MONITORING
PURGING
DISPOSING
SAMPLING

MPDS SERVICES, INCORPORATED

May 30, 1996

Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

RE: Unocal Service Station #1871
96 MacArthur Boulevard
Oakland, California

Per the request of the Unocal Corporation Project Manager, Mr. Robert A. Boust, enclosed please find our most recent data report 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) 277-2334.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/dr

Enclosure

cc: Mr. Robert A. Boust

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

MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

MPDS-UN1871-11
May 16, 1996

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

Attention: Mr. Robert A. Boust

RE: Quarterly Data Report
Unocal Service Station #1871
96 MacArthur Boulevard
Oakland, California

Dear Mr. Boust:

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 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 April 18, 1996. Prior to sampling, the wells were each purged of between 7.5 and 41 gallons of water. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded and are presented in Table 2. Once the field parameters were observed to stabilize, and where possible, a minimum of approximately four casing volumes had been removed from each well, 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. Trip blank and Field blank samples (denoted as ES1 and ES3, respectively) were also collected for quality assurance and control. 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 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 Table 3. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline 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

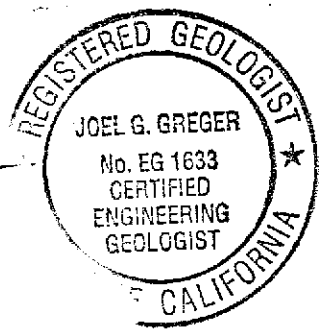
A copy of this report should be sent to the Alameda County Health Care Services Agency.

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

Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian
Senior Staff Geologist



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

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

/jfc

Attachments: Tables 1, 2 & 3
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

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 18, 1996)						
MW-1	72.84	13.40	24.20	0	No	23
MW-2	72.39	9.27	24.80	0	No	41
MW-3	71.25	11.30	23.77	0	No	33
MW-4	72.21	9.83	19.61	0	No	7.5
MW-5	72.15	9.65	20.05	0	No	7.5
(Monitored and Sampled on January 18, 1996)						
MW-1	66.97	14.21	24.13	0	No	17
MW-2	66.50	10.11	24.74	0	No	38
MW-3	65.69	11.79	23.71	0	No	31
(Monitored and Sampled on October 23, 1995)						
MW-1	66.33	14.85	24.1	0	No	20
MW-2	65.91	10.70	24.7	0	No	46
MW-3	64.98	12.50	23.65	0	No	30
(Monitored and Sampled on July 24, 1995)						
MW-1	67.21	13.97	24.17	0	Yes	27
MW-2	66.67	9.94	24.76	0	No	39
MW-3	65.72	11.76	23.73	0	No	32

Well #	Well Casing Elevation (feet)**	Well Casing Elevation (feet)*
MW-1	81.18	86.24
MW-2	76.61	81.66
MW-3	77.48	82.55
MW-4	N/A	82.04
MW-5	N/A	81.80

Table 1

Summary of Monitoring Data

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

* The top of casing elevations were re-surveyed by Kier & Wright in May, 1996, per City of Oakland Benchmark No. 2310, a cut square in concrete curb at mid point of return at the norhteast corner of El Dorado and Fairmont Streets (elevation = 77.53 feet MSL). These well casing elevations are used beginning with the April 18, 1996 monitoring event.

** The elevations of the top of the well casings, used prior to April 18, 1996, were surveyed by Roux Associates relative to Mean Sea Level (benchmark unknown).

