ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 26, 2000

STID 2422

Mr. David De Witt
Tosco Marketing Company
2000 Crow canyon Place, Ste. 400
San Ramon, CA 94583

RE: Unocal Service Station #6277, 15803 East 14th Street, San Leandro

Dear Mr. De Witt:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]) of the California Health and Safety Code. The State Water Resources Control Board (SWRCB) has required since March 1, 1997 that this agency use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at this site.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Up to 510 micrograms per liter (ug/l) Total Petroleum Hydrocarbons as Gasoline (TPH-G), 72 ug/l Benzene, and 390 ug/l MtBE are present in groundwater beneath the site.
- Up to 1100 milligrams per kilogram (mg/kg) TPH-G, 8 mg/kg Benzene, and 1300 mg/kg Oil & Grease are present in soil at depths between 5 and 15' below grade.

If you have any questions, please contact the undersigned at (510) 567-6783.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

Enclosures:
1. Case Closure Letter
2. Case Closure Summary

cc: Ariu Levi, Chief, Environmental Protection
Matthew Coelho, 18616 Hwy 33 East, Dos Palos, CA 93620-9620 **(w/attachment)**

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 26, 2000

STID 2422

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. David De Witt
Tosco Marketing Company.
2000 Crow Canyon Place, Ste. 400
San Ramon, CA 94583

RE: Unocal Service Station #6277, 15803 E. 14th Street, San Leandro

Dear Mr. De Witt:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director, Environmental Health Services

c: Chuck Headlee, RWQCB
Allan Patton, SWRCB **(w/attachment)**
Matthew Coelho, 18616 Hwy 33 East, Dos Palos, CA 93620-9620 **(w/attachment)**
SOS/files

505 STID 2422

ENVIRONMENTAL PROTECTION

00 JUN 19 AM 9:00

TOSCO
Marketing
Company

2000 Crow Canyon Place
Suite 400
San Ramon, CA 94583
925.277.2305
fax: 925.277.2361

**Environmental
Compliance
Department**

June 15, 2000

Mr. Thomas Peacock
Manager - LOP
Alameda County – Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: No Further Action
Tosco/76 Products Service Station # 6277
15803 East 14th Street
San Leandro, CA

Dear Mr. Peacock:

As requested in your June 12, 2000 letter, I certify that I have notified the fee title holder of the subject property of the proposed action by Alameda County. I have included a copy of the letter I sent to Matthew and Ellamae Coelho with regards to the proposed "No Further Action".

If you have any additional questions or concerns, please feel free to contact me at 925-277-2384.

Sincerely,

David B. De Witt
Environmental Project Manager

TOSCO
Marketing
Company

2000 Crow Canyon Place
Suite 400
San Ramon, CA 94583
925.277.2305
fax: 925.277.2361

**Environmental
Compliance
Department**

June 15, 2000

Matthew and Ellamae Coelho
18616 Hwy 33
Dos Palos, CA 93620-9620

Re: No Further Action
Tosco/76 Products Service Station # 6277
15803 East 14th Street
San Leandro, CA

Dear Matthew and Ellamae Coelho:

Alameda County Health Care Services – LOP has determined that Tosco Corporation has completed the necessary environmental work at this site and that a finding of "No Further Action" is being considered. I have attached a copy of this notification for your records. As required by the Health and Safety Code (Ch. 6.7 – section 25297.15), I am notifying you, as the fee title holder, of this proposed action.

If you have questions or concerns on this subject, please feel free to call me at 925-277-2384.

Sincerely,

David B. De Witt
Environmental Project Manager

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 12, 2000

STID 2422

Mr. David De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Ste. 400
San Ramon, CA 94583

RE: Unocal Service Station #6277, 15803 E. 14th Street, San Leandro

INTENT TO MAKE A DETERMINATION THAT NO FURTHER ACTION IS REQUIRED

Dear Mr. De Witt:

This letter is to inform you that Alameda County Environmental Health Department, Local Oversight Program (LOP), intends to make a determination that no further action is required at the above site, as concurrence from the Regional Water Quality Control Board (RWQCB) has been received. Please notify this agency of any input and recommendations you may have on these proposed actions within 20 days of the date of this letter.

In accordance with section 25297.15 of Ch. 6.7 of the Health & Safety Code, you must provide certification to the local agency that all of the current record fee title owners have been informed of the proposed action. Please provide this certification to this office within 20 days of the date of this letter.

If you have any questions about these proposed actions, please contact Scott Seery at (510) 567-6783.

Sincerely,

Thomas Peacock
Manager, LOP

cc: Chuck Headlee, RWQCB
Scott Seery, ACDEH LOP

RB# 01-1577

ENVIRONMENTAL PROTECTION

00 JUN -9 PM 4:19

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 04/29/98

Agency name: **Alameda County-EPD** Address: **1131 Harbor Bay Pkwy #250**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Scott Seery** Title: **Haz. Materials Spec.**

II. CASE INFORMATION

Site facility name: **Unocal Station #6277**
Site facility address: **15803 E.14th Street, San Leandro 94578**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **2422**
URF filing date: 03/16/89 SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Tosco Marketing Co. Attn: David deWitt	P.O. Box 5155 San Ramon, CA 94583	(925) 277-2384
Mathew & Ella Coelho	18616 Hwy 33 East Dos Palos, CA 93620-9620	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	10,000	gasoline	removed	03/13/89
2	10,000	"	"	"
3	550	waste oil	"	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: UNK (failed integrity test lead to UST removals)

Site characterization complete? YES

Date approved by oversight agency:

Monitoring Wells installed? YES Number: 7

Proper screened interval? YES

Highest GW depth below ground surface: 5.85' Lowest depth: 11.34' (stabilized)

Flow direction: predominately NW - N

Most sensitive current use: commercial (adjoined by apts.)

Are drinking water wells affected? NO Aquifer name: San Leandro cone

Leaking Underground Fuel Storage Tank Program

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Is surface water affected? NO Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations): NONE

Report(s) on file? **YES** Where is report filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	(2 x 10K; 1x 550 gal)	Disposal – UNK (but presumed to have gone to Erickson, Richmond, CA)	3/89
Piping	Unk	as above	
Free Product	NA		
Soil	162 tons	Disposal – Casmalia LF Casmalia, CA	4/14/89
	1000 yds^3	Disposal – Redwood LF Novato, CA	4/4/89 - 4/18/89
	218 tons	Disposal – Petroleum Waste Buttonwillow, CA	5/18/89
	1060 yds^3	Disposal – Mt. View dump Mt. View, CA	9/5/89 9/11/89
	2.4 tons	Disposal – GSX Services Buttonwillow, CA	11/1/89
	673 tons	Disposal – GSX Services Buttonwillow, CA	4/13/90 – 4/16/90
Groundwater	19,400 gal	Disposal – H& H Ship Svc. So. S.F., CA	3/21/89 & 4/2/90 – 4/5/90

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil[1] (ppm)		Water[2,3] (ppb)	
	Before	After	Before	After
TPH (Gas)	3500	1100	19,000	510
TPH (Diesel)	ND	6.2	NA	NA
Benzene	40	8	230	72
Toluene	280	43	79	ND
Xylene	600	230	1300	17

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil[1] (ppm) Before	After		Water[2,3] (ppb) Before	After
Ethylbenzene	100	37		ND	ND
MtBE	NA	NA		NA	390
Oil & Grease	7700	1300		NA	NA
Heavy metals	NA	NA		"	"
Other **HVOC** *TCE*	0.063	ND	*TCE*	*4.4*	*ND*
			PCE	*110*	*950*
			DCA	*2.8*	*ND*

Note: 1) *All "before" soil results compiled from initial sidewall samples collected during March 1989 fuel UST closures, except for O&G, TCE and TPH-D results. O&G and TCE results from the 5' sample collected during advancement of well/boring MW-2 in May 1989. TPH-D result derived from a sample collected from the base of the waste oil UST pit following tank removal. All "after" soil results from sidewall samples collected after the 1990 over-excavation of the general area of former well MW-2, except for O&G. O&G result from the 5' soil sample collected from well/boring MW-2A in 1991.*

2) "Before" water results from sample collected from the fuel UST excavation during 1989 closures, except as otherwise indicated. All "after" water results reflect samples collected from well MW-1 in November 1996, except as otherwise indicated.

3) "Before" HVOC water results from initial sample collected from well MW-2 in June 1989. "After" water results from sample collected from well MW-3 in January 1996.

Comments (Depth of Remediation, etc.):

During March 1989 three (3) single wall steel USTs were removed from this site. Two 10,000 gasoline and one 550 gallon waste oil USTs were closed during this effort. The original USTs were replaced by double-wall tanks emplaced elsewhere at the site. Tank replacement appears to have been prompted by a series of failed integrity tests in the years and months preceding this effort.

Ground water was encountered in the fuel tank pit at a depth of ~11 feet BG. Consequently, sidewall samples, six in all, were initially collected from the excavation a foot above stabilized water level. A single soil sample was collected from the base of the shallower waste oil tank pit. In addition, soil samples were also collected from the product piping trenches.

Initial subjective evidence prompted the contractor to expand the fuel tank excavation laterally in two rounds, at which point additional sidewall samples were collected. This expanded excavation encroached on and engulfed the former waste oil UST location as well. Following the initial over-excavation effort, a reported ~5000 gallons of water was pumped from the excavation, and ~14,500 gallons during the second. A water sample was collected from ground water that collected in the expanded tank pit.

Initial soil samples from the fuel UST pit revealed up to 3500 ppm TPH-G and 40 ppm benzene, among other detected fuel compounds. Over-excavation samples demonstrated a marked reduction in contaminant concentrations, with a TPH-G high of 100 ppm and benzene high of 3.1 ppm. Although the initial waste oil UST pit sample identified the presence of TOG (280 ppm), no 8240 compounds were identified above laboratory detection limits. The water sample, however, revealed up to 19,000 ug/l TPH-G and 230 ug/l benzene, among other detected fuel components.

Significant soil was removed from the enlarged UST excavation and stockpiled on-site during the 1989 (and subsequent 1990) activities. All soil was eventually disposed of at various California waste facilities between April 1989 and April 1990. (*See*: Section III. Release and Site Characterization Information)

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? _____

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? _____

Does corrective action protect public health for current land use? YES
Site management requirements: NA

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned: YES (1)

Number Decommissioned: 1 Number Retained: 6 (pending case closure)

List enforcement actions taken: NONE

List enforcement actions rescinded: NONE

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Scott Seery Title: Haz Mat Specialist
Signature: Date: 4-21-00

Reviewed by
Name: Tom Peacock Title: Supervising Haz Mat Specialist
Signature: Date: 4-21-00

Name: Eva Chu Title: Haz Mat Specialist
Signature: Date: 4/20/00

Leaking Underground Fuel Storage Tank Program

VI. RWQCB NOTIFICATION

Date Submitted to RB: 4-21-00 RB Response: Concur Chuck Headlee
RWQCB Staff Name: Chuck Headlee Title: Eng. Assoc. Date: 4/28/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

In preparation for the 1989 tank replacement project, exploratory borings were advanced in the area of the site chosen for the new USTs. Borings EB-1 and -2 were advanced up to 13.5' BG. Ground water was encountered between 11 and 12' BG. Soil samples collected at the 5 and 10' depths revealed some degree of impact by fuel compounds, most evident in the 10' samples, a depth consistent with that of ground water at the site.

Following UST closures, four (4) monitoring wells were installed at the site during May 1989. Total well depths ranged from 24.5 to 25' BG, with 19.5' well screens. Encountered sediments were primarily fine-grained to depths explored. Ground water stabilized between approximately 10 and 11' BG.

Elevated concentrations TOG (7700 ppm), benzene (13 ppm), as well as detectable concentrations of TCE (0.063 ppm) and other fuel components, were identified in the 5' soil sample collected from well boring MW-2.

Detectable fuel components were also identified in shallow soil samples collected from the other well borings, but were present at unremarkable concentrations.

Initial water samples identified detectable TPH-G in samples collected from each well; all BTEX components were "ND". However, detectable concentrations of PCE (110 ug/l), 1,2-DCA (2.8 ug/l), and TCE (4.4 ug/l) were noted in water sampled from MW-2.

As a consequence of soil contamination noted during advancement of well boring MW-2, this well was eventually destroyed and the area around it excavated in early 1990 to a depth of approximately 12' BG. Soil samples were collected from the sidewalls of the resultant excavation. Up to 1100 ppm TPH-G, 8 ppm benzene, and 210 ppm TOG, among other constituents, were identified in these samples, collected at the 10.5' depth. HVOC compounds were "ND".

Well MW-2 was eventually replaced by well MW-2A in a location 30' northwest of its original location. Up to 1300 ppm TOG was identified in the 5' sample collected during boring advancement.

Due to the regular occurrence of PCE, TCE and 1,2-DCA in sampled ground water, a review of records documenting historic site activities was performed in 1993. Reported site history indicates the site was first developed as a gas station from an empty lot in 1969. No likely on-site source of the HVOC impact was identified. The potential for an off-site HVOC source is further supported by the fact that the highest HVOC concentrations have been found in samples collected from wells MW-3 and -4, located on the upgradient side of the subject site, close to property margins. Hence, HVOCs detected in these wells are likely coming from a source (e.g., leaching sanitary sewer lines, etc.) upgradient of the site.

VII. ADDITIONAL COMMENTS, DATA, ETC. (Continued)

Following several quarters of ground water and sampling, two additional wells (MW-5 and -6) were installed in the adjoining apartment complex to assess potential off-site impacts from the UST release at this site. Some impact, albeit minor, was identified.

Well sampling continued through November 1996. Groundwater flow has predominantly ranged from SW to N during the course of the investigation.

Water sampled from well MW-1 continued to show the highest concentrations of fuel hydrocarbons throughout the duration of this investigation. As well MW-1 is the most downgradient of the wells at the site, an off-site study was conducted in March 1997 to assess any impacts in the downgradient direction. Three Geoprobe boreholes (EB-3, -4, and -5) were advanced through E. 14th Street in a northerly transect from the site. No detectable target compounds were identified in either soil or ground water samples.

This case appears be a "Low Risk Groundwater Case", as described in the January 5, 1996 San Francisco Bay Regional Water Quality Control memorandum entitled "*Regional Board Supplemental Instructions to State water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites,*" as follows:

1) **The leak has been stopped and ongoing sources, including free product, have been removed or remediated.**

The subject tanks were removed in 1989. Free product has not been known to occur at the site.

2) **The site has been adequately characterized.**

A 6-well network of wells was installed, monitored, and sampled over the course of several years. Additional sampling points were installed downgradient of the site. These points have allowed an adequate confirmation of underlying geology, groundwater flow, and contaminant extent.

3) **The dissolved hydrocarbon plume is not migrating.**

The plume appears stable. Hydrocarbon concentrations have attenuated over time, and appear limited in extent.

4) **No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.**

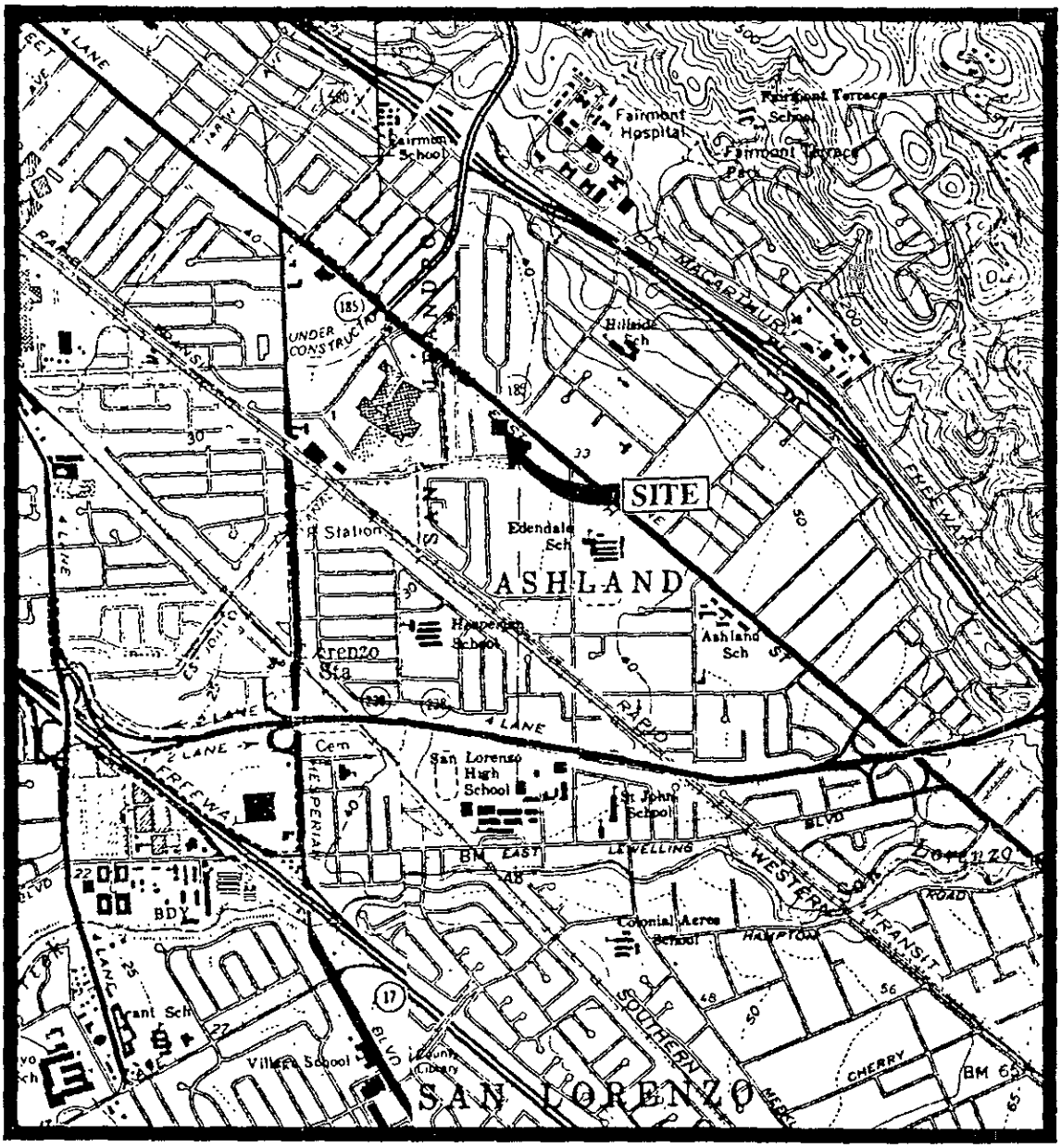
There are no known municipal or residential water wells or surface water bodies within 750' downgradient of the subject site that would be impacted by shallow groundwater from this site.

5) **The site presents no significant risk to human health.**

Comparison of ASTM E 1739-95 *Risk Based Screening Levels (RBSL)* with site-specific concentration and occurrence of risk-driving target compounds (e.g., benzene) in groundwater demonstrate that RBSL values are not exceeded for plausible exposure pathways at the 1E-05 risk level for a commercial/industrial site. Residual benzene soil concentrations (based on 1990 soil data) exceed RBSL values for the soil-vapor-intrusion-to-buildings exposure pathway at the 1E-04 risk level. However, default criteria used to calculate the published RBSLs use exceedingly conservative input parameters (e.g., sandy soil texture). Site-specific geology (clay) and asphalt cap are much less conducive to vertical vapor transport to potential receptor locations at the site.

6) **The site presents no significant risk to the environment.**

No environmental receptors are known or expected to be proximal to the site.

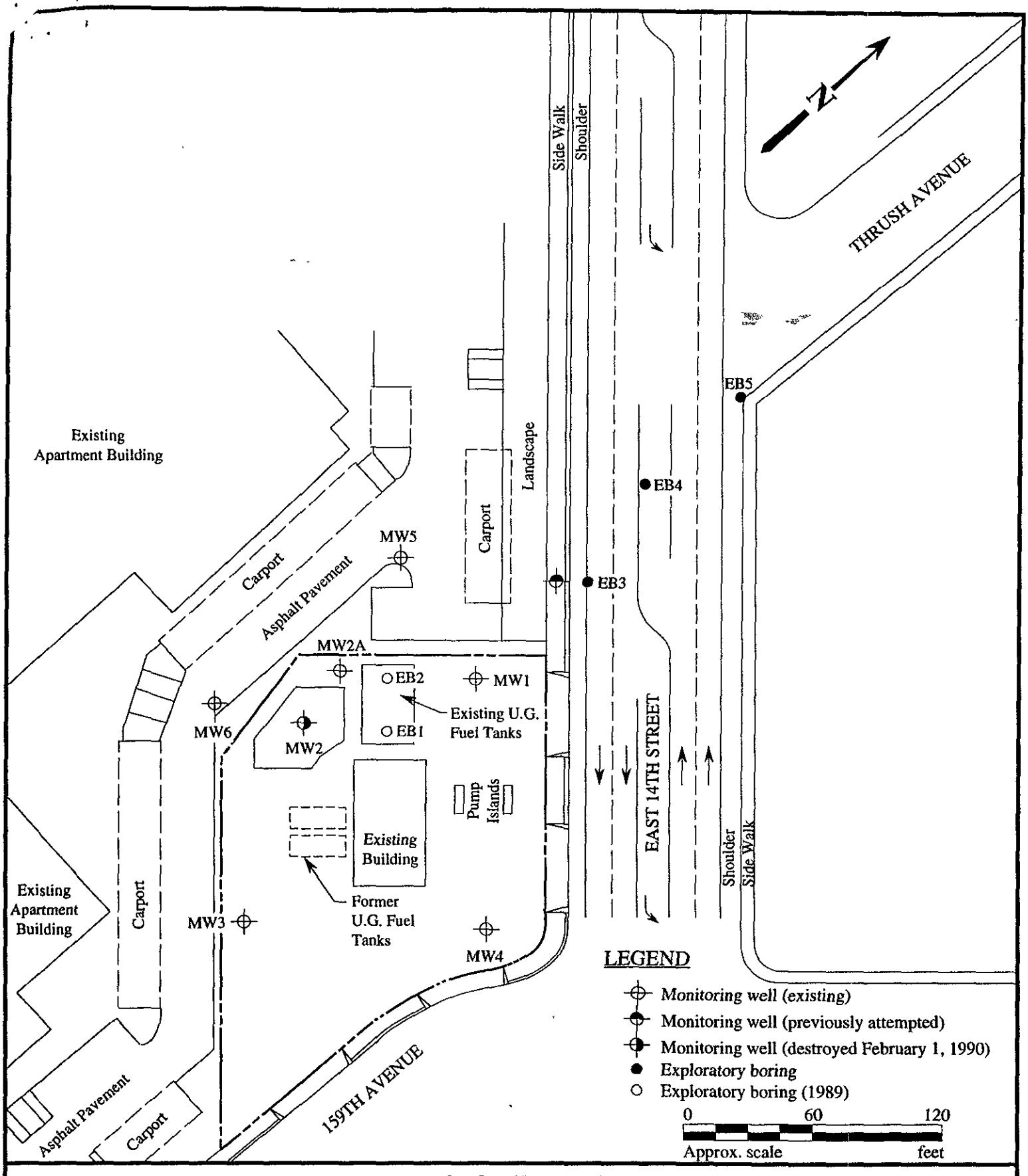


Base modified from 7.5 minute U.S.G.S.
Hayward and San Leandro *Quadrangles*
(both photorevised 1980)

0 2000 4000

Approx. scale feet

KAPREALIAN ENGINEERING INCORPORATED	**UNOCAL SERVICE STATION #6277** **15803 E. 14TH STREET** ***SAN LEANDRO, CALIFORNIA***	**LOCATION MAP**



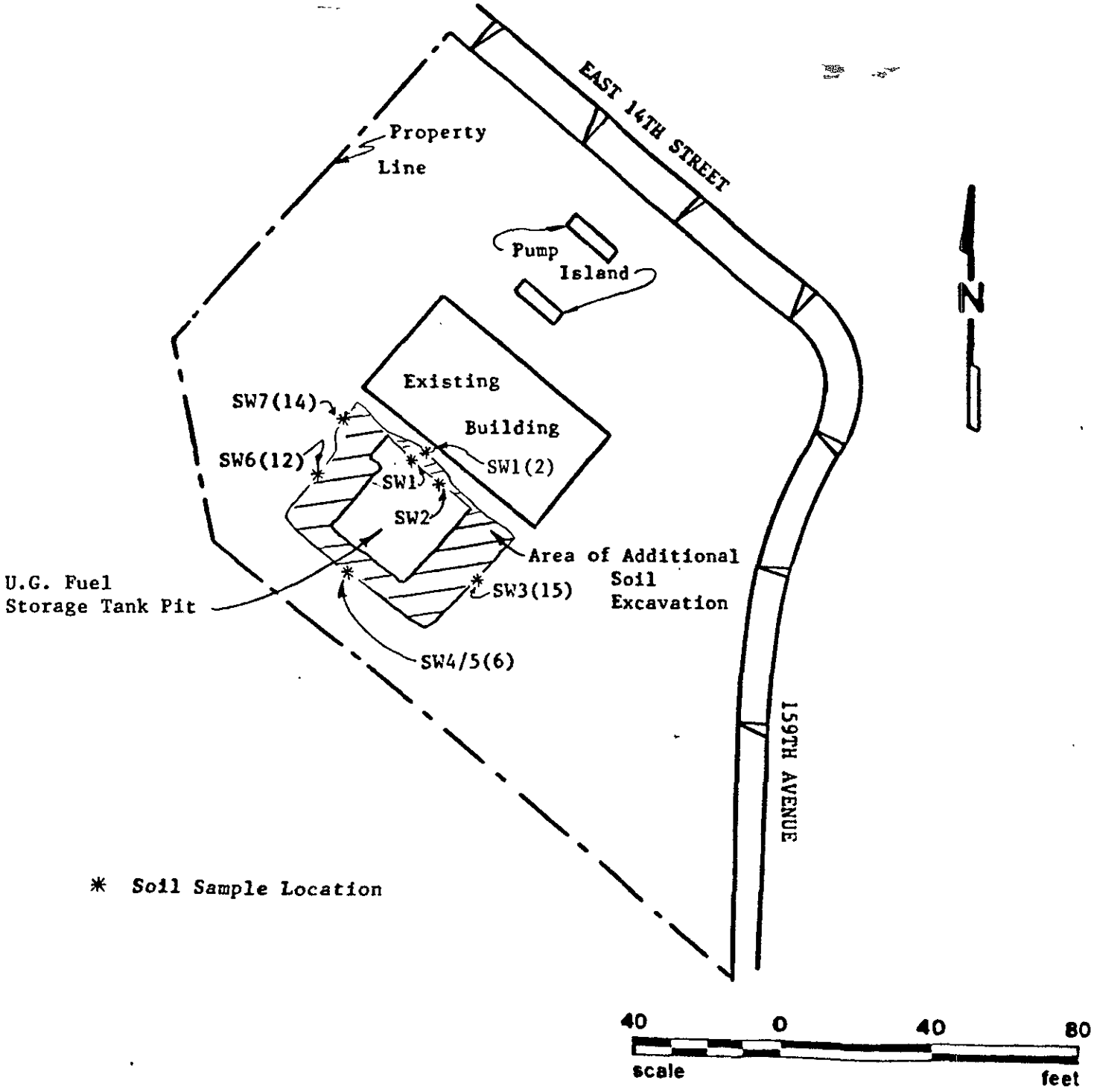
SITE VICINITY MAP

KAPREALIAN ENGINEERING
INCORPORATED

5/6/97 report
UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE
1

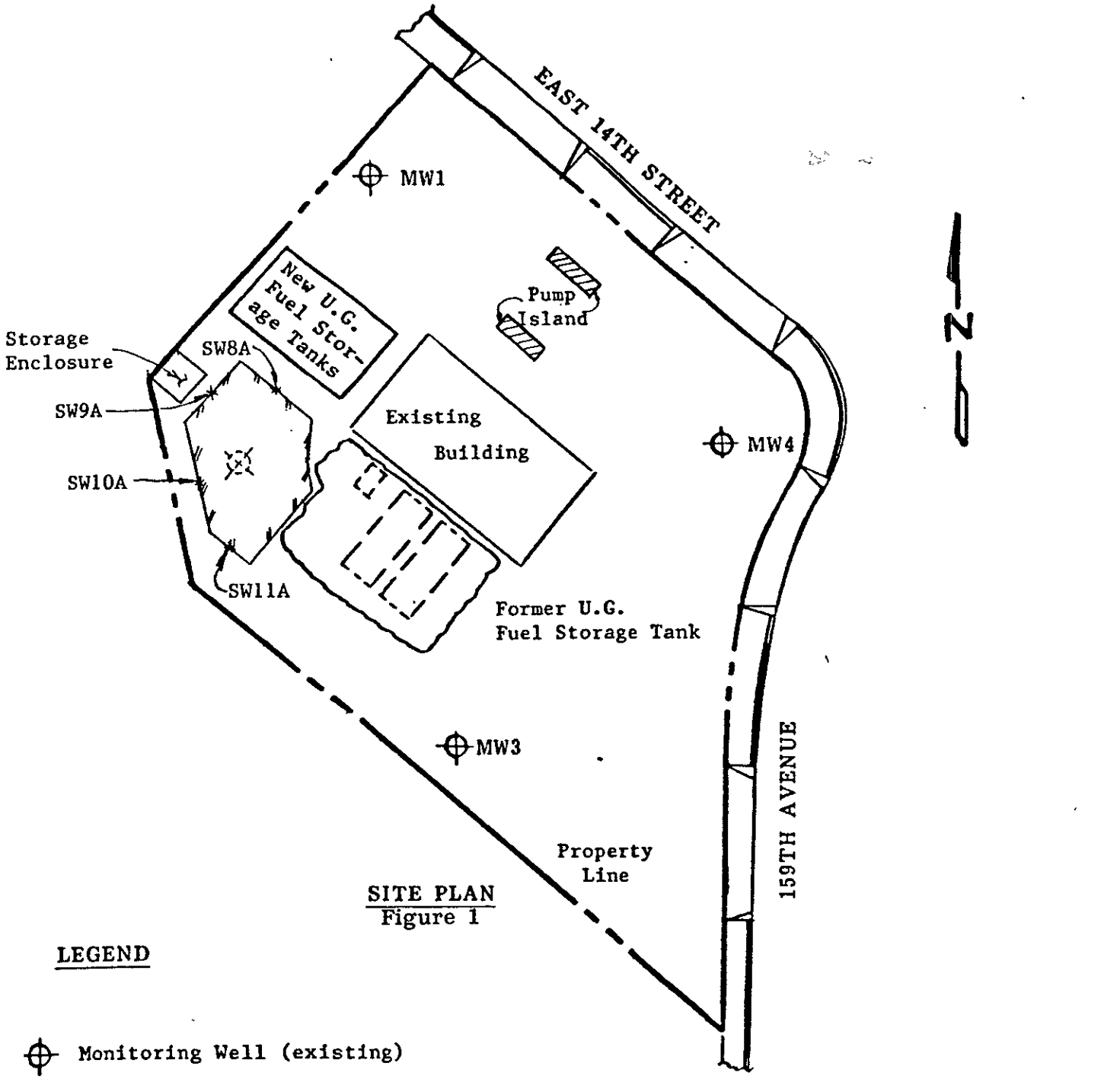
KAPREALIAN ENGINEERING, INC.
Consulting Engineers
P. O. BOX 913
BENICIA, CA 94510
(415) 676-9100 (707) 746-6915



SITE PLAN
Figure 1

Unocal Service Station #6277
15803 East 14th Street
San Leandro, California

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



SITE PLAN
Figure 1

LEGEND

- Monitoring Well (existing)
- Monitoring Well (abandoned)
- Area of Excavation
- * Sample Point Location

0 40 80
Approx. Scale feet

Unocal Service Station #6277
15803 East 14th Street
San Leandro, California

Table 1A

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW1	11/25/96	510♦	72	ND	ND	17	390
	7/1/96	ND	ND	ND	ND	ND	230
	4/8/96	2,100	43	27	7.4	21	480
	1/10/96	220	35	ND	2.0	7.6	†
	7/14/95	410	77	ND	7.4	30	--
	4/4/95	410♦	19	ND	ND	ND	--
	1/5/95	780	30	ND	ND	9.1	--
	10/6/94	970	19	ND	ND	13	--
	7/7/94	2,100♦♦	250	ND	57	200	--
	4/4/94	1,100	15	ND	ND	7.4	--
	1/6/94	260	21	ND	2.5	14	--
	10/6/93	1,200♦	36	ND	ND	23	--
	7/1/93	510	100	0.79	5.7	52	--
	4/2/93	690	94	0.73	5.3	39	--
	1/29/93	740♦♦	69	ND	3.8	43	--
	10/20/92	720	110	1.4	18	110	--
	7/20/92	630	100	2.8	6.3	52	--
	4/23/92	530	100	7.9	4.6	60	--
	1/13/92	450	240	4.6	8.6	73	--
	9/10/91	280	38	3.1	4.1	22	--
	6/10/91	310	1.5	ND	ND	0.31	--
	3/15/91	110	21	ND	ND	8.4	--
	12/14/90	450	150	6.8	0.28	49	--
	9/19/90	140	ND	ND	ND	3.5	--
	6/25/90	310	10	0.89	0.37	2.1	--
	3/29/90	320	12	1.6	0.31	3.5	--
	12/12/89	340	100	13	3.4	44	--
	9/13/89	550	32	17	3.4	52	--
	6/6/89	590	ND	ND	ND	ND	--
MW2A	11/25/96	86♦	0.82	ND	ND	ND	ND
	7/1/96	170	2.4	ND	0.65	2.0	ND
	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	89	1.2	ND	ND	0.58	--
	7/14/95	60	3.0	ND	1.3	2.4	--
	4/4/95	67♦	1.0	ND	ND	ND	--
	1/5/95	140♦	1.4	ND	ND	ND	--
	10/6/94	71	6.4	ND	2.1	2.4	--
	7/7/94	90	5.2	ND	1.5	2.2	--
	4/4/94	80	8.0	ND	1.4	1.5	--
	1/6/94	110	2.6	ND	1.6	1.7	--
	10/6/93	110♦	12	ND	7.4	1.4	--
	7/1/93	74♦	0.75	ND	ND	ND	--
	4/2/93	120	7.2	ND	5.8	1.2	--

Table

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW2A (Cont)	10/20/92	96	2.8	ND	1.8	1.6	--
	7/20/92	99	8.6	ND	2.4	0.95	--
	4/23/92	190	15	ND	15	2.0	--
	1/13/92	160	11	2.0	10	5.9	--
	9/10/91	180	8.7	0.93	15	13	--
	6/10/91	54	1.2	ND	ND	0.69	--
	3/15/91	160	2.5	ND	ND	51	--
MW2	12/12/89	660	220	6.6	13	36	--
	9/13/89	170	2.0	0.38	ND	9.5	--
	6/6/89	77	ND	ND	ND	ND	--
MW3	11/25/96	120♦	ND	ND	ND	ND	ND
	7/1/96	ND	ND	ND	ND	ND	ND
	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	100♦	ND	ND	ND	ND	--
	7/14/95	130♦	ND	ND	1.3	4.2	--
	4/4/95	100♦	0.62	ND	ND	ND	--
	1/5/95	140♦	ND	ND	ND	ND	--
	10/6/94	93♦	ND	ND	ND	ND	--
	7/7/94	190♦	ND	ND	ND	ND	--
	4/4/94	170♦	ND	ND	ND	ND	--
	1/6/94	140♦	ND	ND	ND	ND	--
	10/6/93	140♦	ND	ND	ND	ND	--
	7/1/93	120♦	ND	ND	ND	ND	--
	4/2/93	130♦	ND	ND	ND	ND	--
	1/29/93	130♦	0.84	ND	ND	ND	--
	10/20/92	180♦	ND	ND	ND	ND	--
	7/20/92	120♦	ND	ND	ND	ND	--
	4/23/92	150♦	1.6	ND	ND	ND	--
	1/13/92	120♦	ND	ND	ND	ND	--
	9/10/91	170	ND	ND	ND	ND	--
	6/10/91	160	0.65	ND	ND	ND	--
	3/15/91	150	ND	ND	ND	0.45	--
	12/14/90	150	ND	ND	ND	ND	--
	9/19/90	74	0.74	ND	ND	ND	--
	6/25/90	190	1.5	0.68	ND	5.3	--
	3/29/90	85	ND	ND	ND	ND	--
	12/12/89	120	6.7	0.64	0.46	1.5	--
	9/13/89	76	ND	ND	ND	ND	--
	6/6/89	32	ND	ND	ND	ND	--

Table 1A

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW4	11/25/96	120♦	ND	ND	ND	ND	ND
	7/1/96	ND	ND	ND	ND	ND	ND
	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	100♦	ND	ND	ND	1.8	--
	7/14/95	89♦	ND	ND	0.97	0.52	--
	4/4/95	82♦	ND	ND	ND	ND	--
	1/5/95	150♦	ND	ND	ND	ND	--
	10/6/94	78♦	ND	ND	ND	ND	--
	7/7/94	150♦	ND	ND	ND	ND	--
	4/4/94	120	0.76	0.76	ND	0.98	--
	1/6/94	100♦	ND	ND	ND	ND	--
	10/6/93	130♦	ND	ND	ND	ND	--
	7/1/93	91♦	ND	ND	ND	ND	--
	4/2/93	110♦	ND	ND	ND	ND	--
	1/29/93	130♦	0.95	ND	ND	ND	--
	10/20/92	110♦	ND	ND	ND	ND	--
	7/20/92	80♦	ND	ND	ND	ND	--
	4/23/92	120♦	ND	ND	ND	ND	--
	1/13/92	58♦	ND	ND	ND	ND	--
	9/10/91	56	ND	ND	ND	ND	--
	6/10/91	64	ND	ND	ND	ND	--
	3/15/91	53	ND	ND	ND	ND	--
	12/14/90	54	ND	ND	ND	ND	--
	9/19/90	61	ND	ND	ND	ND	--
	6/25/90	66	ND	ND	ND	ND	--
	3/29/90	120	0.39	ND	ND	ND	--
	12/12/89	97	4.6	ND	ND	ND	--
	9/13/89	77	ND	ND	ND	ND	--
	6/6/89	37	ND	ND	ND	ND	--
MW5	11/25/96	120♦	ND	ND	ND	ND	ND
	7/1/96	ND	ND	ND	ND	ND	ND
	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	50♦	ND	ND	ND	ND	--
	7/14/95	ND	ND	0.91	ND	1.1	--
	4/4/95	ND	ND	ND	ND	ND	--
	1/5/95	ND	ND	ND	ND	ND	--
	10/6/94	ND	ND	ND	ND	ND	--
	7/7/94	72♦	ND	ND	ND	ND	--
	4/4/94	65♦	ND	ND	ND	ND	--
	1/6/94	62♦	ND	ND	ND	ND	--
	10/6/93	60♦	ND	ND	ND	ND	--
	7/1/93	54♦	ND	ND	ND	ND	--
	4/2/93	65♦	ND	ND	ND	ND	--

Table 1A

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW6	11/25/96	120♦	ND	ND	ND	ND	ND
	7/1/96	ND	ND	ND	ND	ND	ND
	4/8/96	ND	ND	ND	ND	ND	ND
	1/10/96	53♦	ND	ND	ND	ND	--
	7/14/95	ND	ND	ND	ND	ND	--
	4/4/95	ND	ND	ND	ND	ND	--
	1/5/95	ND	ND	ND	ND	ND	--
	10/6/94	ND	ND	ND	ND	ND	--
	7/7/94	ND	ND	ND	ND	ND	--
	4/4/94	57♦	ND	ND	ND	ND	--
	1/6/94	53♦	ND	ND	ND	ND	--
	10/6/93	ND	ND	ND	ND	ND	--
	7/1/93	ND	ND	ND	ND	ND	--
	4/2/93	ND	ND	ND	ND	ND	--

† Sequoia Analytical Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 µg/L in the sample collected from this well.

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

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

MTBE = methyl tert butyl ether.

ND = Non-detectable.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: - The detection limit for results reported as ND by Sequoia Analytical Laboratory is equal to the stated detection limit times the dilution factor indicated on the laboratory analytical sheets.

- Prior to August 1, 1995, the total purgeable petroleum hydrocarbon (TPH as gasoline) quantification range used by Sequoia Analytical Laboratory was C4 - C12. Since August 1, 1995, the quantification range used by Sequoia Analytical Laboratory is C6 - C12.

- Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.

Table 1B

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	Tetra-chloroethene	Trichloro-ethene	1,2-Dichloro-ethane	Cis-1,2-dichloro-ethene	Total Oil & Grease (mg/L)
MW1	4/04/94*	--	390	38	ND	17	--
	4/2/93	ND	--	--	--	--	--
	1/29/93	ND	300	ND	ND	ND	--
	10/20/92	ND	230	22	ND	16	--
	7/20/92	62♦	200	7.4	ND	ND	--
MW2	4/2/93	ND	--	--	--	--	--
	12/12/89	1,700	30	9.0	ND	ND	1.2
	9/13/89	ND	18	6.1	4.2	1.2	ND
	6/6/89	ND	110	4.4	2.8	ND	ND
MW2A	9/10/93	65	--	--	--	--	--
	1/29/93	ND	140	10	ND	ND	--
	10/20/92	ND	64	11	ND	ND	--
	7/20/92	ND	35	7.2	ND	4.8	ND
	4/23/92	ND	17	5.6	ND	1.9	ND
	1/13/92**	ND	33	ND	ND	2.1	ND
	6/10/91	100	150	10	ND	ND	ND
	3/15/91	ND	67	8.2	ND	2.6	ND
MW3	1/10/96	--	950	ND	ND	ND	--
	1/5/95	--	1,100	18	ND	6.2	--
	1/6/94	--	960	ND	ND	ND	--
	4/2/93	ND	--	--	--	--	--
	1/29/93	ND	980	ND	ND	ND	--
	10/20/92	ND	1,100	20	ND	ND	--
	7/20/92	ND	1,400	25	ND	ND	--
MW4	1/29/93	ND	950	ND	ND	ND	--
	7/20/92	ND	440	11	ND	ND	--
	4/2/93	ND	--	--	--	--	--
	10/20/92	ND	360	17	ND	ND	--
MW5	4/2/93	ND	190	ND	ND	ND	--
MW6	4/2/93	ND	71	ND	ND	ND	--

Table 18
Summary of Laboratory Analyses
Water

---

* All EPA method 8240 constituents were non-detectable, except for concentrations of benzene at 29 µg/L, ethylbenzene at 3.4 µg/L, total xylenes at 19 µg/L, and trans-1,2-dichloroethene at 2.4 µg/L.

** 1,1,2-trichloroethane was detected at a concentration of 9.9 µg/L.

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear be diesel.

ND = Non-detectable.

-- Indicates analysis was not performed.

mg/L = milligrams per liter.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: All EPA method 8010 constituents were non-detectable in all of the ground water samples, except as indicated.

Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.

