MPDS

SERVICES, INCORPORATED

March 4, 1994

Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Attn: Mr. Scott Seery

RE: Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. Seery:

Per the request of the Unocal Corporation Project Manager, Mr. Adadu Yemane, enclosed please find our report (MPDS-UN7004-01) dated February 8, 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) 277-2383.

Sincerely,

MPDS Services, Inc.

Deanna L. Harding
Technical Assistant

/dlh

Enclosure

cc: Mr. Adadu Yemane

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

MPDS

SERVICES, INCORPORATED

MPDS-UN7004-01
February 8, 1994

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

Attention: Mr. Adadu Yemane

RE: Quarterly Data Report
Unocal Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

ALCO HAZMAT
94 MAR -7 PM 1:14

Dear Mr. Yemane:

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 January 11, 1994. Prior to sampling, the wells were each purged of between 6 and 8 gallons of water. Samples were then collected using a clean Teflon bailer. The samples were decanted into clean VOA vials, 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 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 2. 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.

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5120 Fax: (510) 689-1918

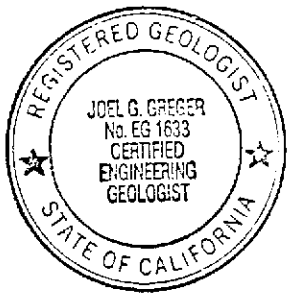
DISTRIBUTION

A copy of this report should be sent to the Alameda County Health Care Services, Mr. Michael Bakaldin of the City of San Leandro Fire Department, 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
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation

cc: Mr. Timothy R. Ross, Kaprealian Engineering, Inc.

TABLE 1

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet)◆
		(Monitored and Sampled on January 11, 1994)				
MW1	21.25	15.14	0	No	6.5	24.15
MW2	21.30	15.77	0	No	6	24.34
MW3	21.13	15.66	0	No	6.5	24.65
MW4	21.02	14.42	0	No	8	25.61
MW5	20.97	15.84	0	No	7	26.08
MW6	21.11	16.02	0	Mo	6.5	25.57
		(Monitored and Sampled on October 6, 1993)				
MW1*	21.52	14.87	0	--	0	
MW2*	21.58	15.49	0	--	0	
MW3	21.38	15.41	0	No	7	
MW4*	21.27	14.17	0	--	0	
MW5	21.20	15.61	0	No	8	
MW6*	21.38	15.75	0	--	0	
		(Monitored and Sampled on July 12, 1993)				
MW1	22.55	14.34	0	No	7.5	
MW2	22.60	14.75	0	No	7.5	
MW3	22.39	14.83	0	No	7	
MW4	22.29	13.52	0	No	9	
MW5	22.19	14.82	0	No	8	
MW6	22.35	15.20	0	No	8	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Ground Water Elevation (feet)	Depth to Water (feet)◆	Product Thickness (feet)	Sheen	Water Purged (gallons)	Total Well Depth (feet)◆
(Monitored and Sampled on April 23, 1993)						
MW1	22.00	14.89	0	No	7	
MW2	22.15	15.20	0	No	7	
MW3*	22.09	15.13	0	--	0	
MW4	21.97	13.84	0	No	10	
MW5*	22.14	14.87	0	--	0	
MW6	22.28	15.27	0	No	7.5	

Well #	Well Cover Elevation (feet)**	Well Casing Elevation (feet)***
MW1	36.89	36.39
MW2	37.35	37.07
MW3	37.22	36.79
MW4	35.81	35.44
MW5	37.01	36.81
MW6	37.55	37.13

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

♦ The depth to water level and total well depth measurements were taken from the top of the well casings. Prior to October 6, 1993, the water level and total well depth measurements were taken from the top of the well covers.

* Monitored only.

** The elevations of the top of the well covers have been surveyed relative to Mean Sea Level (MSL), based on the City of San Leandro Benchmark (elevation = 36.04 MSL).

*** Relative to MSL.

-- Sheen determination was not performed.

