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Alameda County
Environmental Health

KAPREALIAN ENGINEERING
INCORPORATED

KEI-P91-1004.R5
October 7, 1994

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

Attention: Mr. David B. DeWitt

RE: Soil Sampling Report
Unocal Service Station #5043
449 Hegenberger Road
Oakland, California

FILE #	5043	SS	X	BP
RPT	X	QM	TRANSMITTAL	
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Dear Mr. DeWitt:

This report summarizes the results of soil sampling performed by Kaprealian Engineering, Inc. (KEI) at the referenced site. All work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB) and the Alameda County Health Care Services (ACHCS) Agency. The scope of work performed by KEI consisted of the following:

- Coordination with regulatory agencies
- Collection of a soil sample from beneath the waste oil tank
- Delivery of a soil sample with proper Chain of Custody documentation to a certified analytical laboratory
- Technical review and preparation of this report

SITE DESCRIPTION AND BACKGROUND

The subject site contains a Unocal service station facility. The site is characterized by gently sloping, west to west-southwest trending topography, and is located approximately 1,250 feet northeast of the existing drainage channel of San Leandro Creek.

KEI's initial field work was conducted on October 25, 1991, when four soil samples, labeled P1 through P4, were collected from the product pipe trenches (at depths of approximately 3 feet below grade) during an island modification project at the site. Sample point locations are as shown on the attached Figure 1. In addition, two shallow borings were drilled to ground water (which was encountered at a depth of approximately 4 to 4.5 feet below grade) by the use of a hand auger. The product pipe trenches were subsequently excavated to the ground water depth.

All samples were analyzed by Sequoia Analytical Laboratory in Concord, California. All soil samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, benzene, toluene, ethylbenzene, and xylenes (BTEX), and TPH as diesel. The results of the soil analyses are summarized in Table 4. Documentation of the sample collection techniques and the analytical results of the soil samples collected from the product pipe trenches are summarized in KEI's report (KEI-J91-1004.R1) dated December 17, 1991.

To comply with the requirements of the regulatory agencies and based on the analytical results, KEI proposed the installation of three monitoring wells.

On February 5, 1992, three two-inch diameter monitoring wells (designated as MW1, MW2, and MW3 on the attached Figure 2) were installed at the site. The monitoring wells were drilled and completed to total depths ranging from 13.5 to 15 feet below grade. Ground water was encountered at depths ranging from approximately 3 to 5 feet beneath the surface during drilling. The surface of each well cover was surveyed by Kier & Wright of Pleasanton, California, to Mean Sea Level (MSL) and to a vertical accuracy of 0.01 feet. The wells were developed on February 10, 1992, and were initially sampled on February 18, 1992.

Water and selected soil samples were analyzed at Sequoia Analytical Laboratory in Concord, California. The soil and water samples were analyzed for TPH as gasoline, BTEX, and TPH as diesel. The results of the soil analyses are summarized in Table 3, and the results of the water analyses are summarized in Table 2.

Based on the analytical results, KEI recommended the implementation of a monthly monitoring and quarterly sampling program. Documentation of the well installation protocol, sample collection techniques, and the analytical results are presented in KEI's report (KEI-P91-1004.R3) dated March 26, 1992. In KEI's first quarterly report (KEI-P91-1004.QR1) dated July 7, 1992, KEI recommended the installation of three additional monitoring wells at the site in order to further define the extent of contamination.

On August 21, 1992, three additional two-inch diameter monitoring wells (designated as MW4, MW5, and MW6 on the attached Figure 2) were installed at the site. The three wells were each drilled and completed to total depths of 13.5 feet below grade. Ground water was encountered between 5.5 to 6.5 feet beneath the surface during drilling. The surface of each well cover was surveyed by Kier & Wright of Pleasanton, California, to MSL and to a vertical accuracy of 0.01 feet. The new wells (MW4, MW5, and MW6) were developed on August 24, 1992, and were initially sampled on August 31, 1992.

Water samples from all of the wells, and selected soil samples from the borings for MW4 through MW6, were analyzed for TPH as gasoline, BTEX, and TPH as diesel. The results of the soil analyses are summarized in Table 3, and the results of the water analyses are summarized in Table 2.

RECENT FIELD ACTIVITIES

KEI's most recent field work was conducted on September 20, 1994, when one 280 gallon underground waste oil tank was removed from the site. Tank removal and soil sampling were performed in the presence of Mr. Barney Chan of the ACHCS. The tank was made of steel, and no apparent holes or cracks were observed in the tank.

One soil sample (labeled W01) was collected from beneath the tank at a depth of approximately 9 feet below grade. The undisturbed sample was collected from bulk material excavated by backhoe. The sample was placed in a clean, two-inch diameter brass tube, sealed with aluminum foil and plastic caps, and stored in a cooled ice chest for delivery to a state-certified laboratory. The sample point location is as shown on the attached Figure 1.

REGIONAL GEOLOGY AND SUBSURFACE CONDITIONS

Subsurface soils exposed in the excavation consisted primarily of bay mud. Water was initially detected at a depth of approximately 7 feet below grade. However, after removal of the waste oil tank and the backfill material, the water did not recharge. Mr. Robert Mallory of Geostrategies, Inc. was on-site the following day (September 21, 1994), and noted that water was not present in the pit. Excavated soil was stockpiled on-site.

Based on review of regional geologic maps (U.S. Geological Survey Professional Paper 943 "Flatland Deposits - Their Geology and Engineering Properties and their Importance to Comprehensive Planning" by E.J. Helley and K.R. Lajoie, 1979), the subject site is underlain by Holocene-age Bay Mud (Qhbm). The Bay Mud typically consists of unconsolidated, saturated clay and silty clay that is rich in organic material. The Bay Mud locally contains lenses and stringers of well-sorted silt, sand, and beds of peat.

The results of our subsurface studies to date (the borings for wells MW1 through MW6) indicate that the site is underlain by artificial fill materials that extend to approximately 2 to 4 feet below grade. The fill materials are underlain by Bay Mud, which consists predominantly of organic-rich silty clay and clayey silt, with minor interbeds of sand, peat, sandy silt, and silty clay. The unsaturated zone (in August 1992) at the site ranges between 3 and 8 feet thick.

