MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

MPDS-UN6034-06
May 11, 1995

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

Have they started ORC in MW-2?

Attention: Ms. Tina R. Berry

RE: Quarterly Data Report
Unocal Service Station #6034
4700 First Street
Livermore, California

Dear Ms. Berry:

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 Chevron site on April 17, 1995. The monitoring data collected for the Chevron monitoring wells (provided by Blaine Tech Services, Inc.) are summarized in Table 2. The ground water flow direction at the Chevron site during the most recent quarter is also shown on the attached Figure 1.

Ground water samples were collected from the Unocal wells on April 17, 1995. Prior to sampling, the wells were each purged of between 6.5 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. MPDS Services, Inc. transported the purged ground water to the Unocal Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples collected from the Unocal wells were analyzed at Sequoia Analytical Laboratory and were accompanied by properly

2401 Stanwell Drive, Suite 300, Concord, CA 94520
TEL: (510) 602-5120 FAX: (510) 689-1918

executed Chain of Custody documentation. The analytical results of the ground water samples collected from the Unocal wells to date are summarized in Tables 3 and 4. 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.

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.

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.

Sarkis Karkarian

Sarkis A. Karkarian
Staff Engineer

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

License No. EG 1633
Exp. Date 8/31/96

/bp

Attachments: Tables 1 through 4
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Thomas J. Berkins, Kaprealian Engineering, Inc.

TABLE 1

SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Total Well Depth (feet)◆	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on April 17, 1995)						
MW1	505.82	14.82	27.90	0	No	9
MW2	505.69	14.13	25.62	0	No	8
MW3	506.46	13.20	25.42	0	No	8.5
MW4	506.42	13.19	25.47	0	No	8.5
MW5	505.77	14.50	23.58	0	No	6.5
MW6	504.93	13.82	23.15	0	No	6.5
MW7	505.45	13.38	23.65	0	No	7
(Monitored and Sampled on January 18, 1995)						
MW1*	506.08	14.56	27.93	0	--	0
MW2	505.72	14.10	25.63	0	No	8
MW3*	506.43	13.23	25.40	0	--	0
MW4	506.45	13.16	25.46	0	No	8.5
MW5	505.75	14.52	23.56	0	No	6.5
MW6	WELL WAS OBSTRUCTED BY ROOTS					
MW7	505.49	13.34	23.63	0	No	7
(Monitored and Sampled on October 19, 1994)						
MW1*	505.36	15.28	27.92	0	--	0
MW2	505.02	14.80	25.65	0	No	7.5
MW3	505.58	14.08	25.42	0	No	8
MW4	505.66	13.95	25.47	0	No	8
MW5	505.07	15.20	23.57	0	No	6
MW6	WELL WAS OBSTRUCTED BY ROOTS					
MW7	504.78	14.05	23.65	0	No	7
(Monitored and Sampled on July 21, 1994)						
MW1*	505.02	15.62	27.91	0	--	0
MW2	504.83	14.99	25.64	0	No	7.5
MW3*	505.32	14.34	25.41	0	--	0
MW4	505.35	14.26	25.47	0	No	8
MW5	504.72	15.55	23.60	0	No	5.5
MW6	504.63	14.12	23.35	0	No	6.5
MW7	504.62	14.21	23.65	0	No	6.5

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA
UNOCAL MONITORING WELLS

Well #	Well Casing Elevation (feet)**
MW1	520.64
MW2	519.82
MW3	519.66
MW4	519.61
MW5	520.27
MW6	518.75
MW7	518.83

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

* Monitored only.

** The elevations of the top of the well casings are relative to Mean Sea Level (MSL), per the City of Livermore Benchmark No. C-18-5 (elevation = 551.77 feet MSL).

-- Sheen determination was not performed.

TABLE 2

SUMMARY OF MONITORING DATA
CHEVRON MONITORING WELLS

(Provided by Blaine Tech Services, Inc.)

