



KAPREALIAN ENGINEERING
I N C O R P O R A T E D

KEI-J94-0903.R1
October 21, 1994

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

Attention: Mr. Robert A. Boust

RE: Pumpability Project Report
Unocal Service Station #7376
4191 - 1st Street
Pleasanton, California

Dear Mr. Boust:

This report summarizes Kaprealian Engineering, Inc's. (KEI) activities during the recent pumpability project (dispenser and piping replacement, and island modifications) at the subject service station. All work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB).

The scope of the work performed by KEI consisted of the following:

Coordination with regulatory agencies

Collection of soil samples from the product piping trenches

Delivery of soil samples, including proper Chain of Custody documentation, to a certified analytical laboratory

Technical review of laboratory analyses and preparation of this report

FIELD ACTIVITIES

Per Unocal Corporation's direction, on September 9, 1994, KEI was present during the recent pumpability project at the subject service station. All former product piping and dispensers were removed from the trenches. Twelve soil samples (labeled P1 through P12) were collected from the product piping trenches at depths of approximately 3 feet below grade. The undisturbed samples were collected using a driven tube-type soil sampler. Samples were placed in clean, two-inch diameter brass tubes, sealed with aluminum foil, plastic caps and tape, and stored in a cooled ice chest for delivery to a state-certified laboratory. Mr. Scott

Deaver from the City of Pleasanton Fire Department (CPFD) was on-site on September 9, 1994. The soil sample locations are shown on the attached Figure 1.

KEI returned to the site on September 15, 1994, to collect soil samples following the overexcavation in the areas of sample points P2 and P5. Two additional soil samples, labeled P2(9) and P5(9), were collected from the excavations at depths of approximately 9 feet below grade. On September 23, 1994, KEI was again on-site to observe excavation activities at the southwest portion of the site. One soil sample, labeled P13, was collected at a depth of approximately 9 feet below grade, in order to document concentrations of hydrocarbons in the soil at that portion of the site. These samples were also collected in two-inch diameter, clean brass tubes, and were also handled as described above. The soil sample point locations are shown on the attached Figure 1.

A total of approximately 198 cubic yards of soil were excavated from the dispenser islands and product piping trenches. Two composite soil samples (labeled Comp PT and Comp PT2) were collected from the stockpiled soil. The composite samples each consisted of four individual grab samples collected at various locations and at depths of approximately 2 feet into the stockpile. The individual samples were subsequently composited as one sample by the lab. These samples were also collected in two-inch diameter, clean brass tubes, and were also handled as described above.

The stockpiled soil was profiled and approved for disposal at Forward Landfill in Manteca, California, an approved Class II disposal facility. On September 21 and 29, 1994, approximately 198 cubic yards of soil were transported to Forward Landfill for disposal by Manley & Sons Trucking, Inc. of Sacramento, California, a licensed hazardous materials hauler.

SUBSURFACE CONDITIONS

The subsurface soils exposed in the piping trenches excavation consisted primarily of silty clay. Ground water was not encountered in any of the excavations.

ANALYTICAL RESULTS

All samples were analyzed by Sequoia Analytical Laboratory in Concord, California, and were accompanied by properly executed Chain of Custody documentation. 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. Additionally, composite samples Comp PT and Comp PT2 were analyzed for total lead.

The analytical results for the soil samples are summarized in Tables 1 and 2. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results of all of the soil samples collected and evaluated, and in accordance with the guidelines established by the RWQCB, further subsurface investigative work is warranted at the subject site. At your request, KEI will prepare and submit a work plan to begin to delineate the extent of hydrocarbon contamination at the subject site.