A representative soil sample of the saturated zone was collected from MW5 at a depth of 9 feet below grade. The sample was submitted to Harlan Tait & Associates of San Francisco for particle size analysis (sieve and hydrometer analysis) for verification of casing slot size and filter pack design. The results of the analysis indicated that the sample is composed of approximately 70% clay, 27% silt, and 3% fine-grained sand. The sample is classified as an organic clay with silt (OH).

ANALYTICAL RESULTS

The samples were analyzed by Sequoia Analytical Laboratory in Concord, California, and were accompanied by properly executed Chain of Custody documentation. Sample W01 was analyzed for TPH as gasoline by EPA method 5030/modified 8015, BTEX by EPA method 8020, TPH as diesel by EPA method 3550/modified 8015, EPA method 8010 constituents, EPA method 8270 constituents, total oil and grease (TOG) by Standard Method 5520E&F (soil), and the metals cadmium, chromium, lead, nickel, and zinc.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results and visual inspection, KEI recommends no further sampling at this time relative to the recently removed waste oil tank, unless required by the regulatory agencies.

DISTRIBUTION

A copy of this report should be sent to Mr. Barney Chan of the ACHCS, and to the RWQCB, San Francisco Bay Region.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in 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 this 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,

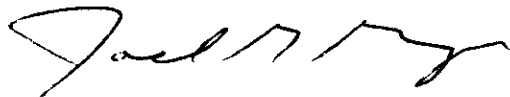
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except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

Should you have any questions regarding this report, please feel free to call me at (510) 602-5100.

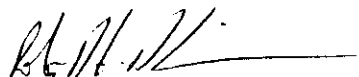
Sincerely,

Kaprealian Engineering, Inc.



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

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



Robert H. Kezerian
Project Manager

\jad

Attachments: Tables 1 through 4
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

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October 7, 1994

TABLE 1
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Date</u>	<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>
9/20/94	W01*	9	ND	ND	ND	ND	ND	ND

* TOG, all EPA method 8010 constituents, all EPA method 8270 constituents, and the metal cadmium were all non-detectable. The metals chromium, lead, nickel, and zinc were detected at concentrations of 37 ppm, 6.0 ppm, 42 ppm, and 51 ppm, respectively.

ND = Non-detectable.

Results are in parts per million (ppm), unless otherwise indicated.

TABLE 2

**SUMMARY OF LABORATORY ANALYSES
 WATER**

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
8/15/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	2,800♦♦	35,000	2,400	850	1,700	15,000
	MW3	110♦♦	130	1.1	0.54	ND	0.97
	MW4	72♦♦	59**	ND	0.60	ND	ND
	MW5	860♦♦	1,600	110	ND	340	72
	MW6	790♦♦	1,300	130	6.7	54	57
5/19/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	3,000♦♦	42,000	2,500	1,300	2,300	13,000
	MW3	480♦♦	1,800	83	ND	6.2	9.1
	MW4	90♦♦	140**	ND	ND	ND	ND
	MW5	600♦♦	260	44	ND	32	4.1
	MW6	1,400♦♦	3,600	300	1.7	210	41
2/07/94	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW3	620♦♦	2,700	110	ND	17	ND
	MW4	ND	56**	ND	ND	ND	ND
	MW5	830♦♦	2,000	87	ND	370	110
	MW6	970♦♦	4,900	650	ND	250	35
11/03/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	2,600♦♦	72,000	3,700	16,000	3,700	20,000
	MW3	160	640**	ND	ND	ND	ND
	MW4	68	130**	ND	ND	ND	ND
	MW5	2,100♦♦	13,000	350	ND	3,500	530
	MW6	390♦♦	1,400	320	ND	200	7.7
8/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	1,800♦♦	45,000	2,100	6,600	1,400	12,000
	MW3	100	210**	ND	ND	ND	ND
	MW4	81	250**	ND	3.5	ND	4.1
	MW5★	970♦♦	1,500	130	1.0	460	11
	MW6	1,100♦♦	3,400	390	ND	440	190

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
 WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
5/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	7,100♦	63,000	3,200	17,000	470	17,000
	MW3	250♦♦	1,800*	95	ND	ND	ND
	MW4	ND	110*	0.95	ND	ND	ND
	MW5★	4,600♦	7,400	41	ND	1,000	35
	MW6	1,800♦	4,900	360	18	450	430
2/04/93	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	6,100♦	18,000	1,600	3,000	ND	6,900
	MW3	550♦♦	3,300	320	ND	96	6.1
	MW4	ND	ND	ND	ND	ND	ND
	MW5★	5,500♦♦	5,700	38	ND	620	170
	MW6	890♦♦	3,600	340	ND	290	550
11/30/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	5,700♦	29,000	2,000	3,400	1,200	6,900
	MW3	94	790**	ND	ND	ND	ND
	MW4	61	420**	ND	ND	ND	ND
	MW5★	470♦♦	930	70	290	0.79	14
	MW6	1,400♦	9,200	550	ND	740	1,600
8/31/92	MW1	8,900♦	64,000	13,000	12,000	2,500	22,000
	MW2	1,600♦	9,000	1,800	640	140	2,000
	MW3	92♦♦	210**	1.0	ND	ND	ND
	MW4	90♦♦	240**	ND	ND	ND	0.54
	MW5	690♦	78	0.89	ND	ND	13
	MW6	750♦♦	ND	ND	ND	ND	ND
5/20/92	MW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
	MW2	4,300♦	24,000	2,200	7,600	630	11,000
	MW3	WELL WAS INACCESSIBLE					
2/18/92	MW1	13,000	150,000	17,000	26,000	5,200	26,000
	MW2	4,300	29,000	1,000	5,300	260	7,900
	MW3	ND	230	4.8	22	1.8	33

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

- ♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.
- ♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- * 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 gasoline.
- ★ TOG was non-detectable.

