



KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P. O. BOX 913

BENICIA, CA 94510

(707) 746-6915

ALAMEDA COUNTY 8-8
DEPT. OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS

August 22, 1989

Alameda County Department of
Environmental Health
470 27th Street, Room 322
Oakland, CA 94612

Attention: Mr. Larry Seto

RE: Unocal Service Station #6034
4700 First Street
Livermore, California

Dear Mr. Seto:

Per the request of Mr. Tim Ross of Unocal Corporation,
enclosed please find our report dated August 11, 1989 for the
above referenced site.

Should you have any questions, please feel free to call our
office at (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

Enclosure

cc: Tim Ross, Unocal



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KEI-J89-0801.R1

August 11, 1989

Unocal Corporation
2175 N. California Blvd., Suite #650
Walnut Creek, CA 94596

Attention: Mr. Tim Ross

RE: Stockpiled Soil Sampling for
Unocal Service Station #6034
4700 First Street
Livermore, 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 August 7, 1989, soil samples from approximately 350 cubic yards of stockpiled soil at the referenced site were collected to determine proper disposal of the stockpile. Seven composite soil samples (designated as Comp A, Comp B, Comp C, Comp D, Comp E, Comp F and Comp G) were taken. Each composite sample consisted of four individual grab samples taken at various locations and depths ranging from one to two feet. The samples were 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. All samples were analyzed at Sequoia Analytical Laboratory in Redwood City, California, and were accompanied by properly executed Chain of Custody documentation. Sample locations are as shown on the attached Site Plan.

The composite samples were analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030 or 3810 in conjunction with modified 8015, and benzene, toluene, xylenes and ethylbenzene (BTX&E) using EPA methods 5030 and 8020. The results of the soil analyses showed concentrations of TPH as gasoline ranging from non-detectable to 91 ppm. Analytical results are summarized in Table 1. Copies of the laboratory analyses, and the Chain of Custody documentation are attached to this report.

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Based on TPH levels in the stockpiled soil of less than 100 ppm, the soil can be disposed of at an approved Class III disposal site (based on Regional Water Quality Control Board guidelines).

A copy of this report should be sent to Alameda County Health Agency, and to the Regional Water Quality Control Board (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.



Christina L. Lecce

Attachments: Table 1
Site Plan
Laboratory Results
Chain of Custody documentation

KEI-J89-0801.R1
August 11, 1989

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Results in ppm)
(Samples collected on August 7, 1989)

<u>Sample</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethylbenzene</u>
Comp A	ND	ND	ND	ND	ND
Comp B	ND	ND	ND	ND	ND
Comp C	11	ND	0.14	0.82	ND
Comp D	91	ND	ND	4.2	0.13
Comp E	ND	ND	ND	ND	ND
Comp F	24	ND	0.23	2.6	0.37
Comp G	ND	ND	ND	ND	ND
Detection Limits	1.0	0.05	0.1	0.1	0.1

ND = Non-detectable.



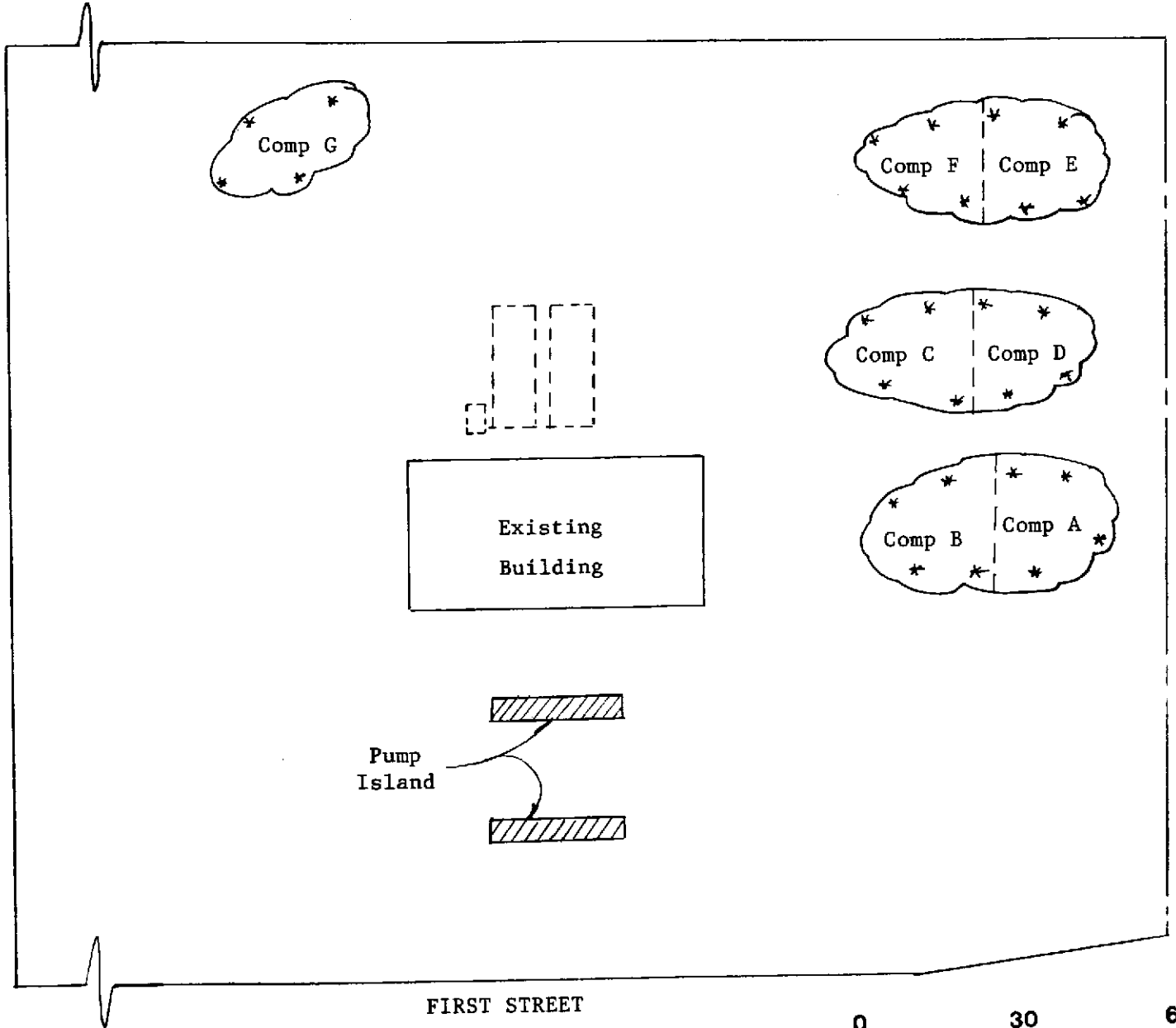
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P. O. BOX 913

