



KAPREALIAN ENGINEERING, INC.
Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94710
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581

78

March 22, 1991

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

Attention: Mr. William Faulhaber

RE: Unocal Service Station #7004
15599 Hesperian Blvd.
San Leandro, California

Dear Mr. Faulhaber:

Per the request of Mr. Rick Sisk of Unocal Corporation, enclosed please find our reports dated November 26, 1990 and January 9, 1991, as well as our work plan/proposal dated November 27, 1990, 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

jad\82

Enclosure

cc: Rick Sisk, Unocal Corporation



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KEI-J90-1003.R3
January 9, 1991

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

Attention: Mr. Rick Sisk

RE: Stockpiled Soil Sampling for
Unocal Service Station #7004
15599 Hesperian Blvd.
San Leandro, California

Dear Mr. Sisk:

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.

After review of the analytical results of approximately 700 cubic yards of stockpiled soil (previously sampled as Comp H, Comp J, Comp K, Comp N through Comp Q, Comp V, Comp AA, Comp BB, Comp EE through Comp HH, Comp 7 and Comp 8), an aeration permit was obtained and the soil was aerated.

On November 27, 1990, soil samples from approximately 150 cubic yards of aerated stockpiled soil at the referenced site were collected. Three composite soil samples (designated as Comp 9, Comp 10 and Comp 11) were taken. Each composite sample consisted of four individual grab samples taken at various depths and locations ranging from 1 to 2 feet. The samples were collected in two-inch 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 Concord, California, and were accompanied by properly executed Chain of Custody documentation. Sample point locations are as shown on the attached Site Plan, Figure 1.

On December 12, 1990, soil samples from approximately 300 cubic yards of aerated stockpiled soil at the referenced site were collected. Six composite soil samples (designated as Comp 12 through Comp 14 and Comp NN through Comp PP) were taken. Samples were collected and stored as described above. Sample point locations are as shown on the attached Site Plan, Figure 2.

On December 27, 1990, soil samples from approximately 250 cubic yards of aerated stockpiled soil were collected. Five composite soil samples (designated as Comp HH, Comp JJ, Comp KK, Comp QQ and Comp VV) were taken. Samples were collected and stored as described above. Sample point locations are as shown on the attached Site Plan, Figure 3.

Soil samples were analyzed to determine concentrations of total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030 in conjunction with modified 8015, benzene, toluene, xylenes and ethylbenzene (BTX&E) using EPA method 8020. Analytical results of the soil samples (Comp 9 through Comp 14, Comp NN, Comp OO, Comp PP, Comp HH, Comp JJ, Comp KK, Comp QQ and Comp VV) indicate levels of TPH as gasoline ranging from 17 ppm to 97 ppm. Results of the soil analyses are summarized in Table 1. Copies of the laboratory analyses, and the Chain of Custody documentation are attached to this report.

Based on the analytical results of the soil samples, approximately 700 cubic yards of stockpiled soil represented by samples Comp 9 through Comp 14, Comp NN, Comp OO, Comp PP, Comp HH, Comp JJ, Comp KK, Comp QQ and Comp VV were disposed of at BFI Landfill in Livermore, California, an approved Class III disposal site, by Paradiso Construction. However, KEI recommended that prior to disposal, when obvious isolated high contamination is detected within the stockpiled soil, that portion of the soil be separately stockpiled for further sampling and treatment.

700 cu. y.

DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services, to the City of San Leandro, and to the Regional Water Quality Control Board, 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.

K. Mascarenas

Kristin B. Mascarenas

- Attachments: Table 1
Site Plans - Figures 1, 2 & 3
Laboratory Results
Chain of Custody documentation

KEI-J90-1003.R3
January 9, 1991

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Collected on November 27, December 12 and 27, 1990)

<u>Sample</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethylbenzene</u>
Comp 9	51	ND	ND	0.11	0.078
Comp 10	62	ND	ND	0.28	0.069
Comp 11	97	ND	ND	0.14	0.086
Comp 12	63	0.044	0.14	0.48	0.10
Comp 13	47	ND	0.060	0.10	0.038
Comp 14	47	ND	0.030	0.074	0.024
Comp NN	52	ND	0.10	0.62	0.098
Comp OO	39	ND	0.045	0.12	0.028
Comp PP	49	ND	0.061	0.39	0.045
Comp HH	20	0.017	0.049	0.095	0.025
Comp JJ	35	0.027	0.086	0.080	0.038
Comp KK	43	0.046	0.12	0.48	0.12
Comp QQ	17	0.70	0.047	0.099	0.026
Comp VV	23	0.18	0.086	0.19	0.036
Detection Limits	1.0	0.0050	0.0050	0.0050	0.0050

ND = Non-detectable.

