

■ MONITORING
■ PURGING
■ DISPOSING
■ SAMPLING

MPDS

SERVICES, INCORPORATED

ALCO
HAZMAT

94 MAY 25 AM 11:52

May 24, 1994

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

Attn: Mr. Scott Seery

RE: Unocal Service Station #6277
15803 E. 14th Street
San Leandro, California

Dear Mr. Seery:

Per the request of the Unocal Corporation Project Manager, Mr. David J. Camille, enclosed please find our report (MPDS-UN6277-02) dated May 6, 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) 277-2334.

Sincerely,

MPDS Services, Inc.

Deanna L. Harding
Deanna L. Harding
Technical Assistant

/bp

Enclosure

cc: Mr. David J. Camille

MPDS

SERVICES, INCORPORATED

MPDS-UN6277-02

May 6, 1994

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

Attention: Mr. David J. Camille

RE: Quarterly Data Report
Unocal Service Station #6277
15803 E. 14th Street
San Leandro, California

Dear Mr. Camille:

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 4, 1994. Prior to sampling, the wells were each purged of between 9 and 10 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 were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Tables 2 and 3. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the ground water samples collected this

MPDS-UN6277-02
May 6, 1994
Page 2

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.

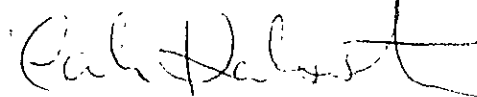
DISTRIBUTION

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.

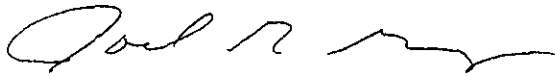
If you have any questions regarding this report, please do not hesitate to call at (510) 602-5120.

Sincerely,

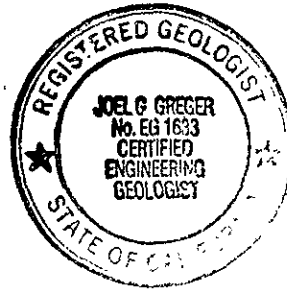
MPDS Services, Inc.



Talin Kaloustian
Staff Engineer



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

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)◆</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>	<u>Total Well Depth (feet)◆</u>
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(Monitored and Sampled on April 4, 1994)

MW1	22.23	10.27	0	No	10	24.30
MW2A	22.30	11.23	0	No	9.5	25.20
MW3	22.50	9.72	0	No	9.5	23.17
MW4	22.37	9.39	0	No	9	22.10
MW5	22.25	7.04	0	No	9.5	20.51
MW6	22.32	6.52	0	No	9	19.23

(Monitored and Sampled on January 6, 1994)

MW1	22.19	10.31	0	No	10	24.30
MW2A	22.24	11.29	0	No	9.5	25.19
MW3	22.41	9.81	0	No	9.5	23.15
MW4	22.33	9.43	0	No	9	22.10
MW5	22.20	7.09	0	No	9.5	20.51
MW6	22.24	6.60	0	No	9	19.21

(Monitored and Sampled on October 6, 1993)

MW1	22.18	10.32	0	No	10	
MW2A	22.19	11.34	0	No	10	
MW3	22.37	9.85	0	No	9	
MW4	22.25	9.51	0	No	9	
MW5	22.14	7.15	0	No	9	
MW6	22.20	6.64	0	No	9	

(Monitored and Sampled on July 1, 1993)

MW1	22.46	10.29	0	No	10	
MW2A	22.58	11.20	0	No	10	
MW3	22.91	9.65	0	No	10	
MW4	22.63	9.69	0	No	9	
MW5	22.54	7.20	0	No	10	
MW6	22.67	6.57	0	No	10	

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Well Cover Elevation (feet)*</u>	<u>Well Casing Elevation (feet)**</u>
MW1	32.75	32.50
MW2A	33.78	33.53
MW3	32.56	32.22
MW4	32.32	31.76
MW5	29.74	29.29
MW6	29.24	28.84

◆ 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 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), based on a Benchmark located on the west side of East 14th Street, approximately 75 feet north of 155th Avenue (elevation = 31.65 MSL).