Table 2

Record of the Temperature, Conductivity, and pH values
in the Monitoring Wells During Purging and Prior to Sampling

Well #	Gallons per Casing Volume	Time	Gallons Purged	Casing Volumes Purged	Temperature (°F)	Conductivity (µmhos/cm) x100)	pH
			(Measured on April 18, 1996)				
MW-1	7.02	13:40	0	0	75.3	6.05	6.96
			7	1.00	73.2	7.49	6.63
			14	1.99	72.0	7.72	6.62
			21	2.99	72.3	7.62	6.66
			23	3.28	72.4	7.96	6.63
		14:10		WELL DEWATERED			
MW-2	10.09	12:05	0	0	72.3	6.34	7.60
			10	0.99	70.5	5.78	7.03
			20	1.98	68.9	5.65	6.97
			30	2.97	68.9	5.76	6.92
		12:30	41	4.06	69.3	5.40	6.93
MW-3	8.11	10:10	0	0	62.1	9.20	6.73
			8	0.99	65.6	8.70	6.75
			16	1.97	73.4	8.30	6.72
			24	2.96	73.7	8.30	6.72
		10:50	33	4.07	73.6	8.30	6.71
MW-4	1.66	13:00	0	0	70.8	4.96	7.55
			2	1.20	71.6	5.93	7.07
			4	2.41	72.0	5.19	6.89
			6	3.61	72.1	5.75	6.85
		13:10	7.5	4.51	72.7	5.31	6.83
MW-5	1.77	11:15	0	0	80.7	6.80	7.57
			2	1.13	76.8	6.79	7.14
			4	2.26	73.7	6.61	7.08
			6	3.39	74.8	6.39	7.06
		11:30	7.5	4.24	75.6	6.57	7.16

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-1	11/3/92	--	260,000	2,300	4,600	3,700	17,000	--
	1/25/93	--	120,000	2,100	4,600	4,900	22,000	--
	4/29/93	--	100,000	850	2,000	4,300	19,000	--
	7/16/93	--	29,000	590	560	980	4,200	--
	10/19/93	--	67,000	1,400	2,600	2,900	5,000	--
	1/20/94	--	92,000	1,200	3,000	3,400	17,000	--
	4/13/94	--	51,000	1,000	2,600	3,200	15,000	--
	7/13/94	--	35,000	550	150	1,400	5,700	--
	10/10/94	--	52,000	1,000	810	3,300	12,000	--
	1/10/95	--	810	16	18	59	250	--
	4/17/95	--	48,000	880	530	2,500	11,000	--
	7/24/95	--	48,000	1,500	420	2,700	9,700	--
	10/23/95	--	47,000	780	210	2,100	11,000	270
	1/18/96	--	30,000	1,500	500	3,500	13,000	2,400
	4/18/96	--	**66,000**	**2,700**	**2,200**	**3,100**	**13,000**	**57,000**
MW-2	11/3/92	--	140	2.2	ND	ND	2.0	--
	1/25/93	--	2,100	56	1.1	90	140	--
	4/29/93	--	1,500	290	ND	33	11	--
	7/16/93	--	510*	17	0.60	3.2	2.5	--
	10/19/93	--	670	24	1.1	7.7	23	--
	1/20/94	--	820	97	ND	12	ND	--
	4/13/94	--	550	71	ND	5.1	1.3	--
	7/13/94	--	2,000	490	ND	17	13	--
	10/10/94	--	2,300	340	ND	25	ND	--
	1/10/95	--	850	3.8	ND	8.5	1.3	--
	4/17/95	--	1,300	4.7	ND	8.3	1.2	--
	7/24/95	--	960	20	ND	4.2	6.2	--
	10/23/95	--	ND	ND	ND	ND	ND	19
	1/18/96	--	900	300	86	7.6	18	4,300
	4/18/96	--	**18,000**	**3,600**	**680**	**890**	**4,100**	**19,000**
MW-3	11/3/92	--	2,100	120	15	38	200	--
	1/25/93	--	2,300	80	1	55	52	-
	4/29/93	--	4,500	1,700	ND	200	140	--
	7/16/93	--	4,000*	1,100	28	52	70	--
	10/19/93	--	3,800	42	ND	50	56	--
	1/20/94	--	4,200	11	ND	21	15	--
	4/13/94	--	4,200	210	ND	36	53	--
	7/13/94	--	1,800**	16	16	ND	21	--
	10/10/94	--	4,300	11	ND	12	ND	--
	1/10/95	--	310	4.6	ND	3.5	2.1	--

