KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581

KEI-J90-0606.R4
July 30, 1990

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

Attention: Mr. Rick Sisk

RE: Follow-Up Soil Sampling Report
Unocal Service Station #5901
11976 Dublin Boulevard
Dublin, California

Dear Mr. Sisk:

This follow-up report presents the additional soil sampling performed by Kaprealian Engineering, Inc. (KEI) at the referenced site. The additional sampling was performed as the Phase I subsurface investigation presented in KEI work plan/proposal (KEI-J90-0606.P1) dated July 16, 1990. All work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB), and the Alameda County Health Agency (ACHA).

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

Coordination with regulatory agencies.

Collection of soil samples from the waste oil tank pit sidewalls.

Collection of one water sample from the waste oil tank pit excavation.

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

Technical review and preparation of this report.

SITE DESCRIPTION AND BACKGROUND

The subject site is presently used as a gasoline station. The site is situated on relatively gently sloping, eastward trending topography, and is located approximately 700 feet northwest of a channelized portion of Dublin Creek. The site is also located

near the southwest end of the San Ramon Valley near Amador Valley. A Location Map and Site Plans are attached to this report.

KEI's initial field work was conducted on June 13, 1990, when two underground fuel storage tanks and one waste oil tank were removed from the site. The tanks consisted of one 10,000 gallon super unleaded fuel storage tank, one 10,000 gallon regular unleaded fuel storage tank, and one 280 gallon waste oil tank. The tanks were made of steel and at least one hole of 1/4-inch diameter was observed in each of the fuel tanks. Numerous holes up to 1/2-inch in diameter were observed in the waste oil tank. Mr. Ravi Arulanantham of the ACHA was present during tank removal and subsequent soil sampling.

Water was encountered in the fuel tank pit at a depth of approximately 7.0 feet, thus prohibiting the collection of any soil samples from immediately beneath the tanks. Six soil samples, labeled SW1 through SW6, were collected from the sidewalls of the fuel tank pit approximately 6 to 12 inches above the observed water table. One soil sample, labeled WO1, was collected from beneath the waste oil tank at a depth of approximately 6.5 feet. An additional soil sample, labeled SWA, was collected from the waste oil tank pit sidewall at a depth of approximately 6.5 feet. Sample point locations are as shown on the attached Site Plan, Figure 1.

KEI returned to the site on June 15, 1990, in order to collect soil samples from the product pipe trenches. Four samples, labeled P1 through P4, were collected from trenches by using a driven tube-type soil sampler at a depth of 6.0 feet. After the soil sampling was completed, pipe trenches were excavated to ground water over the area indicated on the attached Site Plan, Figure 2. Pipe trench sample point locations are shown on the attached Site Plan, Figure 2.

On June 15, 1990, after reviewing the analytical results of the soil samples (SW1 through SW6), four additional soil samples, labeled SW1(3), SW2(3), SW5(2.5) and SW6(3), were collected from the sidewalls of the fuel tank pit approximately 6 to 12 inches above ground water in the vicinity of sample point locations SW1, SW2, SW5 and SW6, respectively.

After soil sampling was completed, approximately 25,000 gallons of ground water were pumped from the fuel tank pit. On June 20, 1990, one water sample, labeled W1, was collected from the fuel tank pit.

Also on June 20, 1990, based on analytical results of soil samples SW1(3) and SW2(3), two additional soil samples, labeled SW1(6.5) and SW2(6.5), were collected from the northerly sidewall of the fuel tank pit approximately 6 to 12 inches above ground water in the vicinity of sample point locations SW1(3) and SW2(3). The sample point locations and the area excavated are as indicated on the attached Site Plan, Figure 1.

On June 26, 1990, KEI again returned to the site in order to collect soil samples from the sidewalls of the new underground fuel storage tank pit located to the west of the pump islands. Four soil samples, labeled SW11, SW12, SW13 and SW14, were collected from the sidewalls of the excavation 6 to 12 inches above ground water. Sample point locations are as shown on the attached Site Plan, Figure 3.

On July 3, 1990, after having pumped approximately 10,000 gallons of ground water from the new fuel tank pit, a water sample, labeled W2, was collected from the pit.

All samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California and were accompanied by properly executed Chain of Custody documentation. All soil samples, except the waste oil tank pit sidewall sample SWA, were analyzed for total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030 in conjunction with modified 8015, and benzene, toluene, xylenes and ethylbenzene (BTX&E) using EPA method 8020. In addition to TPH as gasoline and BTX&E, the soil sample WO1, collected from the waste oil tank pit, was analyzed for TPH as diesel using EPA method 3550 in conjunction with modified 8015, total oil and grease (TOG) by EPA 503D&E, and EPA 8010 constituents. The waste oil tank pit sidewall sample, SWA, was analyzed for TOG only. In addition to TPH as gasoline and BTX&E, sample SW11 from the new fuel tank pit was also analyzed for TOG.

Both water samples were analyzed for TPH as gasoline and BTX&E. In addition, water sample W2 collected from the new fuel tank pit was analyzed for TOG.

Analytical results of the soil samples SW1, SW2, SW5 and SW6, collected from the sidewalls of the former fuel tank pit, indicate levels of TPH as gasoline ranging from 120 ppm to 5,700 ppm. Samples SW3 and SW4 indicate levels of TPH as gasoline at non-detectable and 8.0 ppm, respectively. However, after additional excavation, analyses of final sidewall soil samples SW1(6.5), SW2(6.5), SW5(2.5) and SW6(3), collected laterally beyond the samples SW1, SW2, SW5 and SW6 at a depth of approximately 6.0 feet, indicated levels of TPH as gasoline ranging from 1.2 ppm to 32 ppm.

Analyses of soil samples collected from the pipe trenches, indicate levels of TPH as gasoline ranging from 2.5 ppm to 37 ppm. Benzene was detected in all pipe trench samples at concentrations ranging from 0.28 ppm to 0.78 ppm.

Analytical results of the soil sample WO1, collected from beneath the waste oil tank pit, indicate levels of TPH as gasoline at 36 ppm, TPH as diesel at 120 ppm, and TOG at 1,500 ppm, with non-detectable concentrations of all EPA 8010 constituents, except 1,2-dichlorobenzene at 210 ppb. Analysis of soil sample SWA, collected from the sidewall of the waste oil tank pit, indicate levels of TOG at 3,500 ppm.