DISTRIBUTION

A copy of this report should be sent to Mr. Scott Seery of the Alameda County Health Care Services Agency, 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, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

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October 21, 1994
Page 4

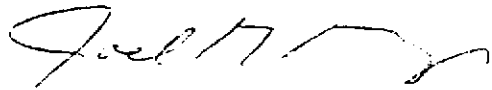
If you have any questions on this report, please call me at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

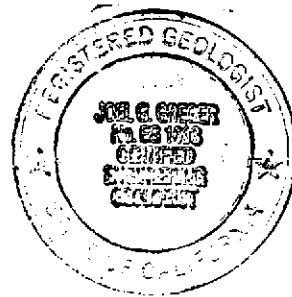


Hagop Kevork
Staff Engineer



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

License No. EG 1633
Exp. Date 6/30/96



Robert H. Kezerian
Pumpability Program Manager

\jad

Attachments: Tables 1 & 2
Location Map
Figure 1
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Tony Quijalvo, Unocal Corporation
Ms. Lynda Chalom, Unocal Compliance Department
Mr. Scott Deaver, CPF

Unocal Service Station #7376
 4191 - 1st Street
Pleasanton, California

TABLE 1

SUMMARY OF LABORATORY ANALYSES
 SOIL

<u>Date</u>	<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>
9/09/94	P1	3	ND	ND	ND	ND	ND
	P2	3	1,300	3.3	57	26	130
	P3	3	4.9	0.071	0.028	0.065	0.70
	P4	3	11	0.26	0.014	0.23	1.3
	P5	3	8,900	65	570	160	800
	P6	3	ND	0.0093	0.015	ND	0.028
	P7	3	8.7	0.21	0.028	0.081	0.73
	P8	3	10	0.074	0.27	0.043	0.38
	P9	3	65*	0.69	0.15	0.71	3.9
	P10	3	ND	ND	ND	ND	0.015
	P11	3	ND	ND	ND	ND	ND
	P12	3	4.7*	0.011	0.17	0.091	0.54
9/15/94	P2(9)	9	13	0.020	0.015	0.013	1.1
	P5(9)	9	17	0.029	0.031	0.047	1.4
9/23/94	P13	9	4,400	29	390	150	790

ND = Non-detectable.

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

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

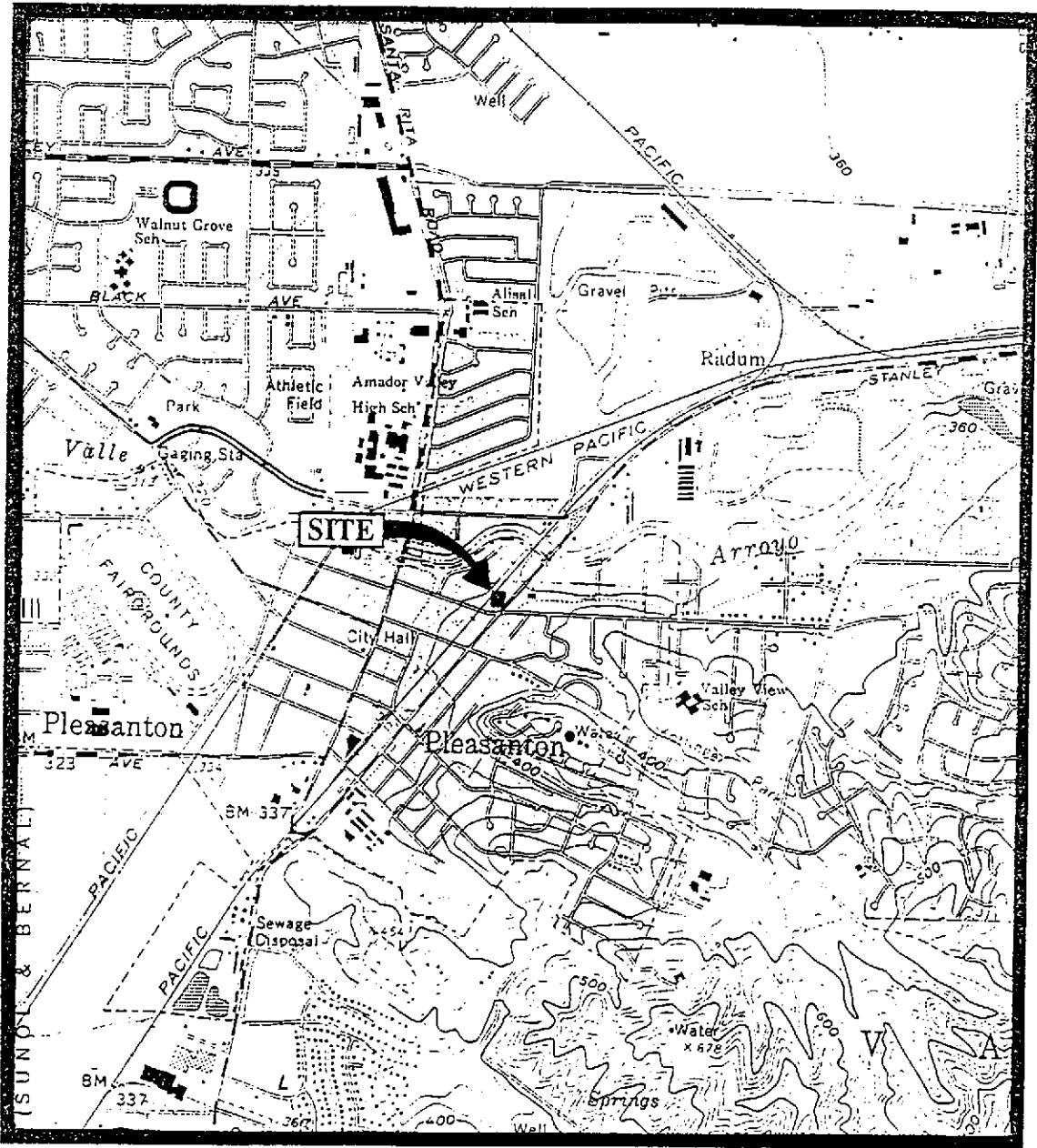
Unocal Service Station #7376
4191 - 1st Street
Pleasanton, California

