KAPREALIAN ENGINEERING
INCORPORATED

'93 AUG -6 PM 4:14

August 5, 1993

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Scott Seery

RE: Unocal Service Station #6277
15803 E. 14th Street
San Leandro, California

Dear Mr. Seery:

Per the request of Mr. Dave Camille of Unocal Corporation, enclosed please find our report and proposal, both dated July 27, 1993, for the above referenced site.

If you should have any questions, please feel free to call our office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: David J. Camille, Unocal Corporation

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510.602.5100 Fax: 510.687.0602

KAPREALIAN ENGINEERING
INCORPORATED

KEI-P89-0301.QR14
July 27, 1993

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

Attention: Mr. David J. Camille

RE: Quarterly Report
Unocal Service Station #6277
15803 E. 14th Street
San Leandro, California

Dear Mr. Camille:

This report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by Kaprealian Engineering, Inc. (KEI). The wells are currently monitored and sampled on a quarterly basis. This report covers the work performed by KEI in July of 1993.

BACKGROUND

The subject site currently contains a Unocal service station facility. Two underground gasoline storage tanks, one waste oil tank, and the product piping were removed from the site in March of 1989 during tank replacement activities. The fuel tank pit and the waste oil tank pit were subsequently overexcavated in order to remove contaminated soil. Six monitoring wells have been installed at and in the vicinity of the site. In addition, two exploratory borings have been drilled at the site. On February 1, 1990, well MW2 was destroyed in preparation for additional soil excavation in the vicinity of this well. Soil excavation in the vicinity of well MW2 was completed in April of 1990. Monitoring well MW2 was then replaced with a new well (MW2A) in March of 1991. A water well survey has also been performed within a 1/2-mile radius of the site.

A site description, detailed background information including a summary of all of the soil and ground water subsurface investigation/remediation work conducted to date, site hydrogeologic conditions, and tables that summarize all of the soil and ground water sample analytical results are presented in KEI's report (KEI-P89-0301.R9) dated May 10, 1993.

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510.602.5100 Fax: 510.687.0602

RECENT FIELD ACTIVITIES

The six monitoring wells (MW1, MW2A, and MW3 through MW6) were monitored and sampled once during the quarter. Prior to sampling, the wells were checked for depth to water and the presence of free product or a sheen. No free product or sheen was noted in any of the wells during the quarter. The monitoring data collected this quarter are summarized in Table 1.

Water samples were collected from all of the wells on July 1, 1993. Prior to sampling, the wells were each purged of between 9 and 10 gallons of water by the use of a surface pump. The samples were collected by the use of a clean Teflon bailer. The samples were decanted into clean VOA vials that were then sealed with Teflon-lined screw caps and stored in a cooler, on ice, until delivery to a state-certified laboratory.

HYDROLOGY

The measured depth to ground water at the site on July 1, 1993, ranged between 6.57 and 11.20 feet below grade. The water levels in all of the wells have shown net decreases ranging from 0.01 to 0.24 feet since April 2, 1993. Based on the water level data gathered on July 1, 1993, the ground water flow direction appeared to be to the north, as shown on the attached Potentiometric Surface Map, Figure 1. The flow direction reported this quarter is slightly changed from the northwesterly flow direction reported in the previous six quarters. The hydraulic gradient at the site on July 1, 1993, was approximately 0.003.

ANALYTICAL RESULTS

The ground water samples collected this quarter were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020.

The analytical results for all of the ground water samples collected from the monitoring wells to date are summarized in Tables 2 and 3. The concentrations of 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.

## DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of the ground water samples collected and evaluated to date, and no evidence of free product or sheen in any of the wells, KEI recommends the continuation of the current ground water monitoring and sampling program. The wells are currently monitored and sampled on a quarterly basis. The ground water samples collected from all of the wells are analyzed for TPH as gasoline and BTEX. In addition, the ground water sample collected from well MW3 is also analyzed for EPA method 8010 constituents on an annual basis.

## DISTRIBUTION

A copy of this report should be sent to Mr. Scott Seery of the ACHCS, to the City of San Leandro, and to the Regional Water Quality Control Board, San Francisco Bay Region.

