

MPDS

SERVICES, INCORPORATED

ALCO
HAZMAT
94 MAY -4 PM 2:51

May 2, 1994

Mr. Scott Seery
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94261

RE: Unocal Service Station #3292
15008 E. 14th Street
San Leandro, California

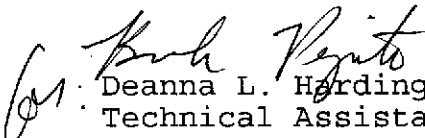
Dear Mr. Seery:

Per the request of the Unocal Corporation Project Manager, Mr. Edward C. Ralston, enclosed please find our report (MPDS-UN3292-02) dated March 30, 1994, 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) 277-2311.

Sincerely,

MPDS Services, Inc.


Deanna L. Harding
Technical Assistant

/dlh

Enclosure

cc: Mr. Edward C. Ralston

MPDS

SERVICES, INCORPORATED

MPDS-UN3292-02
March 30, 1994

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

Attention: Mr. Edward C. Ralston

RE: Quarterly Data Report
Unocal Service Station #3292
15008 E. 14th Street
San Leandro, California

Dear Mr. Ralston:

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

RECENT FIELD ACTIVITIES

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

A joint monitoring and sampling event was conducted with the consultant for the nearby former Mobil service station site on February 24, 1994. The monitoring data collected for the former Mobil site monitoring wells (provided by Alisto Engineering Group) are summarized in Table 3. The ground water flow direction at the former Mobil site during the most recent quarter is also shown on the attached Figure 1.

Ground water samples were collected from the Unocal wells on February 24, 1994. Prior to sampling, the Unocal wells were each purged of between 6 and 9 gallons of water. 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.

ANALYTICAL RESULTS

The ground water samples collected from the Unocal wells 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 from the Unocal wells are summarized in Table 2. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the ground water samples collected from the Unocal wells this quarter are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation for the Unocal wells are attached to this report.

DISTRIBUTION

A copy of this report should be sent to Mr. Scott Seery of the Alameda County Health Care Services Agency, and to the Regional Water Quality Control Board, San Francisco Bay Region.

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

Sincerely,

MPDS Services, Inc.



Joel G. Greger, C.E.G.
Senior Engineering Geologist

License No. EG 1633
Exp. Date 6/30/94

/dlh

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

cc: Mr. Robert H. Kezerian, Kaprealian Engineering, Inc.

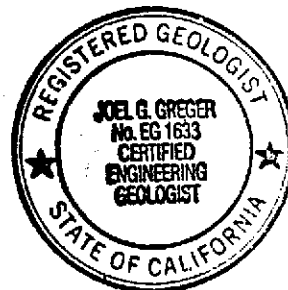


TABLE 1

SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS

Well #	Ground Water Elevation (feet)	Depth to Water (feet) ♦	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet) ♦
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(Monitored and Sampled on February 24, 1994)

MW1	26.92	9.45	0	No	6.5	18.93
MW2	27.07	9.27	0	No	7	19.07
MW3	27.21	9.21	0	No	9	22.11
MW4	27.15	9.89	0	No	7	19.60
MW5	26.92	9.02	0	No	9	22.11
MW6	27.28	8.39	0	No	8	20.11
MW7	27.14	8.95	0	No	8.5	21.21
MW8	26.45	10.44	0	No	6	19.07
MW9	26.55	9.74	0	No	6.5	19.07
MW10	26.47	9.57	0	No	7	19.86
MW11	26.30	9.20	0	No	7	18.98

(Monitored and Sampled on November 23, 1993)

MW1	24.53	11.84	0	No	5	18.93
MW2	24.65	11.69	0	No	5.5	19.07
MW3	24.64	11.78	0	No	7.5	22.11
MW4	24.60	12.44	0	No	5	19.60
MW5	24.49	11.45	0	No	7.5	22.10
MW6	24.71	10.96	0	No	6.5	20.09
MW7	24.81	11.28	0	No	7	21.18
MW8	24.51	12.38	0	No	5	19.06
MW9	24.49	11.80	0	No	5	19.06
MW10	24.37	11.67	0	No	6	19.86
MW11	24.22	11.28	0	No	5.5	18.98

TABLE 1 (Continued)

**SUMMARY OF MONITORING DATA
 UNOCAL MONITORING WELLS**

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet)◆
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(Monitored and Sampled on August 23, 1993)

MW1	25.45	11.27	0	No	6	
MW2	25.59	11.30	0	No	6	
MW3	25.60	11.24	0	No	8	
MW4	25.54	11.86	0	No	6	
MW5	25.42	10.98	0	No	8	
MW6	25.68	10.35	0	No	7	
MW7	25.75	10.65	0	No	8	
MW8	25.38	11.76	0	No	6	
MW9	25.38	11.54	0	No	6	
MW10	25.27	10.99	0	No	7	
MW11	25.10	10.73	0	No	6	

