



KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(707) 746-6915

KEI-P88-1204.R3

June 19, 1989

Unocal Corporation
2175 N. California Blvd., Suite 650
Walnut Creek, CA 94569

Attention: Mr. Tim Ross

RE: Stockpiled Soil Sampling for
Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Dear Mr. Ross:

This letter report summarizes the results of the stockpiled soil sampling and laboratory analyses for the referenced site. The soil analyses were conducted to comply with the County Health Department requirements for proper disposal of contaminated soil.

On May 11, 1989, one composite soil sample, labeled Comp 1, was collected from approximately 250 cubic yards of soil. This composite sample consisted of four individual grab samples taken at various locations and depths ranging from one to two feet and composited as one sample by the lab. The sample was collected in 2" diameter, clean brass tubes, which were then sealed with aluminum foil, plastic caps and tape, and placed in a cooled ice chest for subsequent delivery to a certified laboratory for analysis. The sample was analyzed at Sequoia Analytical Laboratory in Redwood City, California, and was accompanied by properly executed Chain of Custody documentation.

The composite sample was analyzed to determine total petroleum hydrocarbon as diesel; flashpoint; pH; total sulfides; total cyanides; PCB; total organic halides; and metals - arsenic, barium, cadmium, chromium, lead, copper, mercury, nickel, selenium, silver, thallium, vanadium and zinc.

Results of the analyses performed on the composite sample taken of soil from the waste oil tank pit are as indicated on the attached laboratory analyses.

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Based on the levels in the stockpiled soil, the soil can be disposed of at an approved Class I disposal site.

A copy of this report should be sent to the Alameda County Department of Environmental Health, and to the RWQCB, San Francisco Bay Region.

Should you have any questions on this report, please do not hesitate to contact me at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

A handwritten signature in cursive script that reads "Christina L. Lecce".

Christina L. Lecce

Attachments: Table 1
Laboratory Results
Chain of Custody documentation

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TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Results in mg/kg)
(Samples collected on May 11, 1989)

<u>Parameter</u>	<u>Comp WO</u>
TPH as Diesel	12
Total Organic Halides	ND
Flashpoint	62°C
pH	7.8
Sulfide	ND
Cyanide	ND
Arsenic	4.0
Barium	160
Cadmium	0.46
Chromium	39
Lead	45
Copper	33
Mercury	0.05
Nickel	52
Selenium	0.36
Silver	0.76
Thallium	ND
Vanadium	15
Zinc	56
PCB	ND



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510
Attention: Mardo Kaprealian, P.E.

Client Project ID: Unocal - San Leandro, 1300 Davis St.
Sample Descript: Soil, Composite 1
Lab Number: 905-1310 A-B

Sampled: May 11, 1989
Received: May 11, 1989
Extracted: May 12, 1989
Analyzed: May 12, 1989
Reported: May 15, 1989

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Sulfide.....	40.0	N.D.
Cyanide.....	1.0	N.D.
Flashpoint, Centigrade.....	N.A.	62°
pH.....	N.A.	7.8
Arsenic.....	0.1	4.0
Barium.....	0.2	160
Cadmium.....	0.1	0.46
Chromium.....	0.05	39
Copper.....	0.1	33
Lead.....	0.05	45
Mercury.....	0.01	0.05
Nickel.....	0.5	52
Selenium.....	0.10	0.36
Silver.....	0.1	0.76
Thallium.....	5.0	N.D.
Vanadium.....	0.5	15
Zinc.....	0.1	56

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

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director



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Kaprealian Engineering, Inc. Client Project ID: Unocal - San Leandro, 1300 Davis St. Sampled: May 11, 1989
P.O. Box 913 Matrix Descript: Soil Received: May 11, 1989
Benicia, CA 94510 Analysis Method: EPA 3550/8015 Analyzed: May 13, 1989
Attention: Mardo Kaprealian, P.E. First Sample #: 905-1310 A-B Reported: May 15, 1989

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
9051310 A-B	Composite 1	12

Detection Limits:

1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection

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Laboratory Director



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Kaprealian Engineering, Inc.	Client Project ID: Unocal - San Leandro, 1300 Davis St.	Sampled: May 11, 1989
P.O. Box 913	Sample Descript: Soil	Received: May 11, 1989
Benicia, CA 94510	Analysis Method: EPA 8080	Extracted: May 12, 1989
Attention: Mardo Kaprealian, P.E.	Lab Number: 905-1310 A-B	Analyzed: May 12, 1989
		Reported: May 15, 1989

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
PCB 1016.....	50.0	N.D.
PCB 1221.....	50.0	N.D.
PCB 1232.....	50.0	N.D.
PCB 1242.....	50.0	N.D.
PCB 1248.....	50.0	N.D.
PCB 1254.....	50.0	N.D.
PCB 1260.....	50.0	N.D.

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

SEQUOIA ANALYTICAL

Arthur G. Burton
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 Laboratory Director



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Kaprealian Engineering, Inc.
P.O. Box 913
Benicia, CA 94510

Client Project ID: Unocal - San Leandro, 1300 Davis St.
Sample Descript: Soil, Composite 1

Sampled: May 11, 1989
Received: May 11, 1989
Extracted: May 12, 1989
Analyzed: May 15, 1989
Reported: May 15, 1989

Attention: Mardo Kaprealian, P.E. Lab Number: 905-1310 A-B

LABORATORY ANALYSIS

Analyte	Detection Limit mg/kg	Sample Results mg/kg
Extractable Organic Halides.....	50.0	N.D.

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

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director



KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94810

(415) 876-9100 (707) 746-8915

CHAIN OF CUSTODY

SAMPLER: R. M. Bradish DATE/TIME OF COLLECTION: 5-11-89 TURN AROUND TIME: 24HR
 (signature)

SAMPLE DESCRIPTION AND PROJECT NUMBER:

Unocal - San Leandro
1300 Davis St

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/WATER
<u>COMP 1</u>	<u>TPH-D; SULFIDE;</u>	<u>C</u>	<u>2</u>	<u>S</u>
	<u>CYANIDE; Total Cyanide</u>			
	<u>HALIDES; Fluoride;</u>			
	<u>pH; PCB's;</u>			
	<u>Metals - As, Ba, Cd,</u>			
	<u>Cr, Cu, Pb, Hg, Ni</u>			
	<u>Sr, Ag, Tl, V, Zn</u>			

RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
<u>R. M. Bradish</u>	<u>5-11-89</u> <u>1705</u>	<u>[Signature]</u>	<u>5-11-89</u> <u>5:05 P.</u>
<u>[Signature] #307</u>	<u>5/11/89</u> <u>6:35 P.</u>	<u>Walter Jackson</u>	<u>5-11-89</u> <u>6:35</u>
3.			
4.			

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: