |
| 2/16/94 | MW12 | ND | ND | ND | ND | ND |
| 8/31/94 | MW12 | ND | ND | 1.0 | ND | 1.0 |
| 5/31/94 | MW12 | ND | ND | 0.81 | ND | 0.82 |
| 11/10/94 | MW12 | ND | ND | ND | ND | ND |
| 2/07/95 | MW12 | SAMPLED SEMI-ANNUALLY | | | | |

**TABLE 2 (Continued)**

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|
| 5/03/95 | MW12 | ND | ND | ND | ND | ND |
| 8/03/95 | MW12 | SAMPLED SEMI-ANNUALLY | | | | |
| 11/07/95 | MW12 | ND | ND | ND | ND | ND |

▼ Sequoia Analytical Laboratory has identified the presence of MTBE at a level greater than or equal to the Federal EPA taste and odor threshold of 40 µg/L in the sample collected from this well.

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be gasoline and non-gasoline mixture.

▲ Dissolved oxygen was measured:
8/19/95 - at 2.77 ppm in MW2; 2.06 ppm in MW3; 2.19 ppm in MW4 and 2.09 ppm in MW5.
11/7/95 - at 1.68 ppm in MW3; 8.43 ppm in MW4; 1.79 ppm in MW5 and 2.13 ppm in RW1.

ND = Non-detectable.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: Laboratory analyses data prior to November 30, 1993, were provided by Kaprealian Engineering, Inc.