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

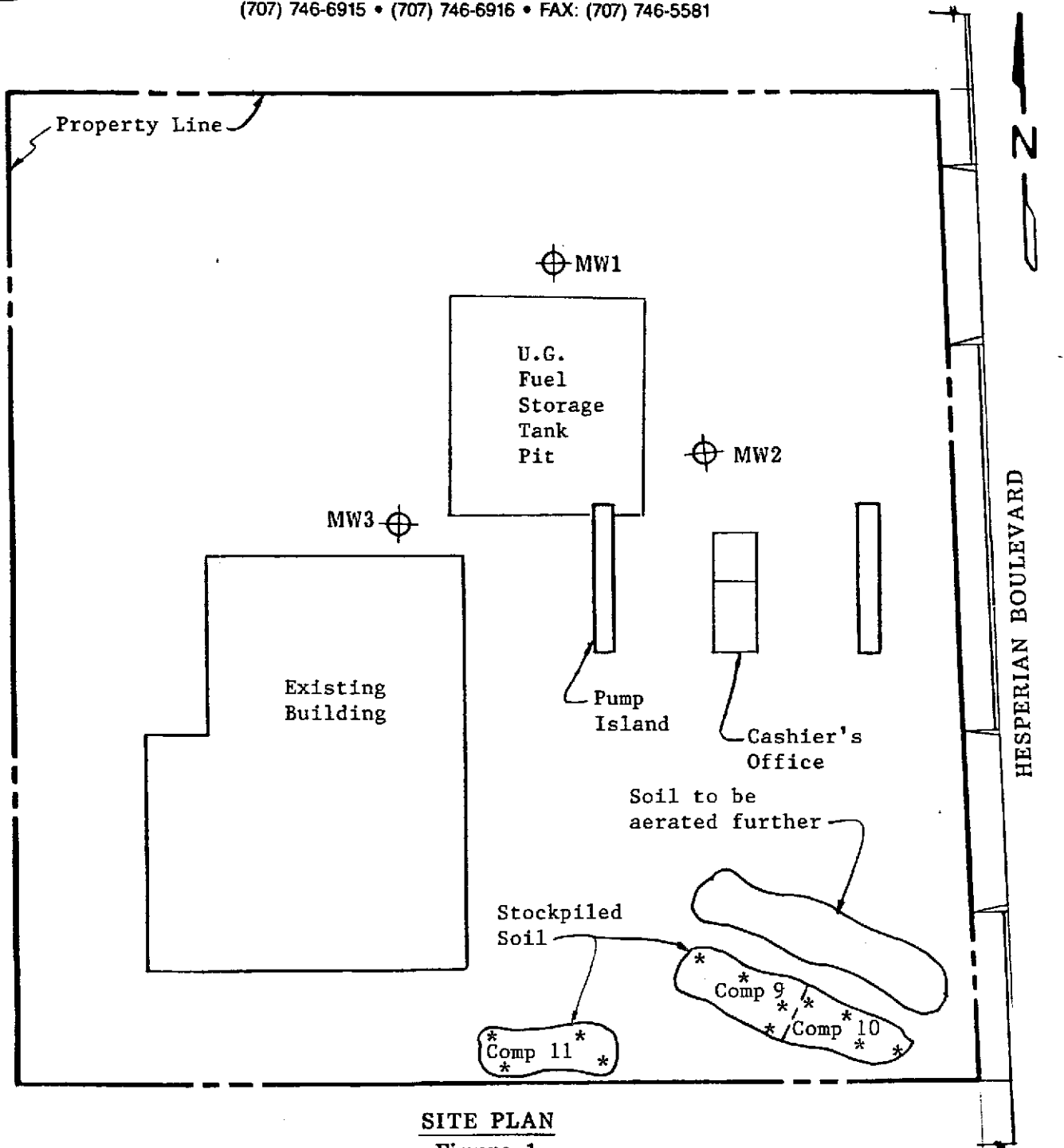


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SITE PLAN

Figure 1

LEGEND

⊕ Monitoring well

* Sample Point Location

0 30 60
Approx. scale feet