Table 3

Summary of Laboratory Analyses
Water

Well #	Date	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-3	4/17/95	--	7,800	ND	4.6	300	450	--
(Cont.)	7/24/95	--	3,200	170	ND	22	16	--
	10/23/95	--	3,900	55	ND	19	11	4,500
	1/18/96	--	2,200	270	33	26	18	5,500
	4/18/96	--	6,000	1,800	ND	100	230	48,000
MW-4	4/18/96♦	110†	ND	630	ND	ND	ND	18,000
MW-5	4/18/96	--	31,000	5,500	1,400	1,700	8,100	66,000

* Primarily due to the presence of discrete peaks not indicative of gasoline.

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

† Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to contain diesel.

♦ Total Oil & Grease and all EPA Method 8010 constituents were non-detectable.

-- Indicates analysis was not performed.

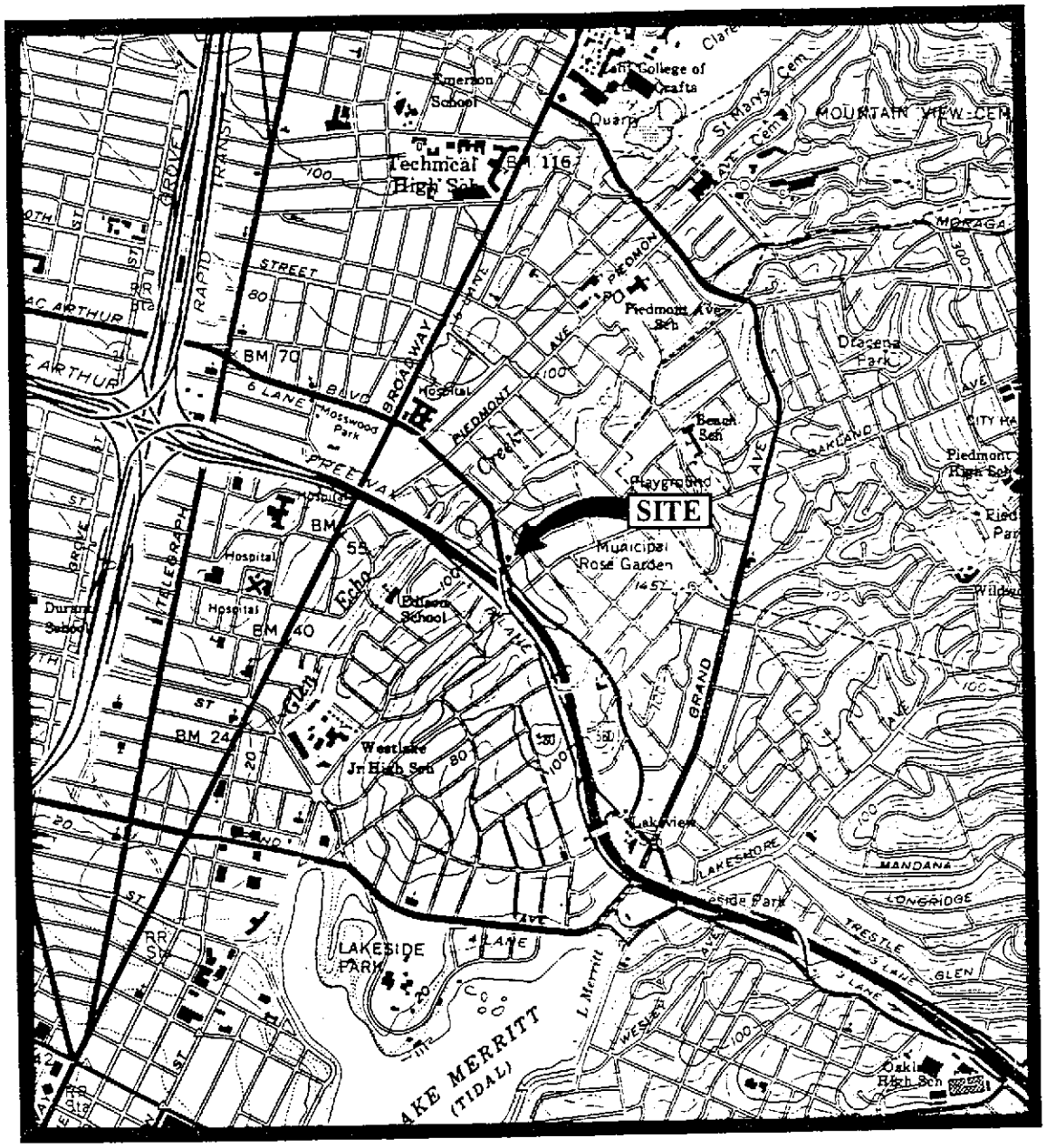
ND = Non-detectable.