Well #	Ground Water Elevation (feet)	Depth to Water (feet)	Well Casing Elevation (feet)*
	(Monitored on April 17, 1995)		
C-1	508.58	11.81	520.39
C-2	508.72	12.04	520.76
C-5	508.65	12.17	520.82
C-6	508.35	11.27	519.62
C-7	508.56	11.74	520.30
C-8	WELL WAS DRY		519.74
C-9	508.41	11.31	519.72
C-10	506.87	13.54	520.41
C-11	507.03	13.01	520.04
C-14	WELL WAS DRY		520.08
C-16	WELL PAVED OVER		519.68
C-17	507.57	13.25	520.82
C-18	WELL ABANDONED		518.96
C-19	507.19	13.80	520.99

* Relative to Mean Sea Level.

TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
4/17/95	MW1*	ND	ND	ND	ND	ND
	MW2	320	1.3	0.67	6.6	74
	MW3	ND	ND	ND	ND	ND
	MW4	570	2.8	ND	3.3	3.9
	MW5	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
1/18/95	MW1	SAMPLED ANNUALLY				
	MW2	5,100	6.8	7.3	100	1,500
	MW3	SAMPLED SEMI-ANNUALLY				
	MW4	790	1.5	3.3	1.2	2.6
	MW5	ND	ND	ND	ND	ND
	MW6	WELL WAS OBSTRUCTED BY ROOTS				
	MW7	ND	ND	ND	ND	ND
10/19/94	MW1	SAMPLED ANNUALLY				
	MW2	4,100	16	3.5	8.6	1,100
	MW3	ND	ND	0.61	ND	0.51
	MW4	750	ND	3.6	4.2	3.4
	MW5	ND	ND	0.71	ND	0.57
	MW6	WELL WAS OBSTRUCTED BY ROOTS				
	MW7	ND	ND	0.87	ND	0.61
7/21/94	MW1	SAMPLED ANNUALLY				
	MW2	31,000	58	29	940	6,200
	MW3	SAMPLED SEMI-ANNUALLY				
	MW4	320	0.51	1.4	1.0	1.6
	MW5	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
4/21/94	MW1	ND	ND	ND	ND	ND
	MW2	27,000	85	65	880	5,300
	MW3	ND	ND	ND	ND	ND
	MW4	380	0.83	1.2	1.2	1.7
	MW5	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
1/20/94	MW2	20,000	ND	ND	270	3,300
	MW3	SAMPLED SEMI-ANNUALLY				
	MW4	1,200	ND	2.6	4.7	7.4
	MW5	ND	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
10/20/93	MW2	12,000	27	10	100	3,000
	MW3	ND	ND	ND	ND	ND
	MW4	640	ND	2.5	2.3	1.9
	MW5	110	0.80	ND	ND	ND
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
7/20/93	MW2	25,000	68	94	1,000	6,200
	MW3	ND	ND	ND	ND	ND
	MW4	NOT SAMPLED - SAMPLING ACCESS DENIED				