TABLE 2

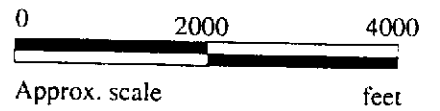
SUMMARY OF LABORATORY ANALYSES
STOCKPILED SOIL

<u>Date</u>	<u>Sample</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Xylenes</u>	<u>Total Lead</u>
9/15/94	Comp PT	4,000	11	130	65	370	26
9/26/94	Comp PT2	930	0.68	5.8	6.9	63	9.3

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



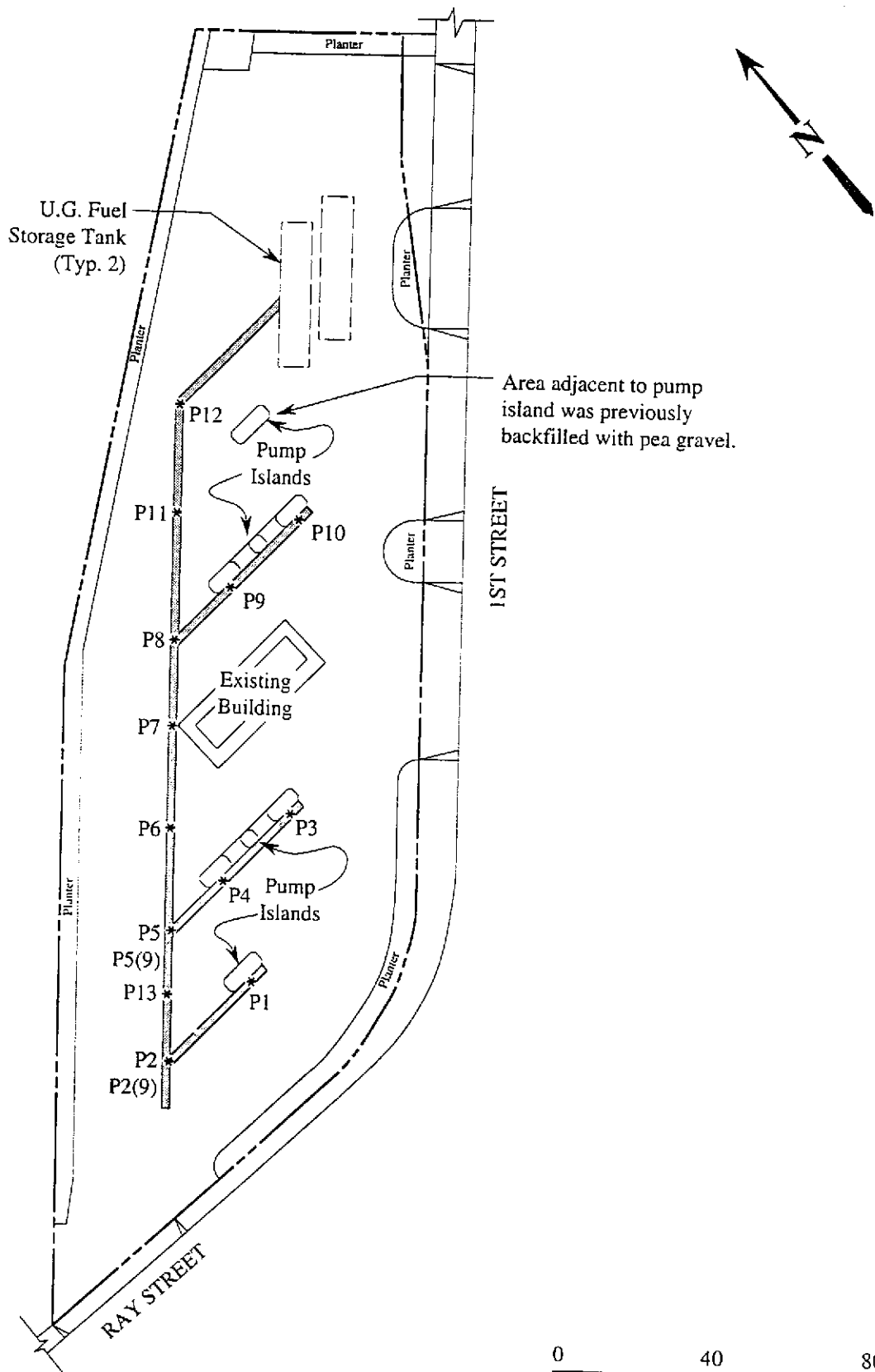
Base modified from 7.5 minute U.S.G.S. Dublin and Livermore Quadrangles
(both photorevised 1980)