(Monitored and Sampled on May 21, 1993)

MW1	26.92	9.80	0	No	6.5	
MW2	27.05	9.84	0	No	7	
MW3	27.14	9.70	0	No	9	
MW4	27.08	10.32	0	No	7	
MW5	26.84	9.56	0	No	9	
MW6	27.20	8.83	0	No	8	
MW7	27.24	9.16	0	No	8.5	
MW8	26.74	10.40	0	No	6.5	
MW9	26.76	10.16	0	No	6.5	
MW10	26.63	9.63	0	No	7.5	
MW11	26.43	9.40	0	No	7	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS

<u>Well #</u>	<u>Well Cover Elevation (feet)*</u>	<u>Well Casing Elevation (feet)**</u>
MW1	36.72	36.37
MW2	36.89	36.34
MW3	36.84	36.42
MW4	37.40	37.04
MW5	36.40	35.94
MW6	36.03	35.67
MW7	36.40	36.09
MW8	37.14	36.89
MW9	36.92	36.29
MW10	36.26	36.04
MW11	35.83	35.50

◆ The depth to water level and total well depth measurements were taken from the top of the well casings. Prior to November 23, 1993, the depth to water level and total well depth measurements were taken from the top of the well covers.

* The elevations of the top of the well covers have been surveyed relative to Mean Sea Level (MSL), per a Benchmark located at the northwest corner of East 14th Street and 150th Avenue (elevation = 36.88 MSL).

** Relative to MSL.

Note: Monitoring data prior to November 23, 1993, were provided by Kaprealian Engineering, Inc.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

<u>Date</u>	<u>Well #</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
2/24/94	MW1	18,000	74	30	940	480
	MW2♦	11,000	44	ND	580	32
	MW3	3,400	46	ND	53	11
	MW4	1,300	8.9	ND	20	ND
	MW5	57,000	140	400	4,400	16,000
	MW6♦	810	12	ND	2.6	0.77
	MW7♦	16,000	220	19	2,400	3,200
	MW8	1,200	10	2.3	ND	3.2
	MW9	2,900	35	ND	ND	ND
	MW10	15,000	330	19	2,000	83
	MW11	4,600	170	ND	140	36
11/23/93	MW1	18,000	210	63	900	620
	MW2	11,000	80	10	480	20
	MW3	2,300	34	ND	24	5.6
	MW4	720	10	ND	8.7	ND
	MW5	46,000	290	310	4,100	15,000
	MW6	520	ND	1.7	1.9	0.82
	MW7	19,000	310	30	2,500	2,300
	MW8	1,800	ND	3.4	ND	ND
	MW9	2,500	23	2.1	ND	ND
	MW10	18,000	300	10	2,800	110
	MW11	3,400	105	ND	120	43
8/23/93	MW1	24,000	160	110	840	810
	MW2	15,000	110	ND	590	64
	MW3	2,900	25	ND	50	18
	MW4	1,200	5.0	ND	16	ND
	MW5	61,000	340	380	3,600	14,000
	MW6	1,000	9.4	2.3	5.0	2.3
	MW7	33,000	360	ND	2,500	4,300
	MW8	280*	49	4.5	ND	ND
	MW9	3,000	29	ND	ND	ND
	MW10	20,000	230	13	3,200	140
	MW11	5,400	68	ND	230	43

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
5/21/93	MW1	27,000	150	200	1,200	950
	MW2	9,500	37	ND	470	62
	MW3	2,600	42	ND	43	15
	MW4	1,900	31	ND	20	4.5
	MW5	55,000	ND	160	3,500	12,000
	MW6	940	18	1.0	7.1	2.7
	MW7	22,000	330	37	2,100	2,900
	MW8	2,500	44	ND	ND	ND
	MW9	3,200	32	ND	8.1	ND
	MW10	23,000	250	ND	3,000	240
	MW11	7,100	64	ND	340	120
2/20/93	MW1	19,000	190	ND	880	620
	MW2	1,500	2.9	3.8	9.1	ND
	MW3	1,600	12	18	8.9	12
	MW4	2,400	40	2.1	33	ND
	MW5	17,000	75	ND	1,000	620
	MW6	2,400	43	ND	33	2.0
	MW7	1,800	37	4.6	11	7.7
	MW8	2,200	32	ND	42	5.0
	MW9	2,300	47	ND	32	ND
	MW10	17,000	74	ND	1,000	620
	MW11	18,000	76	ND	1,000	630
11/10/92	MW1	18,000	220	ND	690	830
	MW2	11,000	36	7.2	570	45
	MW3	3,400	37	ND	85	34
	MW4	690	9.1	ND	16	2.8
	MW5	57,000	800	1,800	4,400	18,000
	MW6	490	7.0	1.2	1.7	ND
	MW7	1,800	74	ND	230	350
	MW8	1,800	20	ND	ND	ND
	MW9	4,200	ND	ND	21	23
	MW10	15,000	300	42	3,500	330
	MW11	5,800	130	ND	260	42