	MW5▲	89	1.1	0.51	ND	1.8
	MW6	WELL WAS OBSTRUCTED				
	MW7	ND	ND	ND	ND	ND
4/22/93	MW2	49,000	150	1,000	3,000	18,000
	MW3	ND	ND	ND	ND	ND
	MW4	1,100	8.8	1.0	7.2	6.0
	MW5▲	94	1.2	ND	ND	1.3
	MW6	WELL WAS OBSTRUCTED				
	MW7	ND	ND	ND	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
1/14/93	MW2	19,000	75	430	900	8,400
	MW3	ND	ND	ND	ND	ND
	MW4	920	ND	6.3	12	3.9
	MW5▲	91	ND	0.53	1.2	11
	MW6	WELL WAS OBSTRUCTED				
	MW7	ND	ND	ND	ND	ND
10/16/92	MW2	290	2.3	ND	5.1	15
	MW3	ND	ND	ND	ND	ND
	MW4	300	2.1	ND	4.8	13
	MW5▲	180	7.8	1.1	17	6.4
	MW6	WELL WAS OBSTRUCTED				
	MW7	ND	ND	ND	ND	ND
7/07/92	MW2	44,000	160	1,100	1,000	17,000
	MW3	ND	ND	ND	ND	ND
	MW4	340	ND	2.2	2.4	2.4
	MW5▲	76	0.48	1.1	0.32	1.3
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
4/06/92	MW2	760	6.3	2.1	ND	130
	MW3	ND	ND	ND	ND	ND
	MW4	660	1.3	3.8	2.9	4.1
	MW5	240♦	ND	ND	0.35	ND
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
1/14/92	MW2	5,600	36	120	450	2,600
	MW3	ND	ND	ND	ND	ND
	MW4	1,500	4.2	7.1	18	9.2
	MW5	99	1.0	1.2	ND	0.32
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
10/14/91	MW2	11,000	79	130	660	4,700
	MW3	ND	ND	ND	ND	ND
	MW4	880	3.8	2.2	8.6	5.8
	MW5	660	55	4.4	50	66
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
7/10/91	MW1	ND	ND	ND	ND	ND
	MW2	14,000	70	160	570	5,400
	MW3	ND	ND	ND	ND	ND
	MW4	830	8.4	19	7.7	7.2
	MW5	220	5.1	8.7	9.1	9.7
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
4/10/91	MW1	ND	ND	ND	ND	ND
	MW2	22,000	170	190	490	6,200
	MW3	ND	ND	ND	ND	ND
	MW4	950	0.84	4.3	9.6	5.0
	MW5	630	35	14	47	30
	MW6	ND	ND	ND	ND	ND
	MW7	ND	ND	ND	ND	ND
12/24/90	MW1	ND	ND	ND	ND	0.40
	MW2	32,000	440	340	460	13,000
	MW3	ND	ND	ND	ND	ND
	MW4	1,400	ND	8.7	15	10
9/07/90	MW1	ND	ND	1.2	ND	ND
	MW2	ND	ND	1.5	ND	ND
	MW3	1,100	11	ND	6.6	16
	MW4	15,000	100	140	210	4,600
6/05/90	MW1	ND	ND	ND	ND	ND
	MW2	31,000	250	460	950	9,200
	MW3	ND	ND	ND	ND	ND
	MW4	1,400	1.2	4.7	24	12