Analyses of the soil samples (SW11, SW12, SW13 and SW14), collected from the new fuel tank pit, indicate non-detectable levels of TPH as gasoline and benzene for all samples. Analysis of sample SW11 for TOG indicates 78 ppm. Results of all soil analyses are summarized in Table 1.

Analytical results of the water sample (W1), collected from the former fuel tank pit, indicate levels of TPH as gasoline at 2,300 ppb, and levels of benzene at 3.1 ppb. Analyses of the water samples (W2), collected from the new fuel tank pit, indicate non-detectable levels of TPH as gasoline, TOG, and benzene. The results of the water analyses are summarized in Table 2.

FIELD ACTIVITIES

KEI's field work was conducted on July 16, 1990 when three trenches were excavated laterally from the easterly, northerly and westerly waste oil tank pit sidewalls. Water was encountered at a depth of approximately 7.0 feet. Three soil samples, labeled SWB(13), SWC(10) and SWD(14), were collected from the sidewalls of the trenches at approximately 6 to 12 inches above the observed water table. The samples were collected using a driven tube-type soil sampler. The 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 certified laboratory. Sample point locations are as shown on the attached Site Plan, Figure 4. After sampling, the sidewalls of the waste oil tank pit were excavated laterally to the sample point locations to a depth of approximately 1 foot below the water table (or about 8 feet below grade). The excavated soil was stockpiled on-site.

On July 19, 1990, after having pumped approximately 5,000 gallons of ground water from the waste oil excavation, a water sample, labeled W3, was collected from the pit in four clean glass VOA vials and two one-liter amber bottles. The water sample was stored and delivered to the laboratory as discussed above.

On July 20, 1990, KEI returned to the site to collect the additional soil samples required by the ACHA. Four soil samples, labeled SWE, SWF, SWG and SWH, were collected approximately 6 to 12 inches above the ground water level from the four corners of the waste oil tank excavation. These samples were also collected using a driven tube-type soil sampler, and taken and handled as described above. Sample point locations are also shown on the attached Site Plan, Figure 4.

REGIONAL GEOLOGY AND SUBSURFACE CONDITIONS

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 Quaternary-age alluvium. The surficial alluvium has been mapped as Holocene coarse-grained alluvium (Qhac) typically consisting of unconsolidated, permeable sand and silt with locally coarse sand and gravel materials and ranges in thickness from less than 10 feet to as much as 50 feet. This coarse-grained alluvium zone appears to have been deposited from sediments generated from erosion within Dublin Canyon situated immediately west of the site. The site is present at the northern perimeter of the Qhac near a mapped geologic contact with Late-Pleistocene alluvium (Qpa). The Late Pleistocene alluvium is described as typically consisting of weakly consolidated, irregular interbedded clay, silt, sand, and gravel materials. The overall thickness of the alluvium underlying the site is presently unknown to KEI.

In addition, the site is situated closely adjacent to and east of the mapped trace of the active Calaveras Fault. The Calaveras Fault is a major structural break within the Coast Ranges near San Francisco Bay and most likely forms a significant barrier to the migration of ground water in the alluvial materials from the hillside areas immediately west of the site.

The subsurface soils exposed in the tank pit excavations appeared to consist primarily of sandy silt and silty clay materials.

ANALYTICAL RESULTS

All samples were analyzed by Sequoia Analytical Laboratory in Redwood City, California and were accompanied by properly executed Chain of Custody documentation. All soil samples were analyzed for 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; TPH as diesel using EPA method 3550 in conjunction with modified 8015; total oil and grease (TOG) by EPA 503D&E; and EPA 8010 constituents.

The water sample was analyzed for TPH as gasoline, BTX&E, TPH as diesel, TOG and 8010 constituents.

Laboratory analyses of the soil samples indicate non-detectable levels of TPH as diesel, TOG and all EPA 8010 constituents for all samples. Analyses also indicate non-detectable levels of TPH as gasoline for all samples except SWC(10), which showed a level of TPH as gasoline at 1.1 ppm.

Laboratory analyses of the water sample indicate non-detectable levels of all constituents.

Results of all soil analyses are summarized in Table 3. The results of the water analyses are summarized in Table 4. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

DISCUSSION AND RECOMMENDATIONS

Based on the analytical results and in accordance with the guidelines established by the RWQCB, further work is necessary at the site because of the level of contamination found in the soil and ground water (collected from the former fuel tank pit). To comply with the requirements of the RWQCB and the ACHA, KEI recommended the installation of four ground water monitoring wells to determine the ground water flow direction, and to begin to determine the extent of ground water contamination. KEI previously prepared a work plan/proposal for this work (KEI-J90-0606.P1, dated July 16, 1990); however, the locations of the proposed wells MW1 and MW2, as shown on the attached Site Plan, Figure 5, have been modified due to the extensive excavation of the vicinity of the waste oil tank pit.

DISTRIBUTION

A copy of this report should be sent to Mr. Ravi Arulanantham of the ACHA, 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 work and laboratory analyses. 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, 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 (707) 746-6915.

Sincerely,

Kaprealian Engineering, Inc.

Richard M. Bradish
Staff Engineer

Don R. Braun
Certified Engineering Geologist

License No. 1310
Exp. Date 6/30/92

Mardo Kaprealian
President

jad

Attachments: Tables 1, 2, 3 & 4
Location Map
Site Plans - Figures 1 through 5
Laboratory Analyses
Chain of Custody documentation

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July 30, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES
SOIL

(Samples collected on June 13, 15, 20 & 26, 1990)