Note: Monitoring data prior to January 11, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
1/11/94	MW1	ND	ND	ND	ND	ND	--
	MW2	120*	ND	ND	ND	ND	--
	MW3	19,000	3,300	31	3,300	890	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	160	ND	0.79	0.54	ND	--
	MW6	ND	ND	ND	ND	ND	--
10/06/93	MW1	SAMPLED SEMI-ANNUALLY					
	MW2	SAMPLED SEMI-ANNUALLY					
	MW3	24,000	4,100	ND	3,600	2,000	ND
	MW4	SAMPLED SEMI-ANNUALLY					
	MW5	150	1.1	ND	3.1	0.85	57
	MW6	SAMPLED SEMI-ANNUALLY					
7/22/93	MW1	ND	ND	ND	ND	ND	77
	MW2	62*	ND	ND	ND	ND	42
	MW3	16,000	4,500	17	3,600	1,900	440
	MW4	ND	ND	ND	ND	ND	54
	MW5	59**	ND	ND	2.6	ND	42
	MW6	ND	ND	ND	ND	ND	ND
4/20/93	MW1	--	--	--	--	--	56
&	MW2	--	--	--	--	--	80
4/23/93	MW3	18,000	3,700	11	2,300	1,300	410
	MW4	--	--	--	--	--	65
	MW5	99*	ND	ND	ND	ND	120
	MW6	--	--	--	--	--	ND
1/21/93	MW1	ND	ND	ND	ND	ND	42
	MW2	ND	ND	ND	ND	ND	17
	MW3	12,000	2,800	11	1,600	590	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	100*	ND	ND	ND	ND	160
	MW6	ND	ND	ND	ND	ND	--

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
10/28/92	MW1	SAMPLED SEMI-ANNUALLY					
	MW2	SAMPLED SEMI-ANNUALLY					
	MW3	15,000	4,400	15	2,400	800	--
	MW4	SAMPLED SEMI-ANNUALLY					
	MW5	ND	ND	ND	ND	ND	45
	MW6	SAMPLED SEMI-ANNUALLY					
7/09/92	MW1	70*	ND	ND	ND	ND	130
	MW2	ND	ND	ND	ND	ND	49
	MW3	13,000	3,200	12	1,900	1,100	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	ND	ND	ND	ND	ND	71
	MW6	ND	ND	ND	ND	ND	--
4/14/92	MW1	76*	ND	ND	ND	ND	--
	MW2	45*	ND	ND	ND	ND	--
	MW3	16,000	3,400	19	1,400	1,300	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	86*	ND	ND	ND	ND	--
	MW6	ND	ND	ND	ND	ND	--
1/14/92	MW1	ND	ND	ND	ND	ND	--
	MW2	ND	ND	ND	ND	ND	--
	MW3	13,000	6,600	19	2,600	1,800	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	60*	ND	ND	ND	ND	--
	MW6	ND	ND	ND	ND	ND	--
10/14/91	MW1	ND	ND	ND	ND	ND	--
	MW2	ND	ND	ND	ND	ND	--
	MW3	25,000	6,300	78	2,000	1,400	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	140	0.72	ND	1.3	0.89	--
	MW6	ND	ND	ND	ND	ND	--

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
7/23/91	MW1	ND	ND	ND	ND	ND	--
	MW2	ND	ND	ND	ND	ND	--
	MW3	17,000	5,500	26	1,800	2,800	--
	MW4	ND	ND	ND	ND	ND	--
	MW5	260	1.2	0.39	10	0.71	--
	MW6	ND	ND	ND	ND	ND	--
5/04/91	MW1	ND	ND	ND	ND	ND	--
	MW2	ND	ND	ND	ND	ND	--
	MW3	34,000	6,100	32	1,200	6,100	--

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

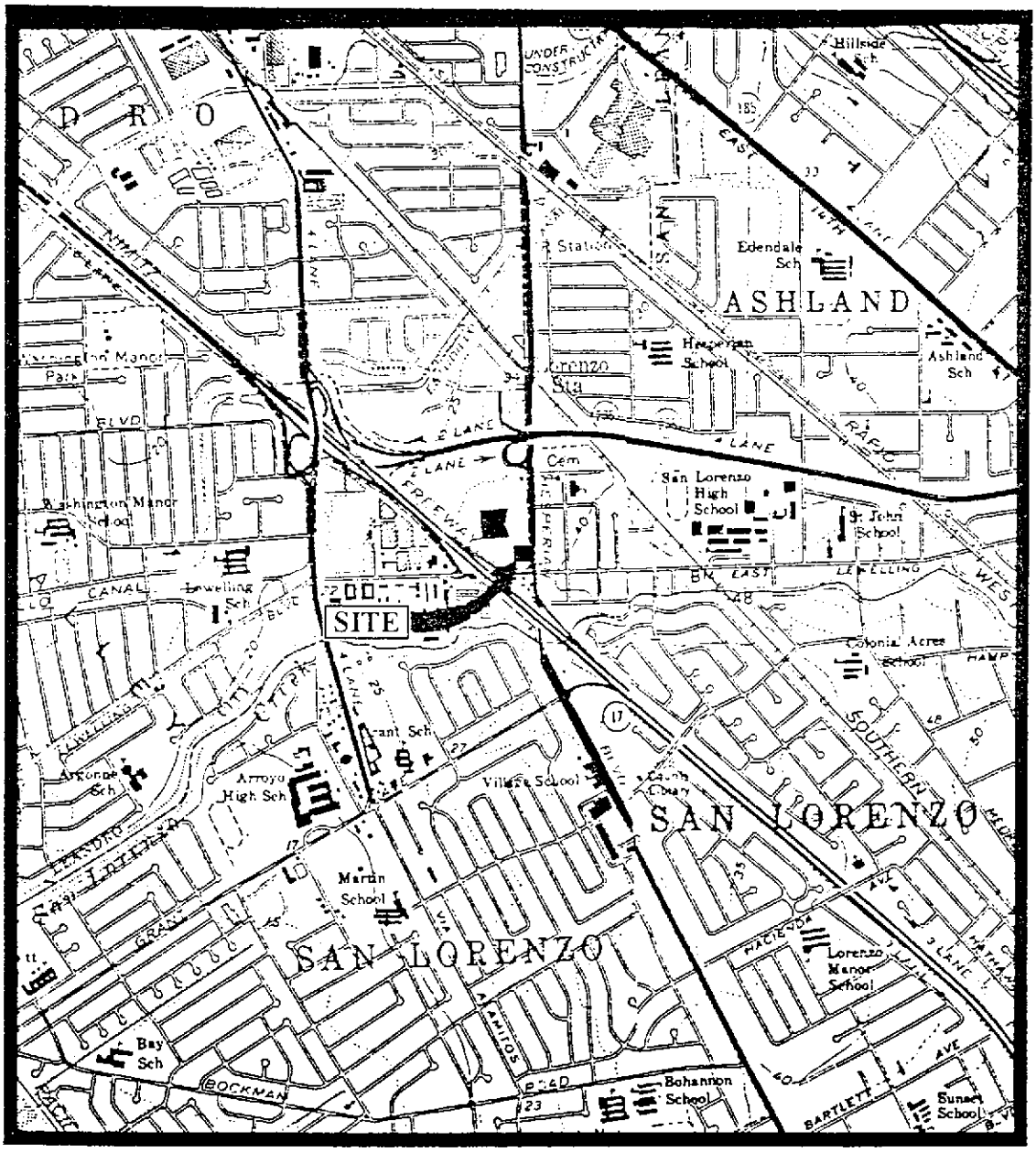
** Sequoia Analytical Laboratory reported that the hydrocarbons detected appear to be a gasoline and non-gasoline mixture.

ND = Non-detectable.

-- Indicates analysis was not performed.