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes
8/20/92	MW1	18,000	230	22	640	950
	MW2	13,000	52	ND	660	70
	MW3	4,500	58	ND	65	35
	MW4	1,000	15	ND	11	3.0
	MW5	58,000	660	1,700	4,200	19,000
	MW6	280	8.4	ND	0.51	0.84
	MW7	13,000	460	54	ND	3,100
	MW8	3,500*	67	11	ND	ND
	MW9	3,800*	37	ND	ND	ND
	MW10	15,000	230	ND	1,000	350
	MW11	4,600*	62	ND	ND	54
5/19/92	MW1	29,000	650	370	1,100	1,200
	MW2	17,000	140	87	680	170
	MW3	3,400	25	3.6	66	41
	MW4	2,000	20	3.5	42	8.3
	MW5	84,000	760	1,500	4,000	17,000
	MW6	1,300	2.0	2.1	ND	2.7
	MW7	17,000	540	90	1,200	1,900
	MW8	5,300	28	3.3	2.6	2.1
	MW9	8,100	11	ND	25	5.8
3/17/92	MW1	23,000	320	19	1,000	940
	MW2	16,000	110	ND	730	220
	MW3	5,800	66	7.5	100	58
	MW4	1,800	3.7	1.4	90	21
	MW5	81,000	850	1,600	4,800	18,000
12/18/91	MW1	17,000	160	20	1,400	1,600
	MW2	10,000	110	5.1	420	96
	MW3	5,900	54	6.4	110	64
	MW4	2,500	28	2.5	54	22
	MW5	31,000	1,600	3,100	4,800	19,000

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
9/19/91	MW1	26,000	130	16	1,300	1,800
	MW2	19,000	100	6.8	790	310
	MW3	7,600	ND	13	190	170
	MW4	1,800	0.83	ND	54	46
	MW5	57,000	1,600	2,700	5,200	20,000
5/04/91	MW1	31,000	74	20	920	1,500
	MW2	19,000	6.6	1.4	460	630
	MW3	9,100	2.0	ND	55	180
	MW4	6,300	ND	ND	2.8	61
	MW5	69,000	1,400	2,500	3,500	15,000

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

◆ All EPA 8010 constituents were non-detectable.

ND = Non-detectable.

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

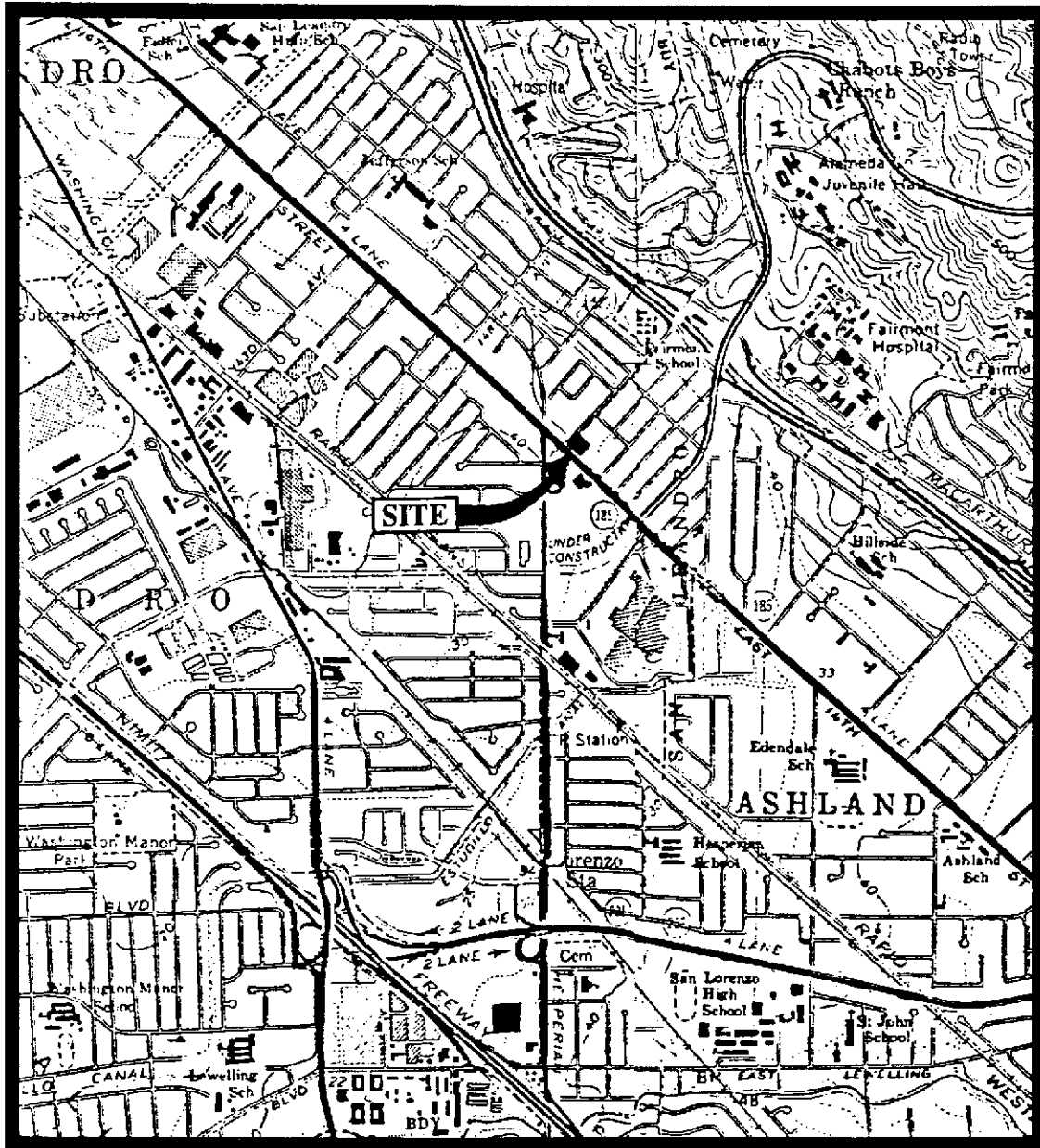
Note: Laboratory analyses data prior to November 23, 1993, were provided by Kaprealian Engineering, Inc.