** Relative to MSL.

Note: Monitoring data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
4/04/94	MW1	--	1,100	15	ND	ND	7.4
	MW2A	--	80	8.0	ND	1.4	1.5
	MW3	--	170♦	ND	ND	ND	ND
	MW4	--	120	0.76	0.76	ND	0.98
	MW5	--	65♦	ND	ND	ND	ND
	MW6	--	57♦	ND	ND	ND	ND
1/06/94	MW1	--	260	21	ND	2.5	14
	MW2A	--	110	2.6	ND	1.6	1.7
	MW3	--	140♦	ND	ND	ND	ND
	MW4	--	100♦	ND	ND	ND	ND
	MW5	--	62♦	ND	ND	ND	ND
	MW6	--	53♦	ND	ND	ND	ND
10/06/93	MW1	--	1,200♦	36	ND	ND	23
	MW2A	--	110♦	12	ND	7.4	1.4
	MW3	--	140♦	ND	ND	ND	ND
	MW4	--	130♦	ND	ND	ND	ND
	MW5	--	60♦	ND	ND	ND	ND
	MW6	--	ND	ND	ND	ND	ND
7/01/93	MW1	--	510	100	0.79	5.7	52
	MW2A	--	74♦	0.75	ND	ND	ND
	MW3	--	120♦	ND	ND	ND	ND
	MW4	--	91♦	ND	ND	ND	ND
	MW5	--	54♦	ND	ND	ND	ND
	MW6	--	ND	ND	ND	ND	ND
4/02/93	MW1	ND	690	94	0.73	5.3	39
	MW2A	ND	120	7.2	ND	5.8	1.2
	MW3	ND	130♦	ND	ND	ND	ND
	MW4	ND	110♦	ND	ND	ND	ND
	MW5	ND	65♦	ND	ND	ND	ND
	MW6	ND	ND	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
1/29/93	MW1	ND	740♦♦	69	ND	3.8	43
	MW2A	ND	66♦	1.4	ND	ND	ND
	MW3	ND	130♦	0.84	ND	ND	ND
	MW4	ND	130♦	0.95	ND	ND	ND
10/20/92	MW1	ND	720	110	1.4	18	110
	MW2A	ND	96	2.8	ND	1.8	1.6
	MW3	ND	180♦	ND	ND	ND	ND
	MW4	ND	110♦	ND	ND	ND	ND
7/20/92	MW1	62*	630	100	2.8	6.3	52
	MW2A	ND	99	8.6	ND	2.4	0.95
	MW3	ND	120♦	ND	ND	ND	ND
	MW4	ND	80♦	ND	ND	ND	ND
4/23/92	MW1	--	530	100	7.9	4.6	60
	MW2A	ND	190	15	ND	15	2.0
	MW3	--	150♦	1.6	ND	ND	ND
	MW4	--	120♦	ND	ND	ND	ND
1/13/92	MW1	--	450	240	4.6	8.6	73
	MW2A	ND	160	11	2.0	10	5.9
	MW3	--	120♦	ND	ND	ND	ND
	MW4	--	58♦	ND	ND	ND	ND
9/10/91	MW1	--	280	38	3.1	4.1	22
	MW2A	65	180	8.7	0.93	15	13
	MW3	--	170	ND	ND	ND	ND
	MW4	--	56	ND	ND	ND	ND
6/10/91	MW1	--	310	1.5	ND	ND	0.31
	MW2A	100	54	1.2	ND	ND	0.69
	MW3	--	160	0.65	ND	ND	ND
	MW4	--	64	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
3/15/91	MW1	--	110	21	ND	ND	8.4
	MW2A	ND	160	2.5	ND	ND	51
	MW3	--	150	ND	ND	ND	0.45
	MW4	--	53	ND	ND	ND	ND
12/14/90	MW1	--	450	150	6.8	0.28	49
	MW3	--	150	ND	ND	ND	ND
	MW4	--	54	ND	ND	ND	ND
9/19/90	MW1	--	140	ND	ND	ND	3.5
	MW3	--	74	0.74	ND	ND	ND
	MW4	--	61	ND	ND	ND	ND
6/25/90	MW1	--	310	10	0.89	0.37	2.1
	MW3	--	190	1.5	0.68	ND	5.3
	MW4	--	66	ND	ND	ND	ND
3/29/90	MW1	--	320	12	1.6	0.31	3.5
	MW3	--	85	ND	ND	ND	ND
	MW4	--	120	0.39	ND	ND	ND
12/12/89	MW1	--	340	100	13	3.4	44
	MW2	1,700	660	220	6.6	13	36
	MW3	--	120	6.7	0.64	0.46	1.5
	MW4	--	97	4.6	ND	ND	ND
9/13/89	MW1	--	550	32	17	3.4	52
	MW2	ND	170	2.0	0.38	ND	9.5
	MW3	--	76	ND	ND	ND	ND
	MW4	--	77	ND	ND	ND	ND
6/06/89	MW1	--	590	ND	ND	ND	ND
	MW2	ND	77	ND	ND	ND	ND
	MW3	--	32	ND	ND	ND	ND
	MW4	--	37	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

- ◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- ◆◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- * Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.

-- Indicates analysis was not performed.

ND = Non-detectable.

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

Note: Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.

TABLE 3

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Well #</u>	<u>Tetra- chloroethene</u>	<u>Trichloro- ethene</u>	<u>1,2- Dichloro- ethane</u>	<u>Cis-1,2- Dichloro- ethene</u>	<u>Total Oil & Grease (mg/L)</u>
4/04/94	MW1*	390	38	ND	17	--
1/06/94	MW3	960	ND	ND	ND	--
4/02/93	MW5	190	ND	ND	ND	--
	MW6	71	ND	ND	ND	--
1/29/93	MW1	300	ND	ND	ND	--
	MW2A	140	10	ND	ND	--
	MW3	980	ND	ND	ND	--
	MW4	950	ND	ND	ND	--
10/20/92	MW1	230	22	ND	16	--
	MW2A	64	11	ND	ND	--
	MW3	1,100	20	ND	ND	--
	MW4	360	17	ND	ND	--
7/20/92	MW1	200	7.4	ND	ND	--
	MW2A	35	7.2	ND	4.8	ND
	MW3	1,400	25	ND	ND	--
	MW4	440	11	ND	ND	--
4/23/92	MW2A	17	5.6	ND	1.9	ND
1/13/92	MW2A**	33	ND	ND	2.1	ND
6/10/91	MW2A	150	10	ND	ND	ND
3/15/91	MW2A	67	8.2	ND	2.6	ND
12/12/89	MW2	30	9.0	ND	ND	1.2
9/13/89	MW2	18	6.1	4.2	1.2	ND
6/06/89	MW2	110	4.4	2.8	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

* All EPA method 8240 constituents were non-detectable, except for concentrations of benzene at 29 $\mu\text{g/L}$, ethylbenzene at 3.4 $\mu\text{g/L}$, total xylenes at 19 $\mu\text{g/L}$, and trans-1,2-dichloroethene at 2.4 $\mu\text{g/L}$.

** 1,1,2-trichloroethane was detected at a concentration of 9.9 $\mu\text{g/L}$.

ND = Non-detectable.