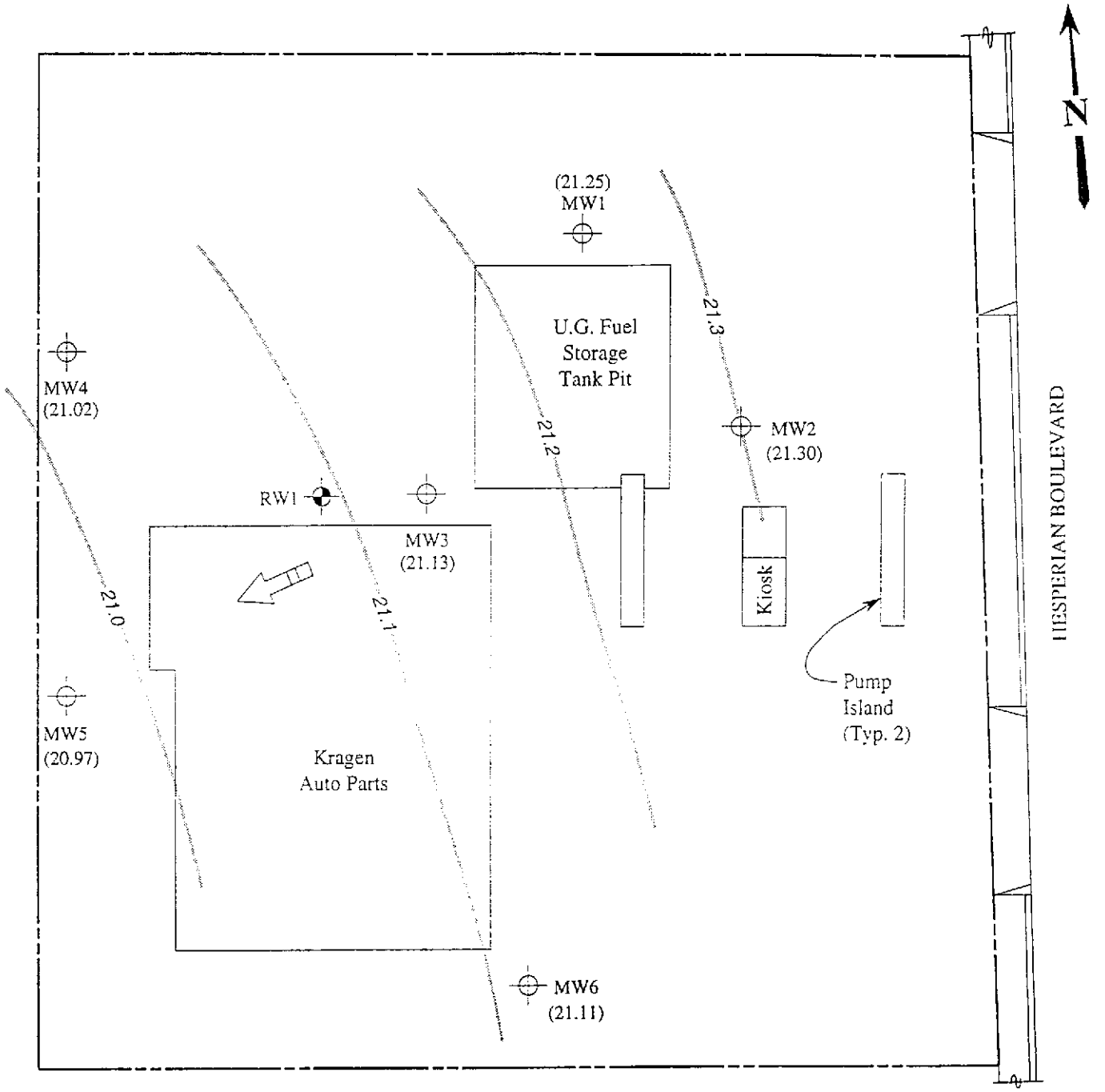
Results are in micrograms per liter (µg/L), unless otherwise indicated.

Note: Laboratory analyses data prior to January 11, 1994, were provided by Kaprealian Engineering, Inc.