TABLE 3

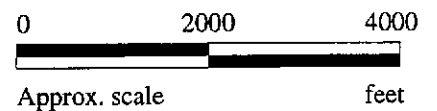
SUMMARY OF MONITORING DATA
FORMER MOBIL SERVICE STATION MONITORING WELLS
(Provided by Alisto Engineering Group)

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)</u>	<u>Well Casing Elevation (feet)*</u>
(Monitored on February 24, 1994)			
MW-1	26.93	9.42	36.35
MW-2	27.09	9.52	36.61
MW-3	27.07	9.85	36.92
MW-4	WELL WAS INACCESSIBLE		

* The elevations of the top of the well casings have been surveyed relative to Mean Sea Level (MSL).



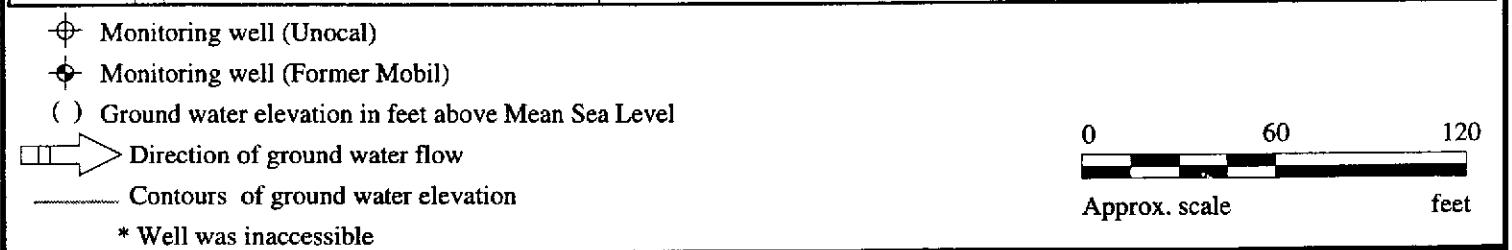
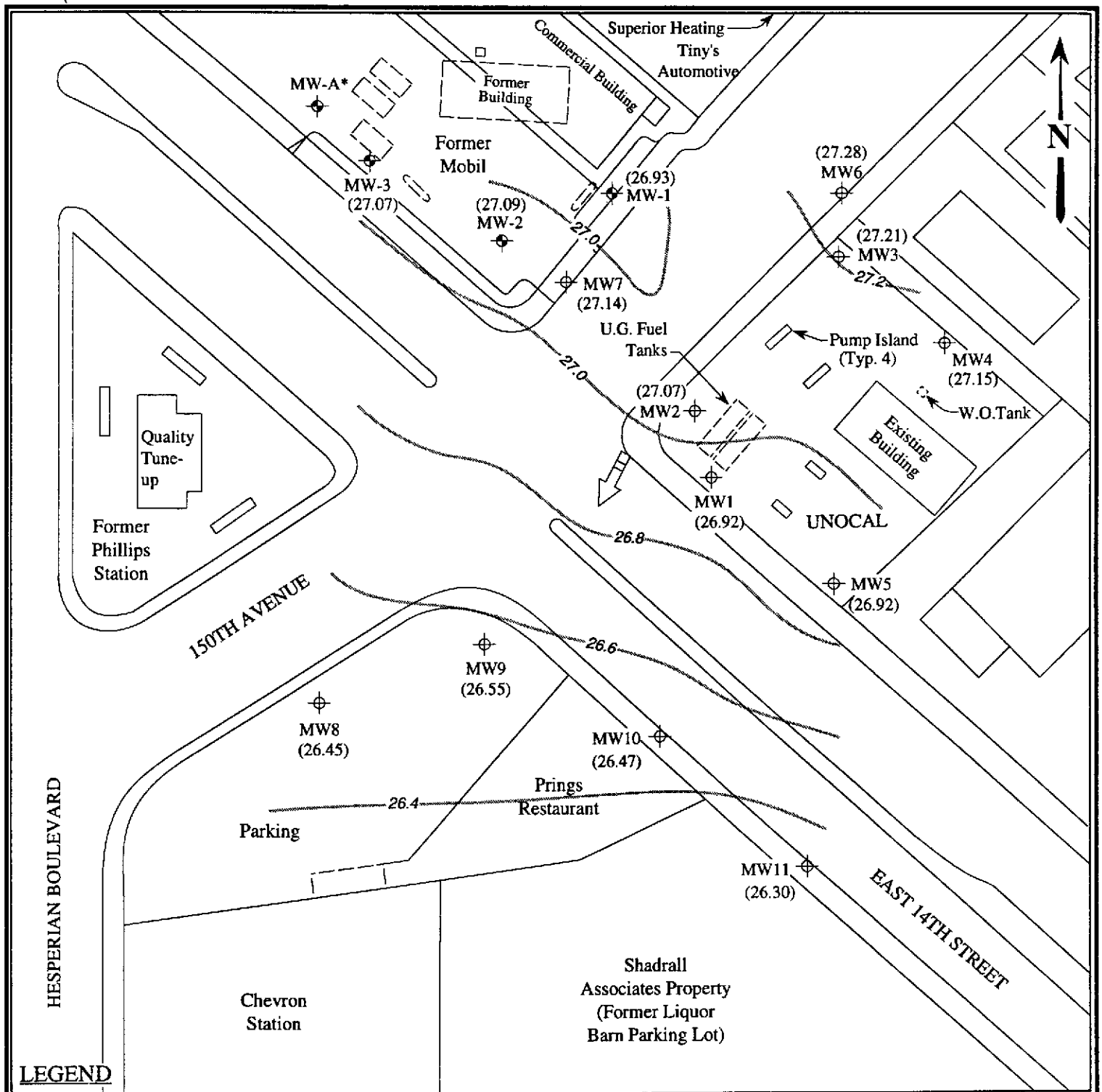
Base modified from 7.5 minute U.S.G.S.
Hayward and San Leandro Quadrangles
(both photorevised 1980)



MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #3292
15008 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

LOCATION
MAP

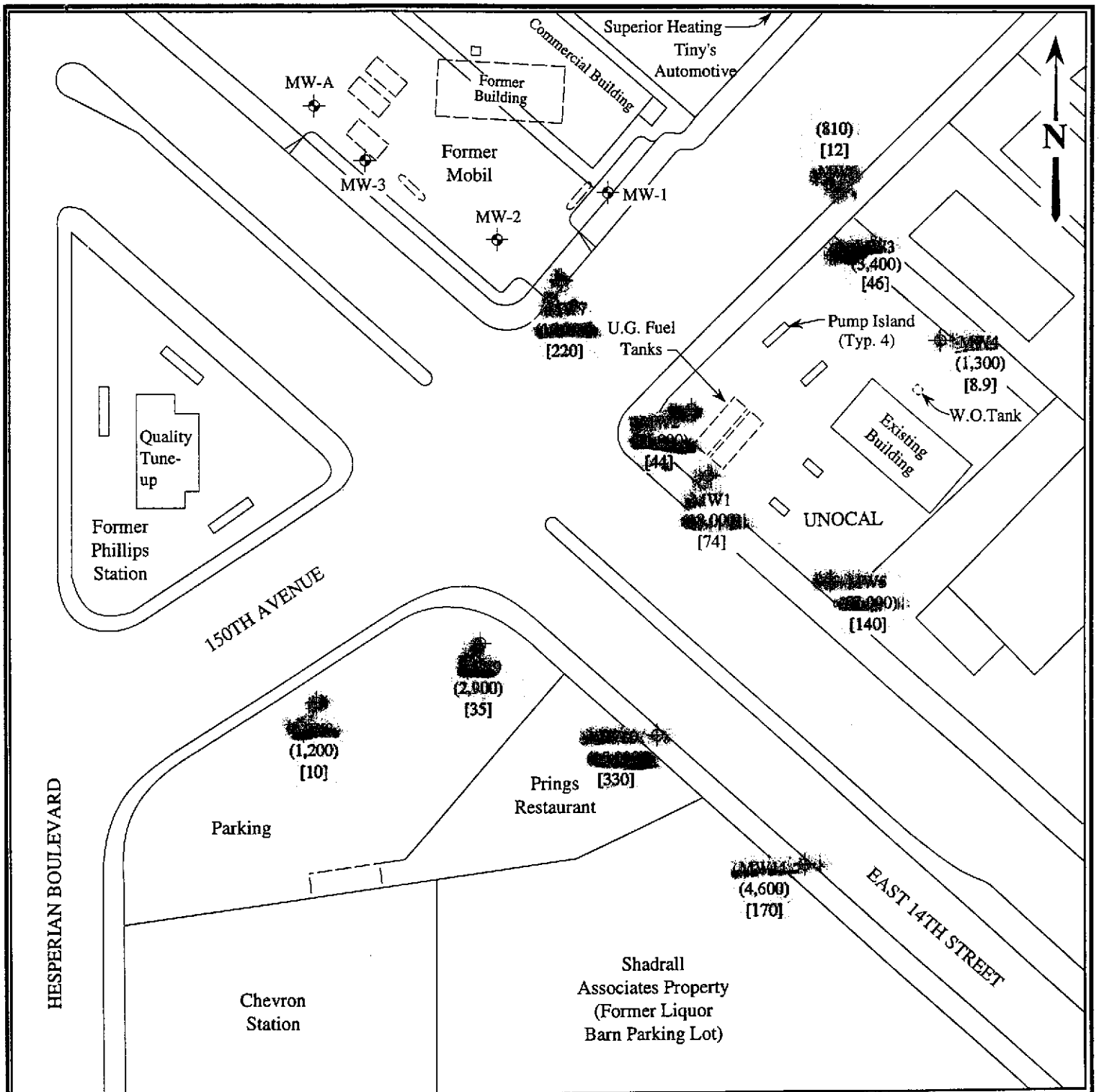


POTENTIOMETRIC SURFACE MAP FOR THE FEBRUARY 24, 1994 JOINT MONITORING EVENT

MPDS
SERVICES, INCORPORATED

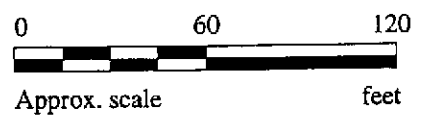
UNOCAL SERVICE STATION #3292
15008 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE
1



LEGEND

- ⊕ Monitoring well (Unocal)
- ⊕ Monitoring well (Former Mobil)
- () Concentration of TPH as gasoline in µg/L
- [] Concentration of benzene in µg/L



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON FEBRUARY 24, 1994

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #3292
15008 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE
2



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 East 14th St., Sample Matrix: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 402-1505	San Leandro	Sampled: Feb 24, 1994 Received: Feb 24, 1994 Reported: Mar 10, 1994
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 402-1505 MW-1	Sample I.D. 402-1506 MW-2	Sample I.D. 402-1507 MW-3	Sample I.D. 402-1508 MW-4	Sample I.D. 402-1509 MW-5	Sample I.D. 402-1510 MW-6
Purgeable Hydrocarbons	50	18,000	11,000	3,400	1,300	57,000	810
Benzene	0.5	74	44	46	8.9	140	12
Toluene	0.5	30	N.D.	N.D.	N.D.	400	N.D.
Ethyl Benzene	0.5	940	580	53	20	4,400	2.6
Total Xylenes	0.5	480	32	11	N.D.	16,000	0.77