## 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.

Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We have analyzed these data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

If you have any questions regarding this report, please do not hesitate to call at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Thomas J. Berkins
Senior Environmental Engineer

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

License No. EG 1633
Exp. Date 6/30/94

Robert H. Kezerian
Project Engineer

/bp

Attachments: Tables 1, 2 & 3
Location Map
Potentiometric Surface Map - Figure 1
Concentrations of Petroleum Hydrocarbons - Figure 2
Laboratory Analyses
Chain of Custody documentation

KEI-P89-0301.QR14
July 27, 1993

TABLE 1

SUMMARY OF MONITORING DATA

| Well No. | Ground Water Elevation (feet) | Depth to Water (feet) | Product Thickness (feet) | Sheen | Water Purged (gallons) |
|---|---|---|---|---|---|
| **(Monitored and Sampled on July 1, 1993)** | | | | | |
| MW1 | 22.46 | 10.29 | 0 | No | 10 |
| MW2A | 22.58 | 11.20 | 0 | No | 10 |
| MW3 | 22.91 | 9.65 | 0 | No | 10 |
| MW4 | 22.63 | 9.69 | 0 | No | 9 |
| MW5 | 22.54 | 7.20 | 0 | No | 10 |
| MW6 | 22.67 | 6.57 | 0 | No | 10 |

| Well # | Surface Elevation* (feet) |
|---|---|
| MW1 | 32.75 |
| MW2A | 33.78 |
| MW3 | 32.56 |
| MW4 | 32.32 |
| MW5 | 29.74 |
| MW6 | 29.24 |

* The elevations of the tops of the well covers have been surveyed relative to Mean Sea Level (MSL) (elevation = 31.65 MSL).

KEI-P89-0301.QR14
July 27, 1993

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Sample Well # | TPH as Diesel | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|---|
| 7/01/93 | MW1 | -- | 510 | 100 | 0.79 | 5.7 | 52 |
| | MW2A | -- | 74♦ | 0.75 | ND | ND | ND |
| | MW3 | -- | 120♦ | ND | ND | ND | ND |
| | MW4 | -- | 91♦ | ND | ND | ND | ND |
| | MW5 | -- | 54♦ | ND | ND | ND | ND |
| | MW6 | -- | ND | ND | ND | ND | ND |
| 4/02/93 | MW1 | ND | 690 | 94 | 0.73 | 5.3 | 39 |
| | MW2A | ND | 120 | 7.2 | ND | 5.8 | 1.2 |
| | MW3 | ND | 130♦ | ND | ND | ND | ND |
| | MW4 | ND | 110♦ | ND | ND | ND | ND |
| | MW5 | ND | 65♦ | ND | ND | ND | ND |
| | MW6 | ND | ND | ND | ND | ND | ND |
| 1/29/93 | MW1 | ND | 740♦♦ | 69 | ND | 3.8 | 43 |
| | MW2A | ND | 66♦ | 1.4 | ND | ND | ND |
| | MW3 | ND | 130♦ | 0.84 | ND | ND | ND |
| | MW4 | ND | 130♦ | 0.95 | ND | ND | ND |
| 10/20/92 | MW1 | ND | 720 | 110 | 1.4 | 18 | 110 |
| | MW2A | ND | 96 | 2.8 | ND | 1.8 | 1.6 |
| | MW3 | ND | 180♦ | ND | ND | ND | ND |
| | MW4 | ND | 110♦ | ND | ND | ND | ND |
| 7/20/92 | MW1 | 62+ | 630 | 100 | 2.8 | 6.3 | 52 |
| | MW2A | ND | 99 | 8.6 | ND | 2.4 | 0.95 |
| | MW3 | ND | 120♦ | ND | ND | ND | ND |
| | MW4 | ND | 80♦ | ND | ND | ND | ND |
| 4/23/92 | MW1 | -- | 530 | 100 | 7.9 | 4.6 | 60 |
| | MW2A | ND | 190 | 15 | ND | 15 | 2.0 |
| | MW3 | -- | 150♦ | 1.6 | ND | ND | ND |
| | MW4 | -- | 120♦ | ND | ND | ND | ND |
| 1/13/92 | MW1 | -- | 450 | 240 | 4.6 | 8.6 | 73 |
| | MW2A | ND | 160 | 11 | 2.0 | 10 | 5.9 |
| | MW3 | -- | 120♦ | ND | ND | ND | ND |
| | MW4 | -- | 58♦ | ND | ND | ND | ND |

