

FIRE DEPARTMENT
DEC 15 1997

December 11, 1997

City of San Leandro
Development Services
835 E. 14th Street
San Leandro, CA 94577

RE: Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

To whom it may concern:

Per the request of the Unocal Corporation Project Manager, Mr. Robert A. Boust, enclosed please find our report (MPDS-UN2512-11) dated November 18, 1997, for the above referenced site.

Should you have any questions regarding the reporting of data, please feel free to call our office at (510) 602-5120. Any other questions may be directed to the Project Manager at (510) 944-3786.

Sincerely,

MPDS Services, Inc.



Jarrel F. Crider

/jfc

Enclosure

cc: Mr. Robert A. Boust



MPDS-UN2512-11
November 18, 1997

Unocal - DBG/AMG
2121 N. California Blvd., Suite 250
Walnut Creek, California 94596

Attention: Mr. Robert A. Boust

RE: Quarterly Report
Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Dear Mr. Boust:

This data report presents the results of the most recent monitoring and sampling of the monitoring wells at the referenced site by MPDS Services, Inc.

RECENT FIELD ACTIVITIES

The monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Prior to sampling, the wells were checked for depth to water and the presence of free product or sheen. The monitoring data and the ground water elevations are summarized in Table 1. The ground water flow direction during the most recent quarter is shown on the attached Figure 1.

Ground water samples were collected on October 20, 1997. Prior to sampling, the wells were each purged of between 9.5 and 12 gallons of water. The samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory. MPDS Services, Inc. transported the purged ground water to the Tosco Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Tables 2 and 3. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, TPH as diesel, and benzene detected in the ground water samples collected this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services Agency, and to the City of San Leandro.

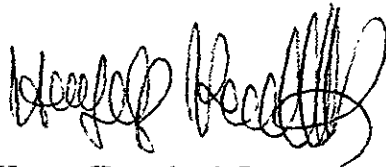
If you have any questions regarding this report, please do not hesitate to call Mr. Nubar Srabian at (510) 602-5120.

Sincerely,

MPDS Services, Inc.



Haig (Gary) Tejirian
Senior Staff Geologist



Hagop Kevork, P.E.
Senior Staff Engineer



License No. C 55734
Exp. Date December 31, 2000

Attachments: Tables 1, 2 & 3
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Sarkis A. Soghomonian, Kaprealian Engineering, Inc.

Table 1
 Summary of Monitoring Data

Well #	Date	Ground Water Elevation (feet)	Depth to Water (feet)*	Total Well Depth (feet)*	Product Thickness (feet)	Sheen	Water Purged (gallons)
MW3	2/28/97	20.47	11.55	33.35	0	No	11.5 (100)
	4/16/97	19.97	12.05	32.18	0	No	10 (100)
	7/21/97	16.85	15.17	33.29	0	No	9 (50)
	10/20/97	16.61	15.41	33.08	0	Yes	12 (100)
MW7	2/28/97	21.30	10.41	29.61	0	No	10
	4/16/97	19.59	12.12	29.78	0	No	10
	7/21/97	16.70	15.01	29.70	0	No	7.5
	10/20/97	16.53	15.18	29.92	0	No	10
MW8	2/28/97	18.87	13.86	29.86	0	No	8.5
	4/16/97	19.99	12.74	30.04	0	No	10
	7/21/97	17.02	15.71	29.93	0	No	7.5
	10/20/97	16.75	15.98	29.81	0	No	9.5
MW9	2/28/97	18.57	13.76	29.99	0	No	8.5
	4/16/97	19.67	12.66	29.98	0	No	10
	7/21/97	16.89	15.44	30.00	0	No	7.5
	10/20/97	16.66	15.67	29.96	0	No	10

Well #	Well Casing Elevation (feet)*
MW3	32.02
MW7	31.71
MW8	32.73
MW9	32.33

◆ The depth to water level and total well depth measurements were taken from the top of the well casings.

* The elevations of the top of the well casing are relative to MSL, per East Bay MUD Benchmark DAVIS FREE #2 - San Leandro 1952 (Elevation = 32.02 feet MSL).

(x) Amount of water purged after sampling.

-- Sheen determination was not performed.

Table 2
 Summary of Laboratory Analyses
 Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE	
MW1	4/25/89	100	ND	0.31	ND	ND	ND	--	--	
	8/10/89	ND	ND	ND	ND	ND	ND	ND	--	
	11/21/89	ND	ND	ND	ND	ND	ND	8.9	--	
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--	
	5/10/90	ND	ND	ND	ND	ND	ND	ND	--	
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--	
	11/6/90	ND	ND	ND	ND	ND	ND	ND	--	
	2/4/91	ND	ND	ND	0.31	ND	0.62	ND	--	
	5/24/91	--	ND	ND	ND	ND	ND	ND	--	
	8/15/91	NOT SAMPLED								
	11/19/91	NOT SAMPLED								
	2/27/92	NOT SAMPLED								
	5/26/92	NOT SAMPLED								
	10/30/92	NOT SAMPLED								
	6/9/94	--	580†	ND	ND	ND	ND	ND	--	--
	9/8/94	--	160††	ND	1.6	ND	3.1	--	--	
	1/25/95	WELL WAS DESTROYED								
MW2	4/25/89	ND	32	0.35	ND	ND	ND	--	--	
	8/10/89	ND	ND	ND	0.39	ND	ND	ND	--	
	11/21/89	ND	48	ND	0.51	ND	ND	1.6	--	
	2/23/90	ND	44	ND	ND	ND	ND	ND	--	
	5/10/90	ND	43	ND	1	ND	ND	ND	--	
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--	
	11/6/90	ND	ND	ND	0.42	ND	1.4	ND	--	
	2/4/91	ND	ND	ND	0.38	ND	0.87	ND	--	
	5/24/91	--	ND	1.5	ND	ND	ND	ND	--	
	8/15/91	--	ND	ND	ND	ND	ND	ND	--	
	11/19/91	--	220	2.5	8.4	2.4	14	--	--	
	2/27/92	--	330	12	12	10	93	--	--	
	5/26/92	--	2,900	8.8	9.3	54	36	--	--	
	10/30/92	--	1,200†	ND	ND	ND	ND	--	--	
6/9/94	--	1,900††	6.7	ND	66	ND	--	--		
9/8/94	--	3,000†	ND	ND	ND	17	--	--		
1/25/95	WELL WAS DESTROYED									
MW3	4/25/89	5,700	56	ND	ND	0.31	0.49	--	--	
	8/10/89	860	3,200	73	140	35	240	ND	--	
	11/21/89	110	1,900	ND	ND	ND	ND	3.8	--	
	2/23/90	350	ND	0.32	ND	ND	ND	1.3	--	
	5/10/90	850	6,200	94	460	160	540	2.8	--	
	8/9/90	500	1,900	56	140	140	31	ND	--	
	11/6/90	940	16,000	820	1,500	2,200	770	ND	--	
	2/4/91	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT								
	5/24/91	2,000	23,000	940	3,400	590	2,600	ND	--	