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
3/08/90	MW1	ND	ND	ND	ND	ND
	MW2	26,000	230	410	1,300	2,100
	MW3	ND	ND	ND	ND	ND
	MW4	1,200	18	8.4	37	28
11/18/89	MW1	ND	ND	ND	ND	ND
	MW2	53,000	540	500	130	22,000
	MW3	ND	0.35	ND	ND	ND
	MW4	990	9.8	10	7.1	4.7

* TPH as diesel was non detectable.

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

▲ Methyl tert butyl ether was detected at a concentration of 2.2 µg/L on July 20, 1993, 0.82 µg/L on April 22, 1993, 1.2 µg/L on January 14, 1994, 2.0 µg/L on October 16, 1992, and 1.5 µg/L on July 7, 1992.

ND = Non-detectable.

-- Indicates analysis was not performed.

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

Note: Laboratory analyses data prior to January 20, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 4

SUMMARY OF LABORATORY ANALYSES
WATER
UNOCAL MONITORING WELLS

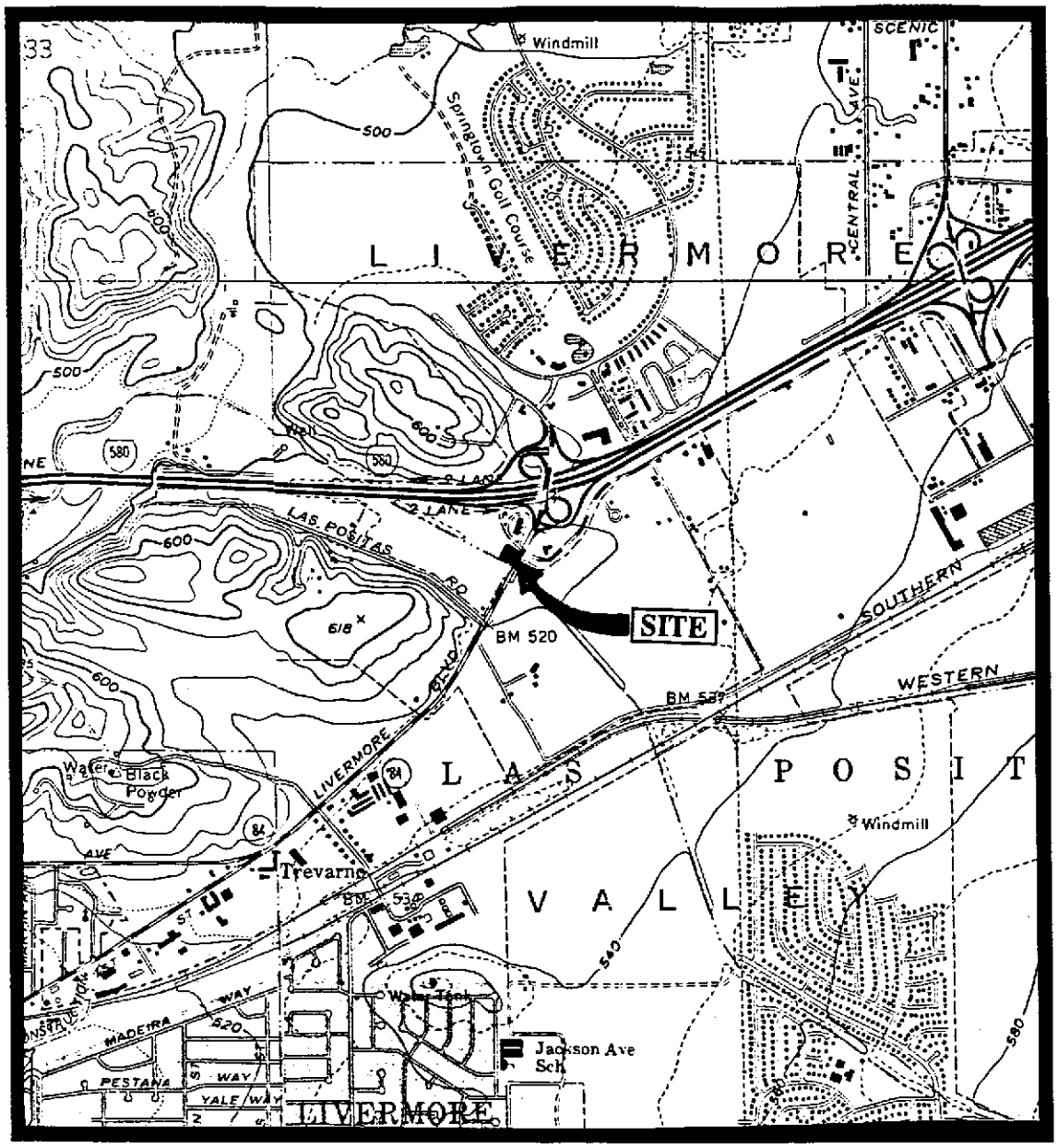
Date	Well #	Total Oil & Grease mg/L	Trichlorethene µg/L	Chloroform µg/L
4/17/95	MW1	ND	ND	0.69
4/21/94	MW1	ND	ND	ND
7/10/91	MW1	ND	ND	ND
4/10/91	MW1	ND	ND	ND
12/24/90	MW1	ND	ND	ND
9/07/90	MW1	ND	ND	ND
6/05/90	MW1	ND	ND	ND
3/08/90	MW1	4.7	ND	ND
11/18/89	MW1	3.1	0.55	ND

ND = Non-detectable.

All EPA method 8010 constituents were non-detectable, except as indicated in above table.

mg/l = milligrams per liter.