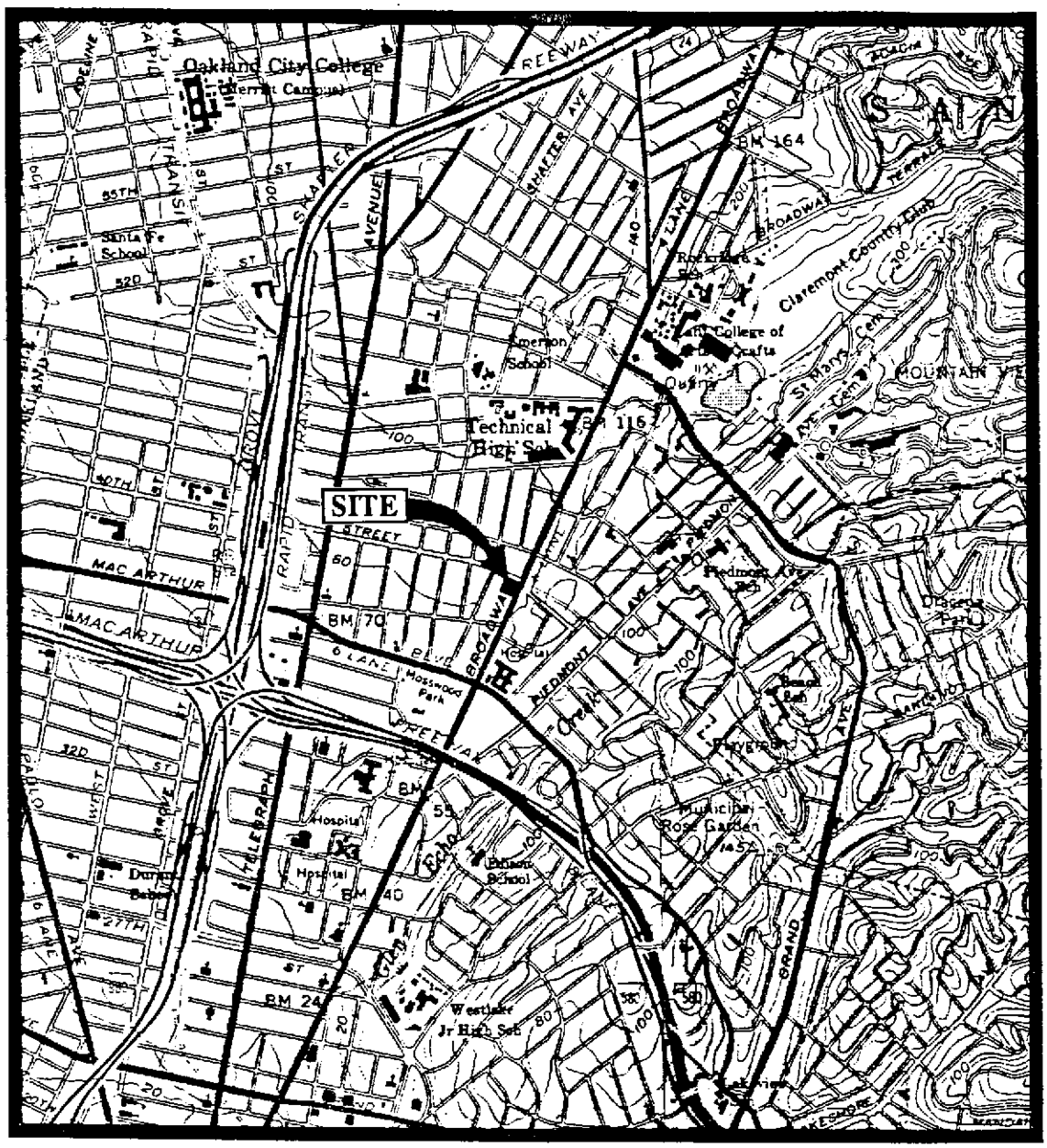
**TABLE 3**

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Well # | MBTE |
|---|---|---|
| 5/25/95 | MW2 | 2,700 |
| 11/07/95 | MW2 | 160 |
| 11/07/95 | MW3 | 880 |
| 11/07/95 | MW4 | 0.86 |
| 11/07/95 | MW5 | 630 |
| 8/31/94 | MW9 | 59 |
| 11/07/95 | MW9 | 60 |
| 8/31/94 | MW12 | ND |

ND = Non-detectable.

Results are in micrograms per liter ($\mu$g/L), unless otherwise indicated.