Unocal S/S #7004
15599 Hesperian Blvd.
San Leandro, CA

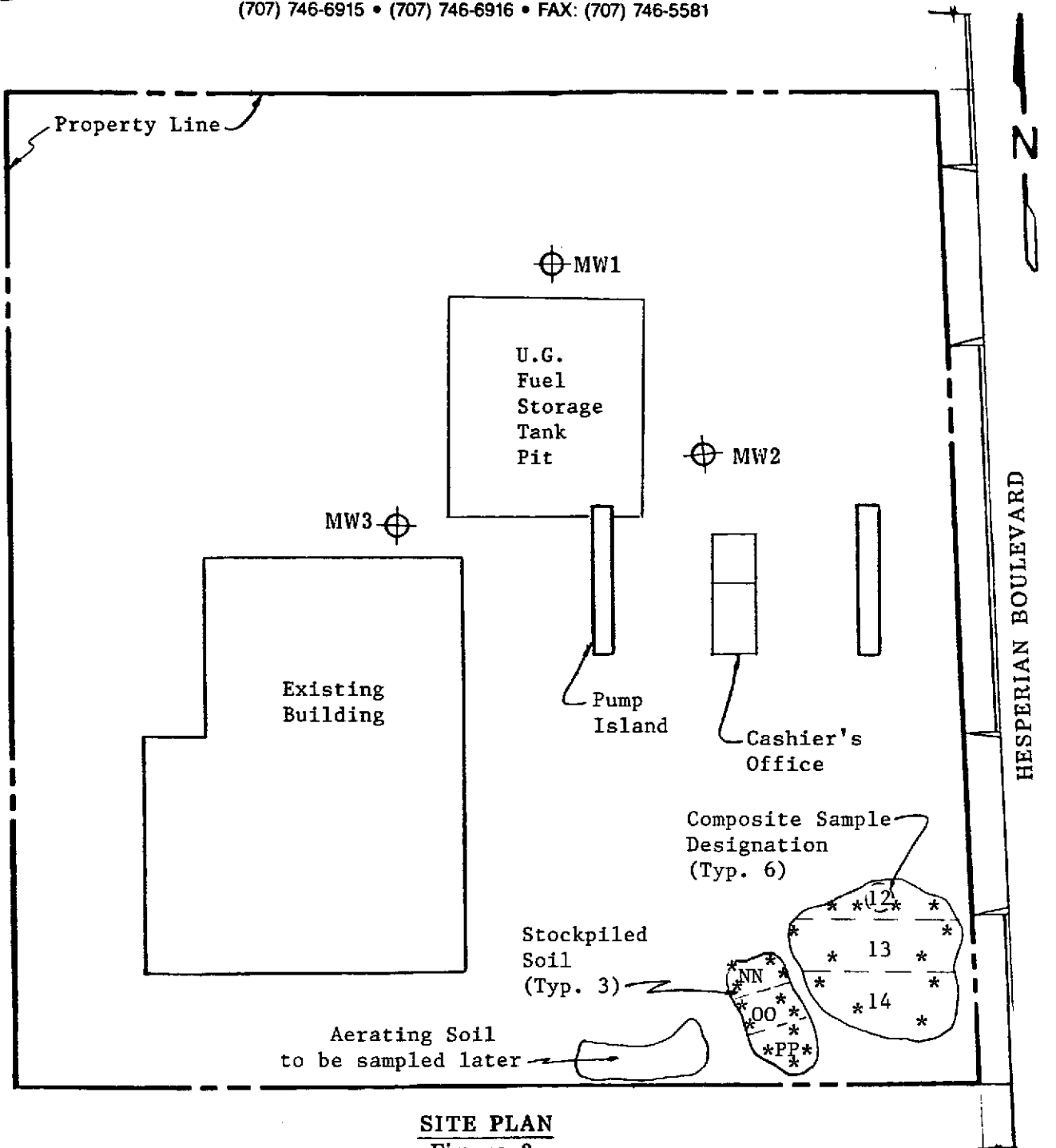


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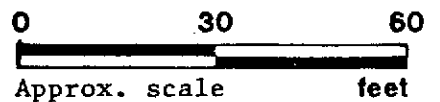
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SITE PLAN
Figure 2