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
SW1	6.0	--	5,700	2.1	41	640	110
SW1(3)	6.0	--	2,200	1.8	6.3	76	30
SW1(6.5)	6.0	--	32	0.020	0.14	0.17	0.13
SW2	6.0	--	1,500	0.35	0.57	56	8.0
SW2(3)	6.0	--	360	ND	1.0	2.0	3.0
SW2(6.5)	6.5	--	6.8	0.020	0.052	0.063	0.029
SW3	6.0	--	ND	ND	ND	ND	ND
SW4	6.0	--	8.0	0.019	0.088	0.16	0.0071
SW5	6.5	--	340	0.80	0.26	3.6	2.5
SW5(2.5)	6.0	--	11	0.027	0.054	0.12	0.070
SW6	6.5	--	120	ND	0.21	0.14	0.19
SW6(3)	6.0	--	1.2	0.0084	0.012	0.021	0.012
P1	6.0	--	2.5	0.099	0.079	0.034	ND
P2	6.0	--	37	0.78	0.14	3.8	0.43
P3	6.0	--	8.5	0.028	0.016	0.080	0.35
P4	6.0	--	16	0.091	ND	1.3	0.52
SW11***	6.0	--	ND	ND	ND	0.0079	ND
SW12	6.0	--	ND	ND	ND	ND	ND
SW13	6.0	--	ND	ND	0.022	ND	ND
SW14	6.0	--	ND	ND	ND	0.020	ND
WO1*	6.5	120	36	0.091	0.17	1.8	0.38
SWA**	6.0	--	--	--	--	--	--
Detection Limits		1.0	1.0	0.0050	0.0050	0.0050	0.0050

-- Indicates analysis not performed.

ND = Non-detectable.

* TOG was 1,500 ppm, and all EPA 8010 constituents were non-detectable, except 1,2-dichlorobenzene at 210 ppb.
** TOG was 3,500 ppm.
*** TOG was 78 ppm.

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

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July 30, 1990

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

(Samples collected on June 20 & July 3, 1990)

Sample #	TOG	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
W1*	--	2,300	3.1	0.88	250	0.39
W2**	ND	ND	ND	0.96	ND	ND
Detection Limits		30	0.30	0.30	0.30	0.30

* Collected from the former fuel storage tank pit.

** Collected from the new fuel storage tank pit.

-- Indicates analysis not performed.

ND = Non-detectable.

Results in parts per billion (ppb), unless otherwise indicated.

KEI-J90-0606.R4
July 30, 1990

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

(Samples collected on July 16 & 20, 1990)

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
SWB(13)*	6.0	ND	ND	ND	0.0095	ND	ND
SWC(10)*	6.0	ND	1.1	0.0061	0.0330	0.044	0.024
SWD(14)*	6.0	ND	ND	0.0052	0.015	ND	ND
SWE*	6.3	ND	ND	ND	0.031	ND	ND
SWF*	6.3	ND	ND	ND	0.029	0.013	0.0059
SWG*	6.3	ND	ND	ND	0.028	ND	ND
SWH*	6.3	ND	ND	ND	0.015	ND	ND
Detection Limits		1.0	1.0	0.005	0.005	0.005	0.005

* TOG and all EPA 8010 constituents were non-detectable for all samples.

ND = Non-detectable.

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

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July 30, 1990

TABLE 4

SUMMARY OF LABORATORY ANALYSES
WATER

(Samples collected on July 19, 1990)

Sample #	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
W3*	ND	ND	ND	ND	ND	ND
Detection Limits	50	30	0.30	0.30	0.30	0.30

ND = Non-detectable.

* TOG and all EPA 8010 constituents were non-detectable.

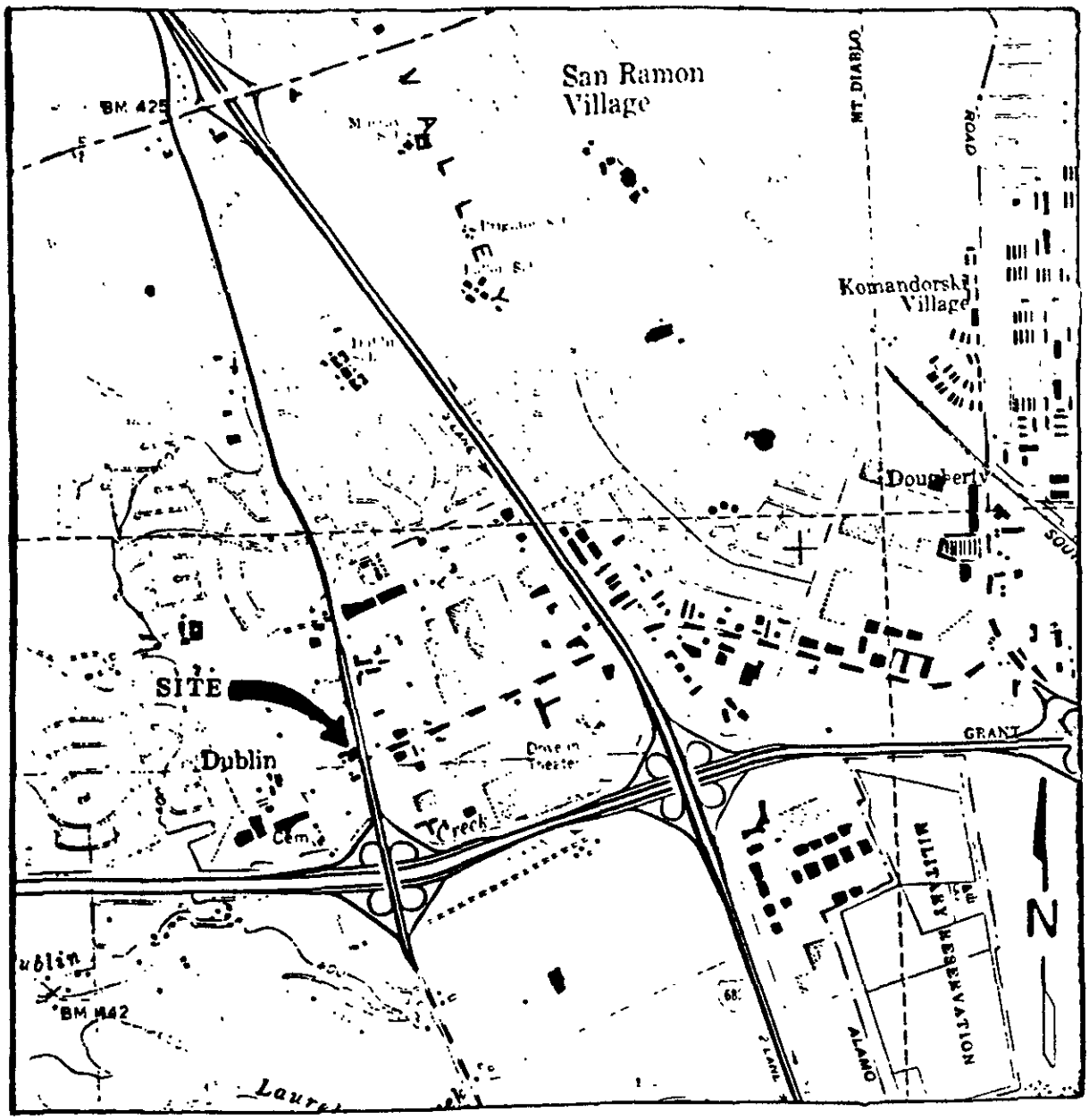
Results in parts per billion (ppb), unless otherwise indicated.

KAPREALIAN ENGINEERING, INC.

Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510

(707) 746-6915 • (707) 746-6916 • FAX (707) 746-5581



LOCATION MAP

Unocal S/S #5901
11976 Dublin Blvd.
Dublin, CA

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Consulting Engineers
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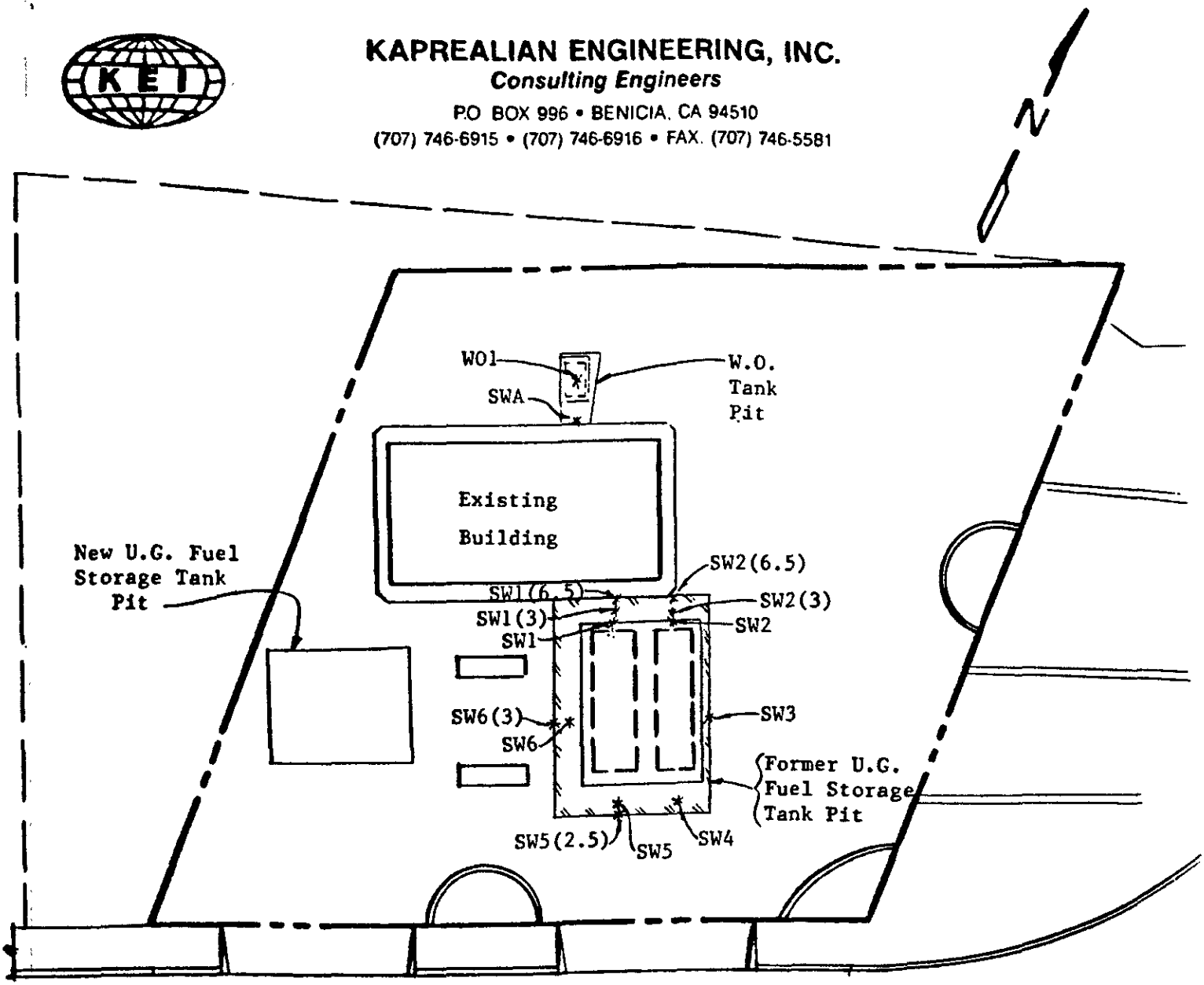

SITE PLAN
Figure 1

LEGEND

* Sample Point Location

Additional Area Excavated

Unocal S/S #5901
11976 Dublin Blvd.
Dublin, CA

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Consulting Engineers
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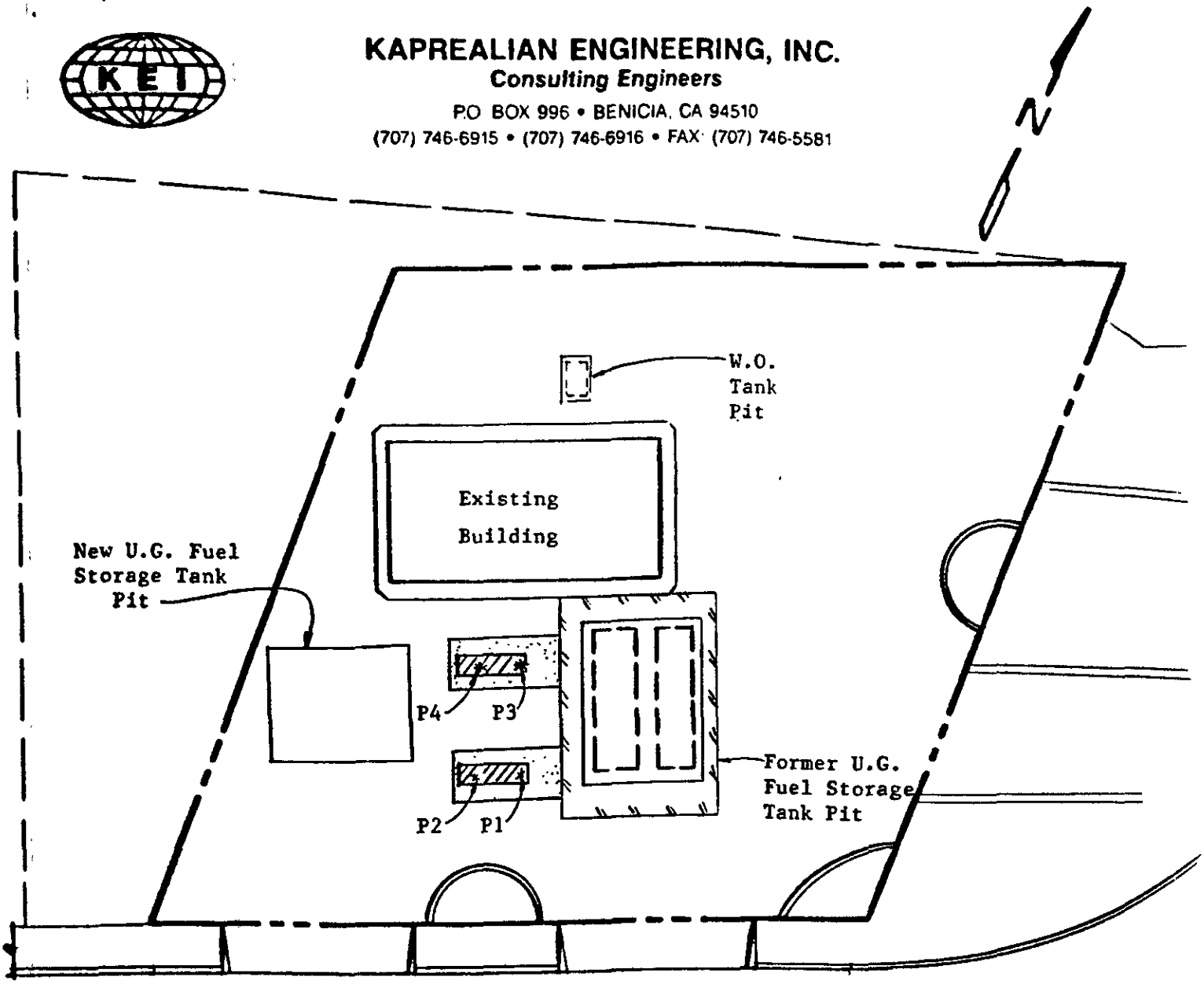

SITE PLAN
Figure 2

* Sample Point Location

Area of Additional Tank Pit Excavation

Area of Additional Pipe Trench Excavation

Unocal S/S #5901
11976 Dublin Blvd.
Dublin, CA

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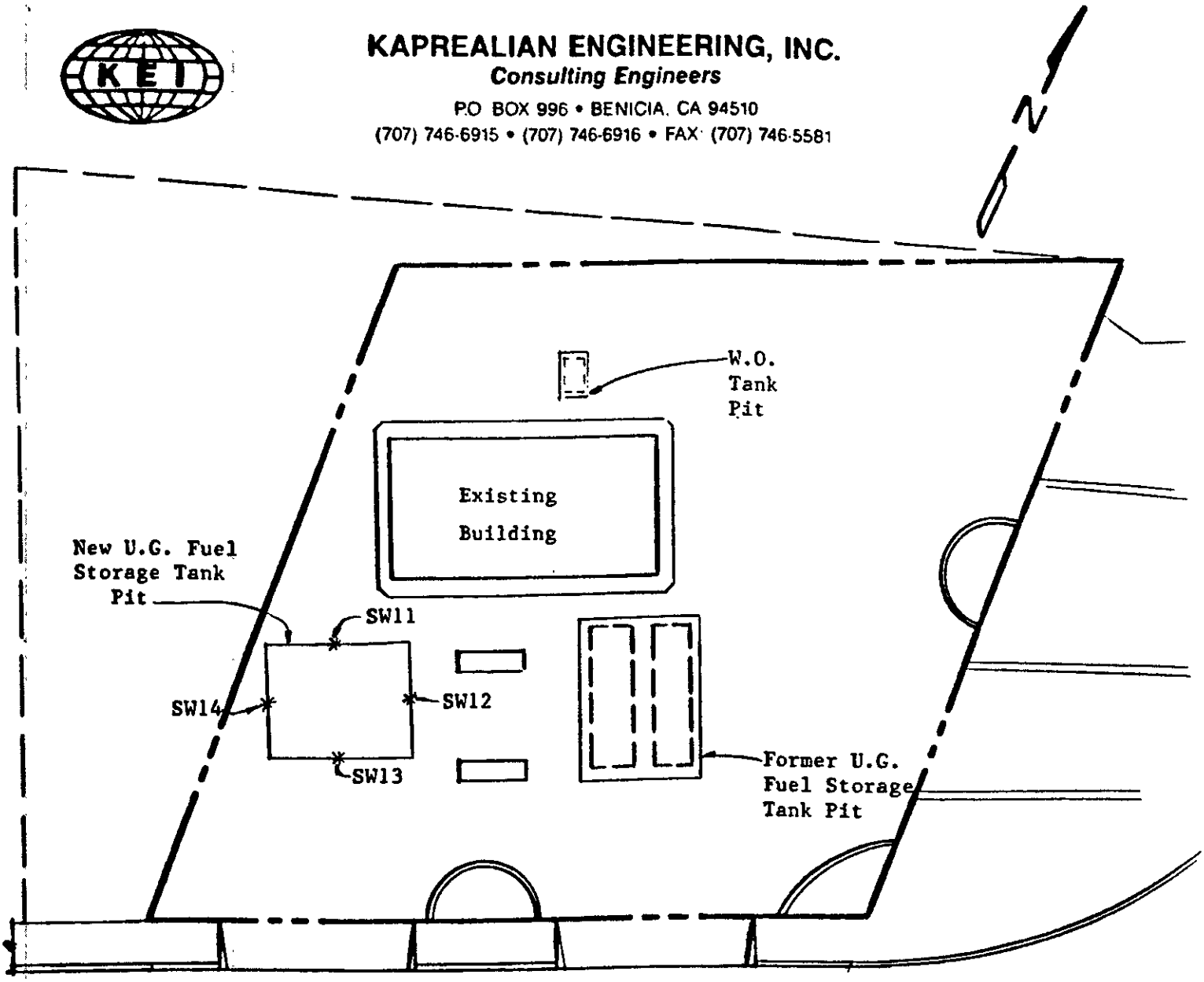
Consulting Engineers
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX (707) 746-5581