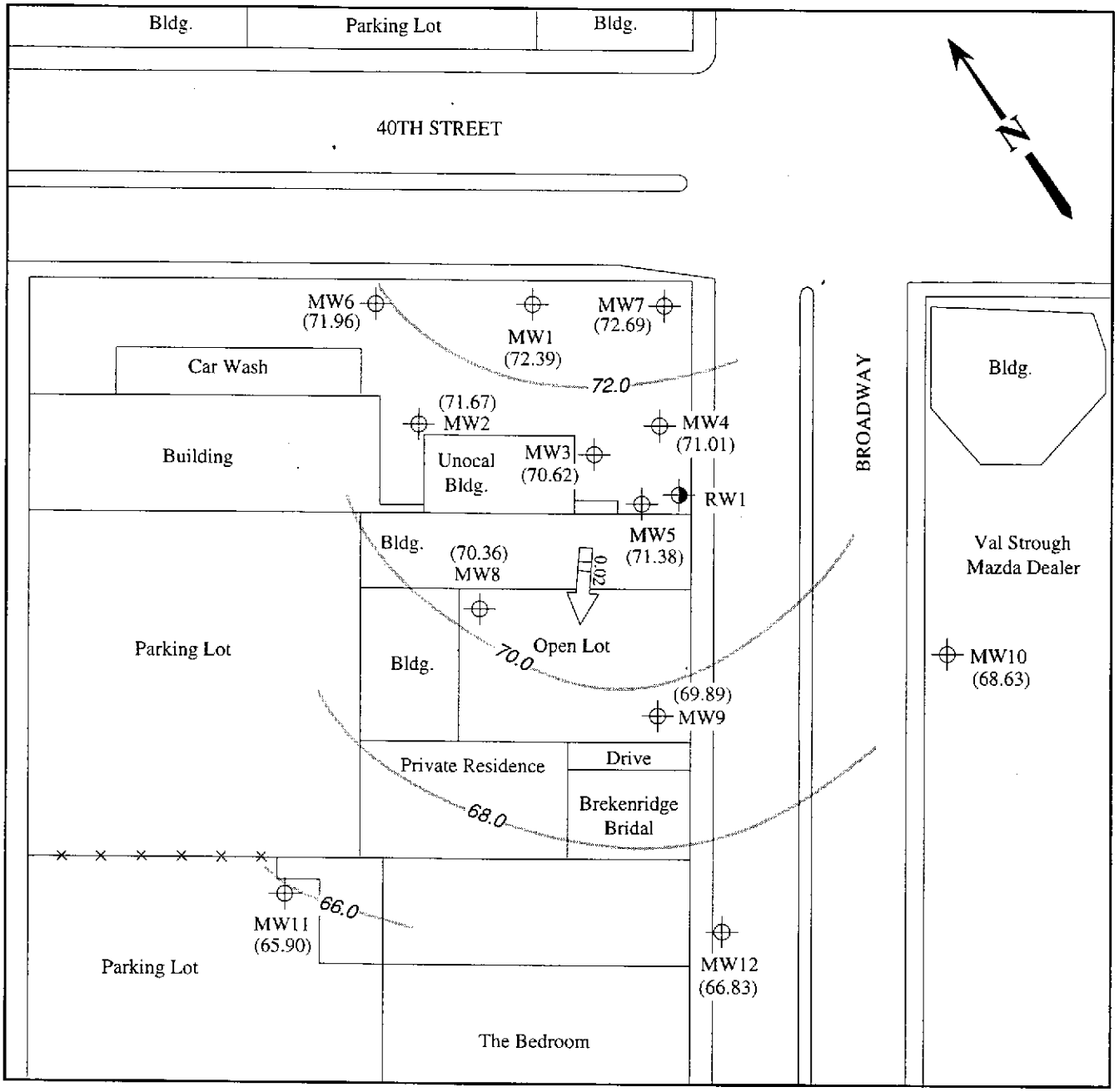



Base modified from 7.5 minute U.S.G.S. Oakland East and West Quadrangles (both photorevised 1980)

0 2000 4000

Approx. scale feet

| | | |
|---|---|---|
| mpds SERVICES, INCORPORATED | **UNOCAL SERVICE STATION #0746**<br>**3943 BROADWAY**<br>**OAKLAND, CALIFORNIA** | **LOCATION MAP** |




## LEGEND

- Monitoring well
- 6-inch diameter recovery well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation

0 60 120

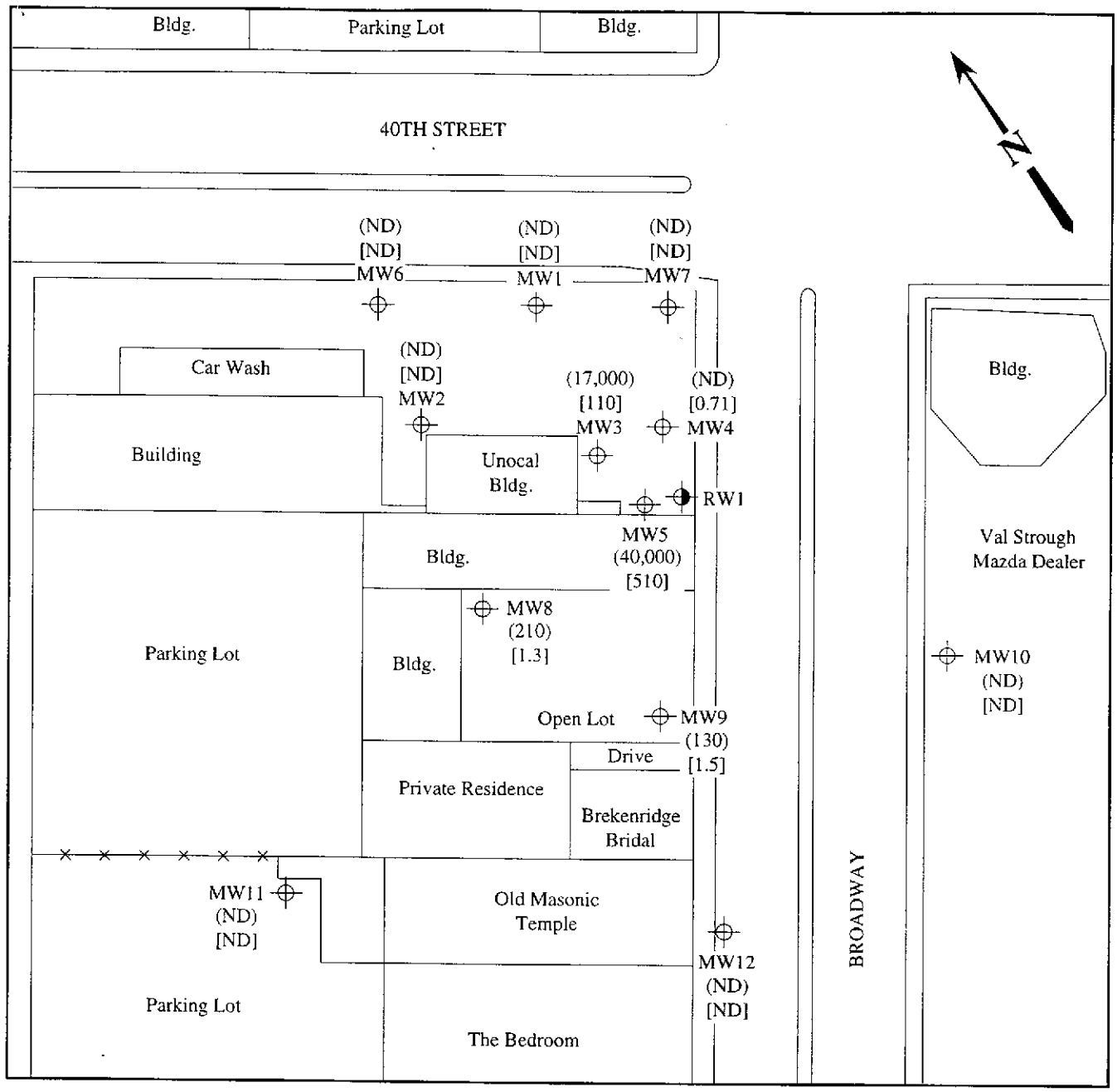
Approx. scale feet

**POTENTIOMETRIC SURFACE MAP FOR THE NOVEMBER 7, 1995 MONITORING EVENT**

MPDS SERVICES, INCORPORATED

**UNOCAL SERVICE STATION #0746**
**3943 BROADWAY**
**OAKLAND, CALIFORNIA**

FIGURE
**1**




## LEGEND

- Monitoring well
- 6-inch diameter recovery well
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of ~~TPH as gasoline~~ benzene in µg/L
- ND Non-detectable

0 60 120

Approx. scale feet

**PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON NOVEMBER 7, 1995**

MPDS SERVICES, INCORPORATED

**UNOCAL SERVICE STATION #0746**
**3943 BROADWAY**
**OAKLAND, CALIFORNIA**

FIGURE
**2**

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

| | | | |
|---|---|---|---|
| MPDS Services | Client Project ID: | Unocal #0746, 3943 Broadway, Oakland | Sampled: Nov 7, 1995 |
| 2401 Stanwell Dr., Ste. 300 | Matrix Descript: | Water | Received: Nov 7, 1995 |
| Concord, CA 94520 | Analysis Method: | EPA 5030/8015 Mod./8020 | Reported: Nov 28, 1995 |
| Attention: Jarrel Crider | First Sample #: | 511-0858 | |