Table 2
 Summary of Laboratory Analyses
 Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE
MW3	8/15/91	NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT							
(Cont.)	11/19/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	2/27/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	5/26/92*	2,400,000	1,300,000	5,100	66,000	20,000	160,000	880	--
	10/30/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	6/9/94	17,000*	69,000	1,300	7,100	1,900	11,000	--	--
	9/8/94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	10/21/95	5,900*	50,000	250	4,200	1,700	18,000	--	§
	1/24/96	5,300*	100,000	950	3,300	2,500	16,000	--	‡
	4/23/96	4,900*	50,000	430	1,700	1,600	7,600	--	ND
	7/25/96	2,400**	17,000	170	ND	650	3,300	--	240
	10/25/96	3,700**	26,000	420	1,100	1,800	6,400	--	340
	1/28/97	3,900*	32,000	230	1,000	1,000	4,500	--	ND
	4/16/97	3,100*	12,000	76	ND	330	1,600	--	ND
	7/21/97	2,400*	10,000	82	28	430	1,400	--	76
	10/20/97	2,900**	12,000	200	540	1,400	4,600	--	210
MW4	8/29/89	120	ND	ND	ND	ND	ND	ND	--
	11/21/89	ND	ND	ND	ND	ND	ND	ND	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5/10/90	88	54	ND	2	ND	0.37	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	ND	0.36	ND	0.98	ND	--
	2/4/91	ND	ND	ND	0.72	ND	1.1	ND	--
	5/24/91	ND	ND	0.64	ND	ND	ND	ND	--
	8/15/91	ND	ND	ND	ND	ND	ND	ND	--
	11/19/91	ND	ND	ND	ND	ND	ND	--	--
	2/27/92	ND	43	ND	1	0.37	2.5	--	--
	5/26/92	ND	120	0.59	0.82	ND	1.9	--	--
	10/30/92	WELL WAS INACCESSIBLE							
	6/9/94	ND	780†	ND	ND	ND	ND	--	--
	9/8/94	ND	300†	ND	ND	ND	ND	--	--
	1/25/95	WELL WAS DESTROYED							
MW5	8/29/89	100	ND	ND	0.94	0.3	ND	ND	--
	11/21/89	70	ND	ND	ND	ND	ND	ND	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5.10/90	83	ND	ND	ND	ND	0.31	ND	--
	8.9.90	ND	ND	ND	ND	ND	ND	ND	--
	11/6.90	ND	ND	ND	ND	ND	ND	ND	--
	2/4/91	ND	ND	ND	0.35	ND	ND	ND	--
	5/24/91	ND	ND	ND	ND	ND	ND	ND	--
	11/19/91	NOT SAMPLED							
	2.27.92	NOT SAMPLED							

Table 2
 Summary of Laboratory Analyses
 Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE
MW5	5/26/92	NOT SAMPLED							
(Cont.)	10/30/92	NOT SAMPLED							
	6/9/94	WELL WAS INACCESSIBLE							
	9/8/94	WELL WAS INACCESSIBLE							
	1/25/95	WELL WAS DESTROYED							
MW6	8/29/89	ND	ND	ND	ND	ND	ND	ND	--
	11/21/89	ND	ND	ND	ND	ND	ND	ND	--
	2/23/90	ND	ND	ND	ND	ND	ND	ND	--
	5/10/90	ND	ND	ND	1.2	ND	ND	ND	--
	8/9/90	ND	ND	ND	ND	ND	ND	ND	--
	11/6/90	ND	ND	1.6	0.35	ND	ND	ND	--
	2/4/91	ND	ND	ND	ND	ND	ND	ND	--
	5/24/91	--	ND	ND	ND	ND	ND	ND	--
	8/15/91	--	ND	ND	ND	ND	ND	ND	--
	11/19/91	--	ND	ND	ND	ND	ND	--	--
	2/27/92	--	ND	3.2	ND	ND	3.8	--	--
	5/26/92	--	ND	ND	ND	ND	0.65	--	--
	10/30/92	--	ND	ND	ND	ND	ND	--	--
	6/9/94	WELL WAS INACCESSIBLE							
	9/8/94	WELL WAS INACCESSIBLE							
	1/25/95	WELL WAS DESTROYED							
MW7	2/27/92	--	38	ND	0.97	0.69	4	--	--
	5/26/92	--	ND	ND	ND	ND	0.6	--	--
	10/30/92	--	ND	ND	ND	ND	ND	--	--
	6/9/94	--	610†	ND	ND	ND	ND	--	--
	9/8/94	--	ND	ND	1.3	ND	1.6	--	--
	10/21/95	--	ND	ND	ND	ND	ND	--	--
	1/24/96	--	ND	ND	ND	ND	ND	--	--
	4/23/96	--	220	ND	0.62	0.88	5.4	--	ND
	7/25/96	--	ND	ND	ND	ND	ND	--	ND
	10/25/96	--	ND	ND	ND	ND	ND	--	ND
	1/28/97	--	ND	ND	ND	ND	ND	--	ND
	4/16/97	--	ND	ND	ND	ND	ND	--	ND
	7/21/97	--	ND	ND	ND	ND	ND	--	ND
	10/20/97	--	ND	ND	ND	ND	ND	--	ND
MW8	10/21/95	--	ND	ND	ND	ND	ND	--	--
	1/24/96	--	ND	ND	ND	ND	ND	--	--
	4/23/96	--	ND	ND	ND	ND	ND	--	ND
	7/25/96	--	ND	ND	ND	ND	ND	--	ND
	10/25/96	--	ND	ND	ND	ND	ND	--	ND
	1/28/97	--	ND	ND	ND	ND	ND	--	ND
	4/16/97	--	ND	ND	ND	ND	ND	--	ND
	7/21/97	--	ND	ND	ND	ND	ND	--	ND
	10/20/97	--	ND	ND	ND	ND	ND	--	ND