ND = Non-detectable.

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

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October 7, 1994

TABLE 3
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Date</u>	<u>Sample Number</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
2/05/92	MW1(2.5)	2.5	1,200	14,000	160	680	470	2,400
	MW2(3.5)	3.5	2,400	9,000	74	440	280	1,400
	MW2(4.5)	4.5	29	31	2.4	0.14	3.0	9.0
	MW3(3)	3.0	49	ND	ND	ND	ND	0.011
	MW3(4.5)	4.5	ND	ND	ND	ND	ND	ND
8/21/92	MW4(5)	5.0	ND	ND	ND	ND	ND	0.0066
	MW5(6)	6.0	43*	340	1.1	1.2	7.8	13
	MW6(5)	5.0	1.2	3.7	0.90	ND	1.0	0.05

* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.

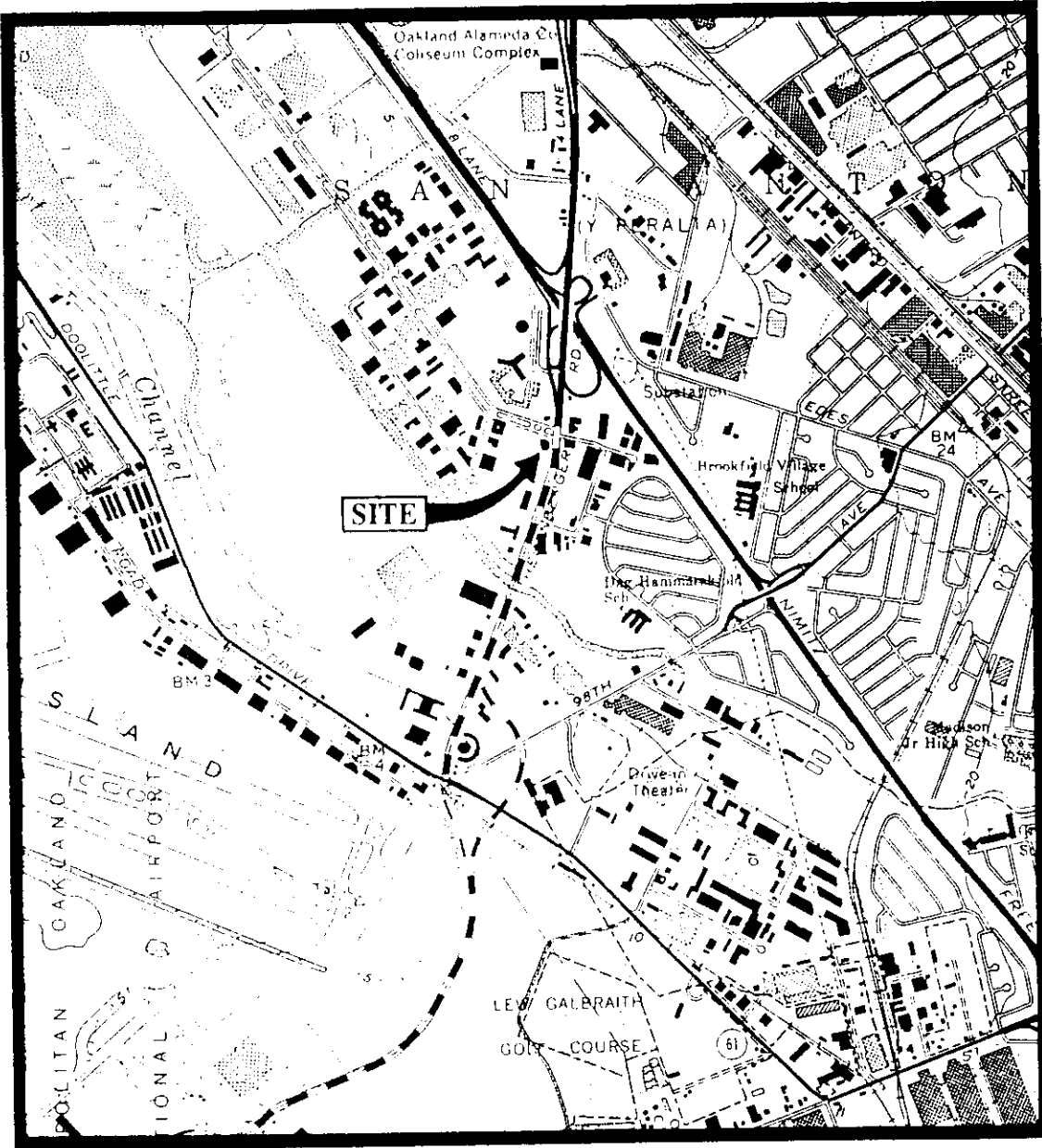
KEI-P91-1004.R5
October 7, 1994

TABLE 4
SUMMARY OF LABORATORY ANALYSES
SOIL

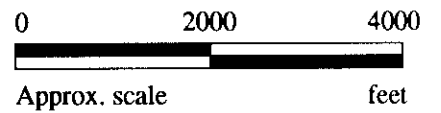
<u>Date</u>	<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>
10/25/91	P1	3	420	3,200	33	120	110	540
	P2	3	8,400	9,000	46	120	330	1,500
	P3	3	1,100	7,100	48	410	220	1,200
	P4	3	460	370	7.4	39	12	77

ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.