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Sample Well # | TPH as Diesel | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|---|
| 9/10/91 | MW1 | -- | 280 | 38 | 3.1 | 4.1 | 22 |
| | MW2A | 65 | 180 | 8.7 | 0.93 | 15 | 13 |
| | MW3 | -- | 170 | ND | ND | ND | ND |
| | MW4 | -- | 56 | ND | ND | ND | ND |
| 6/10/91 | MW1 | -- | 310 | 1.5 | ND | ND | 0.31 |
| | MW2A | 100 | 54 | 1.2 | ND | ND | 0.69 |
| | MW3 | -- | 160 | 0.65 | ND | ND | ND |
| | MW4 | -- | 64 | ND | ND | ND | ND |
| 3/15/91 | MW1 | -- | 110 | 21 | ND | ND | 8.4 |
| | MW2A | ND | 160 | 2.5 | ND | ND | 51 |
| | MW3 | -- | 150 | ND | ND | ND | 0.45 |
| | MW4 | -- | 53 | ND | ND | ND | ND |
| 12/14/90 | MW1 | -- | 450 | 150 | 6.8 | 0.28 | 49 |
| | MW3 | -- | 150 | ND | ND | ND | ND |
| | MW4 | -- | 54 | ND | ND | ND | ND |
| 9/19/90 | MW1 | -- | 140 | ND | ND | ND | 3.5 |
| | MW3 | -- | 74 | 0.74 | ND | ND | ND |
| | MW4 | -- | 61 | ND | ND | ND | ND |
| 6/25/90 | MW1 | -- | 310 | 10 | 0.89 | 0.37 | 2.1 |
| | MW3 | -- | 190 | 1.5 | 0.68 | ND | 5.3 |
| | MW4 | -- | 66 | ND | ND | ND | ND |
| 3/29/90 | MW1 | -- | 320 | 12 | 1.6 | 0.31 | 3.5 |
| | MW3 | -- | 85 | ND | ND | ND | ND |
| | MW4 | -- | 120 | 0.39 | ND | ND | ND |
| 12/12/89 | MW1 | -- | 340 | 100 | 13 | 3.4 | 44 |
| | MW2 | 1,700 | 660 | 220 | 6.6 | 13 | 36 |
| | MW3 | -- | 120 | 6.7 | 0.64 | 0.46 | 1.5 |
| | MW4 | -- | 97 | 4.6 | ND | ND | ND |
| 9/13/89 | MW1 | -- | 550 | 32 | 17 | 3.4 | 52 |
| | MW2 | ND | 170 | 2.0 | 0.38 | ND | 9.5 |
| | MW3 | -- | 76 | ND | ND | ND | ND |
| | MW4 | -- | 77 | ND | ND | ND | ND |

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

| Date | Sample Well # | TPH as Diesel | TPH as Gasoline | Benzene | Toluene | Ethyl-benzene | Xylenes |
|---|---|---|---|---|---|---|---|
| 6/06/89 | MW1 | -- | 590 | ND | ND | ND | ND |
| | MW2 | ND | 77 | ND | ND | ND | ND |
| | MW3 | -- | 32 | ND | ND | ND | ND |
| | MW4 | -- | 37 | ND | ND | ND | ND |

♦ 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 a gasoline and non-gasoline mixture.

\+ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

-- Indicates analysis was not performed.

ND = Non-detectable.

Results in parts per billion (ppb), unless otherwise indicated.

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TABLE 3

*SUMMARY OF LABORATORY ANALYSES*
WATER

| Date | Well # | Tetra-chloroethene | Trichloro-ethene | 1,2-Dichloro-ethane | Cis-1,2-dichloro-ethene | TOG (ppm) |
|---|---|---|---|---|---|---|
| 4/02/93 | MW5 | 190 | ND | ND | ND | -- |
| | MW6 | 71 | ND | ND | ND | -- |
| 1/29/93 | MW1 | 300 | ND | ND | ND | -- |
| | MW2A | 140 | 10 | ND | ND | -- |
| | MW3 | 980 | ND | ND | ND | -- |
| | MW4 | 950 | ND | ND | ND | -- |
| 10/20/92 | MW1 | 230 | 22 | ND | 16 | -- |
| | MW2A | 64 | 11 | ND | ND | -- |
| | MW3 | 1,100 | 20 | ND | ND | -- |
| | MW4 | 360 | 17 | ND | ND | -- |
| 7/20/92 | MW1 | 200 | 7.4 | ND | ND | -- |
| | MW2A | 35 | 7.2 | ND | 4.8 | ND |
| | MW3 | 1,400 | 25 | ND | ND | -- |
| | MW4 | 440 | 11 | ND | ND | -- |
| 4/23/92 | MW2A | 17 | 5.6 | ND | 1.9 | ND |
| 1/13/92 | MW2A* | 33 | ND | ND | 2.1 | ND |
| 6/10/91 | MW2A | 150 | 10 | ND | ND | ND |
| 3/15/91 | MW2A | 67 | 8.2 | ND | 2.6 | ND |
| 12/12/89 | MW2 | 30 | 9.0 | ND | ND | 1.2 |
| 9/13/89 | MW2 | 18 | 6.1 | 4.2 | 1.2 | <50 |
| 6/06/89 | MW2 | 110 | 4.4 | 2.8 | ND | ND |

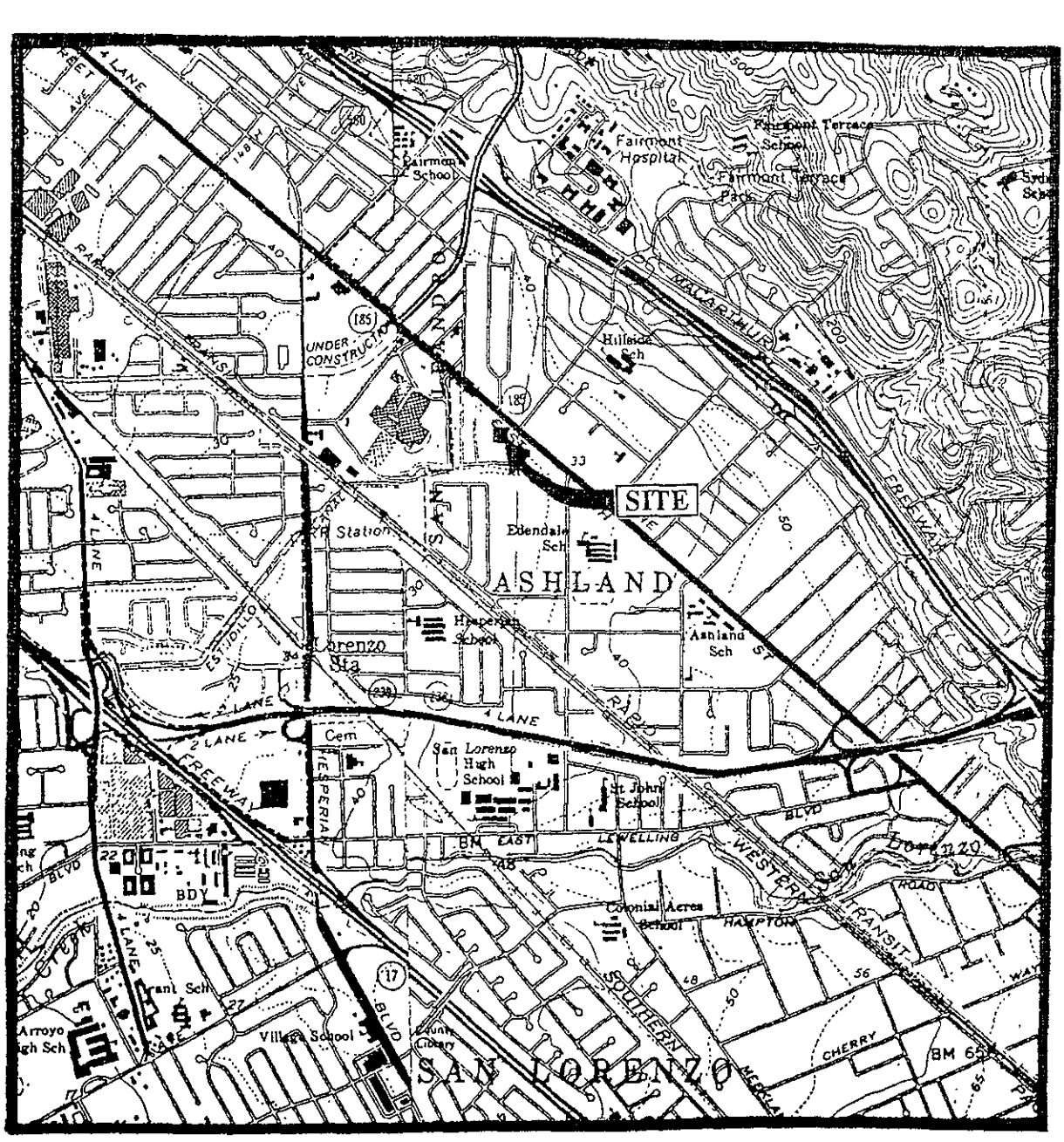
**NOTE**: All EPA method 8010 constituents were non-detectable in all of the ground water samples, except as indicated.