Table 2
 Summary of Laboratory Analyses
 Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	TOG (mg/L)	MTBE
MW9	10/21/95	--	ND	ND	ND	ND	ND	--	§
	1/24/96	--	ND	ND	ND	ND	ND	--	‡
	4/23/96	--	ND	ND	ND	ND	ND	--	ND
	7/25/96	--	ND	ND	ND	ND	ND	--	ND
	10/25/96	--	ND	ND	ND	ND	ND	--	180
	1/28/97	--	ND	ND	ND	ND	ND	--	75
	4/16/97	--	ND	ND	ND	ND	ND	--	ND
	7/21/97	--	ND	ND	ND	ND	ND	--	ND
	10/20/97	--	ND	ND	ND	ND	ND	--	100

TOG = Total Oil & Grease

MTBE = Methyl tert butyl ether

ND = Non-detectable.

mg/L = milligrams per liter.

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

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

† 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.

• Free product was detected in well MW3; however, a water sample was collected and analyzed to determine if the product was predominantly hydrocarbon based.

§ Sequoia Analytical Laboratory has potentially identified the presence of MTBE at reportable levels in the sample collected from this well.

‡ 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.

Table 2
Summary of Laboratory Analyses
Water

-- Indicates analysis was not performed.

Results are in micrograms per liter ($\mu\text{g/L}$), 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.

Monitoring data prior to June 9, 1994, were provided by Kaprealian Engineering, Inc.

Table 3
 Summary of Laboratory Analyses
 Water

Well #	Date	Tetrachloro- ethene	1,1- Dichloro- ethane	1,1,1- Trichloro- ethane	Chloro- methane	1,1- Dichloro- ethene	1,2- Dichloro- benzene	Trichloro- ethene	
MW1	4/25/89	3.3	ND	ND	ND	ND	ND	0.55	
	11/06/90	4.8	ND	ND	ND	ND	ND	ND	
	5/24/91	4.6	ND	ND	ND	ND	ND	ND	
	6/9/94	1.0	ND	ND	ND	ND	ND	ND	
	9/8/94	1.2	ND	ND	ND	ND	ND	ND	
	1/25/95	WELL WAS DESTROYED							
MW2	4/25/89	0.68	ND	ND	ND	ND	ND	ND	
	11/06/90	ND	ND	ND	ND	ND	ND	ND	
	5/24/91	ND	ND	ND	ND	ND	ND	ND	
	8/15/91	ND	ND	ND	ND	ND	ND	ND	
	11/19/91	ND	ND	ND	ND	ND	ND	ND	
	2/27/92	ND	ND	ND	ND	ND	ND	ND	
	5/26/92	ND	ND	ND	ND	ND	ND	ND	
	10/30/92	ND	ND	ND	ND	ND	ND	ND	
	6/9/94	ND	ND	ND	ND	ND	ND	ND	
	9/8/94	ND	ND	ND	ND	ND	ND	ND	
1/25/95	WELL WAS DESTROYED								
MW3	4/25/89	1.0	ND	ND	ND	ND	ND	ND	
	11/6/90	ND	ND	ND	ND	ND	ND	ND	
	5/24/91	ND	ND	ND	ND	ND	ND	ND	
	8/15/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	11/19/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	2/27/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	5/26/92	ND	ND	ND	ND	ND	ND	ND	
	10/30/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	6/9/94	ND	ND	ND	ND	ND	ND	ND	
	9/8/94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT							
	10/21/95	ND	ND	ND	ND	ND	ND	ND	
	1/24/96	ND	ND	ND	ND	ND	ND	ND	
	4/23/96	ND	ND	ND	ND	ND	ND	ND	
	7/25/96	ND	ND	ND	ND	ND	ND	ND	
	10/25/96	ND	ND	ND	ND	ND	ND	ND	
	1/28/97	ND	ND	ND	ND	ND	ND	ND	
	4/16/97	ND	ND	ND	ND	ND	ND	ND	
7/21/97	ND	ND	ND	ND	ND	ND	ND		
10/20/97	ND	ND	ND	ND	ND	ND	ND		
MW4	11/6/90	2.9	ND	ND	ND	ND	ND	ND	
	5/24/91	4.1	2.5	3.9	ND	ND	ND	ND	
	8/15/91	3.6	ND	ND	ND	ND	ND	ND	
	11/19/91	3.4	ND	ND	ND	ND	ND	ND	
	2/27/92	3.5	6	ND	ND	ND	ND	ND	
	5/26/92	2.4	13	3.5	ND	0.83	ND	ND	