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 October 19, 1993, were provided by GeoStrategies, Inc.

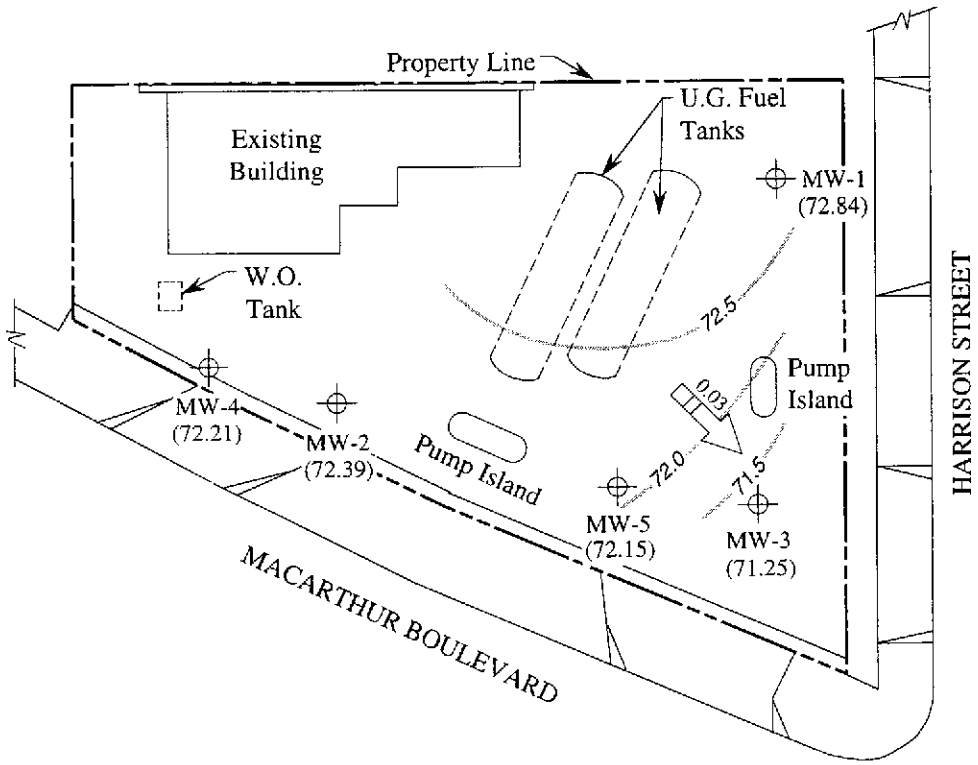


Base modified from 7.5 minute U.S.G.S.
Oakland East and West Quadrangles
(both photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION # 1871** **96 MACARTHUR BOULEVARD** **OAKLAND, CALIFORNIA**	**LOCATION MAP**