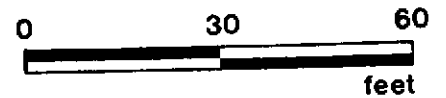
BENICIA, CA 94510

(707) 746-6915



FIRST STREET

SITE PLAN



* Sample Point Location

Unocal Service Station #6034
4700 First Street
Livermore, California



SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc. P.O. Box 913 Benicia, CA 94510 Attention: Mardo Kapreallan, P.E.	Client Project ID: Unocal, Livermore, 4700 1st St. Matrix Descript: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 908-0639 A-B	Sampled: Aug 7, 1989 Received: Aug 7, 1989 Analyzed: 8/7, 8/8/89 Reported: Aug 9, 1989
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TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
9080639 A-B	Composite A	N.D.	N.D.	N.D.	N.D.	N.D.
9080640 A-B	Composite B	N.D.	N.D.	N.D.	N.D.	N.D.
9080641 A-B	Composite C	11	N.D.	0.14	N.D.	0.82
9080642 A-B	Composite D	91	N.D.	N.D.	0.13	4.2
9080643 A-B	Composite E	N.D.	N.D.	N.D.	N.D.	N.D.
9080644 A-B	Composite F	24	N.D.	0.23	0.37	2.6
9080645 A-B	Composite G	N.D.	N.D.	N.D.	N.D.	N.D.

Detection Limits:	1.0	0.05	0.1	0.1	0.1
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Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard. 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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BENICIA, CA 94510

(415) 678-9100 (707) 746-6215

CHAIN OF CUSTODY

SAMPLER: HAGOP DATE/TIME OF COLLECTION: 8-07-89 TURN AROUND TIME: 24 HRS
 (Signature)

SAMPLE DESCRIPTION AND PROJECT NUMBER: UNOCAL - LIVERMORE - 4400' 1ST ST.

SAMPLE #	ANALYSES	GRAB OR COMP.	NUMBER OF CONTAINERS	SOIL/WATER	
COMPWA	TPH-D/TOG	C	2	S	9080639
COMP A	TPH-G/BTXE	C	2	S	
COMP B	TPH-G/BTXE	C	2	S	
COMP C	TPH-G/BTXE	C	2	S	
COMP D	TPH-G/BTXE	C	2	S	
COMP E	TPH-G/BTXE	C	2	S	
COMP F	TPH-G/BTXE	C	2	S	
COMP G	TPH-G/BTXE	C	2	S	9080616

RELINQUISHED BY*	TIME/DATE	RECEIVED BY*	TIME/DATE
1. <u>Hagop Kewok</u>	4:00 8-07-89	<u>Ben Perovnik</u> Priority	4:00 8/17/89
2. <u>Ben Perovnik</u> Priority	5:30 8/17/89	<u>Frank [Signature]</u>	5:30pm 8-7-89
3.			

* STATE AFFILIATION NEXT TO SIGNATURE

REMARKS: _____

NOTE: IF REGULAR TURNAROUND, SOIL ANALYSES MUST BE COMPLETED WITHIN 14 CALENDAR DAYS OF SAMPLE COLLECTION. WATER ANALYSES MUST BE COMPLETED WITHIN 7 CALENDAR DAYS FOR BTX&E (UNLESS SAMPLE HAS BEEN PRESERVED), AND 14 CALENDAR DAYS FOR TPH AS GASOLINE; EXTRACT TPH AS DIESEL WITHIN 14 CALENDAR DAYS.