* 1,1,2-Trichloroethane was also detected at a level of 9.9 ppb.

ND = Non-detectable.

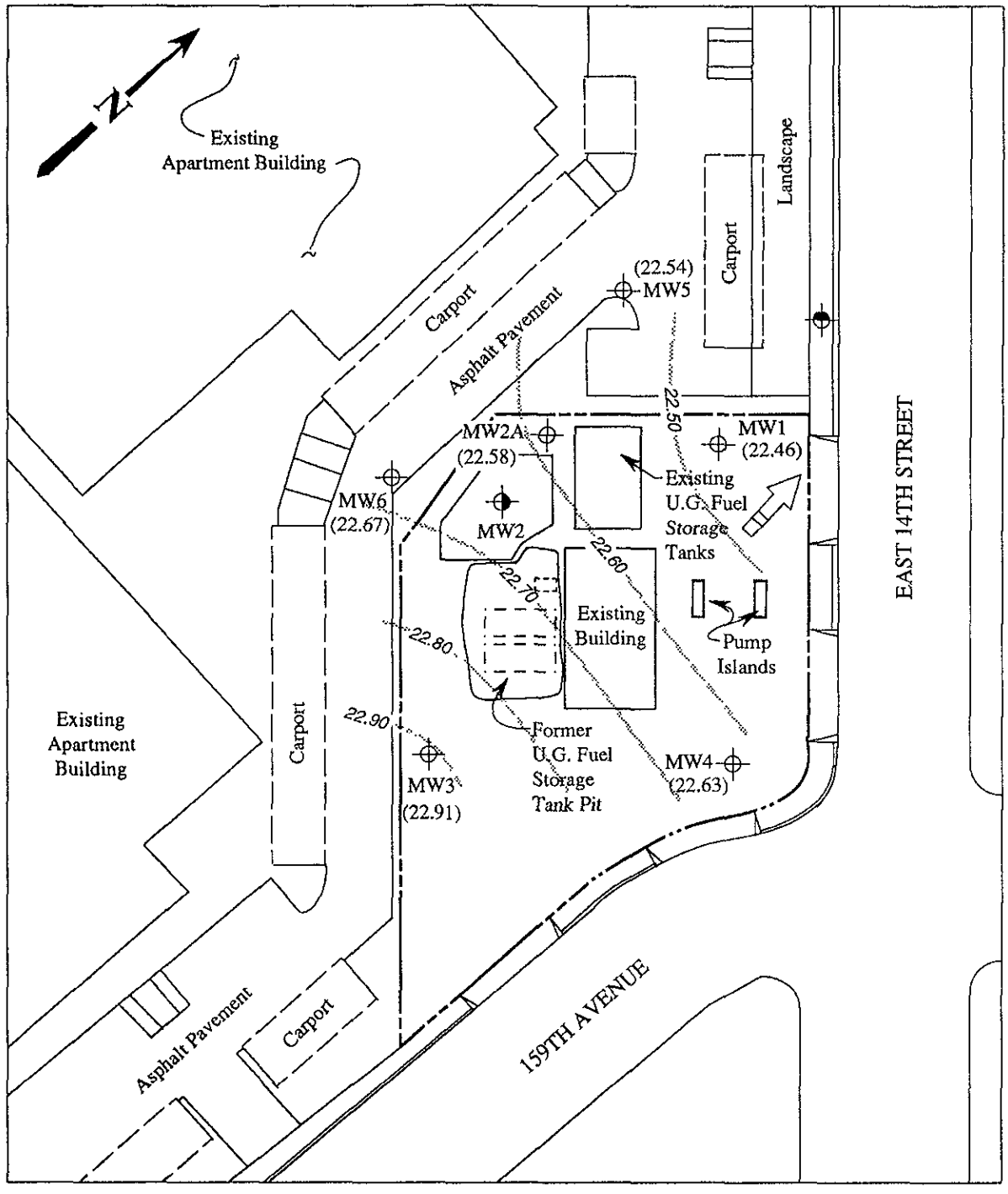
-- Indicates analysis was not performed.