LEGEND

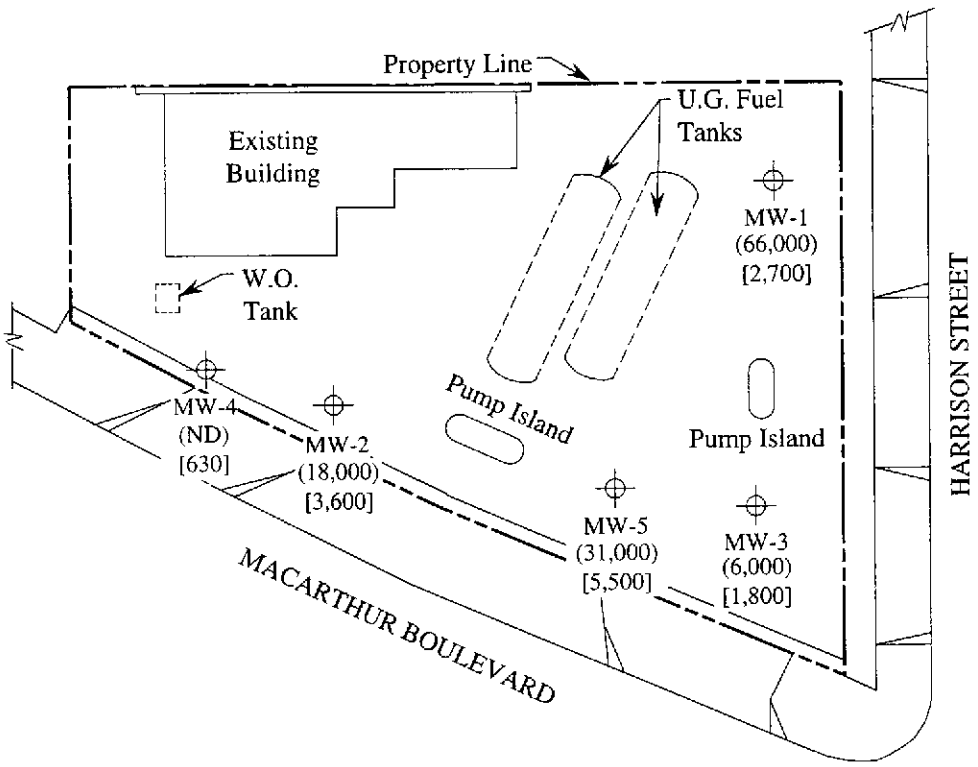
- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation

0 30 60

Approx. scale feet

GROUND WATER FLOW DIRECTION MAP FOR THE APRIL 18, 1996 MONITORING EVENT

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION # 1871** **96 MACARTHUR BOULEVARD** **OAKLAND, CALIFORNIA**	FIGURE **1**



LEGEND

- ⊕ Monitoring well
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L
- ND Non-detectable

0 30 60

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON APRIL 18, 1996

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION # 1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE
2

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #1871, 96 MacArthur Blvd.,Oakland	Sampled: Apr 18, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Apr 18, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: May 7, 1996
Attention: Jarrel Crider	First Sample #:	604-1501	

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
604-1501	MW-1	66,000	2,700	2,200	3,100	13,000
604-1502	MW-2	18,000	3,600	680	890	4,100
604-1503	MW-3	6,000	1,800	ND	100	230
604-1504	MW-4	ND	630	ND	ND	ND
604-1505	MW-5	31,000	5,500	1,400	1,700	8,100
604-1506	ES-1	ND	ND	ND	ND	ND
604-1507	ES-3	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
& #1894

Signature on File

Alan B. Kemp
Project Manager

6041501.MPD <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #1871, 96 MacArthur Blvd.,Oakland	Sampled:	Apr 18, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Apr 18, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	May 7, 1996
Attention: Jarrel Crider	First Sample #:	604-1501		

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
604-1501	MW-1	Gasoline	500	5/1/96	HP-2	100
604-1502	MW-2	Gasoline	100	5/1/96	HP-2	96
604-1503	MW-3	Gasoline	100	5/1/96	HP-2	96
604-1504	MW-4	--	100	5/1/96	HP-2	99
604-1505	MW-5	Gasoline	200	5/1/96	HP-2	98
604-1506	ES-1	--	1.0	5/1/96	HP-11	97
604-1507	ES-3	--	1.0	5/1/96	HP-11	92