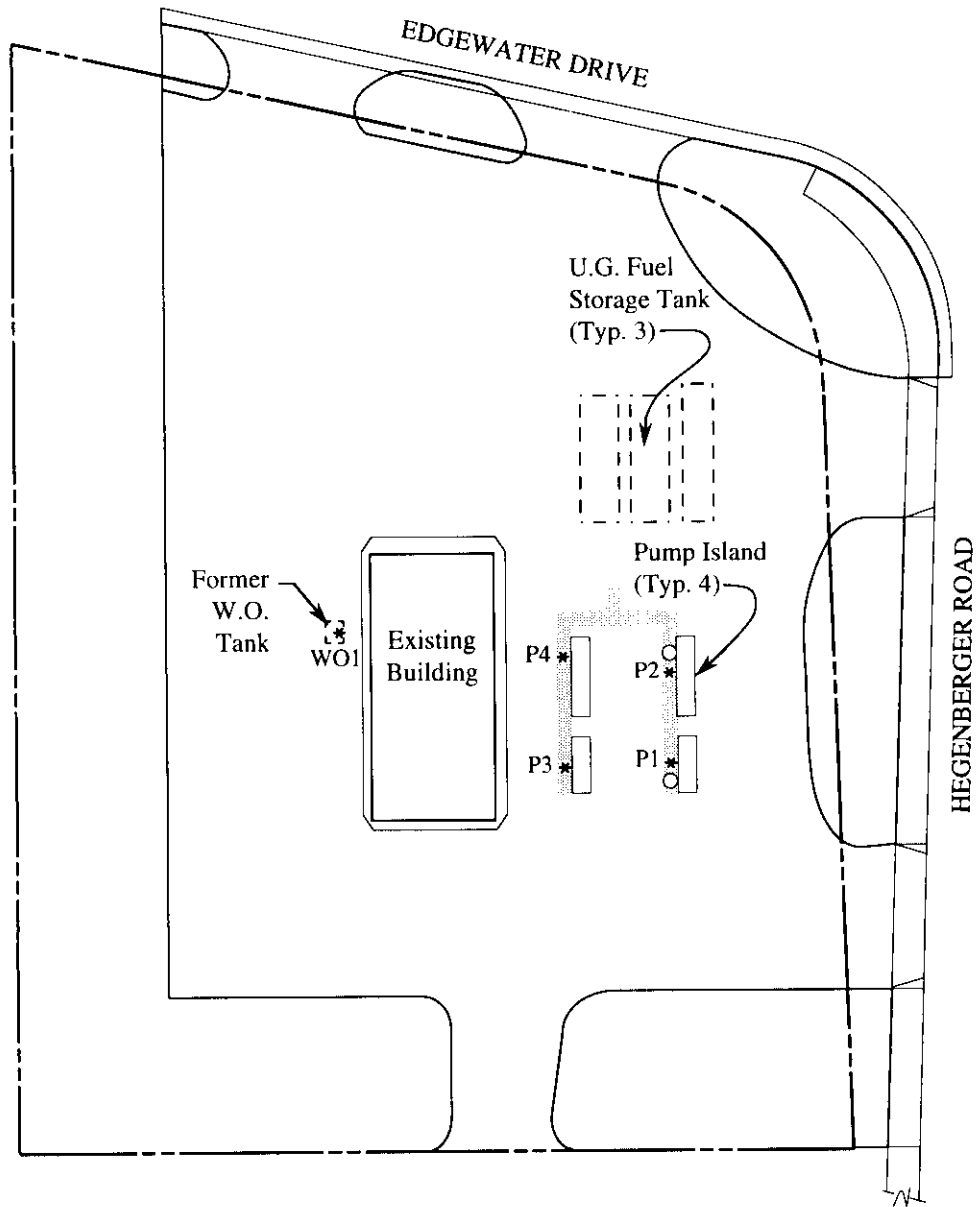
Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle
(photorevised 1980)




**KAPREALIAN ENGINEERING
INCORPORATED**

**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**LOCATION
MAP**

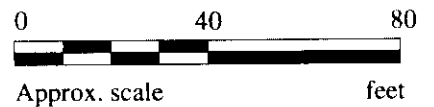


LEGEND

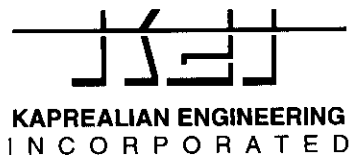
* Sample point location

○ Hand augered boring location

▨ Area excavated to ground water
(approx. 4 – 4.5 feet below grade)