KEI-P89-0301.R1
March 13, 1989

TABLE 1 C

SUMMARY OF LABORATORY ANALYSES
SOIL

(Results in ppm)
(Collected on March 6, 1989)

Sample Number	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
EB1(5)	2.1	ND	0.11	ND	0.14
EB1(10)	200	2.3	7.7	5.7	33
EB2(5)	ND	ND	ND	ND	ND
EB2(10)	620	2.2	20	13	78

ND = Non-detected

KEI-P89-0301.R12
April 11, 1997

TABLE 1-D

SUMMARY OF LABORATORY ANALYSES
SOIL

Date	Sample Number	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
3/18/97	EB3(5)	ND	ND	ND	ND	ND	ND
	EB3(10)	ND	ND	ND	ND	ND	ND
	EB3(14.5)	ND	ND	ND	ND	ND	ND
	EB4(4.5)	ND	ND	ND	ND	ND	ND
	EB4(10)	ND	ND	ND	ND	ND	ND
	EB4(13)	ND	ND	ND	ND	ND	ND
	EB5(5)	ND	ND	ND	ND	ND	ND
	EB5(10)	ND	ND	ND	ND	ND	ND

NOTE: The soil samples were collected at the depths below grade indicated in the ( ) of the respective sample number.

ND = Non-detectable.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

KEI-P89-0301.R12
April 11, 1997

TABLE 1 E

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Sample Number	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
3/18/97	EB3	ND	ND	ND	ND	ND	ND
	EB4	ND	ND	ND	ND	ND	ND
	EB5	ND	ND	ND	ND	ND	ND

NOTE: Water samples were collected during drilling. The results of the analyses may not be representative of formation water, and should be used for comparative informational purposes only.

Results are in micrograms per liter (µg/L), unless otherwise indicated.

KEI-P89-0301.R3
March 27, 1989

TABLE 2

SUMMARY OF LABORATORY ANALYSES *
WATER
(Results in ppb)

(Samples collected on March 19, 1989)

Sample #	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
W-1	19,000	230	79	1,300	ND
Detection Limits	50	0.5	0.5	0.5	0.5

ND = Non-detectable

* Sample collected from UST pit during 1989 closures

KEI-P89-0301.R8
April 16, 1991

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on March 12, 1991)

Sample Number	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	TOG
MW2A(5)*	5	4.8	ND	ND	ND	ND	ND	1,300
MW2A(10)*	10	2.4	10	0.12	0.17	1.6	0.14	260
MW2A(14.5)*	14.5	ND	ND	ND	0.0080	0.036	ND	57
Detection Limits		1.0	1.0	0.0050	0.0050	0.0050	0.0050	30

* All EPA method 8010 constituents were non-detectable, except for 0.110 ppm of 1,2-dichlorobenzene, and 0.120 ppm of tetrachloroethene detected in sample MW2A(10).

ND = Non-detectable.

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

KEI-P89-0301.R8
April 16, 1991

TABLE 4

SUMMARY OF LABORATORY ANALYSES
SOIL

(Samples collected on April 3, 1990)

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
SW8A*	10.5	62	260	1.4	8.0	40	7.0
SW9A*	10.5	ND	ND	0.017	0.041	0.033	0.0092
SW10A*	10.5	ND	140	0.085	0.12	5.0	1.4
SW11A**	10.5	280	1,100	8.0	43	230	37
Detection Limits		1.0	1.0	0.0050	0.0050	0.0050	0.0050

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

** TOG showed 210 ppm, while all EPA method 8010 constituents were non-detectable.

ND = Non-detectable.

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

KEI-P89-0301.R8
April 16, 1991

TABLE 5

SUMMARY OF LABORATORY ANALYSES
SOIL

Sample Number	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
(Collected on March 6, 1989)						
EB1(5)	5	2.1	ND	0.11	ND	0.14
EB1(10)	10	200	2.3	7.7	5.7	33
EB2(5)	5	ND	ND	ND	ND	ND
EB2(10)	10	620	2.2	20	13	78
(Collected on March 13, 14 & 17, 1989)						
SW1	10	3,500	22	280	600	100
SW1(2)	10	100	1.3	6.6	16	2.9
SW2	10	390	40	4.3	71	10
SW3(15)	10	60	1.6	2.9	7.8	1.5
SW4/5(6)	10	24	2.6	1.7	2.7	0.56
SW6(12)	10	150	3.1	6.2	5.6	3.6
SW7(14)*	10	ND	0.3	ND	ND	ND
P1	3	2.3	ND	0.15	ND	ND
P2	3	1.5	ND	0.31	ND	ND
P3	3	1.1	ND	0.1	ND	ND
P4	3	5.6	ND	0.15	0.39	ND
P5	3	6.8	0.15	0.58	0.55	0.12
P6	3.5	5.5	0.06	0.18	0.15	ND
WO1**	10	15	ND	ND	0.21	0.88
(Collected on May 24, 1989)						
MW1(5)	5	2.3	0.08	ND	0.62	ND
MW1(10)	10	290	1.0	11	48	8.8
MW2(5)***	5	230	13	1.7	3.2	1.5
MW2(10)+	10	31	1.2	1.0	5.5	1.1
MW3(5)	5	3.2	0.29	0.1	0.7	ND
MW3(10)	10	4.6	ND	ND	0.44	0.3
MW4(5)	5	3.1	ND	0.11	ND	ND
MW4(10)	10	ND	ND	ND	ND	ND

TABLE 5 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

* TPH as diesel was 6.2 ppm; TOG was at 41 ppm; all 8240 constituents are non-detectable, except as noted above.

** TPH as diesel was non-detectable; TOG was at 280 ppm; all 8240 constituents are non-detectable, except as noted above.

*** TPH as diesel was non-detectable, TOG was 7,700 ppm, and trichloroethene at 0.063 ppm.

\+ TPH as diesel was non-detectable, TOG was 38 ppm, and trichloroethene at 0.065 ppm.

ND = Non-detectable.

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

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0301	9" 2"	Doug Lee
Project Name Unocal San Leandro, E. 14th	**Well Head Elevation** N/A	**Date Drilled** 5/24/89
Boring No. MW1	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement Silt, sand, gravel: fill.
10/15/17		5		Clay, high plasticity, stiff, moist, black, with gravel to 3/4" above 4'.
10/17/24	▼	10		Clay, as above.
			CH	Color change at 12' to dark grayish brown.
		15		
		20		Silty clay with sand, high plasticity, sand - medium to fine, firm, wet, dark olive brown, with moderate cementation.
		25		
		30		
				TOTAL DEPTH 24.5'

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0301	9" 2"	Doug Lee
Project Name Unocal San Leandro, E. 14th	**Well Head Elevation** N/A	**Date Drilled** 5/24/89
Boring No. MW2	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		Silt, sand and gravel: fill.
22/24/28		5	GW	Sandy gravel with clay, hard, slightly moist, black.
9/11/26	▼	10		Clay, high plasticity, stiff, moist, black.
				Color change below 12' to dark grayish brown.
		15	CH	
		20	CL	Silty clay, low plasticity, 10% fine sand, hard, cemented, blocky, blocks are very strongly cemented, wet, white.
		25	CH	Silty clay, high plasticity, firm, wet, dark olive brown.
		30		
				TOTAL DEPTH 24.5'