Table 3
 Summary of Laboratory Analyses
 Water

Well #	Date	Tetrachloro- ethene	1,1- Dichloro- ethane	1,1,1- Trichloro- ethane	Chloro- methane	1,1- Dichloro- ethene	1,2- Dichloro- benzene	Trichloro- ethene
MW4	10/30/92	WELL WAS INACCESSIBLE						
(Cont.)	6/9/94	2.8	8.8	0.83	ND	0.51	ND	0.70
	9/8/94*	1.8	ND	ND	ND	ND	ND	0.60
	1/25/95	WELL WAS DESTROYED						
MW5	11/6/90	0.7	ND	ND	ND	ND	ND	ND
	5/24/91	0.89	ND	ND	ND	ND	ND	ND
	6/9/94	WELL WAS INACCESSIBLE						
	9/8/94	WELL WAS INACCESSIBLE						
	1/25/95	WELL WAS DESTROYED						
MW6	11/6/90	1.2	ND	ND	ND	ND	ND	ND
	5/24/91	0.88	ND	ND	5.6	ND	ND	ND
	8/15/91	1.2	ND	ND	ND	ND	ND	ND
	11/19/91	1.3	ND	ND	ND	ND	ND	ND
	2/27/92	1.5	ND	ND	ND	ND	1.6	ND
	5/26/92	1.1	ND	ND	ND	ND	1.7	ND
	10/30/92	1.2	ND	ND	ND	ND	ND	ND
	6/9/94	WELL WAS INACCESSIBLE						
	9/8/94	WELL WAS INACCESSIBLE						
	1/25/95	WELL WAS DESTROYED						
MW7	2/27/92	2.4	ND	ND	ND	ND	ND	ND
	5/26/92	2.2	ND	ND	ND	ND	ND	ND
	10/30/92	2.2	ND	ND	ND	ND	ND	ND
	6/9/94	0.67	ND	ND	ND	ND	ND	ND
	9/8/94	0.76	ND	ND	ND	ND	ND	ND
	10/21/95	ND	ND	ND	ND	ND	ND	ND
	1/24/96	1.2	ND	ND	ND	ND	ND	ND
	4/23/96	0.84	ND	ND	ND	ND	ND	ND
	7/25/96	1.7	ND	ND	ND	ND	ND	ND
	10/25/96**	1.2	ND	ND	ND	ND	ND	ND
	1/28/97	1.4	ND	ND	ND	ND	ND	ND
	4/19/97	0.75	ND	ND	ND	ND	ND	ND
	7/21/97	1.5	ND	ND	ND	ND	ND	ND
	10.20.97	1.5	ND	ND	ND	ND	ND	ND
MW8	10/21/95	ND	ND	ND	ND	ND	ND	ND
	1.24.96	0.74	ND	ND	ND	ND	ND	ND
	4.23.96	1.1	ND	ND	ND	ND	ND	ND
	7/25/96	1.1	ND	ND	ND	ND	ND	ND
	10.25.96	0.90	ND	ND	ND	ND	ND	ND
	1.28.97	0.96	ND	ND	ND	ND	ND	ND
	4.16/97	0.51	ND	ND	ND	ND	ND	ND
	7/21/97	ND	ND	ND	ND	ND	ND	ND
	10/20/97	1.1	ND	ND	ND	ND	ND	ND

Table 3
 Summary of Laboratory Analyses
 Water

Well #	Date	Tetrachloro- ethene	1,1- Dichloro- ethane	1,1,1- Trichloro- ethane	Chloro- methane	1,1- Dichloro- ethene	1,2- Dichloro- benzene	Trichloro- ethene
MW9	10/21/95	17	1.0	ND	ND	ND	ND	ND
	1/24/96	17	2.2	ND	ND	ND	ND	0.64
	4/23/96	71	ND	ND	ND	ND	ND	ND
	7/25/96	1.0	ND	ND	ND	ND	ND	ND
	10/25/96	80	ND	ND	ND	ND	ND	ND
	1/28/97	39	ND	ND	ND	ND	ND	ND
	4/16/97	0.51	ND	ND	ND	ND	ND	ND
	7/21/97	7.5	ND	ND	ND	ND	ND	ND
	10/20/97	47	ND	ND	ND	ND	ND	ND

* 1,2 Dichloroethane was detected at a concentration of 4.8 µg/L.