KAPREALIAN ENGINEERING
INCORPORATED

UNOCAL SERVICE STATION #7376
4191 1ST STREET
PLEASANTON, CALIFORNIA

LOCATION
MAP



LEGEND

* Sample point location

SAMPLE POINT LOCATION MAP

**KAPREALIAN ENGINEERING
INCORPORATED**

**UNOCAL SERVICE STATION #7376
4191 1ST STREET
PLEASANTON, CALIFORNIA**

**FIGURE
1**



Kaprealian Engineering, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #7376, 4191 First Street, Pleasanton Sample Matrix: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 409-0431	Sampled: Sep 9, 1994 Received: Sep 9, 1994 Reported: Sep 12, 1994
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 409-0431 P1	Sample I.D. 409-0432 P2	Sample I.D. 409-0433 P3	Sample I.D. 409-0434 P4	Sample I.D. 409-0435 P5	Sample I.D. 409-0436 P6
Purgeable Hydrocarbons	1.0	N.D.	1,300	4.9	11	8,900	N.D.
Benzene	0.0050	N.D.	3.3	0.071	0.26	65	0.0093
Toluene	0.0050	N.D.	57	0.028	0.014	570	0.015
Ethyl Benzene	0.0050	N.D.	26	0.065	0.23	160	N.D.
Total Xylenes	0.0050	N.D.	130	0.70	1.3	800	0.028
Chromatogram Pattern:		--	Gasoline	Gasoline	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	50	1.0	1.0	1,000	1.0
Date Analyzed:	9/9/94	9/9/94	9/9/94	9/9/94	9/12/94	9/9/94
Instrument Identification:	HP-4	HP-4	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	89	86	85	81	97	91

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



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

Client Project ID: Unocal #7376, 4191 First Street, Pleasanton
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 409-0437