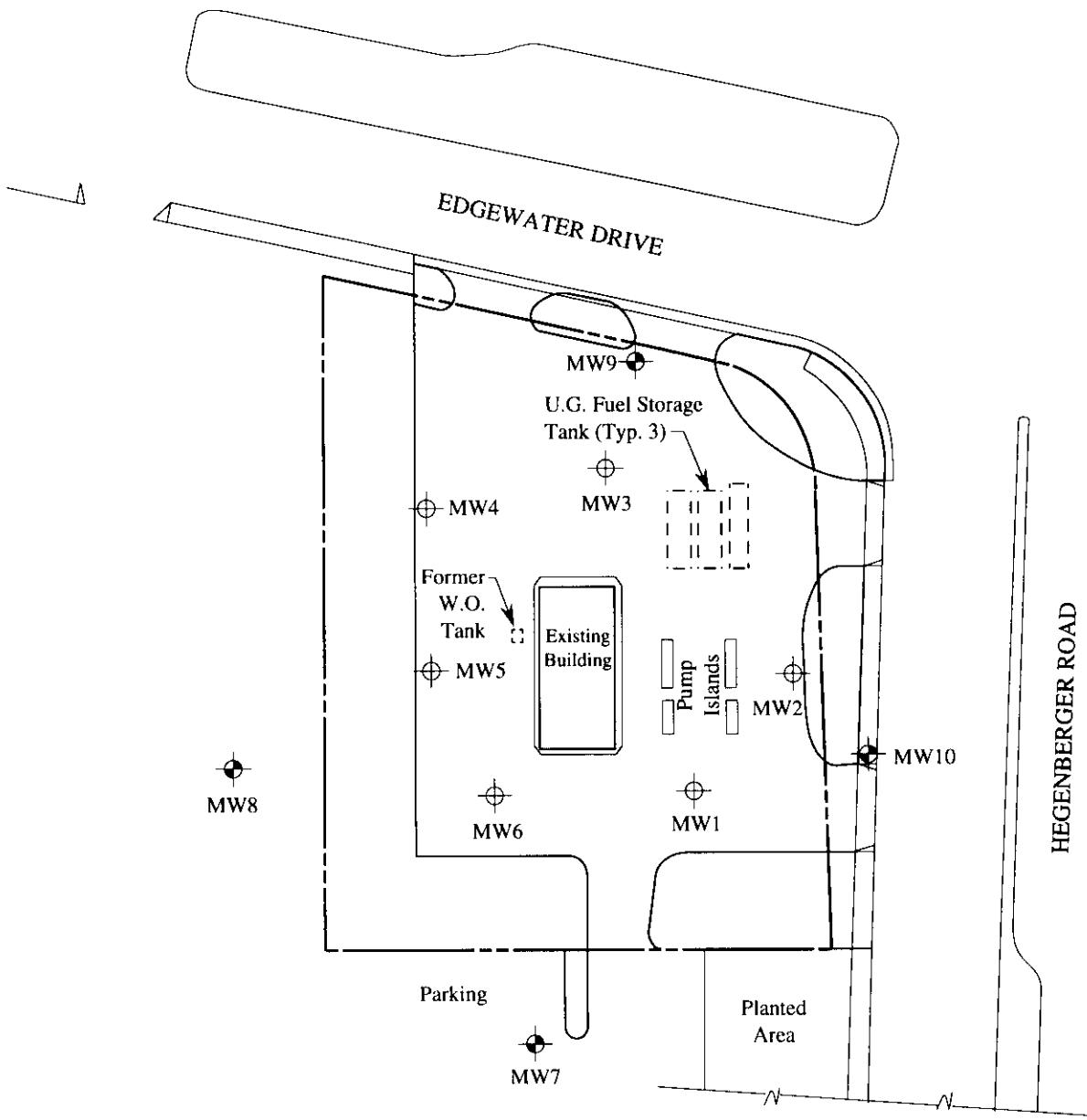


SAMPLE POINT LOCATIONS MAP



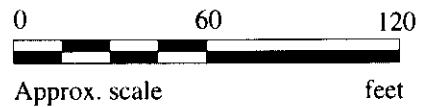
**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CA**

**FIGURE
1**



LEGEND

- ⊕ Monitoring well (existing)
- Monitoring well (proposed)



EXISTING AND PROPOSED MONITORING WELL LOCATION MAP



**UNOCAL SERVICE STATION #5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

**FIGURE
2**



Kaprelian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal 5043/449 Hegenberger Rd., Oakland
Sample Descript: Soil, WO 1
Analysis Method: EPA 8270
Lab Number: ^4091310

Sampled: Sep 20, 1994
Relogged: Sep 22, 1994
Extracted: Sep 28, 1994
Analyzed: Sep 30, 1994
Reported: Oct 6, 1994

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Acenaphthene.....	100	N.D.
Acenaphthylene.....	100	N.D.
Aniline.....	100	N.D.
Anthracene.....	100	N.D.
Benzidine.....	2,500	N.D.
Benzoic Acid.....	500	N.D.
Benzo(a)anthracene.....	100	N.D.
Benzo(b)fluoranthene.....	100	N.D.
Benzo(k)fluoranthene.....	100	N.D.
Benzo(g,h,i)perylene.....	100	N.D.
Benzo(a)pyrene.....	100	N.D.
Benzyl alcohol.....	100	N.D.
Bis(2-chloroethoxy)methane.....	100	N.D.
Bis(2-chloroethyl)ether.....	100	N.D.
Bis(2-chloroisopropyl)ether.....	100	N.D.
Bis(2-ethylhexyl)phthalate.....	500	N.D.
4-Bromophenyl phenyl ether.....	100	N.D.
Butyl benzyl phthalate.....	100	N.D.
4-Chloroaniline.....	100	N.D.
2-Chloronaphthalene.....	100	N.D.
4-Chloro-3-methylphenol.....	100	N.D.
2-Chlorophenol.....	100	N.D.
4-Chlorophenyl phenyl ether.....	100	N.D.
Chrysene.....	100	N.D.
Dibenz(a,h)anthracene.....	100	N.D.
Dibenzofuran.....	100	N.D.
Di-N-butyl phthalate.....	500	N.D.
1,3-Dichlorobenzene.....	100	N.D.
1,4-Dichlorobenzene.....	100	N.D.
1,2-Dichlorobenzene.....	100	N.D.
3,3-Dichlorobenzidine.....	500	N.D.
2,4-Dichlorophenol.....	100	N.D.
Diethyl phthalate.....	100	N.D.
2,4-Dimethylphenol.....	100	N.D.
Dimethyl phthalate.....	100	N.D.
4,6-Dinitro-2-methylphenol.....	500	N.D.
2,4-Dinitrophenol.....	500	N.D.
2,4-Dinitrotoluene.....	100	N.D.
2,6-Dinitrotoluene.....	100	N.D.
Di-N-octyl phthalate.....	100	N.D.





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

Client Project ID: Unocal 5043/449 Hegenberger Rd., Oakland
 Sample Descript: Soil, WO 1
 Analysis Method: EPA 8270
 Lab Number: ^4091310

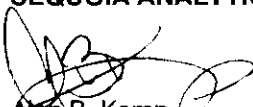
Sampled: Sep 20, 1994
 Relogged: Sep 22, 1994
 Extracted: Sep 28, 1994
 Analyzed: Sep 30, 1994
 Reported: Oct 6, 1994

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Fluoranthene.....	100	N.D.
Fluorene.....	100	N.D.
Hexachlorobenzene.....	100	N.D.
Hexachlorobutadiene.....	100	N.D.
Hexachlorocyclopentadiene.....	100	N.D.
Hexachloroethane.....	100	N.D.
Indeno(1,2,3-cd)pyrene.....	100	N.D.
Isophorone.....	100	N.D.
2-Methylnaphthalene.....	100	N.D.
2-Methylphenol.....	100	N.D.
4-Methylphenol.....	100	N.D.
Naphthalene.....	100	N.D.
2-Nitroaniline.....	500	N.D.
3-Nitroaniline.....	500	N.D.
4-Nitroaniline.....	500	N.D.
Nitrobenzene.....	100	N.D.
2-Nitrophenol.....	100	N.D.
4-Nitrophenol.....	500	N.D.
N-Nitrosodiphenylamine.....	100	N.D.
N-Nitroso-di-N-propylamine.....	100	N.D.
Pentachlorophenol.....	500	N.D.
Phenanthrene.....	100	N.D.
Phenol.....	100	N.D.
Pyrene.....	100	N.D.
1,2,4-Trichlorobenzene.....	100	N.D.
2,4,5-Trichlorophenol.....	500	N.D.
2,4,6-Trichlorophenol.....	100	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager





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

Client Project ID: Unocal 5043/449 Hegenberger Rd., Oakland
Matrix: Solid

QC Sample Group: 409-1310

Reported: Oct 14, 1994

QUALITY CONTROL DATA REPORT

Table with 7 columns: ANALYTE, Phenol, 2-Chlorophenol, 1,4-Dichloro-benzene, N-Nitroso-Di-N-propylamine, 1,2,4-Trichloro-benzene, 4-Chloro-3-Methylphenol. Rows include Method, Analyst, and Batch#.

Table with 7 columns corresponding to analytes. Rows include MS/MSD Batch#, Date Prepared, Date Analyzed, Instrument I.D.#, Conc. Spiked, Matrix Spike % Recovery, Matrix Spike Duplicate % Recovery, and Relative % Difference.

Table with 7 columns corresponding to analytes. Rows include LCS Batch#, Date Prepared, Date Analyzed, Instrument I.D.#, and LCS % Recovery.

Table with 7 columns corresponding to analytes. Row: % Recovery Control Limits.

SEQUOIA ANALYTICAL, #1271

Signature of Alan B. Kemp
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.





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

Client Project ID: Unocal 5043/449 Hegenberger Rd., Oakland
 Matrix: Solid

QC Sample Group: 409-1310

Reported: Oct 14, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Acenaphthene	4-Nitrophenol	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Analyst:	S. Le	S. Le	S. Le	S. Le	S. Le

MS/MSD					
Batch#:	4091075	4091075	4091075	4091075	4091075
Date Prepared:	9/28/94	9/28/94	9/28/94	9/28/94	9/28/94
Date Analyzed:	10/6/94	10/6/94	10/6/94	10/6/94	10/6/94
Instrument I.D.#:	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1
Conc. Spiked:	2500 µg/Kg	5000 µg/Kg	2500 µg/Kg	5000 µg/Kg	2500 µg/Kg
Matrix Spike					
% Recovery:	86	49	68	36	86
Matrix Spike Duplicate %					
Recovery:	78	53	66	68	78
Relative % Difference:	9.8	7.8	3.0	62	9.8

LCS Batch#:	BLK092894	BLK092894	BLK092894	BLK092894	BLK092894
Date Prepared:	9/28/94	9/28/94	9/28/94	9/28/94	9/28/94
Date Analyzed:	10/6/94	10/6/94	10/6/94	10/6/94	10/6/94
Instrument I.D.#:	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1	GC/MS 1
LCS % Recovery:					

% Recovery Control Limits:	47-145	DL-132	39-139	14-176	52-115
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SEQUOIA ANALYTICAL, #1271


 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.



SEQUOIA ANALYTICAL/UNOCAL RELOG SHEET

CLIENT: KEI DATE RELOG: 9/22/94
 PROJECT ID: Unocal #5043, Oakland DATE DUE: 10/6/94
 PROJ. MANAGER: Alan Kemp DATE SAMP: 9/20/94
 DATE REC'D: 9/21/94 MATRIX: Soil T.A.T. 10d

PREVIOUSLY LOGGED SAMPLES

TAT Change status to: 0
 Change status as of Day: 9/22/94 Time: 11:35 AM

CHANGE ANALYSES

Add Analyses
 Cancel Analyses

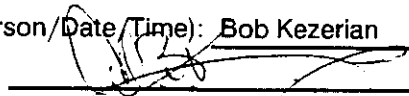
Sample Number	Analyses
4091310	8270
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

SAMPLES ON HOLD

Add analyses

Sample Description	Analyses
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA
NA	NA

TAT 0

Client Authorization (Person/Date/Time): Bob Kezerian 9/22/94 11:35 AM
 Project Manager: 

(Please submit to Sample Control with a copy of the COC & log-in sheets)

To be completed upon receipt of report:

- 1) Were the analyses requested on the Chain of Custody reported? ___ Yes ___ No If no, what analyses are still needed?
- 2) as the report issued within the requested turnaround time? ___ Yes ___ No If no, what was the turnaround time?

Approved by: _____ Signature: _____ Company: _____

Company Name: KEI		Project Name: UNOCAL 5043 449 HEGENBUEHLER RD., OAKLAND	
Address: 2401 STANWELL DR., SUITE 400		UNOCAL Project Manager: DAVE DEWITT	
City: CONCORD	State: CA	Zip Code: 94520	Release #:
Telephone: 602-5100	FAX #: 687-0602	Site #: S/S 5043	
Report To: AVO	Sampler: BOB KEZGIAN	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A	

Turnaround <input checked="" type="checkbox"/> 10 Work Days <input type="checkbox"/> 5 Work Days <input type="checkbox"/> 3 Work Days Time: <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 1 Work Day <input type="checkbox"/> 2-8 Hours	<input type="checkbox"/> Drinking Water <input type="checkbox"/> Waste Water <input checked="" type="checkbox"/> Other	Analyses Requested
CODE: <input type="checkbox"/> Misc. <input type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input type="checkbox"/> Remed. <input checked="" type="checkbox"/> Demol. <input type="checkbox"/> Closure		

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments	
						TOG	TPH ₆ /BTX	TPH ₆	CHL	Pb	Zn	EPA 8010					
1. W01	7/2/94	SOIL	1	BRASS TUBE	4091310	X	X	X	X	X							24 HR TURN - AROUND FOR TOG
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

Relinquished By: Bob Kezgian	Date: 7/2/94	Time: 0953	Received By: Charlie	Date: 9/2/94	Time: 0955
Relinquished By: Charlie	Date: 9/21/94	Time: 10:30	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: Melissa Creusere	Date: 9/21/94	Time: 10:30 AM