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

MPDS SERVICES, INC.	**UNOCAL SERVICE STATION #7004** **15599 HESPERIAN BOULEVARD** **SAN LEANDRO, CA**	**LOCATION MAP**



LEGEND

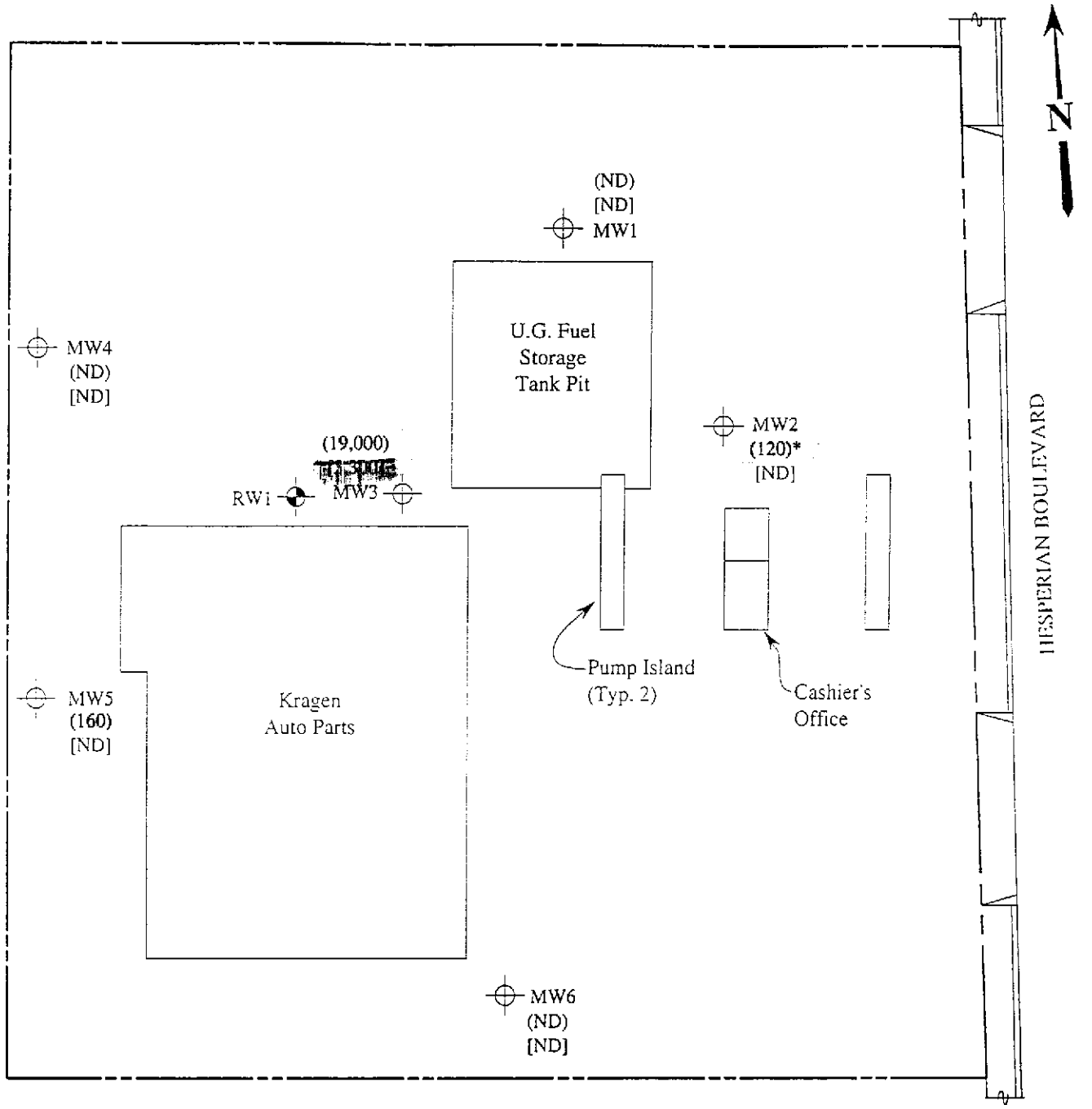
- Monitoring well
- Aquifer testing well
- ( ) Ground water elevation in feet above Mean Sea Level
- Direction of ground water flow
- Contours of ground water elevation

0 30 60

Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE JANUARY 11, 1994 MONITORING EVENT

MPDS SERVICES, INC.	**UNOCAL SERVICE STATION #7004** **15599 HESPERIAN BOULEVARD** **SAN LEANDRO, CALIFORNIA**	FIGURE **1**



LEGEND

- Monitoring well
- Aquifer testing well
- ( ) Concentration of **TPH** as gasoline in µg/L
- [ ] Concentration of [redacted] in µg/L

ND = Non-detectable

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

0 30 60

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JANUARY 11, 1994

M P D S SERVICES, INC.	**UNOCAL SERVICE STATION #7004** **15599 HESPERIAN BOULEVARD** **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.	Client Project ID:	Unocal #7004, 15599 Hesperian Blvd.,		Sampled:	Jan 11, 1994
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water	San Leandro	Received:	Jan 11, 1994
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020		Reported:	Jan 24, 1994
Attention: Avo Avedissian	First Sample #:	401-0450			