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

| Sample Number | Sample Description | Purgeable Hydrocarbons µg/L | Benzene µg/L | Toluene µg/L | Ethyl Benzene µg/L | Total Xylenes µg/L | MTBE µg/L |
|---|---|---|---|---|---|---|---|
| 511-0858 | MW 1 | ND | ND | ND | ND | ND | -- |
| 511-0859 | MW 2 | ND | ND | ND | ND | ND | 160 |
| 511-0860 | MW 3 | 17,000 | 110 | 26 | 400 | 1,500 | 880 |
| 511-0861 | MW 4 | ND | 0.71 | ND | ND | ND | 0.86 |
| 511-0862 | MW 5 | 40,000 | 510 | 280 | 1,000 | 5,700 | 630 |
| 511-0863 | MW 6 | ND | ND | ND | ND | ND | -- |
| 511-0864 | MW 7 | ND | ND | ND | ND | ND | -- |
| 511-0865 | MW 8 | 210 | 1.3 | 1.2 | ND | ND | -- |
| 511-0866 | MW 9 | 130 | 1.5 | 0.62 | 0.71 | ND | 60 |
| 511-0867 | MW 10 | ND | ND | ND | ND | ND | -- |
| **Detection Limits:** | | **50** | **0.50** | **0.50** | **0.50** | **0.50** | **0.60** |

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as ND were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

| | | | | |
|---|---|---|---|---|
| MPDS Services | Client Project ID: | Unocal #0746, 3943 Broadway, Oakland | Sampled: | Nov 7, 1995 |
| 2401 Stanwell Dr., Ste. 300 | Matrix Descript: | Water | Received: | Nov 7, 1995 |
| Concord, CA 94520 | Analysis Method: | EPA 5030/8015 Mod./8020 | Reported: | Nov 28, 1995 |
| Attention: Jarrel Crider | First Sample #: | 511-0858 | | |

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

| Sample Number | Sample Description | Chromatogram Pattern | DL Mult. Factor | Date Analyzed | Instrument ID | Surrogate Recovery, % QC Limits: 70-130 |
|---|---|---|---|---|---|---|
| 511-0858 | MW 1 | -- | 1.0 | 11/17/95 | HP-9 | 89 |
| 511-0859 | MW 2 | -- | 1.0 | 11/17/95 | HP-2 | 93 |
| 511-0860 | MW 3 | Gasoline | 50 | 11/17/95 | HP-2 | 119 |
| 511-0861 | MW 4 | -- | 1.0 | 11/17/95 | HP-2 | 96 |
| 511-0862 | MW 5 | Gasoline | 200 | 11/20/95 | HP-9 | 94 |
| 511-0863 | MW 6 | -- | 1.0 | 11/17/95 | HP-9 | 91 |
| 511-0864 | MW 7 | -- | 1.0 | 11/17/95 | HP-9 | 89 |
| 511-0865 | MW 8 | Gasoline | 2.0 | 11/17/95 | HP-9 | 75 |
| 511-0866 | MW 9 | Gasoline | 1.0 | 11/17/95 | HP-2 | 103 |
| 511-0867 | MW 10 | -- | 1.0 | 11/17/95 | HP-9 | 89 |

**SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp
Project Manager

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| | | | |
|---|---|---|---|
| MPDS Services | Client Project ID: | Unocal #0746, 3943 Broadway, Oakland | Sampled: Nov 7, 1995 |
| 2401 Stanwell Dr., Ste. 300 | Matrix Descript: | Water | Received: Nov 7, 1995 |
| Concord, CA 94520 | Analysis Method: | EPA 5030/8015 Mod./8020 | Reported: Nov 28, 1995 |
| Attention: Jarrel Crider | First Sample #: | 511-0868 | |

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

| Sample Number | Sample Description | Purgeable Hydrocarbons µg/L | Benzene µg/L | Toluene µg/L | Ethyl Benzene µg/L | Total Xylenes µg/L |
|---|---|---|---|---|---|---|
| 511-0868 | MW 11 | ND | ND | ND | ND | ND |
| 511-0869 | MW 12 | ND | ND | ND | ND | ND |
| 511-0870 | ES 1 | ND | ND | ND | ND | ND |
| 511-0871 | ES 2 | ND | 0.72 | 3.1 | ND | 0.93 |
| 511-0872 | ES 3 | ND | 0.72 | 3.2 | ND | 0.96 |
| **Detection Limits:** | | **50** | **0.50** | **0.50** | **0.50** | **0.50** |