Were Samples Received in Good Condition? Yes No
 Samples on Ice? Yes No
 Method of Shipment _____
 Page ___ of ___

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client
 Yellow - Laboratory
 White - Laboratory



Sequoia Analytical

680 Chesapeake Drive Redwood City, CA 94063 (415) 364-9600 FAX (415) 364-9233
 1900 Bates Avenue, Suite L Concord, CA 94520 (510) 686-9600 FAX (510) 686-9689
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

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

Client Project ID: Unocal #5043, 449 Hegenberger Rd., Oakland
 Matrix Descript: Soil
 Analysis Method: SM 5520 E&F (Gravimetric)
 First Sample #: 409-1310

Sampled: Sep 20, 1994
 Received: Sep 21, 1994
 Extracted: Sep 21, 1994
 Analyzed: Sep 22, 1994
 Reported: Sep 22, 1994

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)	Detection Limit Multiplication Factor
409-1310	WO 1	N.D.	1.0

Detection Limits:

50

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager

4091310.KEI <1>





Kaprealan Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #5043, 449 Hegenberger Rd., Oakland
Matrix: Soil

QC Sample Group: 409-1310

Reported: Sep 22, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Oil & Grease
Method:	EPA SM5520
Analyst:	D. Newcomb

MS/MSD
Batch#: 4090833

Date Prepared: 9/20/94
Date Analyzed: 9/21/94
Instrument I.D.#: --
Conc. Spiked: 5000 mg/Kg

Matrix Spike
% Recovery: 90

Matrix Spike Duplicate %
Recovery: 90

Relative %
Difference: 0.0

LCS Batch#: BLK092094

Date Prepared: 9/20/94
Date Analyzed: 9/21/94
Instrument I.D.#: --

LCS %
Recovery: 92

% Recovery	
Control Limits:	70-130

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.

SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager



Company Name: KEI		Project Name: Unocal 5043 449 HELENBOGLEN RD, OAKLAND	
Address: 2401 STANWELL DR., SUITE 400		UNOCAL Project Manager: DAVE DEWITT	
City: CONCORD	State: CA	Zip Code: 94520	Release #:
Telephone: 602-5100	FAX #: 687-0602	Site #: S/S 5043	
Report To: AVO	Sampler: BOB KEZGIAN	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A	

Turnaround <input checked="" type="checkbox"/> 10 Work Days <input type="checkbox"/> 5 Work Days <input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Drinking Water <input type="checkbox"/> Waste Water <input checked="" type="checkbox"/> Other	Analyses Requested TOG TPH ₄ /BTEX TPH ₆ C.I. CC Pb Ni T Zn EPA 8010
Time: <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 1 Work Day <input type="checkbox"/> 2-8 Hours		
CODE: <input type="checkbox"/> Misc. <input type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input type="checkbox"/> Remed. <input checked="" type="checkbox"/> Demol. <input type="checkbox"/> Closure		

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TOG	TPH ₄ /BTEX	TPH ₆	C.I. CC Pb	Ni T Zn	EPA 8010	Comments
1. W01	7/2/94	SOIL	1	BRASS USE	4091310	X	X	X	X	X		24 HR TURN-AROUND FOR TOG
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												

Relinquished By: Bob Kezgian	Date: 7/2/94	Time: 0953	Received By: Charlie	Date: 9/2/94	Time: 0955
Relinquished By: Charlie	Date: 9/21/94	Time: 10:30	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: Melissa Cremer	Date: 9/21/94	Time: 10:30 AM

Were Samples Received in Good Condition? Yes No
 Samples on Ice? Yes No
 Method of Shipment _____
 Page ___ of ___

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____

Pink - Client

Yellow - Laboratory

White - Laboratory



Kapreallan Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #5043, 449 Hegenberger Rd.,
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: #4091310

Sampled: Sep 20, 1994
Received: Sep 21, 1994
Reported: Oct 5, 1994
Oakland

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 409-1310 WO 1
Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	N.D.


Chromatogram Pattern: --

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	9/27/94
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	95

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





Sequoia Analytical

680 Chesapeake Drive
1900 Bates Avenue, Suite L
819 Striker Avenue, Suite 8

Redwood City, CA 94063
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Sacramento, CA 95834

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FAX (510) 686-9689
FAX (916) 921-0100

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

Client Project ID: Unocal #5043, 449 Hegenberger Rd.,
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 409-1310

Sampled: Sep 20, 1994
Received: Sep 21, 1994
Reported: Oct 5, 1994
Oakland

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 409-1310 WO 1
Extractable Hydrocarbons	1.0	N.D.

Chromatogram Pattern: --

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	9/29/94
Date Analyzed:	9/29/94
Instrument Identification:	HP-3B

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager

#4091310.KEI <2>





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

Client Project ID: Unocal #5043, 449 Hegenberger Rd.,
Sample Descript: Soil, WO 1
Analysis Method: EPA 5030/8010
Lab Number: 409-1310
Oakland

Sampled: Sep 20, 1994
Received: Sep 21, 1994
Analyzed: Oct 3, 1994
Reported: Oct 5, 1994

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-1,2-Dichloroethene.....	5.0	N.D.
1,2-Dichloropropane.....	5.0	N.D.
cis-1,3-Dichloropropene.....	5.0	N.D.
trans-1,3-Dichloropropene.....	5.0	N.D.
Methylene chloride.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	N.D.
1,1,1-Trichloroethane.....	5.0	N.D.
1,1,2-Trichloroethane.....	5.0	N.D.
Trichloroethene.....	5.0	N.D.
Trichlorofluoromethane.....	5.0	N.D.
Vinyl chloride.....	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





Sequoia Analytical

680 Chesapeake Drive
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Kaprealian Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #5043, 449 Hegenberger Rd.,
Sample Descript: Soil, W01
Lab Number: 409-1310

Oakland
Sampled: Sep 20, 1994
Received: Sep 21, 1994
Extracted: Sep 29, 1994
Analyzed: Sep 29, 1994
Reported: Oct 5, 1994

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Cadmium.....	0.50	N.D.
Chromium.....	0.50	37
Lead.....	1.0	5.0
Nickel.....	1.0	42
Zinc.....	1.0	51

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #5043, 449 Hegenberger Rd., Oakland
Matrix: Solid

QC Sample Group: 409-1310

Reported: Oct 5, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 Mod
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	K.V.S.