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	40	20	20	4.0	200	1.0
Date Analyzed:	3/7/94	3/7/94	3/7/94	3/8/94	3/8/94	3/7/94
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	120	129	113	131	109	153

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

SEQUOIA ANALYTICAL


Alan B. Kemp
Project Manager



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 East 14th St., Sample Matrix: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 402-1511	San Leandro	Sampled: Feb 24, 1994 Received: Feb 24, 1994 Reported: Mar 10, 1994
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 402-1511 MW-7	Sample I.D. 402-1512 MW-8	Sample I.D. 402-1513 MW-9	Sample I.D. 402-1514 MW-10	Sample I.D. 402-1515 MW-11	Sample I.D. Matrix Blank
Purgeable Hydrocarbons	50	16,000	1,200	2,900	15,000	4,600	
Benzene	0.5	220	10	35	330	170	
Toluene	0.5	19	2.3	N.D.	19	N.D.	
Ethyl Benzene	0.5	2,400	N.D.	N.D.	2,000	140	
Total Xylenes	0.5	3,200	3.2	N.D.	83	36	
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline	Gasoline	Gasoline	

Quality Control Data

Report Limit Multiplication Factor:	20	4.0	1.0	20	20	1.0
Date Analyzed:	3/7/94	3/9/94	3/7/94	3/7/94	3/7/94	3/7/94
Instrument Identification:	HP-2	HP-4	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	119	95	95	91	88	109