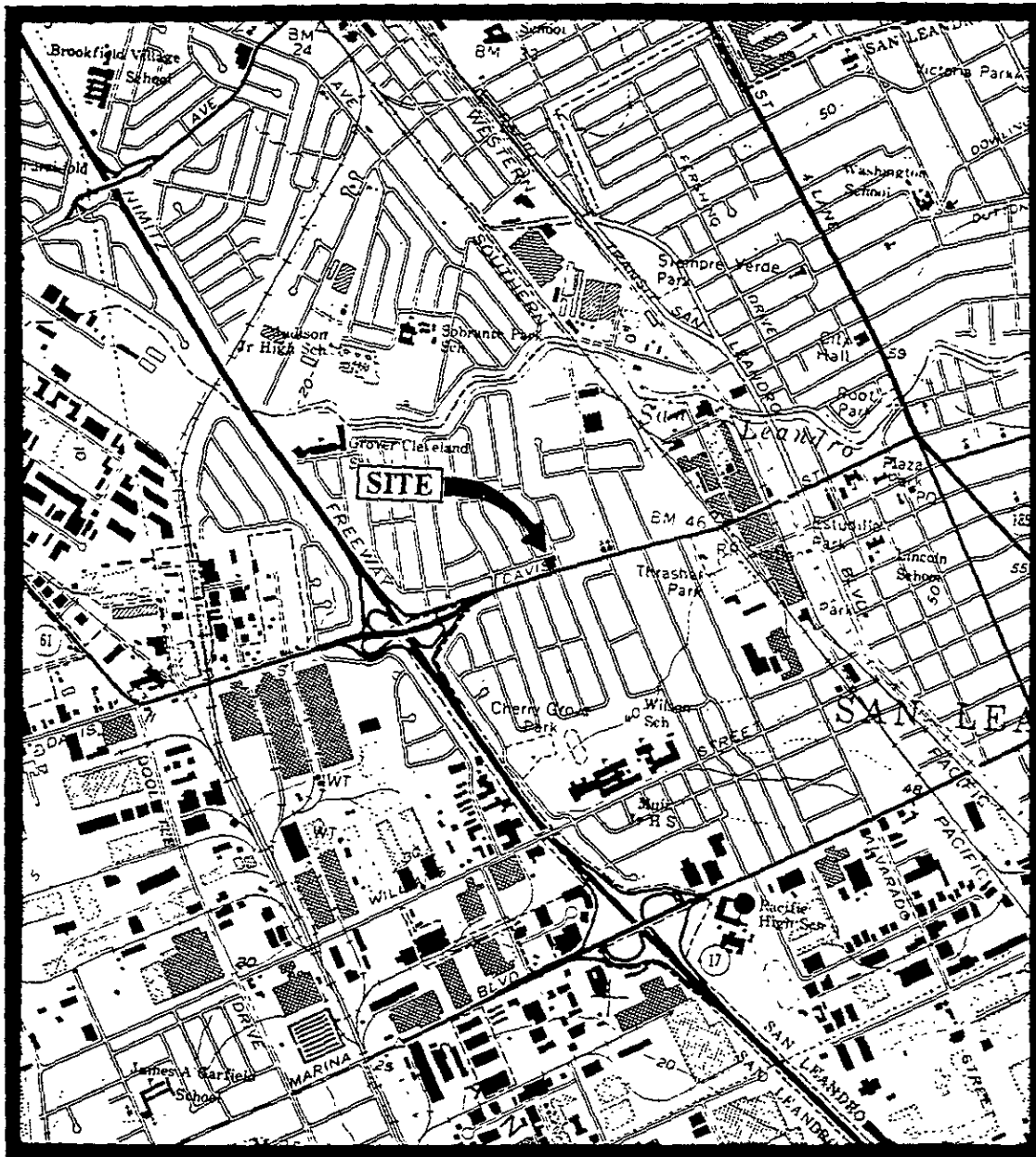
** Chloroform was detected at a concentration of 1.7 µg/L.

ND = Non-detectable.

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

Note: All EPA method 8010 constituents were non detectable, except for those shown in this Table.

Laboratory analyses data prior to June 9, 1994, were provided by Kaprealian Engineering, Inc.



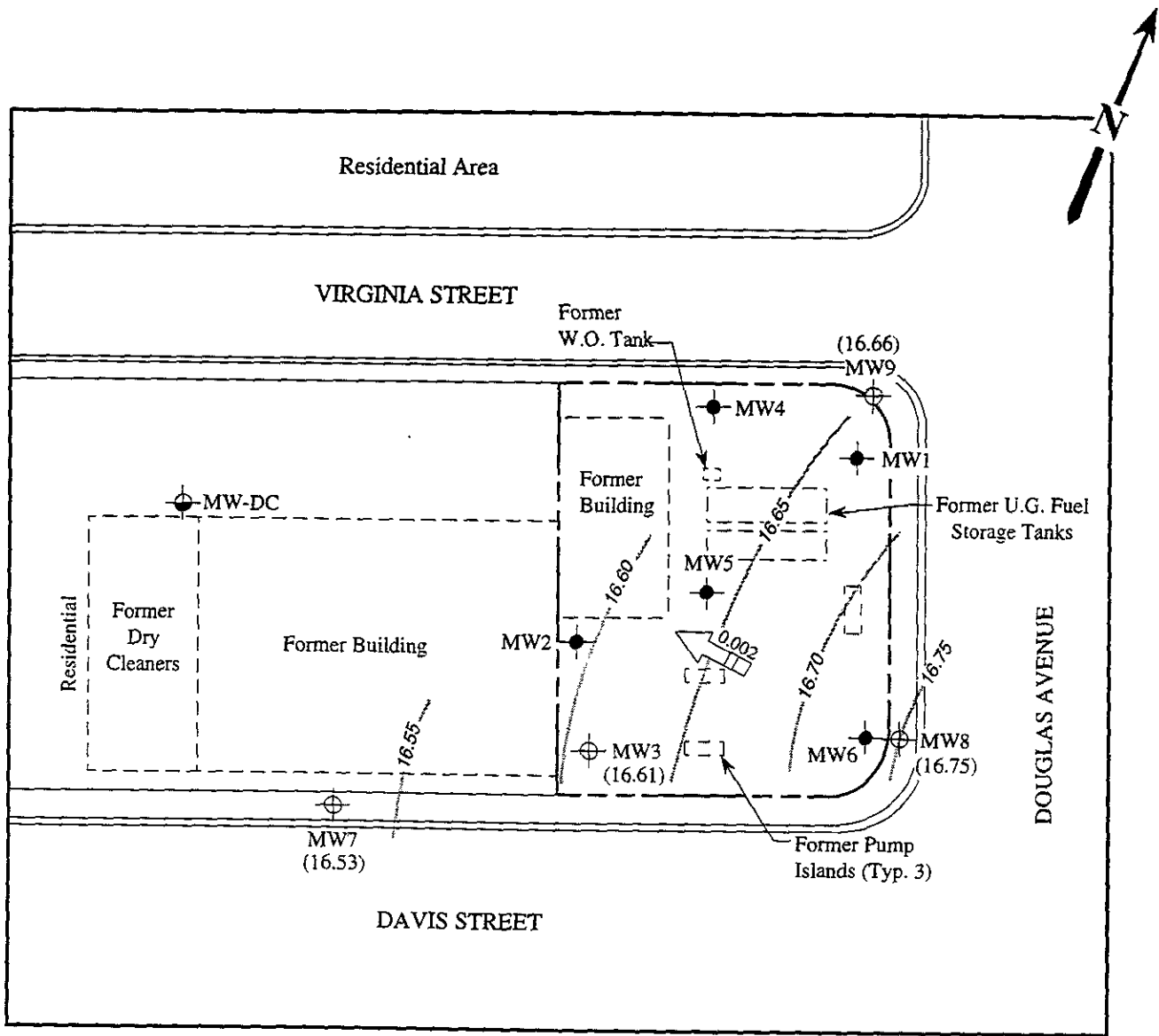
Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle
(photorevised 1980)