Sampled: Sep 9, 1994
Received: Sep 9, 1994
Reported: Sep 12, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 409-0437 P7	Sample I.D. 409-0438 P8	Sample I.D. 409-0439 P9*	Sample I.D. 409-0440 P10	Sample I.D. 409-0441 P11	Sample I.D. 409-0442 P12*
Purgeable Hydrocarbons	1.0	8.7	10	65	N.D.	N.D.	4.7
Benzene	0.0050	0.21	0.074	0.69	N.D.	N.D.	0.011
Toluene	0.0050	0.028	0.27	0.15	N.D.	N.D.	0.17
Ethyl Benzene	0.0050	0.081	0.043	0.71	N.D.	N.D.	0.091
Total Xylenes	0.0050	0.73	0.38	3.9	0.015	N.D.	0.54
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline & Unidentified Hydrocarbons > C9	--	--	Gasoline & Unidentified Hydrocarbons > C9

Quality Control Data

Report Limit Multiplication Factor:	1.0	2.5	5.0	1.0	1.0	1.0
Date Analyzed:	9/9/94	9/12/94	9/9/94	9/9/94	9/9/94	9/9/94
Instrument Identification:	HP-2	HP-4	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	113	94	163	100	98	103

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

Please Note:

*This sample appears to contain Gasoline and a non-gasoline mixture. Unidentified hydrocarbons >C9 refers to unidentified peaks in the Total Extractable Petroleum Hydrocarbons range.

Alan B. Kemp
Project Manager



Sequoia Analytical

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

Redwood City, CA 94063
Concord, CA 94520
Sacramento, CA 95834

(415) 364-9600
(510) 686-9600
(916) 921-9600

FAX (415) 364-9233
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 #7376, 4191 First Street, Pleasanton
Matrix: Solid

QC Sample Group: 4090431-42

Reported: Sep 12, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes
Batch#:	4090265	4090265	4090265	4090265
Date Prepared:	9/9/94	9/9/94	9/9/94	9/9/94
Date Analyzed:	9/9/94	9/9/94	9/9/94	9/9/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg
Matrix Spike % Recovery:	100	113	120	121
Matrix Spike Duplicate % Recovery:	93	105	115	116
Relative % Difference:	7.3	7.3	4.3	4.2

LCS Batch#:	1LCS090994	1LCS090994	1LCS090994	1LCS090994
Date Prepared:	9/9/94	9/9/94	9/9/94	9/9/94
Date Analyzed:	9/9/94	9/9/94	9/9/94	9/9/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	98	103	112	111

% Recovery Control Limits:	55-145	47-149	47-155	56-140
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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 # 7376 - PLEASANTON**
 Address: **2401 STANWELL DR. # 400** UNOCAL Project Manager: **BOB BOUST**
 City: **CONCORD** State: **CA** Zip Code: **94520** Release #: _____
 Telephone: **602-5100** FAX #: **687-0602** Site #: **7376-4191 FIRST STREET**
 Report To: **KEI** Sampler: **HAIIG** QC Data: Level D (Standard) Level C Level B Level A

Turnaround 10 Work Days 5 Work Days 3 Work Days Drinking Water
 Time: 2 Work Days 1 Work Day 2-8 Hours Waste Water
 CODE: Misc. Detect. Eval. Remed. Demol. Closure Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments			
						1	2	3	4	5	6	7	8	9	10		11	12	
1. P1	9/9/94	SOIL	1	TUBE	4090431	✓	✓												
2. P2			1		4090432	✓	✓												
3. P3			1		4090433	✓	✓												
4. P4			1		4090434	✓	✓												
5. P5			1		4090435	✓	✓												
6. P6			1		4090436	✓	✓												
7. P7			1		4090437	✓	✓												
8. P8			1		4090438	✓	✓												
9. P9			1		4090439	✓	✓												
10. P10			1		4090440	✓	✓												

Relinquished By: <i>[Signature]</i>	Date: 9/9/94	Time: 5:35	Received By: <i>[Signature]</i>	Date: 9.9.94	Time: 5:35
Relinquished By: <i>[Signature]</i>	Date: 9.9.94	Time: 6:30	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: <i>Melissa Cresser</i>	Date: 9/12/94	Time: 0800

Were Samples Received in Good Condition? Yes No
 Samples on Ice? Yes No
 Method of Shipment: _____
 Page **1** of **2**