Results in parts per billion (ppb), unless otherwise indicated.




Base modified from 7.5 minute U.S.G.S. San Leandro and Hayward Quadrangles
(Both photorevised 1980)

| KAPREALIAN ENGINEERING INCORPORATED | UNOCAL SERVICE STATION #6277<br>15803 E. 14TH STREET<br>SAN LEANDRO, CA | LOCATION MAP |
|---|---|---|




LEGEND

- Monitoring well (existing)
- Monitoring well (previously attempted)
- Monitoring well (destroyed February1, 1990)
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

0 60 120

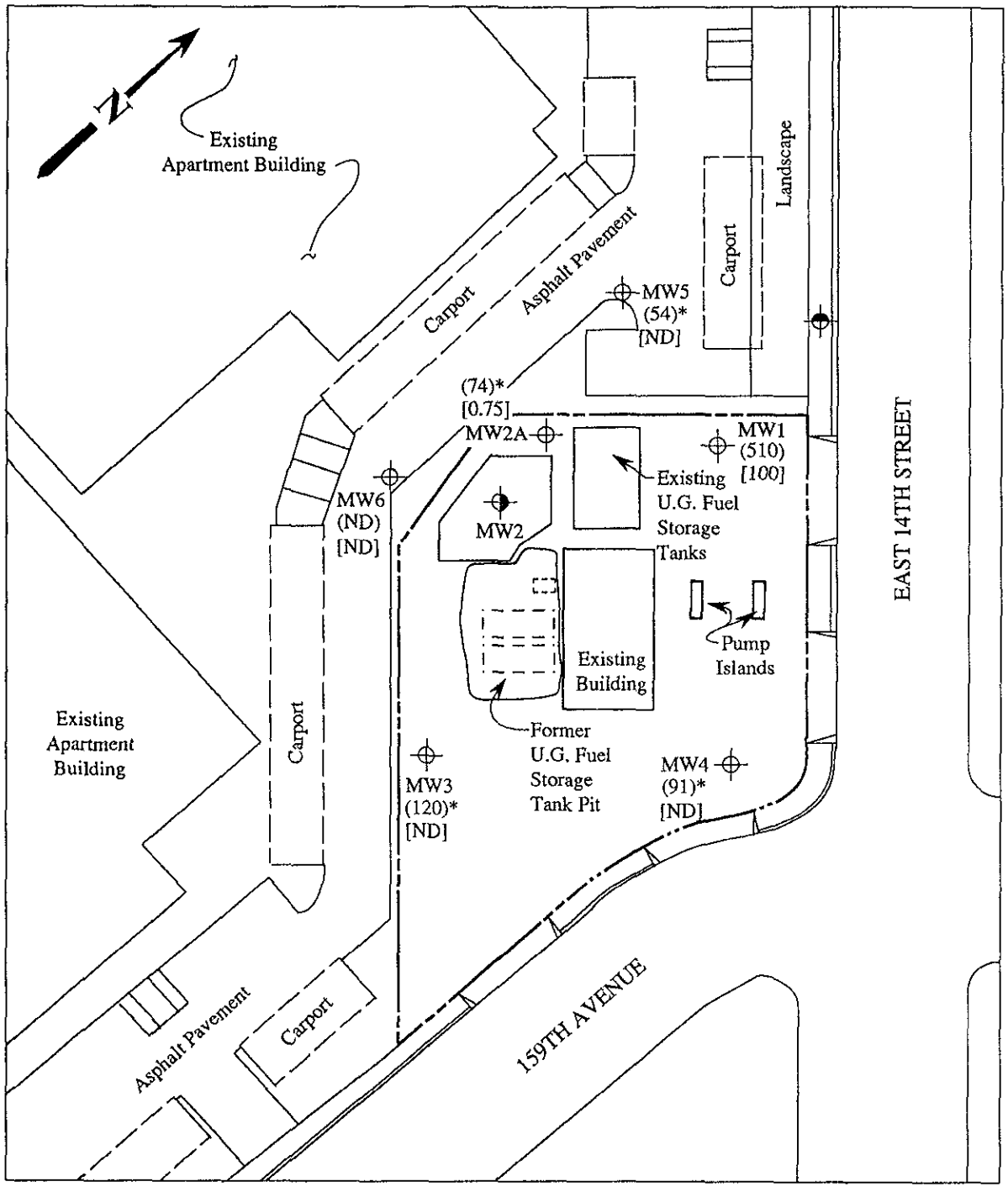
Approx. scale feet

**POTENTIOMETRIC SURFACE MAP FOR THE JULY 1, 1993 MONITORING EVENT**

KAPREALIAN ENGINEERING
INCORPORATED

**UNOCAL SERVICE STATION #6277**
**15803 E. 14TH STREET**
**SAN LEANDRO, CA**

FIGURE
**1**




LEGEND

- Monitoring well (existing)
- Monitoring well (previously attempted)
- Monitoring well (destroyed February1, 1990)
- ( ) Concentration of TPH as gasoline in ppb
- [ ] Concentration of benzene in ppb

ND = Non-detectable

* The lab reported that the hydrocarbons detected did not appear to be gasoline.

0 60 120

Approx. scale feet

**PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JULY 1, 1993**

KAPREALIAN ENGINEERING
INCORPORATED

**UNOCAL SERVICE STATION #6277**
**15803 E. 14TH STREET**
**SAN LEANDRO, CA**

FIGURE
**2**

# SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689


| | | | | |
|---|---|---|---|---|
| Kaprealian Engineering, Inc. | Client Project ID: | Unocal, 15803 E. 14th St., San Leandro | Sampled: | Jul 1, 1993 |
| 2401 Stanwell Dr., Ste. 400 | Sample Matrix: | Water | Received: | Jul 1, 1993 |
| Concord, CA 94520 | Analysis Method: | EPA 5030/8015/8020 | Reported: | Jul 16, 1993 |
| Attention: Avo Avedessian | First Sample #: | 307-0070 | | |

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