LEGEND

- ⊕ Monitoring well
- * Sample Point Location



Unocal S/S #7004
15599 Hesperian Blvd.
San Leandro, CA

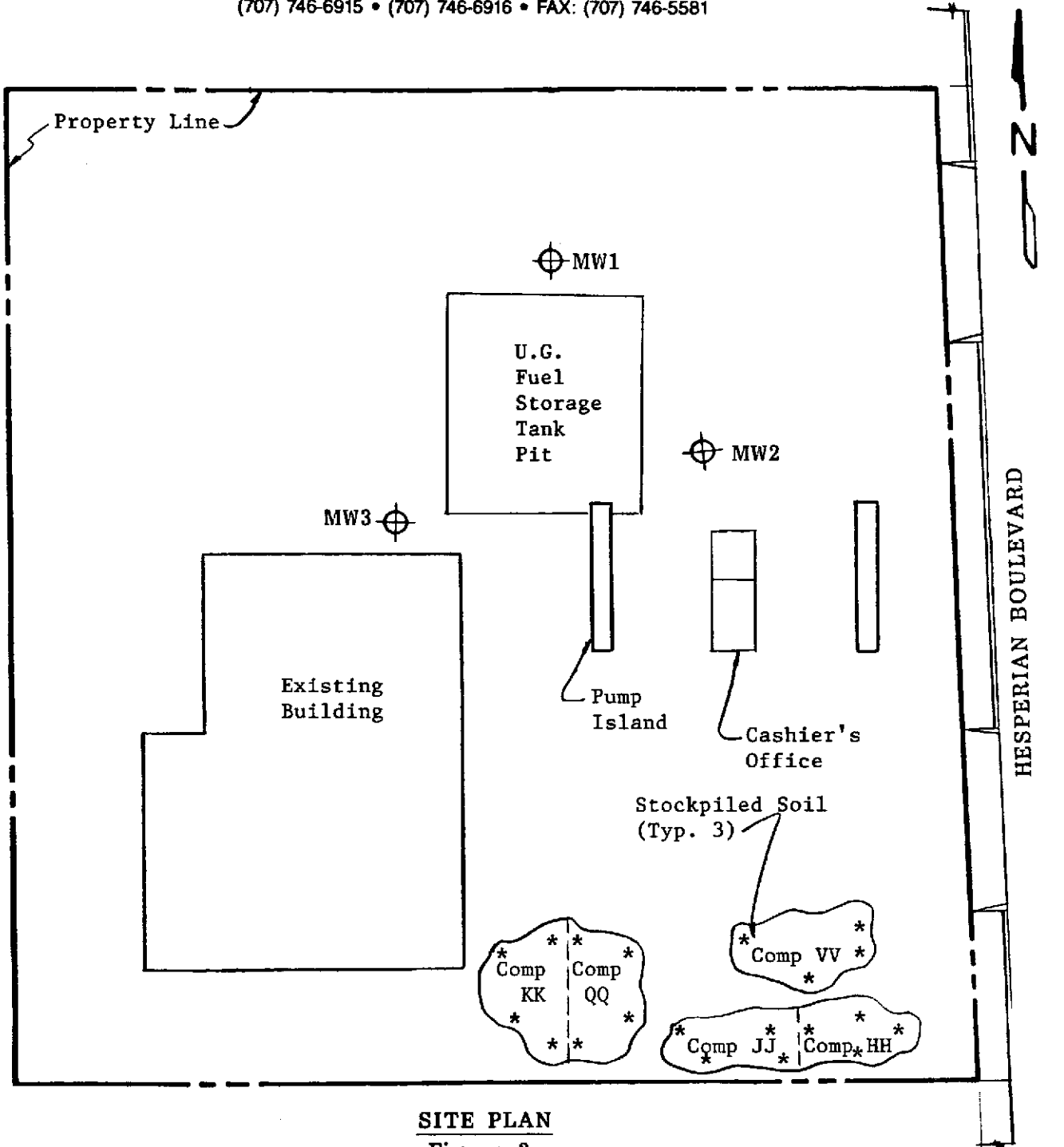


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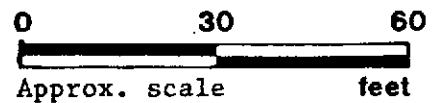