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

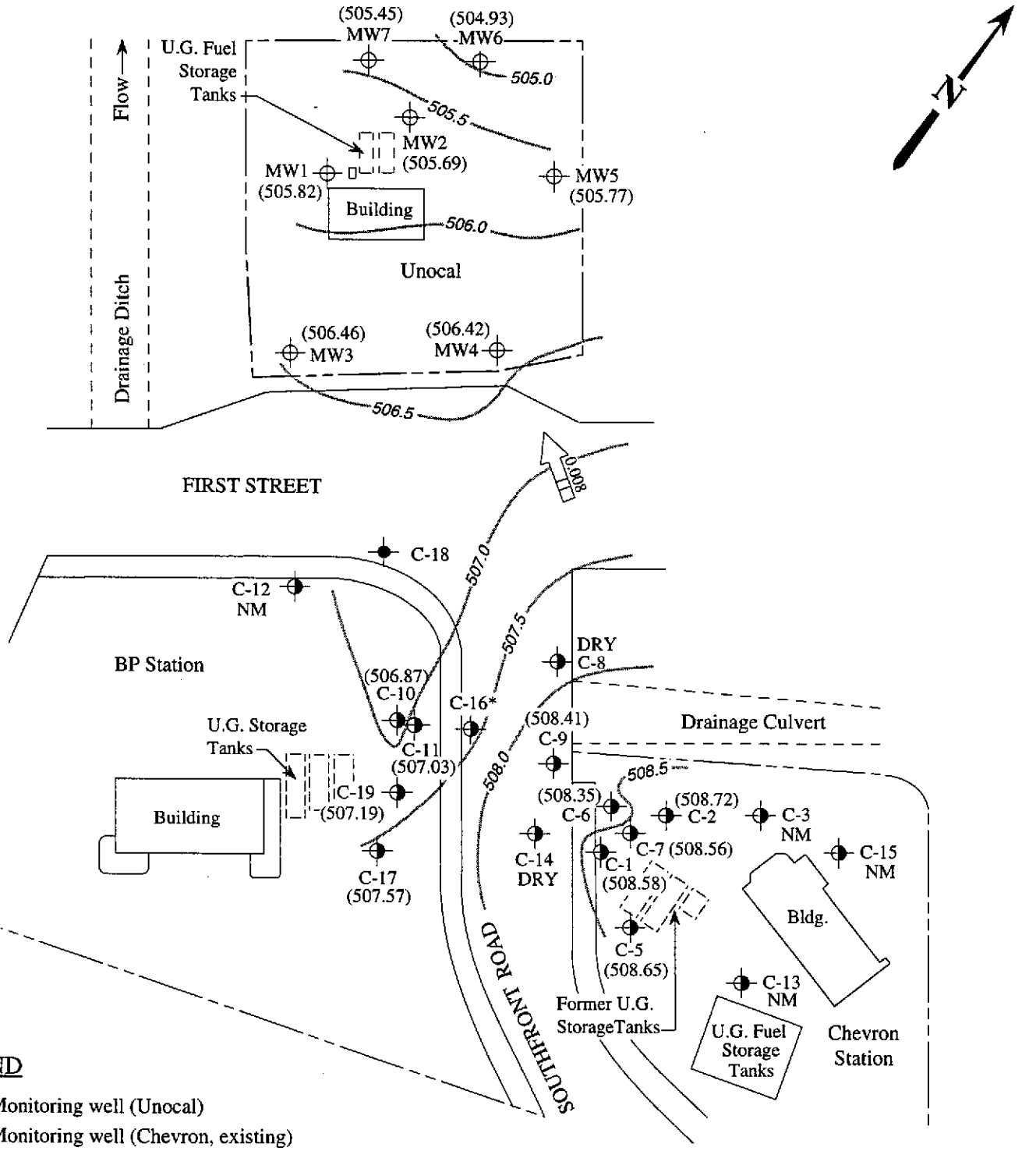


Base modified from 7.5 minute U.S.G.S. Livermore and Altamont Quadrangles (photorevised 1980 and 1981, respectively)

0 2000 4000

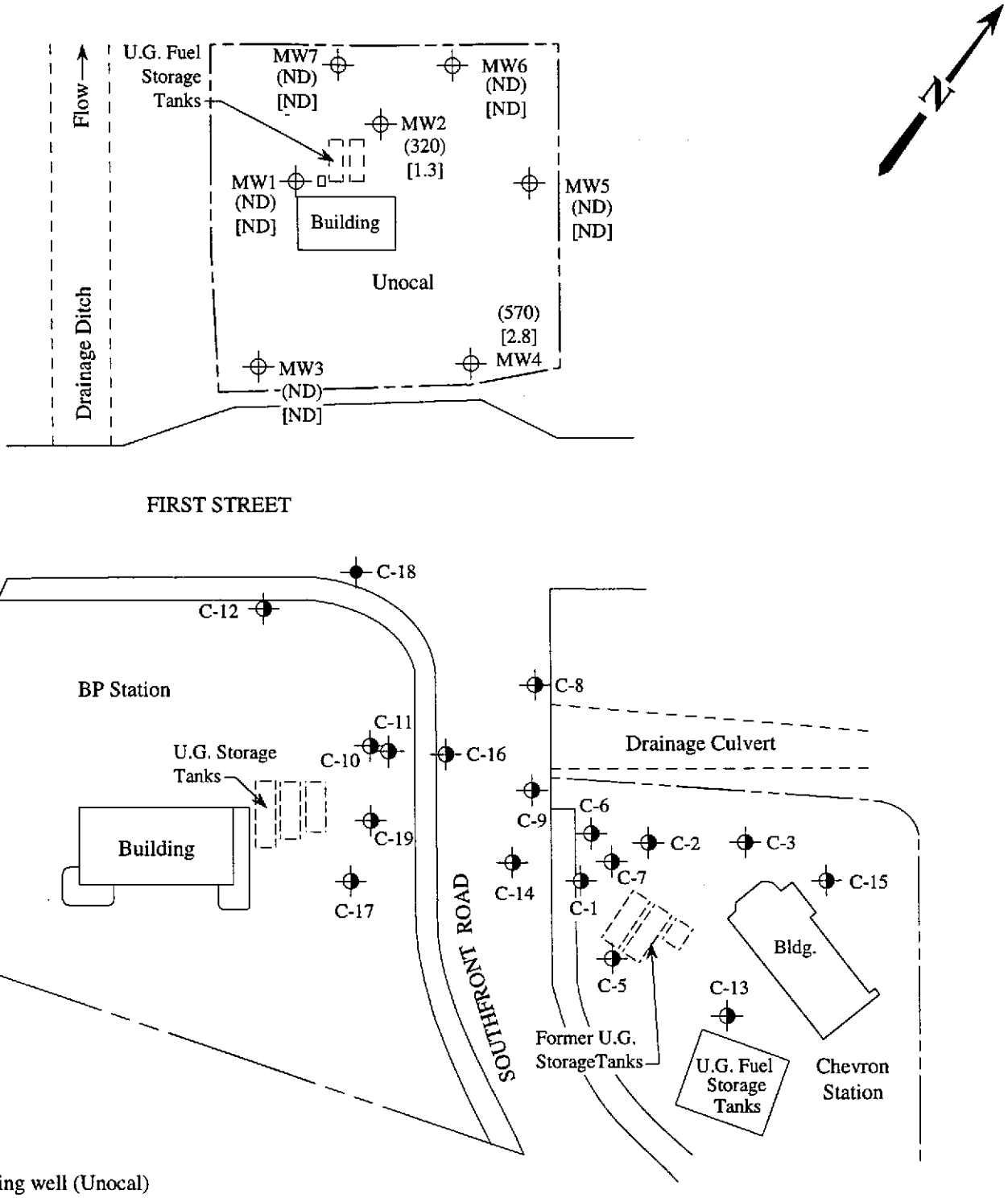
Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION # 6034** **4700 FIRST STREET** **LIVERMORE, CALIFORNIA**	**LOCATION MAP**