| Analyte | Reporting Limit µg/L | Sample I.D. 307-0070 MW-1 | Sample I.D. 307-0071 MW-2* | Sample I.D. 307-0072 MW-3* | Sample I.D. 307-0073 MW-4* | Sample I.D. 307-0074 MW-5* | Sample I.D. 307-0075 MW-6 |
|---|---|---|---|---|---|---|---|
| Purgeable Hydrocarbons | 50 | 510 | 74 | 120 | 91 | 54 | N.D. |
| Benzene | 0.5 | 100 | 0.75 | N.D. | N.D. | N.D. | N.D. |
| Toluene | 0.5 | 0.79 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Ethyl Benzene | 0.5 | 5.7 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Total Xylenes | 0.5 | 52 | N.D. | N.D. | N.D. | N.D. | N.D. |
| Chromatogram Pattern: | | Gasoline | Discrete Peaks | Discrete Peaks | Discrete Peaks | Discrete Peaks | -- |

### Quality Control Data

| | | | | | | |
|---|---|---|---|---|---|---|
| Report Limit Multiplication Factor: | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Date Analyzed: | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 |
| Instrument Identification: | HP-2 | HP-2 | HP-2 | HP-2 | HP-2 | HP-2 |
| Surrogate Recovery, %: (QC Limits = 70-130%) | 105 | 99 | 101 | 99 | 97 | 99 |

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Alan B. Kemp
Project Manager

Please Note: * Discrete Peaks refers to unidentified peaks in the EPA 8010 range.

**SEQUOIA ANALYTICAL**
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

| | | | | |
|---|---|---|---|---|
| Kaprealian Engineering, Inc. | Client Project ID: | Unocal, 15803 E. 14th St., San Leandro | Sampled: | Jul 1, 1993 |
| 2401 Stanwell Dr., Ste. 400 | Sample Matrix: | Water | Received: | Jul 1, 1993 |
| Concord, CA 94520 | Analysis Method: | EPA 5030/8015/8020 | Reported: | Jul 16, 1993 |
| Attention: Avo Avedessian | First Sample #: | Matrix Blank | | |

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

| Analyte | Reporting Limit µg/L | Sample I.D. Matrix Blank |
|---|---|---|
| Purgeable Hydrocarbons | 50 | |
| Benzene | 0.5 | |
| Toluene | 0.5 | |
| Ethyl Benzene | 0.5 | |
| Total Xylenes | 0.5 | |