SEQUOIA ANALYTICAL, #1271
& #1894

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #1871, 96 MacArthur Blvd.,Oakland	Sampled:	Apr 18, 1996
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water	Received:	Apr 18, 1996
Concord, CA 94520	Analysis for:	MTBE (Modified EPA 8020)		
Attention: Jarrel Crider	First Sample #:	604-1501	Analyzed:	May 1, 1996
			Reported:	May 7, 1996

LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L	Instrument ID
604-1501	MW-1	250	57,000	HP-2
604-1502	MW-2	50	19,000	HP-2
604-1503	MW-3	50	48,000	HP-2
604-1504	MW-4	50	18,000	HP-2
604-1505	MW-5	100	66,000	HP-2

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

SEQUOIA ANALYTICAL, #1894

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #1871, 96 MacArthur Blvd.,Oakland	Sampled:	Apr 18, 1996
2401 Stanwell Dr., Ste. 300	Sample Matrix:	Water	Received:	Apr 18, 1996
Concord, CA 94520	Analysis Method:	EPA 3510/8015 Mod.	Reported:	May 7, 1996
Attention: Jarrel Crider	First Sample #:	604-1504		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 604-1504 MW-4*
Extractable Hydrocarbons	50	110
Chromatogram Pattern:		Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	4/23/96
Date Analyzed:	4/23/96
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

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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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 #1871, 96 MacArthur Blvd.,Oakland	Sampled: Apr 18, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Apr 18, 1996
Concord, CA 94520	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted: Apr 19, 1996
Attention: Jarrel Crider	First Sample #:	604-1504	Analyzed: Apr 19, 1996
			Reported: May 7, 1996

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
604-1504	MW-4	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

6041501.MPD <5>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #1871, 96 MacArthur Blvd.,Oakland	Sampled:	Apr 18, 1996
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water, MW-4	Received:	Apr 18, 1996
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	Apr 24, 1996
Attention: Jarrel Crider	Lab Number:	604-1504	Reported:	May 7, 1996

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.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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 #1871, 96 MacArthur Blvd.,Oakland
Matrix: Liquid
QC Sample Group: 6041501-507

Reported: May 7, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	Z.T.	Z.T.	Z.T.	Z.T.
MS/MSD Batch#:	MS050196	MS050196	MS050196	MS050196
Date Prepared:	5/1/96	5/1/96	5/1/96	5/1/96
Date Analyzed:	5/1/96	5/1/96	5/1/96	5/1/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	115	110	130	133
Matrix Spike Duplicate % Recovery:	82	120	96	105
Relative % Difference:	33	8.7	28	23
LCS Batch#:	LCS050196	LCS050196	LCS050196	LCS050196
Date Prepared:	5/1/96	5/1/96	5/1/96	5/1/96
Date Analyzed:	5/1/96	5/1/96	5/1/96	5/1/96
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	107	130	110	127
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1894

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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Attention: Jarrel Crider

Client Project ID: Unocal #1871, 96 MacArthur Blvd.,Oakland
Matrix: Liquid
QC Sample Group: 6041501-507

Reported: May 7, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	SM 5520
Analyst:	L. Huang	L. Huang	L. Huang	L. Huang	J.Dinsay	D. Newcomb
MS/MSD Batch#:	6041285	6041285	6041285	6041285	BLK042396	BLK041996
Date Prepared:	5/1/96	5/1/96	5/1/96	5/1/96	4/23/96	4/19/96
Date Analyzed:	5/1/96	5/1/96	5/1/96	5/1/96	4/23/96	4/19/96
Instrument I.D.#:	HP-11	HP-11	HP-11	HP-11	HP-3A	Manual
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	100 mg/L
Matrix Spike % Recovery:	125	110	115	118	107	87
Matrix Spike Duplicate % Recovery:	105	90	100	98	103	87
Relative % Difference:	17	20	14	18	3.2	0.0
LCS Batch#:	11LCS050196	11LCS050196	11LCS050196	11LCS050196	LCS042396	BLK041996
Date Prepared:	5/1/96	5/1/96	5/1/96	5/1/96	4/23/96	4/19/96
Date Analyzed:	5/1/96	5/1/96	5/1/96	5/1/96	4/23/96	4/19/96
Instrument I.D.#:	HP-11	HP-11	HP-11	HP-11	300 µg/L	Manual
LCS % Recovery:	105	95	105	102	103	84
% Recovery Control Limits:	70-130	70-130	70-130	70-130	50-150	60-140