SITE PLAN
Figure 3

LEGEND

* Sample Point Location

Unocal S/S #5901
11976 Dublin Blvd.
Dublin, CA

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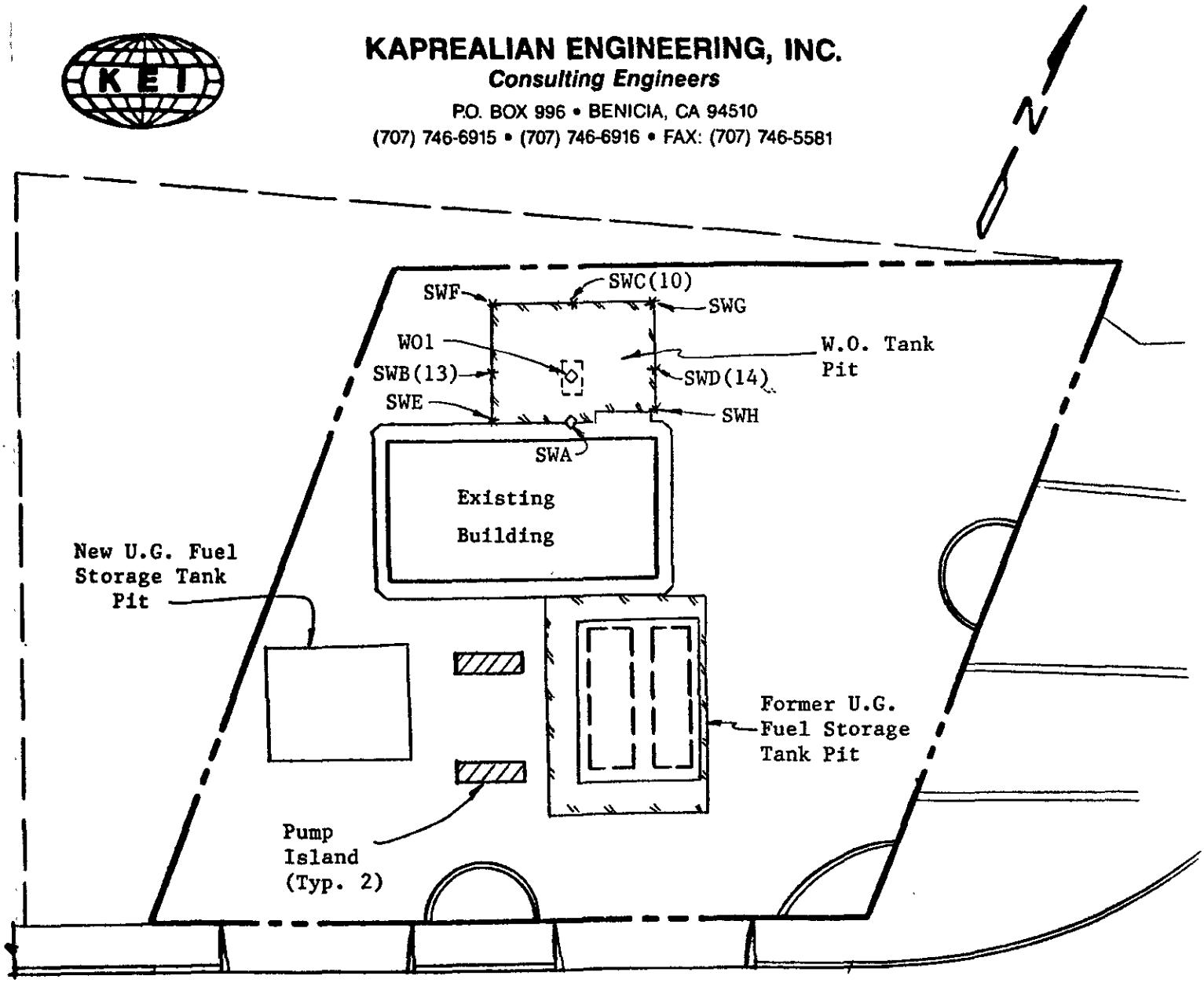
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