SITE PLAN

Figure 3

LEGEND

-  Monitoring well
- * Sample Point Location



Unocal S/S #7004
15599 Hesperian Blvd.
San Leandro, CA



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Kaprealian Engineering, Inc.	Client Project ID: Unocal #7004, 15599 Hesperian Blvd.,	Sampled: Nov 27, 1990
P.O. Box 996	Matrix Descript: Soil	Received: Nov 28, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Nov 28, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #: 011-0823 A-B	Reported: Nov 29, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P.	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl	Xylenes mg/kg (ppm)
		Hydrocarbons mg/kg (ppm)			Benzene mg/kg (ppm)	
011-0823 A-B	Comp 9	51	N.D.	N.D.	0.078	0.11
011-0824 A-B	Comp 10	62	N.D.	N.D.	0.069	0.28
011-0825 A-B	Comp 11	97	N.D.	N.D.	0.086	0.14

Detection Limits:	1.0	0.0050	0.0050	0.0050	0.0050
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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

Belinda C. Vega
Belinda C. Vega
Laboratory Director



KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER <i>Tom Mascorbas</i>		SITE NAME & ADDRESS <i>UNOVAL - San Leandro #7604 15599 Hesperian Blvd. San Leandro, CA</i>				ANALYSES REQUESTED		TURN AROUND TIME: <i>24 hours</i>
WITNESSING AGENCY								

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED		REMARKS
									TPH-G	BTEX	
<i>COMP 9</i>	<i>11/27/90</i>		<input checked="" type="checkbox"/>				<i>2</i>	<i>Stockpile</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>0110823 DB 824 825 ↓</i>
<i>COMP 10</i>	<i>11/27/90</i>		<input checked="" type="checkbox"/>				<i>2</i>	<i>Stockpile</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>COMP 11</i>	<i>11/27/90</i>		<input checked="" type="checkbox"/>				<i>2</i>	<i>Stockpile</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Relinquished by: (Signature) <i>Tom Mascorbas</i>	Date/Time <i>11/28/90 8:10</i>	Received by: (Signature) <i>Tom McLain</i>	The following MUST BE completed by the laboratory accepting samples for analysis: 1. Have all samples received for analysis been stored in ice? <input checked="" type="checkbox"/> 2. Will samples remain refrigerated until analyzed? <input checked="" type="checkbox"/> 3. Did any samples received for analysis have head space? <i>NO</i> 4. Were samples in appropriate containers and properly packaged? <input checked="" type="checkbox"/>
Relinquished by: (Signature) <i>Tom McLain</i>	Date/Time <i>11/28/90 9:15</i>	Received by: (Signature) <i>Tom McLain</i>	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	

Signature: *Tom* Title: *SR* Date: *11/28*



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Kaprealian Engineering, Inc. P.O. Box 996 Benicia, CA 94510 Attention: Mardo Kaprealian, P.E.	Client Project ID: Unocal, 15599 Hesperian Blvd., San Leandro Matrix Descript: Soil Analysis Method: EPA 5030/8015/8020 First Sample #: 012-0281 A-D	Sampled: Dec 12, 1990 Received: Dec 13, 1990 Analyzed: Dec 13, 1990 Reported: Dec 14, 1990
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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)
012-0281 A-D	Comp 12	63	0.044	0.14	0.10	0.48
012-0282 A-D	Comp 13	47	N.D.	0.060	0.038	0.10
012-0283 A-D	Comp 14	47	N.D.	0.030	0.024	0.074
012-0284 A-D	Comp NN	52	N.D.	0.10	0.098	0.62
012-0285 A-D	Comp OO	39	N.D.	0.045	0.028	0.12
012-0286 A-D	Comp PP	49	N.D.	0.061	0.045	0.39

Detection Limits:	1.0	0.0050	0.0050	0.0050	0.0050
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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