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0301	9" 2"	W.W.
Project Name Unocal 15803 E. 14th San L	**Well Cover Elevation**	**Date Drilled** 3/12/91
Boring No. MW2A	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Asphalt pavement over sand and gravel.
			GC	Clayey gravel with sand and cobbles to 5" in diameter, moist, dense, strong brown, traces of dark grayish brown.
				Clayey gravel fill with sand, as above, yellowish brown below 4'.
11/9/8		5		Base of Fill
			CH	Clay, trace silt and sand, trace angular gravel to 1/2" diameter, moist, very stiff, very dark gray, trace rootlets.
7/9/13		10		Clay, high plasticity, porous, moist, very stiff, very dark gray.
5/8/15			CL/CH	Clay, moist, very stiff, light brownish gray.
5/7/8	▼	15		Clay, very moist, saturated, stiff, light brownish gray.
5/7/		20		Clay with silt, very moist to saturated, stiff, trace caliche, trace coarse black sand, light brownish gray.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0301	9" 2"	W.W.
Project Name Unocal 15803 E. 14th San L	**Well Cover Elevation**	**Date Drilled** 3/12/91
Boring No. MW2A	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
/8			CL/ CH	Clay, with silt, as above.
				Silty clay, trace fine-grained sand, saturated, stiff, light yellowish brown to light olive brown.
3/5/6		25		
		30		
		35		
		40		TOTAL DEPTH: 25.5'

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0301	9" 2"	Doug Lee
Project Name Unocal San Leandro, E. 14th	**Well Head Elevation** N/A	**Date Drilled** 5/24/89
Boring No. MW3	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement Silt, sand and gravel: fill.
9/14/18		5		Clay, high plasticity, stiff, moist, black.
12/17/19	▼	10	CH	Color change below 12' to dark grayish brown.
		15		
		20	CL	Silty clay, 10% fine sand, stiff, cemented, blocky, wet, white, "hard pan".
			CH	Silty clay, firm, wet, dark olive brown.
		25		
		30		TOTAL DEPTH 24.5'

B O R I N G L O G

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0301	9" 2"	Doug Lee
Project Name Unocal San Leandro, E. 14th	**Well Head Elevation** N/A	**Date Drilled** 5/24/89
Boring No. MW4	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement
				Sand, gravel, silt: fill, with concrete blocks.
9/14/19		5		Gravelly clay with silt, high plasticity, firm, moist, very dark gray.
			CH	Clay, high plasticity, stiff, moist, with weak cementation below 9', black.
10/15/17	▼	10		Color change at 9' to very dark grayish brown.
				Color change at 11' to dark grayish brown.
		15		Clay, as above.
			CL	Silty clay with sand, low plasticity, hard, wet, strong cementation, blocky, white, "hard pan".
25/25/26		20		
			CH	Sandy clay, sand - medium to fine, firm, wet, light olive brown.
12/14/18		25		Silty clay, 10% fine sand, firm, very moist, light olive brown, blocky, blocks moderately cemented.
		30		TOTAL DEPTH 25'

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-J89-0301	9" 2"	Doug Lee
Project Name Unocal, E. 14th, San Leandro	**Well Head Elevation** N/A	**Date Drilled** 3/6/89
Boring No. EB-1	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		Asphalt & concrete pavement and gravel base
			GC	Clayey sandy gravel, reddish brown, very stiff to hard, moist, gravel to 2"
4/6/8		5	OH	Gravelly sandy clay, very dark gray, stiff, moist, high plasticity
4/6/8	▼	10	OH	Clay, some silt and sand, black, stiff, moist, high plasticity
3/6/9			CH	Clay, with silt, grayish brown, firm, very moist
		15		
		20		
		25		
		30		TOTAL DEPTH 13.5'

B O R I N G L O G

Project No. KEI-	**Boring & Casing Diameter** 9" 2"	**Logged By** Doug Lee
Project Name Unocal, E. 14th, San Leandro	**Well Head Elevation** N/A	**Date Drilled** 3/6/89
Boring No. EB-2	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		Asphalt & concrete pavement and gravel base
			GC	Clayey sandy gravel, reddish brown, very stiff, moist
4/9/8		5	OH	Gravelly clay, very dark gray, very stiff, moist, high plasticity
4/8/9		10	OH	Clay, some sand and silt, black, stiff, moist, high plasticity
		15		
		20		
		25		
		30		
				TOTAL DEPTH 10.5'

BORING LOG

Project No. KEI-P89-0301.P6	**Boring Diameter** 1.375" / **Casing Diameter** N/A	**Logged By** D.L.
Project Name Unocal S/S #6277 15803 East 14th Street, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 3/18/97
Boring No. EB3	**Drilling Method** GeoProbe	**Drilling Company** Gregg Drilling

Pene-tration blows/6"	G.W. level	O.V.M. (ppm)	Depth (feet) Samples	Stratigraphy USCS	Description
			0		
No Data					A.C. pavement over sand and gravel base.
					Silty gravel with sand, very dense to hard, dry to slightly moist, brown (highly compacted roadbase).
				ML	Clayey silt, very stiff, moist, dark grayish brown and very dark brown, mottled.
		0.0	5	CL	Silty clay, trace sand, stiff, moist, black.
		0.0	10		Silty clay, stiff, moist, dark gray, with abundant caliche, grades to olive brown below 10 feet.
				ML	Clayey silt, stiff, moist, olive brown.
				CL	Silty clay, stiff, moist, very dark gray, with root holes and caliche.
		0.0		ML	Clayey silt, stiff, moist, dark olive brown.
	▼		15		TOTAL DEPTH:15'
			20		

BORING LOG

Project No. KEI-P89-0301.P6	**Boring Diameter** 1.375"	**Logged By** D.L.
	Casing Diameter N/A	
Project Name Unocal S/S #6277 15803 East 14th Street, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 3/18/97
Boring No. EB4	**Drilling Method** GeoProbe	**Drilling Company** Gregg Drilling

Pene-tration blows/6"	G.W level	O.V.M. (ppm)	Depth (feet) Samples	Stratigraphy USCS	Description
			0		A.C. pavement over sand and gravel base.
No Data					Silty gravel with sand, very dense, moist, dark yellowish brown, with asphalt and debris (fill).
					Pocketed clay, silt and sand, stiff, moist to wet, predominantly very dark grayish brown.
		No Data	5	ML	(Very poor recovery at 4.5 feet) Clayey silt, stiff, moist, dark grayish brown.
		0.0	10	CL	Silty clay, stiff, moist, olive gray to dark olive gray, with caliche grades to olive brown below 10 feet.
				ML	Clayey silt, stiff, moist, olive brown.
	▽	0.0			Clayey silt, firm to stiff, moist to very moist, olive brown, locally grades to silt estimated at 20-30% clay.
			15		TOTAL DEPTH:14.5'
			20		

BORING LOG

Project No. KEI-P89-0301.P6	**Boring Diameter** 1.375" **Casing Diameter** N/A	**Logged By** D.L.
Project Name Unocal S/S #6277 15803 East 14th Street, San Leandro	**Well Cover Elevation** N/A	**Date Drilled** 3/18/97
Boring No. EB5	**Drilling Method** GeoProbe	**Drilling Company** Gregg Drilling

Pene-tration blows/6"	G.W level	O.V.M. (ppm)	Depth (feet) Samples	Stratigraphy USCS	Description
			0		A.C. pavement over sand and gravel base.
					Sandy silt, with gravel and debris, firm to stiff, very moist, black and very dark grayish brown (fill).
			5		(Poor recovery at 4.5 feet)
		0.0		ML	Sandy silt, trace clay, sand is fine to medium-grained, stiff, moist, dark olive gray.
				CL	Silty clay, stiff, moist, olive brown.
	▼	0.0	10	ML	Sandy silt, trace clay, sand is very fine to fine-grained, stiff, moist, olive brown.
					TOTAL DEPTH:11'
			15		
			20		