MPDS SERVICES, INCORPORATED

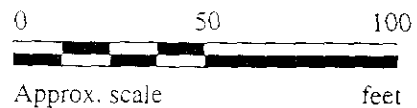
FORMER UNOCAL S/S #2512
1300 DAVIS STREET
SAN LEANDRO, CALIFORNIA

LOCATION
MAP

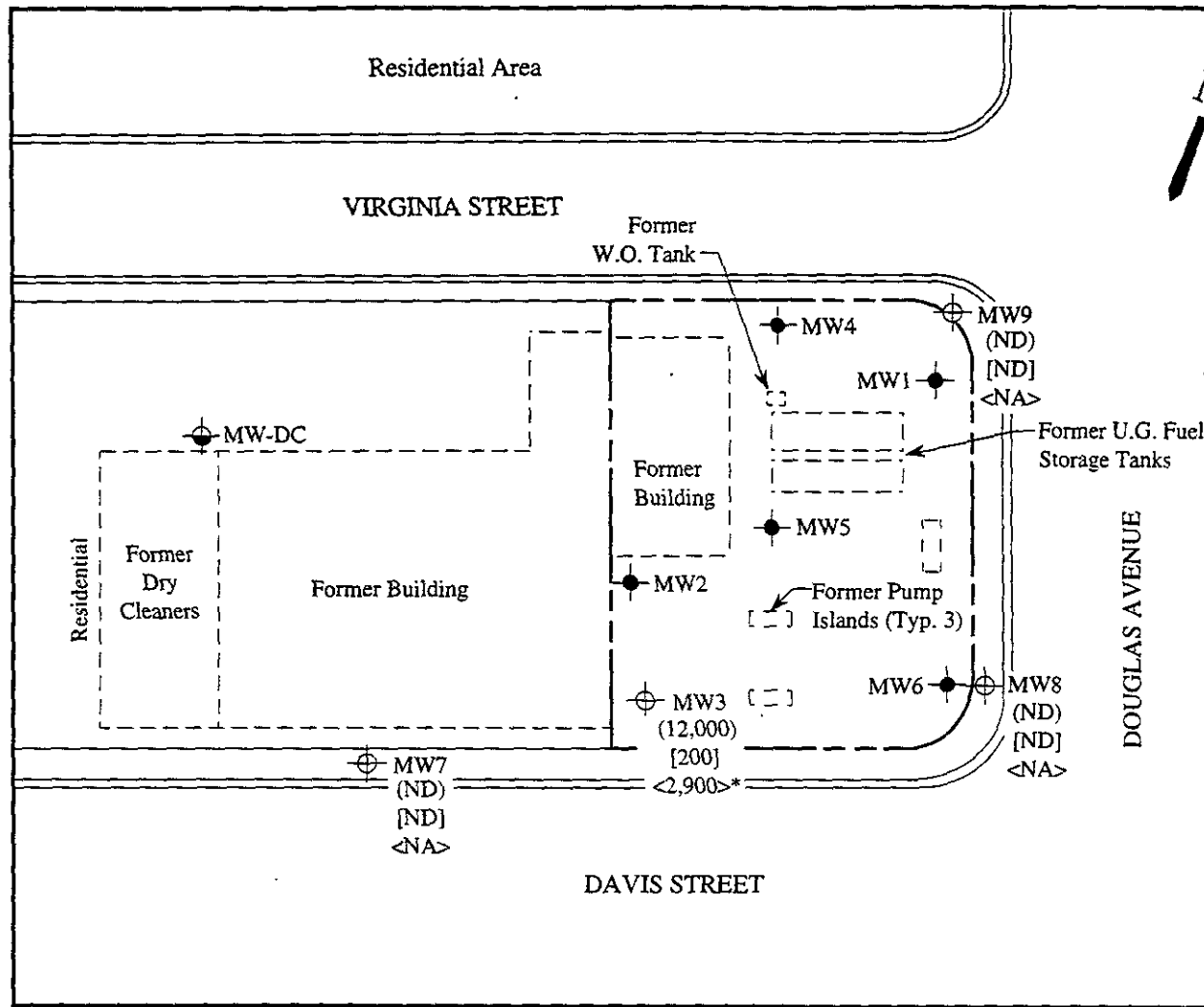


LEGEND

- Monitoring well (by KEI-existing)
- Monitoring well (by KEI-destroyed)
- Monitoring well (by others)
- () Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation



POTENTIOMETRIC SURFACE MAP FOR THE OCTOBER 20, 1997 MONITORING EVENT

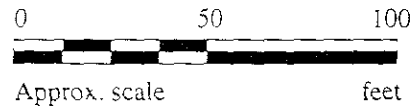


LEGEND

- ⊕ Monitoring well (by KEI-existing)
- Monitoring well (by KEI-destroyed)
- ⊙ Monitoring well (by others - existing)
- () Concentration of TPH as gasoline in µg/L
- [] Concentration of benzene in µg/L
- < > Concentration of TPH as diesel in µg/L