MS/MSD Batch#:	4091610	4091610	4091610	4091610	4091460
Date Prepared:	9/27/94	9/27/94	9/27/94	9/27/94	9/29/94
Date Analyzed:	9/27/94	9/27/94	9/27/94	9/27/94	9/29/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg	10 mg/kg
Matrix Spike % Recovery:	75	90	95	97	99
Matrix Spike Duplicate % Recovery:	75	90	95	97	91
Relative % Difference:	0.0	0.0	0.0	0.0	8.4

LCS Batch#:	2 LCS092794	2 LCS092794	2 LCS092794	2 LCS092794	BLK092994
Date Prepared:	9/27/94	9/27/94	9/27/94	9/27/94	9/29/94
Date Analyzed:	9/27/94	9/27/94	9/27/94	9/27/94	9/29/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B
LCS % Recovery:	71	84	89	92	94

% Recovery Control Limits:	55-145	47-149	47-155	56-140	38-122
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SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #5043, 449 Hegenberger Rd., Oakland
 Matrix: Solid

QC Sample Group: 409-1310

Reported: Oct 5, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyt:	K. Nill	K. Nill	K. Nill

MS/MSD Batch#:	4091455	4091455	4091455
Date Prepared:	10/3/94	10/3/94	10/3/94
Date Analyzed:	10/3/94	10/3/94	10/3/94
Instrument I.D.#:	HP5890/6	HP5890/6	HP5890/6
Conc. Spiked:	10 µg/kg	10 µg/kg	10 µg/kg
Matrix Spike % Recovery:	133	101	98
Matrix Spike Duplicate % Recovery:	114	94	94
Relative % Difference:	15	7.2	4.2

LCS Batch#:	LCS100394	LCS100394	LCS100394
Date Prepared:	10/3/94	10/3/94	10/3/94
Date Analyzed:	10/3/94	10/3/94	10/3/94
Instrument I.D.#:	HP5890/6	HP5890/6	HP5890/6
LCS % Recovery:	138	119	102

% Recovery Control Limits:	28-167	35-146	38-150
-----------------------------------	--------	--------	--------

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SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager





Sequoia Analytical

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

Client Project ID: Unocal #5043, 449 Hegenberger Rd., Oakland
 Matrix: Soil

QC Sample Group: 409-1310

Reported: Oct 5, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Cadmium	Chromium	Lead	Nickel	Zinc
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	J. Dinsay	J. Dinsay	J. Dinsay	J. Dinsay	J. Dinsay

MS/MSD Batch#:	4091310	4091310	4091310	4091310	4091310
Date Prepared:	9/29/94	9/29/94	9/29/94	9/29/94	9/29/94
Date Analyzed:	9/29/94	9/29/94	9/29/94	9/29/94	9/29/94
Instrument I.D.#:	Liberty-100	Liberty-100	Liberty-100	Liberty-100	Liberty-100
Conc. Spiked:	50 mg/kg	50 mg/kg	50 mg/kg	50 mg/kg	50 mg/kg
Matrix Spike % Recovery:	98	116	102	90	80
Matrix Spike Duplicate % Recovery:	98	116	98	94	82
Relative % Difference:	0.0	0.0	4.0	4.4	2.5

LCS Batch#:	BLK092994	BLK092994	BLK092994	BLK092994	BLK092994
Date Prepared:	9/29/94	9/29/94	9/29/94	9/29/94	9/29/94
Date Analyzed:	9/29/94	9/29/94	9/29/94	9/29/94	9/29/94
Instrument I.D.#:	Liberty-100	Liberty-100	Liberty-100	Liberty-100	Liberty-100
LCS % Recovery:	104	104	106	104	101

% Recovery Control Limits:	75-125	75-125	75-125	75-125	75-125
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SEQUOIA ANALYTICAL, #1271


 Alan B. Kemp
 Project Manager

#4091310.KEI <7>



UNOCAL 76

680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
 819 Sinker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Company Name: KEI Project Name: Unocal 3043 449 Hercules Rd, Oakland
 Address: 241 Straver Dr, Suite 400 UNOCAL Project Manager: Dave DeMart
 City: Concord State: CA Zip Code: 94520 Release #: _____
 Telephone: 602-5100 FAX #: 607-0602 Site #: 5/5 5043
 Report To: Avo Sampler: Bar Kez 52177 OC Data: Level D (Standard) Level C Level B Level A

Turnaround 10 Work Days 5 Work Days 3 Work Days
 Time: 2 Work Days 1 Work Day 2-8 Hours

CODE: Misc. Detect. Eval. Remed. Demol. Closure
 Drinking Water Waste Water Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments	
1. W01	9/2/94	Soil	1	52955 TDS	4091310	TOG TPH/LBTEX TPH C, CC, NI, Pb, Zn EPA 8010										24 Hr Turn-around TDS	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

Relinquished By: Pat M. [Signature] Date: 9/2/94 Time: 0955 Received By: [Signature] Date: 9/2/94 Time: 0955
 Relinquished By: [Signature] Date: 9/2/94 Time: 10:30 Received By: [Signature] Date: 9/2/94 Time: 10:30 AM
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____

Were Samples Received in Good Condition? Yes No Samples on Ice? Yes No Method of Shipment _____ Page ___ of ___

To be completed upon receipt of report:
 1) Were the analyses requested on the Chain of Custody reported? Yes No If no, what analyses are still needed? _____
 2) Was the report issued within the requested turnaround time? Yes No If no, what was the turnaround time? _____

Approved by: _____ Signature: _____ Company: _____ Date: _____