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as ND were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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| | | | | |
|---|---|---|---|---|
| MPDS Services | Client Project ID: | Unocal #0746, 3943 Broadway, Oakland | Sampled: | Nov 7, 1995 |
| 2401 Stanwell Dr., Ste. 300 | Matrix Descript: | Water | Received: | Nov 7, 1995 |
| Concord, CA 94520 | Analysis Method: | EPA 5030/8015 Mod./8020 | Reported: | Nov 28, 1995 |
| Attention: Jarrel Crider | First Sample #: | 511-0868 | | |

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

| Sample Number | Sample Description | Chromatogram Pattern | DL Mult. Factor | Date Analyzed | Instrument ID | Surrogate Recovery, % QC Limits: 70-130 |
|---|---|---|---|---|---|---|
| 511-0868 | MW 11 | -- | 1.0 | 11/17/95 | HP-9 | 88 |
| 511-0869 | MW 12 | -- | 1.0 | 11/17/95 | HP-9 | 86 |
| 511-0870 | ES 1 | -- | 1.0 | 11/17/95 | HP-9 | 85 |
| 511-0871 | ES 2 | -- | 1.0 | 11/17/95 | HP-9 | 86 |
| 511-0872 | ES 3 | -- | 1.0 | 11/17/95 | HP-9 | 86 |

**SEQUOIA ANALYTICAL, #1271**

Signature on File

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Project Manager

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #0746, 3943 Broadway, Oakland
Matrix: Liquid
QC Sample Group: 5110858-872
Reported: Nov 28, 1995

## QUALITY CONTROL DATA REPORT

| ANALYTE | Benzene | Toluene | Ethyl Benzene | Xylenes |
|---|---|---|---|---|
| Method: | EPA 8020 | EPA 8020 | EPA 8020 | EPA 8020 |
| Analyst: | M. Creusere | M. Creusere | M. Creusere | M. Creusere |
| MS/MSD Batch#: | 5110546 | 5110546 | 5110546 | 5110546 |
| Date Prepared: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Date Analyzed: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Instrument I.D.#: | HP-9 | HP-9 | HP-9 | HP-9 |
| Conc. Spiked: | 20 µg/L | 20 µg/L | 20 µg/L | 60 µg/L |
| Matrix Spike % Recovery: | 90 | 95 | 95 | 107 |
| Matrix Spike Duplicate % Recovery: | 90 | 95 | 95 | 107 |
| Relative % Difference: | 0.0 | 0.0 | 0.0 | 0.0 |
| LCS Batch#: | 4LCS111795 | 4LCS111795 | 4LCS111795 | 4LCS111795 |
| Date Prepared: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Date Analyzed: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Instrument I.D.#: | HP-9 | HP-9 | HP-9 | HP-9 |
| LCS % Recovery: | 88 | 91 | 91 | 102 |
| % Recovery Control Limits: | 71-133 | 72-128 | 72-130 | 71-120 |

**SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #0746, 3943 Broadway, Oakland
Matrix: Liquid
QC Sample Group: 5110858-872