ND Non-detectable. NA Not analyzed

* The lab reported that the hydrocarbons detected did not appear to be diesel



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON OCTOBER 20, 1997



FORMER UNOCAL S/S #2512
1300 DAVIS STREET
SAN LEANDRO, CALIFORNIA

FIGURE
2



MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Matrix Descript: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 710-1575

Sampled: Oct 20, 1997
Received: Oct 20, 1997
Reported: Nov 3, 1997

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Purgeable Hydrocarbons µg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Total Xylenes µg/L
710-1575	MW-3	12,000	200	540	1,400	4,600
710-1576	MW-7	ND	ND	ND	ND	ND
710-1577	MW-8	ND	ND	ND	ND	ND
710-1578	MW-9	ND	ND	ND	ND	ND

Detection Limits:	50	0.50	0.50	0.50	0.50
--------------------------	----	------	------	------	------

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard
Analytes reported as ND were not present above the stated limit of detection

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
Project Manager



MPDS Services Client Project ID: Unocal #2512, 1300 Davis St., San Leandro Sampled: Oct 20, 1997
 2401 Stanwell Dr., Ste. 300 Matrix Descript: Water Received: Oct 20, 1997
 Concord, CA 94520 Analysis Method: EPA 5030/8015 Mod./8020 Reported: Nov 3, 1997
 Attention: Jarrel Crider First Sample #: 710-1575

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Sample Number	Sample Description	Chromatogram Pattern	DL Mult. Factor	Date Analyzed	Instrument ID	Surrogate Recovery, % QC Limits: 70-130
710-1575	MW-3	Gasoline	20	10/28/97	HP-2	130
710-1576	MW-7	--	1.0	10/28/97	HP-2	106
710-1577	MW-8	--	1.0	10/28/97	HP-2	112
710-1578	MW-9	--	1.0	10/28/97	HP-2	105

SEQUOIA ANALYTICAL. #1271

Signature on File

Alan B Kemp
Project Manager



Sequoia Analytical

580 Chesapeake Drive	Redwood City, CA 94063	(415) 364-9600	FAX (415) 364-9233
404 N. Wiget Lane	Walnut Creek, CA 94598	(510) 988-9600	FAX (510) 988-9673
819 Striker Avenue, Suite 8	Sacramento, CA 95834	(916) 921-9600	FAX (916) 921-0100

MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
Sample Descript: Water
Analysis for: MTBE (Modified EPA 8020)
First Sample #: 710-1575

Sampled: Oct 20, 1997
Received: Oct 20, 1997
Analyzed: Oct 28, 1997
Reported: Nov 3, 1997

LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L
710-1575	MW-3	50	210
710-1576	MW-7	5.0	N.D.
710-1577	MW-8	5.0	N.D.
710-1578	MW-9	5.0	100

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager





Sequoia Analytical

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 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

MPDS Services Client Project ID: Unocal #2512, 1300 Davis St., San Leandro Sampled: Oct 20, 1997
 2401 Stanwell Dr., Ste. 300 Sample Matrix: Water Received: Oct 20, 1997
 Concord, CA 94520 Analysis Method: EPA 3510/8015 Mod. Reported: Nov 3, 1997
 Attention: Jarrel Crider First Sample #: 710-1575

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 710-1575 MW-3 *
Extractable Hydrocarbons	50	2,900

Chromatogram Pattern: Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	10/27/97
Date Analyzed:	10/27/97
Instrument Identification:	GCHP-3B

Extractable Hydrocarbons are quantitated against a fresh diesel standard
 Analytes reported as N.D. were not detected above the stated reporting limit

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Please Note

*This sample does not appear to contain diesel. "Unidentified Hydrocarbons <C15" are probably gasoline





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MPDS Services Client Project ID: Unocal #2512, 1300 Davis St., San Leandro Sampled: Oct 20, 1997
 2401 Stanwell Dr., Ste. 300 Sample Descript: Water, MW-3 Received: Oct 20, 1997
 Concord, CA 94520 Analysis Method: EPA 5030/8010 Analyzed: Oct 29, 1997
 Attention: Jarrel Crider Lab Number: 710-1575 Reported: Nov 3, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-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.....	50	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.
Surrogates	Control Limit %	% Recovery
Dibromodifluoromethane.....	50	150.....
4-Bromofluorobenzene.....	50	150.....

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager





Sequoia Analytical

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 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

MPDS Services
 2401 Stanwell Dr., Ste. 300
 Concord, CA 94520
 Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
 Sample Descript: Water, MW-7
 Analysis Method: EPA 5030/8010
 Lab Number: 710-1576

Sampled: Oct 20, 1997
 Received: Oct 20, 1997
 Analyzed: Oct 29, 1997
 Reported: Nov 3, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L	
Bromodichloromethane.....	0.50	N.D.	
Bromoform.....	0.50	N.D.	
Bromomethane.....	1.0	N.D.	
Carbon tetrachloride.....	0.50	N.D.	
Chlorobenzene.....	0.50	N.D.	
Chloroethane.....	1.0	N.D.	
2-Chloroethylvinyl ether.....	1.0	N.D.	
Chloroform.....	0.50	N.D.	
Chloromethane.....	1.0	N.D.	
Dibromochloromethane.....	0.50	N.D.	
1,3-Dichlorobenzene.....	0.50	N.D.	
1,4-Dichlorobenzene.....	0.50	N.D.	
1,2-Dichlorobenzene.....	0.50	N.D.	
1,1-Dichloroethane.....	0.50	N.D.	
1,2-Dichloroethane.....	0.50	N.D.	
1,1-Dichloroethene.....	0.50	N.D.	
cis-1,2-Dichloroethene.....	0.50	N.D.	
trans-1,2-Dichloroethene.....	0.50	N.D.	
1,2-Dichloropropane.....	0.50	N.D.	
cis-1,3-Dichloropropene.....	0.50	N.D.	
trans-1,3-Dichloropropene.....	0.50	N.D.	
Methylene chloride.....	5.0	N.D.	
1,1,2,2-Tetrachloroethane.....	0.50	N.D.	
Tetrachloroethene.....	0.50	1.5	
1,1,1-Trichloroethane.....	0.50	N.D.	
1,1,2-Trichloroethane.....	0.50	N.D.	
Trichloroethene.....	0.50	N.D.	
Trichlorofluoromethane.....	0.50	N.D.	
Vinyl chloride.....	1.0	N.D.	
Surrogates			
Dibromodifluoromethane.....	50	150	87
4-Bromofluorobenzene.....	50	150	96