POTENTIOMETRIC SURFACE MAP FOR THE APRIL 17, 1995 JOINT MONITORING EVENT

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION # 6034** **4700 FIRST STREET** **LIVERMORE, CALIFORNIA**	FIGURE **1**



LEGEND

- Monitoring well (Unocal)
- Monitoring well (Chevron, existing)
- Monitoring well (Chevron, abandoned)
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L

ND = Non-detectable

0 80 160

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON APRIL 17, 1995

MPDS SERVICES, INCORPORATED

UNOCAL SERVICE STATION # 6034
4700 FIRST STREET
LIVERMORE, CALIFORNIA

FIGURE
2

Sequoia Analytical

680 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	Client Project ID:	Unocal #6034, 4700 First St., Livermore	Sampled:	Apr 17, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Apr 17, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	May 1, 1995
Attention: Sarkis Karkarian	First Sample #:	504-1020		

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
504-1020	MW-1	ND	ND	ND	ND	ND
504-1021	MW-2	320	1.3	0.67	6.6	74
504-1022	MW-3	ND	ND	ND	ND	ND
504-1023	MW-4	570	2.8	ND	3.3	3.9
504-1024	MW-5	ND	ND	ND	ND	ND
504-1025	MW-6	ND	ND	ND	ND	ND
504-1026	MW-7	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

5041020.MPD <1>

Sequoia Analytical

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MPDS Services	Client Project ID:	Unocal #6034, 4700 First St., Livermore	Sampled:	Apr 17, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Apr 17, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	May 1, 1995
Attention: Sarkis Karkarian	First Sample #:	504-1020		

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
504-1020	MW-1	--	1.0	4/27/95	HP-5	89
504-1021	MW-2	Gasoline	1.0	4/27/95	HP-5	72
504-1022	MW-3	--	1.0	4/27/95	HP-5	87
504-1023	MW-4	Gasoline	2.0	4/27/95	HP-5	79
504-1024	MW-5	--	1.0	4/27/95	HP-5	87
504-1025	MW-6	--	1.0	4/27/95	HP-2	104
504-1026	MW-7	--	1.0	4/27/95	HP-2	105

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #6034, 4700 First St., Livermore	Sampled:	Apr 17, 1995
2401 Stanwell Dr., Ste. 300	Sample Matrix:	Water	Received:	Apr 17, 1995
Concord, CA 94520	Analysis Method:	EPA 3510/8015	Reported:	May 1, 1995
Attention: Sarkis Karkarian	First Sample #:	504-1020		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 504-1020 MW-1
Extractable Hydrocarbons	50	N.D.
Chromatogram Pattern:		--

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	4/20/95
Date Analyzed:	4/21/95
Instrument Identification:	HP-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

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #6034, 4700 First St., Livermore	Sampled:	Apr 17, 1995
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water, MW-1	Received:	Apr 17, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 20, 1995
Attention: Sarkis Karkarian	Lab Number:	504-1020	Reported:	May 1, 1995

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**	**0.69**
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.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 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	Client Project ID:	Unocal #6034, 4700 First St., Livermore	Sampled: Apr 17, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Apr 17, 1995
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted: Apr 27, 1995
Attention: Sarkis Karkarian	First Sample #:	504-1020	Analyzed: Apr 27, 1995
			Reported: May 1, 1995

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
504-1020	MW-1	N.D.	1.0

Detection Limits:	**5.0**

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

5041020.MPD <5>

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #6034, 4700 First St., Livermore
Matrix: Liquid
QC Sample Group: 5041020-26