Chromatogram Pattern:

***Quality Control Data***

| | |
|---|---|
| Report Limit Multiplication Factor: | 1.0 |
| Date Analyzed: | 7/7/93 |
| Instrument Identification: | HP-2 |
| Surrogate Recovery, %: (QC Limits = 70-130%) | 104 |

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

**SEQUOIA ANALYTICAL**

Alan B. Kemp
Project Manager

**SEQUOIA ANALYTICAL**
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal, 15803 E. 14th St., San Leandro
Matrix: Water

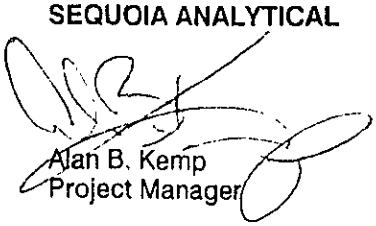
QC Sample Group 2070070-75

Reported: Jul 16, 1993

## QUALITY CONTROL DATA REPORT

| ANALYTE | Benzene | Toluene | Ethyl-Benzene | Xylenes |
|---|---|---|---|---|
| **Method:** | EPA 8020 | EPA 8020 | EPA 8020 | EPA 8020 |
| **Analyst:** | J.F. | J.F. | J.F. | J.F. |
| **Conc. Spiked:** | 20 | 20 | 20 | 60 |
| **Units:** | µg/L | µg/L | µg/L | µg/L |
| **LCS Batch#:** | 1LCS070793 | 1LCS070793 | 1LCS070793 | 1LCS070793 |
| **Date Prepared:** | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 |
| **Date Analyzed:** | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 |
| **Instrument I.D.#:** | HP-2 | HP-2 | HP-2 | HP-2 |
| **LCS % Recovery:** | 100 | 95 | 95 | 100 |
| **Control Limits:** | 70-130 | 70-130 | 70-130 | 70-130 |
| **MS/MSD Batch #:** | 3070071 | 3070071 | 3070071 | 3070071 |
| **Date Prepared:** | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 |
| **Date Analyzed:** | 7/7/93 | 7/7/93 | 7/7/93 | 7/7/93 |
| **Instrument I.D.#:** | HP-2 | HP-2 | HP-2 | HP-2 |
| **Matrix Spike % Recovery:** | 100 | 95 | 100 | 102 |
| **Matrix Spike Duplicate % Recovery:** | 105 | 100 | 100 | 102 |
| **Relative % Difference:** | 4.8 | 5.1 | 0.0 | 0.0 |

**SEQUOIA ANALYTICAL**



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 LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

KAPREALIAN ENGINEERING
INCORPORATED

# CHAIN OF CUSTODY

SAMPLER

WITNESSING AGENCY

SITE NAME & ADDRESS: Unocal / San Leandro
15803 E. 14th st.

ANALYSES REQUESTED: TPHG, BTXE

TURN AROUND TIME: Regular

| SAMPLE ID NO. | DATE | TIME | SOIL | WATER | GRAB | COMP | NO. OF CONT. | SAMPLING LOCATION | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 7/1/93 | 12:20 P.M | | ✓ | ✓ | | 2 | MW | 070 |
| MW-2 | " | | | ✓ | ✓ | | 2 | " | 071 |
| MW-3 | " | | | ✓ | ✓ | | 2 | " | 072 |
| MW-4 | " | | | ✓ | ✓ | | 2 | " | 073 |
| MW-5 | " | | | ✓ | ✓ | | 2 | " | 074 |
| MW-6 | " | 3:05 P.M | | ✓ | ✓ | | 2 | " | 075 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| Relinquished by: (Signature) | Date/Time | Received by: (Signature) |
|---|---|---|
| Joe Serna | 7-1-93 | Steve Lee |
| Steve Lee | 7/2/93 1305 | |
| | 7-2-93 1505 | |
| Relinquished by: (Signature) | Date/Time | Received by: (Signature) |

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? Yes
2. Will samples remain refrigerated until analyzed? Yes
3. Did any samples received for analysis have head space? NO
4. Were samples in appropriate containers and properly packaged? Yes

Steve Lee — Signature; Analyst — Title; 7/7/93 — Date

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510 602 5100 Fax: 510 687 0602