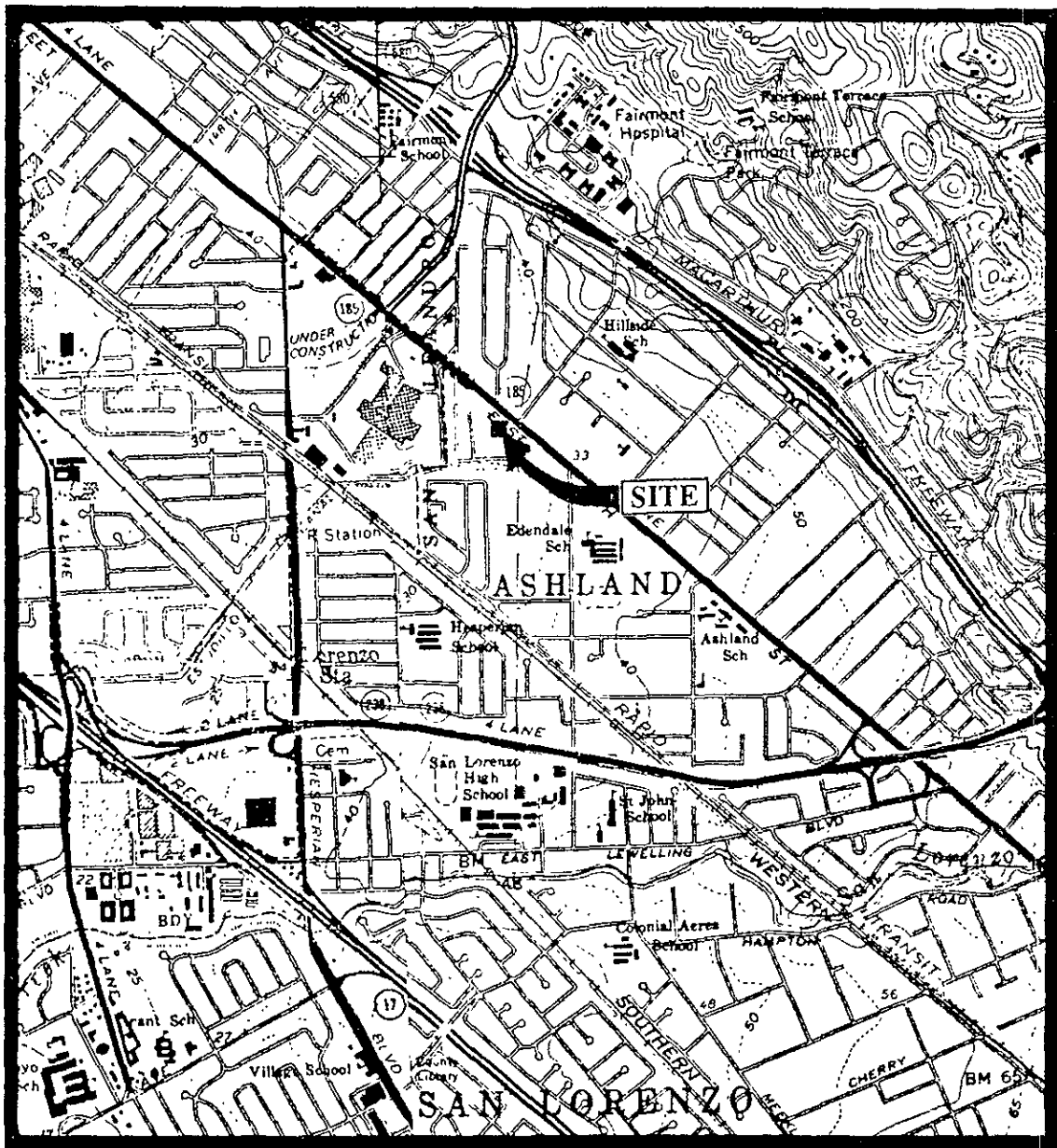
-- Indicates analysis was not performed.

mg/L = milligrams per liter.

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

Note: - All EPA method 8010 constituents were non-detectable in all of the ground water samples, except as indicated.

- Laboratory analyses data prior to January 6, 1994, were provided by Kaprealian Engineering, Inc.