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

Company Name: **KEI** Project Name: **UNOCAL #1376-PLEASANTON**
 Address: **2401 STANWELL DR. # 400** UNOCAL Project Manager: **BOB BOUST**
 City: **CONCORD** State: **CA** Zip Code: **94520** Release #:
 Telephone: **602-5100** FAX #: **687-0602** Site #: **1376-4191 FIRST STREET**
 Report To: **KEI** Sampler: **HAIG** QC Data: Level D (Standard) Level C Level B Level A

Turnaround 10 Work Days 5 Work Days 3 Work Days Drinking Water
 Time: 2 Work Days 1 Work Day 2-8 Hours Waste Water
 CODE: Misc. Detect. Eval. Remed. Demol. Closure Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments		
						TPH-G	BTEX											
1. P11	9/9/94	SOIL	1	TUBE	4090441	✓	✓											
2. P12	9/9/94	SOIL	1	TUBE	4090442	✓	✓											
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

Relinquished By: <i>[Signature]</i>	Date: 9/9/94	Time: 5:35	Received By: <i>[Signature]</i>	Date: 9.9.94	Time: 5:35
Relinquished By: <i>[Signature]</i>	Date: 9.9.94	Time: 6:30	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <i>Melissa Crusser</i>	Date: 9/12/94	Time: 0800

Were Samples Received in Good Condition? Yes No
 Samples on Ice? Yes No
 Method of Shipment _____
 Page 2 of 2

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



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

Client Project ID: Unocal #7376, 4191 First Street, Pleasanton
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 409-0871

Sampled: Sep 15, 1994
Received: Sep 15, 1994
Reported: Sep 19, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 409-0871 P2 (9)	Sample I.D. 409-0872 P5 (9)
Purgeable Hydrocarbons	1.0	13	17
Benzene	0.0050	0.020	0.029
Toluene	0.0050	0.015	0.031
Ethyl Benzene	0.0050	0.013	0.047
Total Xylenes	0.0050	1.1	1.4
Chromatogram Pattern:		Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	2.0	10
Date Analyzed:	9/16/94	9/16/94
Instrument Identification:	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	107	94

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





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

Client Project ID: Unocal #7376, 4191 First Street, Pleasanton
 Matrix: Solid

QC Sample Group: 4090871-872

Reported: Sep 23, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes
Batch#:	4090526	4090526	4090526	4090526
Date Prepared:	9/16/94	9/16/94	9/16/94	9/16/94
Date Analyzed:	9/16/94	9/16/94	9/16/94	9/16/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg
Matrix Spike % Recovery:	90	102	102	105
Matrix Spike Duplicate % Recovery:	82	95	95	97
Relative % Difference:	9.3	7.1	7.1	7.9

LCS Batch#:	2LCS091694	2LCS091694	2LCS091694	2LCS091694
Date Prepared:	9/16/94	9/16/94	9/16/94	9/16/94
Date Analyzed:	9/16/94	9/16/94	9/16/94	9/16/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	108	84	97	99

% Recovery Control Limits:	Benzene	Toluene	Ethyl Benzene	Xylenes
	55-145	47-149	47-155	56-140

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.



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

Client Project ID: Unocal #7376, 4191 1st St., Pleasanton
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 409-1529

Sampled: Sep 23, 1994
Received: Sep 23, 1994
Reported: Sep 30, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 409-1529 P13
Purgeable Hydrocarbons	1.0	4,400
Benzene	0.0050	29
Toluene	0.0050	390
Ethyl Benzene	0.0050	150
Total Xylenes	0.0050	790
Chromatogram Pattern:		Gasoline

Quality Control Data

Report Limit Multiplication Factor:	500
Date Analyzed:	9/28/94
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	116

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



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

Client Project ID: Unocal #7376, 4191 1st St., Pleasanton
Matrix: Solid

QC Sample Group: 409-1529

Reported: Oct 4, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon

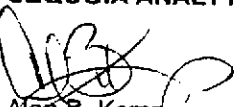
MS/MSD Batch#:	4091448	4091448	4091448	4091448
Date Prepared:	9/28/94	9/28/94	9/28/94	9/28/94
Date Analyzed:	9/28/94	9/28/94	9/28/94	9/28/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg
Matrix Spike % Recovery:	100	108	115	116
Matrix Spike Duplicate % Recovery:	100	110	120	120
Relative % Difference:	0.0	1.8	4.2	3.4