SITE PLAN
Figure 4

LEGEND

* Sample Point Location

◇ Previous Sample Point Location

Area of Additional Excavation

Unocal S/S #5901
11976 Dublin Blvd.
Dublin, CA

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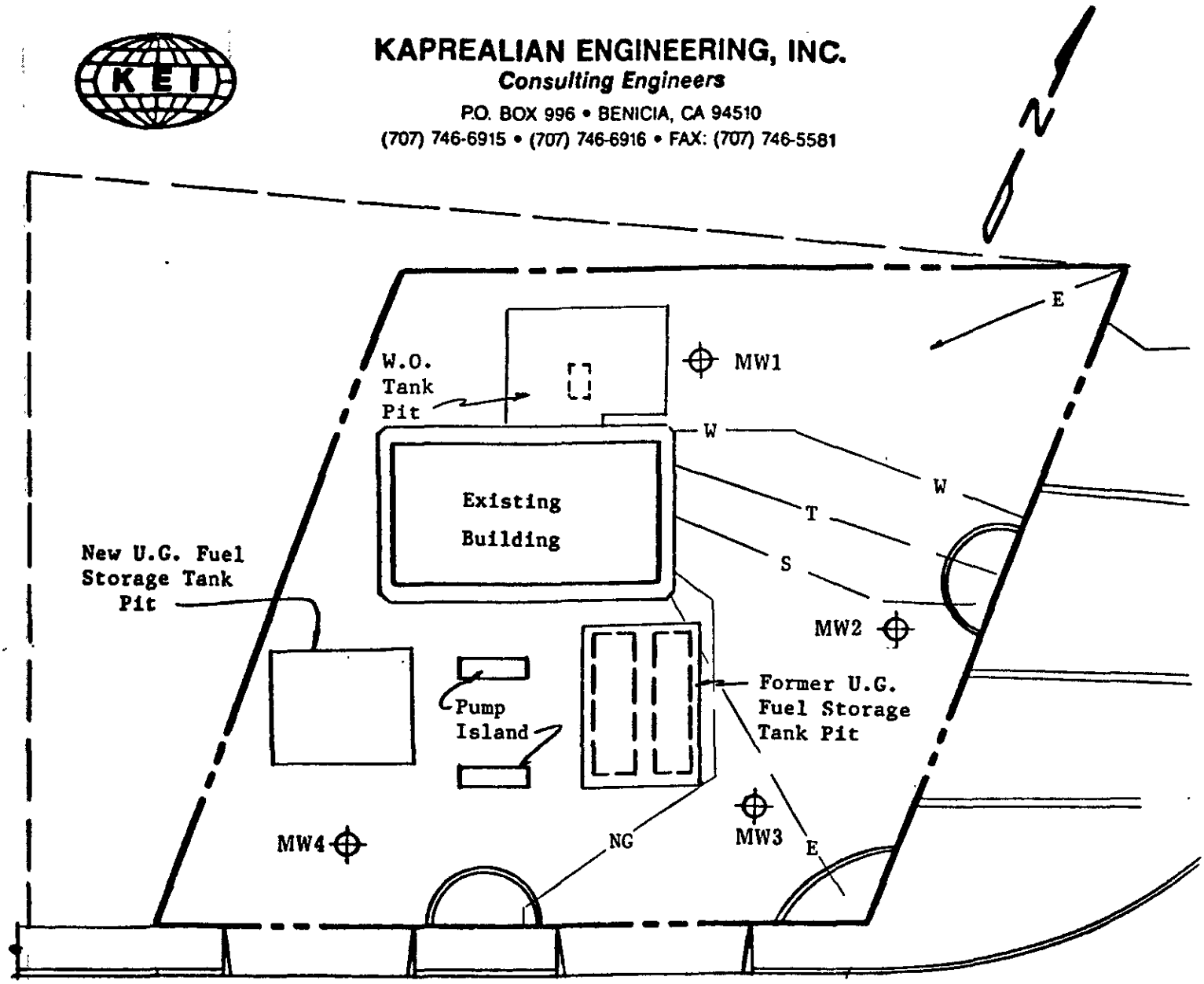
Consulting Engineers
P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



SITE PLAN
Figure 5

LEGEND

⊕ Monitoring Well

Unocal S/S #5901
11976 Dublin Blvd.
Dublin, CA

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 16, 1990
P.O. Box 996	Matrix Descript:	Soil	Received:	relogged 7/18
Benicia, CA 94510	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 19, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-2513	Reported:	Jul 19, 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)
007-2513	SWB (13)	N.D.	N.D.	0.0095	N.D.	N.D.
007-2514	SWC (10)	1.1	0.0061	0.030	0.024	0.044
007-2515	SWD (14)	N.D.	0.0052	0.015	N.D.	N.D.
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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
Project Manager

72513.KEI <2>

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 16, 1990
P.O. Box 996	Matrix Descript:	Soil	Received:	relogged 7/18
Benicia, CA 94510	Analysis Method:	EPA 3550/8015	Extracted:	Jul 18, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-2513	Analyzed:	Jul 18, 1990
			Reported:	Jul 19, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-2513	SWB (13)	N.D.
007-2514	SWC (10)	N.D.
007-2515	SWD (14)	N.D.

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.

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

72513.KEI <3>

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 16, 1990
P.O. Box 996	Matrix Descript:	Soil	Received:	Jul 17, 1990
Benicia, CA 94510	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 17, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-2513	Analyzed:	Jul 18, 1990
			Reported:	Jul 18, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-2513	SWB (13)	N.D.
007-2514	SWC (10)	N.D.
007-2515	SWD (14)	N.D.

Detection Limits:	**30**

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

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 16, 1990
P.O. Box 996	Sample Descript:	Soil, SWB (13)	Received:	relogged 7/18
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 19, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number:	007-2513	Reported:	Jul 19, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

Belinda C. Vega
Project Manager

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 16, 1990
P.O. Box 996	Sample Descript:	Soil, SWC (10)	Received:	relogged 7/18
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 19, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number:	007-2514	Reported:	Jul 19, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

Belinda C. Vega
Project Manager

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(415) 364-9600 • FAX (415) 364-9233

Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 16, 1990
P.O. Box 996	Sample Descript:	Soil, SWD (14)	Received:	relogged 7/18
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 19, 1990
Attention: Mardo Kaprealian, P.E.	Lab Number:	007-2515	Reported:	Jul 19, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

Belinda C. Vega
Project Manager

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: R.M. Bradeal

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal #5901, 11976 Dublin Blvd, Dublin

TURN AROUND TIME: 24 HR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TOG	TPH-Gasoline	TPH-D	8010	REMARKS
SWB(13)	7-16-90		✓		✓		1	W.O. TK Pit - Side	✓		007	7503	RUN TOG ONLY INITIALLY. BALANCE OF TESTS MAY OR MAY NOT BE REQ'D BASED ON TOG RESULTS
SWC(10)	"		✓		✓		1	" " " "	✓		7	7518	
SWD(4)	"		✓		✓		1	" " " "	✓		✓	7515	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
R.M. Bradeal	7/17/90 1045	Tom M' Tom
Tom M' Tom	7/17/90 1240	K. Walters 7/17/90 12:45

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice?
2. Will samples remain refrigerated until analyzed?
3. Did any samples received for analysis have head space?
4. Were samples in appropriate containers and properly packaged?

Signature | Title | Date

SEQUOIA ANALYTICAL

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Matrix Descript:	Soil	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 23, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-3525	Reported:	Jul 24, 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)
007-3525	SWE	N.D.	N.D.	0.031	N.D.	N.D.
007-3526	SWF	N.D.	N.D.	0.029	0.0059	0.013
007-3527	SWG	N.D.	N.D.	0.028	N.D.	N.D.
007-3528	SWH	N.D.	N.D.	0.015	N.D.	N.D.
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

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

for Belinda C. Vega
Project Manager

SEQUOIA ANALYTICAL

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(415) 364-9600 • FAX (415) 364-9233

Kapreallan Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Matrix Descript:	Soil	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	EPA 3550/8015	Extracted:	Jul 20, 1990
Attention: Mardo Kapreallan, P.E.	First Sample #:	007-3525	Analyzed:	Jul 23, 1990
			Reported:	Jul 24, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-3525	SWE	N.D.
007-3526	SWF	N.D.
007-3527	SWG	N.D.
007-3528	SWH	N.D.