Belinda C. Vega
Belinda C. Vega
Laboratory Director



KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER <i>Tom</i>		SITE NAME & ADDRESS		ANALYSES REQUESTED				TURN AROUND TIME:
<i>MO20281-285</i>		<i>CONCORD - San Leandro #7004</i>						<i>24 hrs</i>
WITNESSING AGENCY		<i>15599 Hesperian Blvd</i>						
SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	NO. OF COMP CONT.	SAMPLING LOCATION	REMARKS
<i>Comp 12</i>	<i>12/12/90</i>		<input checked="" type="checkbox"/>			<i>4</i>	<i>steelpipe</i>	<i>0120281 A-D</i>
<i>Comp 13</i>	<i>12/12/90</i>		<input checked="" type="checkbox"/>			<i>4</i>	<i>"</i>	<i>282</i>
<i>Comp 14</i>	<i>12/12/90</i>		<input checked="" type="checkbox"/>			<i>4</i>	<i>"</i>	<i>283</i>
<i>Comp 15</i>	<i>12/12/90</i>		<input checked="" type="checkbox"/>			<i>4</i>	<i>"</i>	<i>284</i>
<i>Comp 16</i>	<i>12/12/90</i>		<input checked="" type="checkbox"/>			<i>4</i>	<i>"</i>	<i>285</i>
<i>Comp 17</i>	<i>12/12/90</i>		<input checked="" type="checkbox"/>			<i>4</i>	<i>"</i>	<i>286</i>
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		The following MUST BE completed by the laboratory accepting samples for analysis:		
<i>Tom Kaprealian</i>		<i>12/12/90 9:30</i>		<i>Robert D. H.</i>		1. Have all samples received for analysis been stored in ice? <i>YES</i>		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		2. Will samples remain refrigerated until analyzed? <i>YES</i>		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		3. Did any samples received for analysis have head space? <i>NO</i>		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		4. Were samples in appropriate containers and properly packaged? <i>YES</i>		
				<i>Robert D. H.</i>		<i>Analyst</i>		<i>12/12/90</i>
						Signature		Date



SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.	Client Project ID: Unocal #7004, 15599 Hesperian Blvd.,	Sampled: Dec 27, 1990
P.O. Box 996	Matrix Descript: Soil	Received: Dec 27, 1990
Benicia, CA 94510	Analysis Method: EPA 5030/8015/8020	Analyzed: Dec 28, 1990
Attention: Mardo Kapreallan, P.E.	First Sample #: 012-0550 A-D	Reported: Dec 28, 1990

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)
012-0550 A-D	Comp HH	20	0.017	0.049	0.025	0.095
012-0551 A-D	Comp JJ	35	0.027	0.086	0.038	0.080
012-0552 A-D	Comp KK	43	0.046	0.12	0.12	0.48
012-0553 A-D	Comp OO	17	0.70	0.047	0.026	0.099
012-0554 A-D	Comp WW	23	0.18	0.086	0.036	0.19

Detection Limits:	1.0	0.0050	0.0050	0.0050	0.0050
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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

Belinda C. Vega
 Laboratory Director



KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER <i>Tom</i> <i>11/20/2015</i>		SITE NAME & ADDRESS <i>UNOCAL - San Leandro # 7004</i> <i>15599 Hesperian Blvd.</i>				ANALYSES REQUESTED		TURN AROUND TIME: <i>24 hrs.</i>
WITNESSING AGENCY								

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED		REMARKS
									TPH-61	BTEX	
<i>Comp HH</i>	<i>11/27/15</i>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>4</i>	<i>Stockpile</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>0120550 & D</i>
<i>Comp JJ</i>	<i>11</i>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>4</i>	<i>"</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>551</i>
<i>Comp KK</i>	<i>11</i>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>4</i>	<i>"</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>552</i>
<i>Comp LL</i>	<i>11</i>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>4</i>	<i>"</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>553</i>
<i>Comp MM</i>	<i>11</i>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<i>4</i>	<i>"</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>554</i>

Relinquished by: (Signature) <i>Tom Kaprealian</i>	Date/Time <i>12/27 15:30</i>	Received by: (Signature) <i>Ken Wilson</i>	The following MUST BE completed by the laboratory accepting samples for analysis: 1. Have all samples received for analysis been stored in ice? <input checked="" type="checkbox"/> 2. Will samples remain refrigerated until analyzed? <input checked="" type="checkbox"/> 3. Did any samples received for analysis have head space? <i>NO</i> 4. Were samples in appropriate containers and properly packaged? <input checked="" type="checkbox"/>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
		<i>Ken Wilson</i>	Signature
		<i>SR</i>	Title
	<i>12/27</i>		Date