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

SEQUOIA ANALYTICAL


Alan B. Kemp
Project Manager



SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 East 14th St., Sample Descript: Water, MW-2 San Leandro Analysis Method: EPA 5030/8010 Lab Number: 402-1506	Sampled: Feb 24, 1994 Received: Feb 24, 1994 Analyzed: Mar 1, 1994 Reported: Mar 10, 1994
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HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	2.5	N.D.
Bromoform.....	2.5	N.D.
Bromomethane.....	5.0	N.D.
Carbon tetrachloride.....	2.5	N.D.
Chlorobenzene.....	2.5	N.D.
Chloroethane.....	5.0	N.D.
2-Chloroethylvinyl ether.....	5.0	N.D.
Chloroform.....	2.5	N.D.
Chloromethane.....	5.0	N.D.
Dibromochloromethane.....	2.5	N.D.
1,3-Dichlorobenzene.....	2.5	N.D.
1,4-Dichlorobenzene.....	2.5	N.D.
1,2-Dichlorobenzene.....	2.5	N.D.
1,1-Dichloroethane.....	2.5	N.D.
1,2-Dichloroethane.....	2.5	N.D.
1,1-Dichloroethene.....	2.5	N.D.
cis-1,2-Dichloroethene.....	2.5	N.D.
trans-1,2-Dichloroethene.....	2.5	N.D.
1,2-Dichloropropane.....	2.5	N.D.
cis-1,3-Dichloropropene.....	2.5	N.D.
trans-1,3-Dichloropropene.....	2.5	N.D.
Methylene chloride.....	25	N.D.
1,1,2,2-Tetrachloroethane.....	2.5	N.D.
Tetrachloroethene.....	2.5	N.D.
1,1,1-Trichloroethane.....	2.5	N.D.
1,1,2-Trichloroethane.....	2.5	N.D.
Trichloroethene.....	2.5	N.D.
Trichlorofluoromethane.....	2.5	N.D.
Vinyl chloride.....	5.0	N.D.

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


Alan B. Kemp
Project Manager



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1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St.,
Sample Descript: Water, MW-6 San Leandro
Analysis Method: EPA 5030/8010
Lab Number: 402-1510

Sampled: Feb 24, 1994
Received: Feb 24, 1994
Analyzed: Mar 1, 1994
Reported: Mar 10, 1994

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	N.D.
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.

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

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Alan B. Kemp
Project Manager



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MPDS Services, Inc. 2401 Stanwell Dr., Ste. 400 Concord, CA 94520 Attention: Avo Avedissian	Client Project ID: Unocal #3292, 15008 East 14th St., Sample Descript: Water, MW-7 San Leandro Analysis Method: EPA 5030/8010 Lab Number: 402-1511	Sampled: Feb 24, 1994 Received: Feb 24, 1994 Analyzed: Mar 1, 1994 Reported: Mar 10, 1994
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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	N.D.
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.

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

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Project Manager



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MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St., San Leandro
Matrix: Liquid

QC Sample Group: 4021505-15

Reported: Mar 10, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes
Batch#:	4030134	4030134	4030134	4030134
Date Prepared:	3/7/94	3/7/94	3/7/94	3/7/94
Date Analyzed:	3/7/94	3/7/94	3/7/94	3/7/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	110	105	105	105
Matrix Spike Duplicate % Recovery:	115	110	110	108
Relative % Difference:	4.4	4.7	4.7	2.8

LCS Batch#:	1LCS030794	1LCS030794	1LCS030794	1LCS030794
Date Prepared:	3/7/94	3/7/94	3/7/94	3/7/94
Date Analyzed:	3/7/94	3/7/94	3/7/94	3/7/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	108	109	112	113

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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.

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MPDS Services, Inc.
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Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St., San Leandro
Matrix: Liquid

QC Sample Group: 4021505-15

Reported: Mar 10, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha

MS/MSD Batch#:	4030103	4030103	4030103	4030103
Date Prepared:	3/8/94	3/8/94	3/8/94	3/8/94
Date Analyzed:	3/8/94	3/8/94	3/8/94	3/8/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	100	105	103
Matrix Spike Duplicate % Recovery:	105	100	105	98
Relative % Difference:	0.0	0.0	0.0	4.9

LCS Batch#:	1LCS030894	1LCS030894	1LCS030894	1LCS030894
Date Prepared:	3/8/94	3/8/94	3/8/94	3/8/94
Date Analyzed:	3/8/94	3/8/94	3/8/94	3/8/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	105	99	99	99

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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.

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MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St., San Leandro
Matrix: Liquid

QC Sample Group: 4021505-15

Reported: Mar 10, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha

MS/MSD Batch#:	4030135	4030135	4030135	4030135
Date Prepared:	3/7/94	3/7/94	3/7/94	3/7/94
Date Analyzed:	3/7/94	3/7/94	3/7/94	3/7/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	100	100	105	105
Matrix Spike Duplicate % Recovery:	105	100	100	103
Relative % Difference:	4.9	0.0	4.9	1.9

LCS Batch#:	2LCS030794	2LCS030794	2LCS030794	2LCS030794
Date Prepared:	3/7/94	3/7/94	3/7/94	3/7/94
Date Analyzed:	3/7/94	3/7/94	3/7/94	3/7/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	100	99	98	99

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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.