LCS Batch#:	1LCS092894	1LCS092894	1LCS092894	1LCS092894
Date Prepared:	9/28/94	9/28/94	9/28/94	9/28/94
Date Analyzed:	9/28/94	9/28/94	9/28/94	9/28/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	100	105	112	114

% Recovery Control Limits:	55-145	47-149	47-155	56-140
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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: Unocm 1/2 7376, 4191 1st St., Pleasanton		
Address: 2401 STANWELL DR., #400			UNOCAL Project Manager: BOB BOUST		
City: CONCORD	State: CA	Zip Code: 94520	Release #:		
Telephone: 602-5104		FAX #: 687-0602	Site #: 1/2 7376		
Report To: HAIG	Sampler: BOB KEZEVAN		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 type="checkbox"/> 10 Work Days <input checked="" type="checkbox"/> 5 Work Days <input type="checkbox"/> 3 Work Days	Analyses Requested <input type="checkbox"/> Drinking Water <input type="checkbox"/> Waste Water <input type="checkbox"/> Other
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 checked="" type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input type="checkbox"/> Remed. <input type="checkbox"/> Demol. <input type="checkbox"/> Closure	

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPHC										Comments								
1. P13	9/23/94	SOIL	1	BRASS TUBE	4091529	X																		
2.																								
3.																								
4.																								
5.																								
6.																								
7.																								
8.																								
9.																								
10.																								

Relinquished By: <i>[Signature]</i>	Date: 9/23/94	Time: 4:20	Received By: <i>[Signature]</i>	Date: 9/23/94	Time: 4:20
Relinquished By: <i>[Signature]</i>	Date: 9/25/94	Time: 4:30	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: Melissa Cresser	Date: 9/23/94	Time: 4:30 pm

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



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

Client Project ID: Unocal #7376 - 4191 First Street, Pleasanton
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 409-0870

Sampled: Sep 15, 1994
Received: Sep 15, 1994
Reported: Sep 19, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

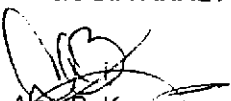
Analyte	Reporting Limit mg/kg	Sample I.D. 409-0870 Comp PT
Purgeable Hydrocarbons	1.0	4,000
Benzene	0.0050	11
Toluene	0.0050	130
Ethyl Benzene	0.0050	65
Total Xylenes	0.0050	370
Chromatogram Pattern:		Gasoline

Quality Control Data

Report Limit Multiplication Factor:	500
Date Analyzed:	9/16/94
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	92

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
Concord, CA 94520
Sacramento, CA 95834

(415) 364-9600
(510) 686-9600
(916) 921-9600

FAX (415) 364-9233
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 #7376 - 4191 First Street, Pleasanton
Sample Descript: Soil
Analysis for: Lead
First Sample #: 409-0870

Sampled: Sep 15, 1994
Received: Sep 15, 1994
Extracted: Sep 16, 1994
Analyzed: Sep 17, 1994
Reported: Sep 19, 1994

LABORATORY ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
409-0870	Comp PT	1.0	26

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #7376 - 4191 First Street, Pleasanton
 Matrix: Solid

QC Sample Group: 409-0870

Reported: Sep 26, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 6010
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha	K. Anderson

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes	Lead
Batch#:	4090526	4090526	4090526	4090526	4090884
Date Prepared:	9/16/94	9/16/94	9/16/94	9/16/94	9/17/94
Date Analyzed:	9/16/94	9/16/94	9/16/94	9/16/94	9/17/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	Liberty-100
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg	50 mg/kg
Matrix Spike % Recovery:	90	102	102	105	107
Matrix Spike Duplicate % Recovery:	82	95	95	97	107
Relative % Difference:	9.3	7.1	7.1	7.9	0.0

LCS Batch#:	2LCS091694	2LCS091694	2LCS091694	2LCS091694	BLK091694
Date Prepared:	9/16/94	9/16/94	9/16/94	9/16/94	9/16/94
Date Analyzed:	9/16/94	9/16/94	9/16/94	9/16/94	9/17/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	Liberty-100
LCS % Recovery:	108	84	97	99	98