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
 Project Manager





Sequoia Analytical

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 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

MPDS Services
 2401 Stanwell Dr., Ste. 300
 Concord, CA 94520
 Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
 Sample Descript: Water, MW-8
 Analysis Method: EPA 5030/8010
 Lab Number: 710-1577

Sampled: Oct 20, 1997
 Received: Oct 20, 1997
 Analyzed: Oct 29, 1997
 Reported: Nov 3, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	1.1
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.
Surrogates	Control Limit %	% Recovery
Dibromodifluoromethane.....	50	150
4-Bromofluorobenzene.....	50	150

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
 Project Manager



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 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

MPDS Services
 2401 Stanwell Dr., Ste. 300
 Concord, CA 94520
 Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
 Sample Descript: Water, MW-9
 Analysis Method: EPA 5030/8010
 Lab Number: 710-1578

Sampled: Oct 20, 1997
 Received: Oct 20, 1997
 Analyzed: Oct 29, 1997
 Reported: Nov 3, 1997

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	5.0	N.D.
Bromoform.....	5.0	N.D.
Bromomethane.....	10	N.D.
Carbon tetrachloride.....	5.0	N.D.
Chlorobenzene.....	5.0	N.D.
Chloroethane.....	10	N.D.
2-Chloroethylvinyl ether.....	10	N.D.
Chloroform.....	5.0	N.D.
Chloromethane.....	10	N.D.
Dibromochloromethane.....	5.0	N.D.
1,3-Dichlorobenzene.....	5.0	N.D.
1,4-Dichlorobenzene.....	5.0	N.D.
1,2-Dichlorobenzene.....	5.0	N.D.
1,1-Dichloroethane.....	5.0	N.D.
1,2-Dichloroethane.....	5.0	N.D.
1,1-Dichloroethene.....	5.0	N.D.
cis-1,2-Dichloroethene.....	5.0	N.D.
trans-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.....	50	N.D.
1,1,2,2-Tetrachloroethane.....	5.0	N.D.
Tetrachloroethene.....	5.0	47
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.
Surrogates	Control Limit %	% Recovery
Dibromodifluoromethane.....	50	150
4-Bromofluorobenzene.....	50	150
		86
		98

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
 Project Manager



Sequoia Analytical

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 404 N. Wiget Lane Walnut Creek, CA 94598 (510) 988-9600 FAX (510) 988-9673
 819 Striker Avenue, Suite 8 Sacramento, CA 95834 (916) 921-9600 FAX (916) 921-0100

MPDS Services
 2401 Stanwell Dr., Ste. 300
 Concord, CA 94520
 Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
 Matrix: Liquid

QC Sample Group: 7101575-578

Reported: Nov 3, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Analyst:	K. Nill	K. Nill	K. Nill	K. Nill	K. Grubb

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Batch#:	7101576	7101576	7101576	7101576	BLK102797
Date Prepared:	10/28/97	10/28/97	10/28/97	10/28/97	10/27/97
Date Analyzed:	10/28/97	10/28/97	10/28/97	10/28/97	10/27/97
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
Matrix Spike % Recovery:	110	115	115	120	81
Matrix Spike Duplicate % Recovery:	100	105	110	113	68
Relative % Difference:	9.5	9.1	4.4	5.7	18

LCS Batch#:	2LCS102897	2LCS102897	2LCS102897	2LCS102897	-
Date Prepared:	10/28/97	10/28/97	10/28/97	10/28/97	-
Date Analyzed:	10/28/97	10/28/97	10/28/97	10/28/97	-
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	-
LCS % Recovery:	100	100	100	102	-

% Recovery Control Limits:	70-130	70-130	70-130	70-130	60-140
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Please Note
 The LCS is a control sample of known interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
 Project Manager



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MPDS Services
 2401 Stanwell Dr., Ste. 300
 Concord, CA 94520
 Attention: Jarrel Crider

Client Project ID: Unocal #2512, 1300 Davis St., San Leandro
 Matrix: Liquid

QC Sample Group: 7101575-578

Reported: Nov 3, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-benzene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	K. Nill	K. Nill	K. Nill

MS/MSD			
Batch#:	7101576	7101576	7101576
Date Prepared:	10/29/97	10/29/97	10/29/97
Date Analyzed:	10/29/97	10/29/97	10/29/97
Instrument I.D.#:	HP-7	HP-7	HP-7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike			
% Recovery:	120	130	100
Matrix Spike Duplicate %			
Recovery:	120	110	100
Relative % Difference:	0.0	17	0.0

LCS Batch#:	7LCS102997	7LCS102997	7LCS102997
Date Prepared:	10/29/97	10/29/97	10/29/97
Date Analyzed:	10/29/97	10/29/97	10/29/97
Instrument I.D.#:	HP-7	HP-7	HP-7
LCS % Recovery:	90	95	85

% Recovery Control Limits:	65-135	70-130	70-130
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SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B Kemp
 Project Manager

Please Note
 The LCS is a control sample of known interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