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Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St., San Leandro
Matrix: Liquid

QC Sample Group: 4021505-15

Reported: Mar 10, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Fontecha	J. Fontecha	J. Fontecha	J. Fontecha

MS/MSD Batch#:	4021623	4021623	4021623	4021623
Date Prepared:	3/9/94	3/9/94	3/9/94	3/9/94
Date Analyzed:	3/9/94	3/9/94	3/9/94	3/9/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	100	105	100	103
Matrix Spike Duplicate % Recovery:	105	105	100	105
Relative % Difference:	4.9	0.0	0.0	1.9

LCS Batch#:	2LCS030994	2LCS030994	2LCS030994	2LCS030994
Date Prepared:	3/9/94	3/9/94	3/9/94	3/9/94
Date Analyzed:	3/9/94	3/9/94	3/9/94	3/9/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	98	94	88	93

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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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.

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Alan B. Kemp
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MPDS Services, Inc.
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Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St., San Leandro
Matrix: Liquid

QC Sample Group: 4021506-11

Reported: Mar 10, 1994

QUALITY CONTROL DATA REPORT

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

MS/MSD			
Batch#:	4021404	4021404	4021404
Date Prepared:	3/1/94	3/1/94	3/1/94
Date Analyzed:	3/1/94	3/1/94	3/1/94
Instrument I.D.#:	HP5890/1	HP5890/1	HP5890/1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	110	100	96
Matrix Spike Duplicate % Recovery:	130	120	96
Relative % Difference:	17	18	0.0

LCS Batch#:	LCS030194	LCS030194	LCS030194
Date Prepared:	3/1/94	3/1/94	3/1/94
Date Analyzed:	3/1/94	3/1/94	3/1/94
Instrument I.D.#:	HP5890/1	HP5890/1	HP5890/1
LCS % Recovery:	96	89	89

% Recovery Control Limits:	28-167	35-146	38-150
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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


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Project Manager



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MPDS Services, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Unocal #3292, 15008 East 14th St., San Leandro

QC Sample Group: 4021506-11

Reported: Mar 10, 1994

QUALITY CONTROL DATA REPORT

SURROGATE

Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	K.Nill	K.Nill	K.Nill	K.Nill
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	3/1/94	3/1/94	3/1/94	3/1/94
Sample #:	402-1506	402-1510	402-1511	Matrix Blank

Surrogate #1				
% Recovery:	90	82	69	86

Surrogate #2				
% Recovery:	100	103	118	98

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% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

Alan B. Kemp
Project Manager

M P D S Services, Inc.

2401 Stanwell Drive, Suite 400, Concord, CA 94520

Tel: (510) 602-5120 Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER			UNOCAL					ANALYSES REQUESTED							TURN AROUND TIME:	
STEVE BALIAN			S/S # <u>3292</u> CITY: <u>SAN LEANDRO</u>					TPH-GAS BTEX	TPH-DIESEL	TOG	8010					REGULAR
			ADDRESS: <u>15008 EAST 14th STREET</u>													REMARKS
WITNESSING AGENCY			WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION									
SAMPLE ID NO.	DATE	TIME														
MW-1	2-24-94		X	X		2-VOA'S	WELL	X						4021505	A-B	
MW-2	"		X	X		4-VOA'S	"	X		X				1506	A-D	
MW-3	"		X	X		2-VOA'S	"	X						1507	A-B	
MW-4	"		X	X		2-VOA'S	"	X						1508	↓	
MW-5	"		X	X		2-VOA'S	"	X						1509	↓	
MW-6	"		X	X		4-VOA'S	"	X		X				1510	A-D	
MW-7	"		X	X		4-VOA'S	"	X		X				1511	↓	
MW-8	"		X	X		2-VOA'S	"	X						1512	A-B	
MW-9	"		X	X		2-VOA'S	"	X						1513	↓	
MW-10	"		X	X		2-VOA'S	"	X						1514	↓	
MW-11	"		X	X		2-VOA'S	"	X						1515	↓	

RELINQUISHED BY:		DATE/TIME	RECEIVED BY:	THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:		
STEVE		2/24/94	Melissa Creuse	1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE?		
(SIGNATURE)		6:55 pm		yes		
(SIGNATURE)				2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED?		
(SIGNATURE)				yes		
(SIGNATURE)				3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE?		
(SIGNATURE)				no		
(SIGNATURE)				4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED?		
(SIGNATURE)				yes		
			SIGNATURE:	TITLE:	DATE:	
			Melissa Creuse	Sample	2/24/94	
				Central		