% Recovery Control Limits:	55-145	47-149	47-155	56-140	75-125
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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



UNOCAL 76

680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
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 819 Striker 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 # 7376 - PLEASANTON	
Address: 2401 STANWELL DR. #400		UNOCAL Project Manager: BOB BOUST	
City: CONCORD State: CA Zip Code: 94520	Release #:		
Telephone: 602-5100 FAX #: 687-0602	Site #: 7376-4191 FIRST STREET		
Report To: KEI Sampler: HAIG	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 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
 Analyses Requested:

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH-G	BTEX	Total Pb	Other Analyses				Comments	
1. Comp PT	9/15/94	SOIL	4	TUBE	4090870	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
2.					A-D									
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished By: <i>[Signature]</i>	Date: 9/15/94	Time: 6:45 pm	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: Melissa Cramer	Date: 9/15/94	Time: 6:45 pm

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



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

Client Project ID: Unocal #7376, 4191 First Street, Pleasanton
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 409-1608

Sampled: Sep 26, 1994
Received: Sep 26, 1994
Reported: Sep 27, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 409-1608 Comp PT2
Purgeable Hydrocarbons	1.0	930
Benzene	0.0050	0.68
Toluene	0.0050	5.8
Ethyl Benzene	0.0050	6.9
Total Xylenes	0.0050	63
Chromatogram Pattern:		Gasoline

Quality Control Data

Report Limit Multiplication Factor:	100
Date Analyzed:	9/26/94
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	86

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	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 #7376, 4191 First Street, Pleasanton Sample Descript: Soil Analysis for: Lead First Sample #: 409-1608	Sampled: Sep 26, 1994 Received: Sep 26, 1994 Extracted: Sep 26, 1994 Analyzed: Sep 26, 1994 Reported: Sep 27, 1994
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LABORATORY ANALYSIS FOR: **Lead**

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
409-1608	Comp PT2	1.0	9.3

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 #7376, 4191 First Street, Pleasanton
Matrix: Solid

QC Sample Group: 409-1608

Reported: Oct 13, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Lead
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 6010
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	J. Dinsay

MS/MSD Batch#:	4091553	4091553	4091553	4091553	4091299
Date Prepared:	9/26/94	9/26/94	9/26/94	9/26/94	9/26/94
Date Analyzed:	9/26/94	9/26/94	9/26/94	9/26/94	9/26/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	Liberty-100
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg	50 mg/kg
Matrix Spike % Recovery:	70	83	88	89	93
Matrix Spike Duplicate % Recovery:	68	80	85	88	97
Relative % Difference:	2.9	3.7	3.5	1.1	4.2

LCS Batch#:	2LCS092694	2LCS092694	2LCS092694	2LCS092694	KNS091894B-3
Date Prepared:	9/26/94	9/26/94	9/26/94	9/26/94	9/26/94
Date Analyzed:	9/26/94	9/26/94	9/26/94	9/26/94	9/26/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	Liberty-100
LCS % Recovery:	96	101	99	99	96

% Recovery Control Limits:	55-145	47-149	47-155	56-140	75-125
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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



UNOCAL 76

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 1900 Bales 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 # 7376-PLEASANTON	
Address: 2401 STANWELL DR. #400		UNOCAL Project Manager: BOB BOUST	
City: CONCORD State: CA Zip Code: 94520	Release #:		
Telephone: 602-5100 FAX #: 687-0602	Site #: 7376-4191 FIRST STREET		
Report To: KEI Sampler: HAIQ-	QC Data: <input type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> 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 Other

Drinking Water
 Waste Water
 Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments							
1. Comp PT 2	9/26/94	SOIL	4	TUBE	4091608	TPH-C	BTEX-C	Total Pb															
2.					AD																		
3.																							
4.																							
5.																							
6.																							
7.																							
8.																							
9.																							
10.																							

Relinquished By: <i>[Signature]</i> Date: 9/26/94 Time: 1653	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By Lab: Melissa Cressere Date: 9/26/94 Time: 1653

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