Reported: Nov 28, 1995

## QUALITY CONTROL DATA REPORT

| ANALYTE | Benzene | Toluene | Ethyl Benzene | Xylenes |
|---|---|---|---|---|
| Method: | EPA 8020 | EPA 8020 | EPA 8020 | EPA 8020 |
| Analyst: | M. Creusere | M. Creusere | M. Creusere | M. Creusere |
| MS/MSD Batch#: | 5110399 | 5110399 | 5110399 | 5110399 |
| Date Prepared: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Date Analyzed: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Instrument I.D.#: | HP-2 | HP-2 | HP-2 | HP-2 |
| Conc. Spiked: | 20 µg/L | 20 µg/L | 20 µg/L | 60 µg/L |
| Matrix Spike % Recovery: | 110 | 105 | 110 | 110 |
| Matrix Spike Duplicate % Recovery: | 110 | 105 | 110 | 110 |
| Relative % Difference: | 0.0 | 0.0 | 0.0 | 0.0 |
| LCS Batch#: | 1LCS111795 | 1LCS111795 | 1LCS111795 | 1LCS111795 |
| Date Prepared: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Date Analyzed: | 11/17/95 | 11/17/95 | 11/17/95 | 11/17/95 |
| Instrument I.D.#: | HP-2 | HP-2 | HP-2 | HP-2 |
| LCS % Recovery: | 103 | 99 | 102 | 102 |
| % Recovery Control Limits: | 71-133 | 72-128 | 72-130 | 71-120 |

**SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #0746, 3943 Broadway, Oakland
Matrix: Liquid
QC Sample Group: 5110858-872
Reported: Nov 28, 1995

## QUALITY CONTROL DATA REPORT

| ANALYTE | Benzene | Toluene | Ethyl Benzene | Xylenes |
|---|---|---|---|---|
| Method: | EPA 8020 | EPA 8020 | EPA 8020 | EPA 8020 |
| Analyst: | M. Creusere | M. Creusere | M. Creusere | M. Creusere |
| MS/MSD Batch#: | 5111284 | 5111284 | 5111284 | 5111284 |
| Date Prepared: | 11/20/95 | 11/20/95 | 11/20/95 | 11/20/95 |
| Date Analyzed: | 11/20/95 | 11/20/95 | 11/20/95 | 11/20/95 |
| Instrument I.D.#: | HP-9 | HP-9 | HP-9 | HP-9 |
| Conc. Spiked: | 20 µg/L | 20 µg/L | 20 µg/L | 60 µg/L |
| Matrix Spike % Recovery: | 105 | 115 | 115 | 125 |
| Matrix Spike Duplicate % Recovery: | 100 | 105 | 105 | 120 |
| Relative % Difference: | 4.9 | 9.1 | 9.1 | 4.1 |
| LCS Batch#: | 4LCS112095 | 4LCS112095 | 4LCS112095 | 4LCS112095 |
| Date Prepared: | 11/20/95 | 11/20/95 | 11/20/95 | 11/20/95 |
| Date Analyzed: | 11/20/95 | 11/20/95 | 11/20/95 | 11/20/95 |
| Instrument I.D.#: | HP-9 | HP-9 | HP-9 | HP-9 |
| LCS % Recovery: | 86 | 90 | 90 | 101 |
| % Recovery Control Limits: | 71-133 | 72-128 | 72-130 | 71-120 |

**SEQUOIA ANALYTICAL, #1271**

Signature on File

Alan B. Kemp
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord CA 94520
Attention: Jarrel Crider

Date: 11/28/95

Sequoia Analytical has identified the presence of MTBE at a level above or equal to the Federal EPA taste and odor threshold of 40 ppb in the following site(s):

Client Project I.D. - **Unocal #0746- Oakland**

Sequoia Work Order # - **9511179**

| Sample Number: | Sample Description: |
|---|---|
| 5110859 | MW2 |
| 5110860 | MW3 |
| 5110862 | MW5 |
| 5110865 | MW8 |
| 5110866 | MW9 |

**SEQUOIA ANALYTICAL, #1271**

Alan B. Kemp
Project Manager

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

# CHAIN OF CUSTODY

9511179

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 0746 CITY: OAKLAND

ADDRESS: 3943 BROADWAY

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

| SAMPLE ID NO. | DATE | TIME | WATER | GRAB | COMP | NO. OF CONT. | SAMPLING LOCATION | TPH-GAS BTEX | TPH-DIESEL | TOG | 8010 | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ES1 | 11.2.95 | | X | X | | 1 | | X | | 5110870 | | | | | | |
| ES2 | " | | X | X | | 1 | | X | | 5110871 | | | | | | |
| ES3 | " | | X | X | | 1 | | X | | 5110872 | | | | | | |

| RELINQUISHED BY: | DATE/TIME | RECEIVED BY: | DATE/TIME |
|---|---|---|---|
| Ray Marangosian | 11.7.95 19:35 | | 11/7/95 1735 |
| (SIGNATURE) | 11/8/95 | (SIGNATURE) | 1538 11-8 |
| (SIGNATURE) | 11-4 | (SIGNATURE) | |
| (SIGNATURE) | | (SIGNATURE) | |
| (SIGNATURE) | | (SIGNATURE) | |