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Please Note:
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Attention: Jarrel Crider

Client Project ID: Unocal #1871, 96 MacArthur Blvd.,Oakland
Matrix: Liquid
QC Sample Group: 6041501-507

Reported: May 7, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	I. Dalvand	I. Dalvand	I. Dalvand
MS/MSD Batch#:	6041378	6041378	6041378
Date Prepared:	4/24/96	4/24/96	4/24/96
Date Analyzed:	4/24/96	4/24/96	4/24/96
Instrument I.D.#:	HP-7	HP-7	HP-7
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L
Matrix Spike % Recovery:	85	92	83
Matrix Spike Duplicate % Recovery:	86	93	82
Relative % Difference:	1.2	1.1	1.2
LCS Batch#:	LCS042496	LCS042496	LCS042496
Date Prepared:	4/24/96	4/24/96	4/24/96
Date Analyzed:	4/24/96	4/24/96	4/24/96
Instrument I.D.#:	HP-7	HP-7	HP-7
LCS % Recovery:	83	90	80
% 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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MPDS SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

96[illegible]

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 1871 CITY: OAKLAND

ADDRESS: 96 McArthur Blvd

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	ANALYSES REQUESTED: TPH-GAS BTEX	TPH-DIESEL	TOG	8010	MTBE			REMARKS
MW1	4.18.96	14:20	X	X		2	Well	X				X		6041501	AB
MW2	"	12:40	"	"		"	"	"				"		6041502	↓
MW3	"	11:00	"	"		"	"	"				"		6041503	↓
MW4	"	13:20	"	"		6	"	"	X	X	X	X		6041504	AF
MW5	"	11:40	"	"		2	"	"				X		6041505	AB

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
Ray Marangosian	15:50 4.18.96	Tony McMahon	4/18/96 1700
(SIGNATURE)	4/19/96 1400	(SIGNATURE)	4-19
(SIGNATURE)	4-19	(SIGNATURE)	1520
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

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

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Y
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Y
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? N
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Y

SIGNATURE: Tony McMahon TITLE: analyst DATE: 4-18-96

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HNO3. All other containers are unpreserved.

mpds SERVICES, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

960403

SAMPLER: RAY MARANGOSIAN

WITNESSING AGENCY:

UNOCAL S/S # 1871 CITY: OAKLAND

ADDRESS: 96 McArthur Blvd

ANALYSES REQUESTED

TURN AROUND TIME: REGULAR

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPH-GAS BTEX	TPH-DIESEL	TOG	8010				REMARKS
ES1	4.18.96		x	x		1		x						6041506	
ES3	"		x	x		1		x						6041507	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
Ray Marangosian	5:50 4-18-96	Tony McMahon	4/18/96
(SIGNATURE)	4/19/96 1400	(SIGNATURE)	1400 4-19
(SIGNATURE)	4-19	(SIGNATURE)	4/19 1520
(SIGNATURE)		(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	

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

1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? Y
2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? Y
3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? N
4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? Y

SIGNATURE: Tony McMahon TITLE: Analyst DATE: 4-18-96

Note: All water containers to be sampled for TPHG/BTEX, 8010 & 8240 are preserved with HCL. All water containers to be sampled for Lead or Metals are preserved with HN03. All other containers are unpreserved.