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 401-0450 MW-1	Sample I.D. 401-0451 MW-2	Sample I.D. 401-0452 MW-3	Sample I.D. 401-0453 MW-4	Sample I.D. 401-0454 MW-5	Sample I.D. 401-0455 MW-6
Purgeable Hydrocarbons	50	N.D.	120	19,000	N.D.	160	N.D.
Benzene	0.5	N.D.	N.D.	3,300	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	31	N.D.	0.79	N.D.
Ethyl Benzene	0.5	N.D.	N.D.	3,300	N.D.	0.54	N.D.
Total Xylenes	0.5	N.D.	N.D.	890	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	Discrete Peaks	Gasoline	--	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	50	1.0	1.0	1.0
Date Analyzed:	1/18/94	1/18/94	1/20/94	1/18/94	1/18/94	1/18/94
Instrument Identification:	HP-4	HP-4	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	99	105	93	98	99	99

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

Please Note:

*** This sample does not appear to contain Gasoline. Discrete Peaks refers to unidentified peaks in the EPA 8010 range.**

SEQUOIA ANALYTICAL

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

MPDS Services, Inc.	Client Project ID:	Unocal #7004, 15599 Hesperian Blvd.,	Sampled:	- -
2401 Stanwell Dr., Ste. 400	Sample Matrix:	Water San Leandro	Received:	- -
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Reported:	Jan 24, 1994
Attention: Avo Avedissian	First Sample #:	Method Blank		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. Method Blank
Purgeable Hydrocarbons	50	
Benzene	0.5	
Toluene	0.5	
Ethyl Benzene	0.5	
Total Xylenes	0.5	

Chromatogram Pattern:

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	1/18/94
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	96

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 #7004, 15599 Hesperian Blvd., San Leandro
Matrix: Liquid
QC Sample Group: 4010450-55

Reported: Jan 24, 1994

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#:	4010450	4010450	4010450	4010450
Date Prepared:	1/18/94	1/18/94	1/18/94	1/18/94
Date Analyzed:	1/18/94	1/18/94	1/18/94	1/18/94
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:	95	90	95	93
Matrix Spike Duplicate % Recovery:	95	95	95	97
Relative % Difference:	0.0	5.4	0.0	4.2
LCS Batch#:	2LCS011894	2LCS011894	2LCS011894	2LCS011894
Date Prepared:	1/18/94	1/18/94	1/18/94	1/18/94
Date Analyzed:	1/18/94	1/18/94	1/18/94	1/18/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	97	96	97	96
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

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.

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 #7004, 15599 Hesperian Blvd., San Leandro
Matrix: Liquid

QC Sample Group: 4010450-55

Reported: Jan 24, 1994

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#:	4010441	4010441	4010441	4010441
Date Prepared:	1/20/94	1/20/94	1/20/94	1/20/94
Date Analyzed:	1/20/94	1/20/94	1/20/94	1/20/94
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	95	97	98
Matrix Spike Duplicate % Recovery:	100	100	97	99
Relative % Difference:	0.0	5.1	0.0	1.0
LCS Batch#:	2LCS012094	2LCS012094	2LCS012094	2LCS012094
Date Prepared:	1/20/94	1/20/94	1/20/94	1/20/94
Date Analyzed:	1/20/94	1/20/94	1/20/94	1/20/94
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	100	100	105	102
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

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.

MPDS
Services, Inc.

CHAIN OF CUSTODY

SAMPLER: Vartkes

WITNESSING AGENCY:

SITE NAME & ADDRESS: Unocal # 7004 / San Leandro
15599 Hesperian Blvd.

ANALYSES REQUESTED: TPHG & BTXE

TURN AROUND TIME: Regular

SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION	TPHG & BTXE							REMARKS
MW 1	1/11/94			X	X		2	Monitoring Well	X							4010450 A-B
MW 2	"			X	X		2	" "	X							0451
MW 3	"			X	X		2	" "	X							0452
MW 4	"			X	X		2	" "	X							0453
MW 5	"			X	X		2	" "	X							0454
MW 6	"			X	X		2	" "	X							0455

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
W. [signature]	1/11/94 4:25	[signature]
[signature]	1-12-94 / 1345	[signature]
[signature]	1/12/94 3:30p	Melissa [signature]

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in 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	Title	Date
[signature]	DM	1-12-94

2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: 510 602 5100   Fax: 510 687 0602