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.

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Matrix Descript:	Soil	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 23, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-3525	Analyzed:	Jul 23, 1990
			Reported:	Jul 24, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-3525	SWE	N.D.
007-3526	SWF	N.D.
007-3527	SWG	N.D.
007-3528	SWH	N.D.

Detection Limits:	30

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

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Sample Descript:	Soil, SWE	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 23, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number:	007-3525	Reported:	Jul 24, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

for Belinda C. Vega
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Sample Descript:	Soil, SWF	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 23, 1990
Attention: Mardo Kaprealian, P.E.	Lab Number:	007-3526	Reported:	Jul 24, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

Belinda C. Vega
Project Manager

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Kaprealian Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Sample Descript:	Soil, SWG	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 23, 1990
Attention: Mardo Kaprealian, P.E.	Lab Number:	007-3527	Reported:	Jul 24, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

Belinda C. Vega
Project Manager

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Kapreallan Engineering, Inc.	Client Project ID:	Unocal #5901, Dublin, 11976 Dublin Blvd.	Sampled:	Jul 20, 1990
P.O. Box 996	Sample Descript:	Soil, SWH	Received:	Jul 20, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 23, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number:	007-3528	Reported:	Jul 24, 1990

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	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	10	N.D.
1,3-Dichlorobenzene	10	N.D.
1,4-Dichlorobenzene	10	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
Total 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	10	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

Belinda C. Vega
Project Manager

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: E.M. Bradock

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal #5901, 11976 Dublin Blvd, Dublin, CA

ANALYSES REQUESTED: TPH-G & BTEX | TPH-D | TOG | 8010

TURN AROUND TIME: 24 HR

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	REMARKS
SWE	7/19/90		✓		✓		1	W.O. TK PIT-SIDE	007 3525
SWF	"		✓		✓		1	" " "	3526
SWG	"		✓		✓		1	" " "	3527
SWH	"		✓		✓		1	" " "	3528

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
E.M. Bradock	7/20/90 300	Tim McCoy
Tim McCoy		
		K. Wolden 7/20 4:30pm

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? ✓
2. Will samples remain refrigerated until analyzed? ✓
3. Did any samples received for analysis have head space? NO
4. Were samples in appropriate containers and properly packaged? ✓

KC (Signature) RPS (Title) 7/20/90 (Date)

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, Dublin, 11976 Dublin Ave.	Sampled:	Jul 19, 1990
P.O. Box 996	Sample Descript.:	Water, W3	Received:	Jul 19, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/ 8015/8020	Analyzed:	Jul 20, 1990
Attention: Mardo Kaprealian, P.E.	Lab Number:	007-3214 A-B	Reported:	Jul 23, 1990

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

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Low to Medium Boiling Point Hydrocarbons	30	N.D.
Benzene	0.30	N.D.
Toluene	0.30	N.D.
Ethyl Benzene	0.30	N.D.
Xylenes	0.30	N.D.

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
Project Manager

Please Note:
Amended report dated: 7/24/90

SEQUOIA ANALYTICAL

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

Kapreallan Engineering, Inc.	Client Project ID:	Unocal, Dublin, 11976 Dublin Ave.	Sampled:	Jul 19, 1990
P.O. Box 996	Sample Descript:	Water, W3	Received:	Jul 19, 1990
Benicia, CA 94510	Analysis Method:	EPA 5030/8010	Analyzed:	Jul 20, 1990
Attention: Mardo Kapreallan, P.E.	Lab Number:	007-3214 C-D	Reported:	Jul 23, 1990

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	1.0	N.D.
Bromoform	1.0	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	1.0	N.D.
Chlorobenzene	1.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	0.50	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	1.0	N.D.
Total 1,2-Dichloroethene	1.0	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	2.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	2.0	N.D.

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

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

Please Note:
Amended report dated: 7/24/90

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, Dublin, 11976 Dublin Ave.	Sampled:	Jul 19, 1990
P.O. Box 996	Matrix Descript:	Water	Received:	Jul 19, 1990
Benicia, CA 94510	Analysis Method:	EPA 3510/8015	Extracted:	Jul 19, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-3214 E	Analyzed:	Jul 20, 1990
			Reported:	Jul 23, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons µg/L (ppb)
0073214 E	W3	N.D.

Detection Limits:	50

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.

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

Please Note:
Amended report dated: 7/24/90

SEQUOIA ANALYTICAL

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

Kaprealian Engineering, Inc.	Client Project ID:	Unocal, Dublin, 11976 Dublin Ave.	Sampled:	Jul 19, 1990
P.O. Box 996	Matrix Descript:	Water	Received:	Jul 19, 1990
Benicia, CA 94510	Analysis Method:	SM 503 A&E (Gravimetric)	Extracted:	Jul 20, 1990
Attention: Mardo Kaprealian, P.E.	First Sample #:	007-3214 F	Analyzed:	Jul 23, 1990
			Reported:	Jul 23, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)
0073214 F	W3	N.D.

Detection Limits:	5.0

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

SEQUOIA ANALYTICAL

Belinda C. Vega
Project Manager

Please Note:
Amended report dated: 7/24/90

KAPREALIAN ENGINEERING, INC.

CHAIN OF CUSTODY

SAMPLER: [signature]

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal - Dublin, 11976 Dublin Ave.

ANALYSES REQUESTED: TPH Gas; BTEX; TPH Diesel; TOG; 8010

TURN AROUND TIME: 24 HRS.

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH Gas	BTEX	TPH Diesel	TOG	8010
WS ~~WW~~	7/19	2¼		x	x		4 VOA 2 LH	WO - P.T.	X	X	X	X	X

REMARKS: Need result by tomorrow 7/20/90 by 5⁰⁰ p.m.

0073214

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	7/19/90	[signature]
[signature]	7/19 6:30	[signature]

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? yes
2. Will samples remain refrigerated until analyzed? yes
3. Did any samples received for analysis have head space? no
4. Were samples in appropriate containers and properly packaged? yes

[signature] — Signature; Login — Title; 7/19 — Date