Reported: May 1, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 M	SM 5520 BF
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere	J. Dinsay	D. Newcomb
MS/MSD Batch#:	5041025	5041025	5041025	5041025	BLK042095	BLK042795
Date Prepared:	4/27/95	4/27/95	4/27/95	4/27/95	4/20/95	4/27/95
Date Analyzed:	4/27/95	4/27/95	4/27/95	4/27/95	4/20/95	4/27/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3B	Manual
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	5,000 mg/L
Matrix Spike % Recovery:	120	120	125	123	69	75
Matrix Spike Duplicate % Recovery:	120	120	125	125	69	77
Relative % Difference:	0.0	0.0	0.0	1.6	0.0	1.3
LCS Batch#:	1LCS042795	1LCS042795	1LCS042795	1LCS042795	BLK042095	BLK042795
Date Prepared:	4/27/95	4/27/95	4/27/95	4/27/95	4/20/95	4/27/95
Date Analyzed:	4/27/95	4/27/95	4/27/95	4/27/95	4/20/95	4/27/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3B	Manual
LCS % Recovery:	114	112	119	118	69	77
% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122	75-125

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.

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MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #6034, 4700 First St., Livermore
Matrix: Liquid
QC Sample Group: 5041020-26

Reported: May 1, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon
MS/MSD Batch#:	5040829	5040829	5040829	5040829
Date Prepared:	4/27/95	4/27/95	4/27/95	4/27/95
Date Analyzed:	4/27/95	4/27/95	4/27/95	4/27/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	105	100	103
Matrix Spike Duplicate % Recovery:	95	100	95	100
Relative % Difference:	10	4.9	5.1	3.0
LCS Batch#:	3LCS042795	3LCS042795	3LCS042795	3LCS042795
Date Prepared:	4/27/95	4/27/95	4/27/95	4/27/95
Date Analyzed:	4/27/95	4/27/95	4/27/95	4/27/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	100	101	99	101
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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: Sarkis Karkarian

Client Project ID: Unocal #6034, 4700 First St., Livermore
Matrix: Liquid
QC Sample Group: 5041020-26

Reported: May 1, 1995

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#:	5040857	5040857	5040857
Date Prepared:	4/20/95	4/20/95	4/20/95
Date Analyzed:	4/20/95	4/20/95	4/20/95
Instrument I.D.#:	HP5890/6	HP5890/6	HP5890/6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	116	101	91
Matrix Spike Duplicate % Recovery:	117	105	92
Relative % Difference:	0.87	3.9	1.1
LCS Batch#:	LCS042095	LCS042095	LCS042095
Date Prepared:	4/20/95	4/20/95	4/20/95
Date Analyzed:	4/20/95	4/20/95	4/20/95
Instrument I.D.#:	HP5890/6	HP5890/6	HP5890/6
LCS % Recovery:	108	97	90
% Recovery Control Limits:	28-167	35-146	38-150

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Please Note:
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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: (JOE) HOVSIA AJEMIAN
WITNESSING AGENCY:
UNOCAL S/S # 6034 CITY: Livermore
ADDRESS: 4700 1st St.

ANALYSES REQUESTED: TPH-GAS BTEX; TPH-DIESEL; TOG; 8010

TURN AROUND TIME: Regular

SAMPLE ID NO	DATE	TIME	WATER	CHAR	COMP	NO OF CONT	SAMPLING LOCATION								REMARKS
MW-1	4-17-95	9:10 A.m	✓	✓		4(VOA) 2 Amber	Wells	✓	✓	✓	✓			5041020	A-F VOAs present
MW-2	"	1:00 P.m	✓	✓		2(VOA)s "	"	✓						5041021	A-B
MW-3	"	9:38 A.m	✓	✓		"	"	✓						5041022	
MW-4	"	12:15 P.m	✓	✓		"	"	✓						5041023	
MW-5	"	10:15 A.m	✓	✓		"	"	✓						5041024	
MW-6	"	11:40 A.m	✓	✓		"	"	✓						5041025	
MW-7	"	11:00 A.m	✓	✓		"	"	✓						5041026	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
(SIGNATURE)	4/17/95 1:40 p.m	(SIGNATURE)
(SIGNATURE)	4-18	(SIGNATURE)
(SIGNATURE)		(SIGNATURE)
(SIGNATURE)		(SIGNATURE) L. Baug

THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Yes
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Yes
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? NO
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Yes

SIGNATURE: L. Baug TITLE: Analyst DATE: 4/17/95