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Y
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Y
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? N
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Y

SIGNATURE: TITLE: DATE: 11/7/95

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

# CHAIN OF CUSTODY [redacted]

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 0746 CITY: OAKLAND

ADDRESS: 3943 BROADWAY

TURN AROUND TIME: REGULAR

| SAMPLE ID NO. | DATE | TIME | WATER | GRAB | COMP | NO. OF CONT. | SAMPLING LOCATION | ANALYSES REQUESTED: TPH-GAS BTEX | TPH-DIESEL | TOG | 8010 | MTBE | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW1 | 11.7.95 | 15:05 | x | x | | 2 | Well | x | 5110858 | | | | | | | |
| MW2 | " | 9:35 | x | x | | " | " | x | 5110859 | | | x | | | | |
| MW3 | " | 16:30 | x | x | | " | " | x | 5110860 | | | x | | | | |
| MW4 | " | 14:35 | x | x | | " | " | x | 5110861 | | | x | | | | |
| MW5 | " | 15:50 | x | x | | " | " | x | 5110862 | | | x | | | | |
| MW6 | " | 10:10 | x | x | | " | " | x | 5110863 | | | | | | | |
| MW7 | " | 10:55 | x | x | | " | " | x | 5110864 | | | | | | | |
| MW8 | " | 13:35 | x | x | | " | " | x | 5110865 | | | | | | | |
| MW9 | " | 13:55 | x | x | | " | " | x | 5110866 | | | x | | | | |
| MW10 | " | 13:00 | x | x | | " | " | x | 5110867 | | | | | | | |

| RELINQUISHED BY: | DATE/TIME | RECEIVED BY: | DATE/TIME |
|---|---|---|---|
| Ray Marangosian | 11.7.95 17:35 | | 11/7/95 1735 |
| (SIGNATURE) | 11/8/95 | (SIGNATURE) | 1535 11-8 |
| (SIGNATURE) | 11-8 | (SIGNATURE) | |
| (SIGNATURE) | | (SIGNATURE) | |
| (SIGNATURE) | | (SIGNATURE) | |

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SIGNATURE: TITLE: DATE: 11/7/95

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# CHAIN OF CUSTODY

| SAMPLER | UNOCAL S/S # | CITY: | ANALYSES REQUESTED | TURN AROUND TIME: |
|---|---|---|---|---|
| RAY MARANGOSIAN | 0746 | OAKLAND | | REGULAR |
| WITNESSING AGENCY | ADDRESS: | 3943 BROADWAY | | REMARKS |

| SAMPLE ID NO. | DATE | TIME | WATER | GRAB | COMP | NO. OF CONT. | SAMPLING LOCATION | TPH-GAS BTEX | TPH-DIESEL | TOG | 8010 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW11 | 11.7.95 | 12:15 | X | X | | 2 | Well | X | 5110868 | | | | | | |
| MW12 | " | 11:30 | X | X | | " | " | X | 5110869 | | | | | | |
| | | | | | | | | | | | | | | | |
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| RELINQUISHED BY: | DATE/TIME | RECEIVED BY: | DATE/TIME |
|---|---|---|---|
| Ray Marangosian | 11.7.95 17.35 | | 11/7/95 1735 |
| (SIGNATURE) | 11/8/95 | (SIGNATURE) | 1330 11-8 |
| (SIGNATURE) | 11-8 | (SIGNATURE) | |
| (SIGNATURE) | | (SIGNATURE) | |
| (SIGNATURE) | | (SIGNATURE) | |

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