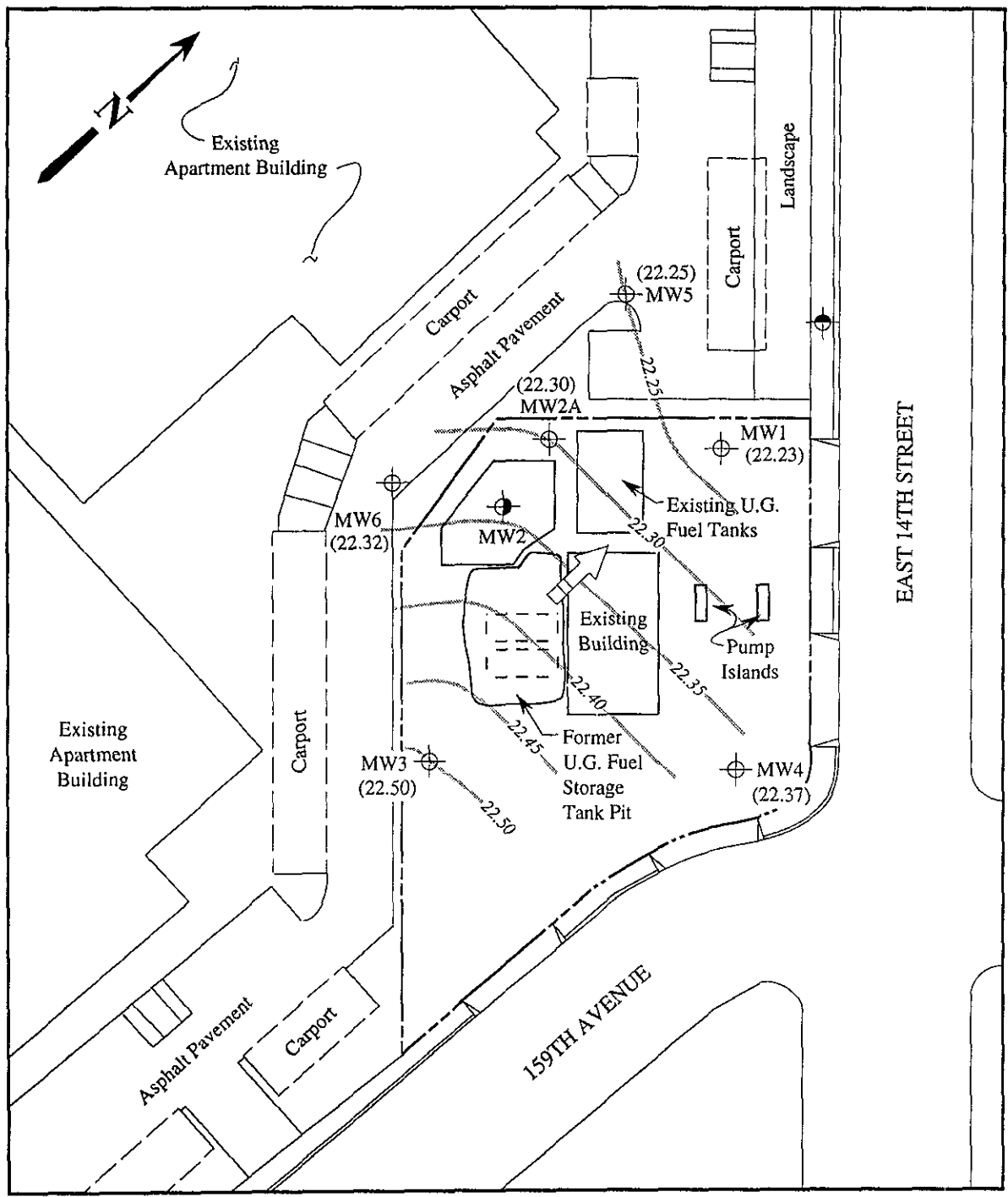
Base modified from 7.5 minute U.S.G.S.
Hayward and San Leandro Quadrangles
(both photorevised 1980)



MPDS
SERVICES, INC.

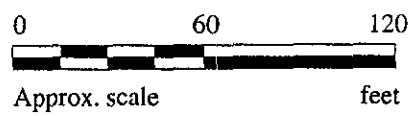
UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

LOCATION
MAP



LEGEND

- ⊕ Monitoring well (existing)
- Monitoring well (previously attempted)
- ⊙ Monitoring well (destroyed February 1, 1990)
- () Ground water elevation in feet above Mean Sea Level
- ➔ Direction of ground water flow
- Contours of ground water elevation

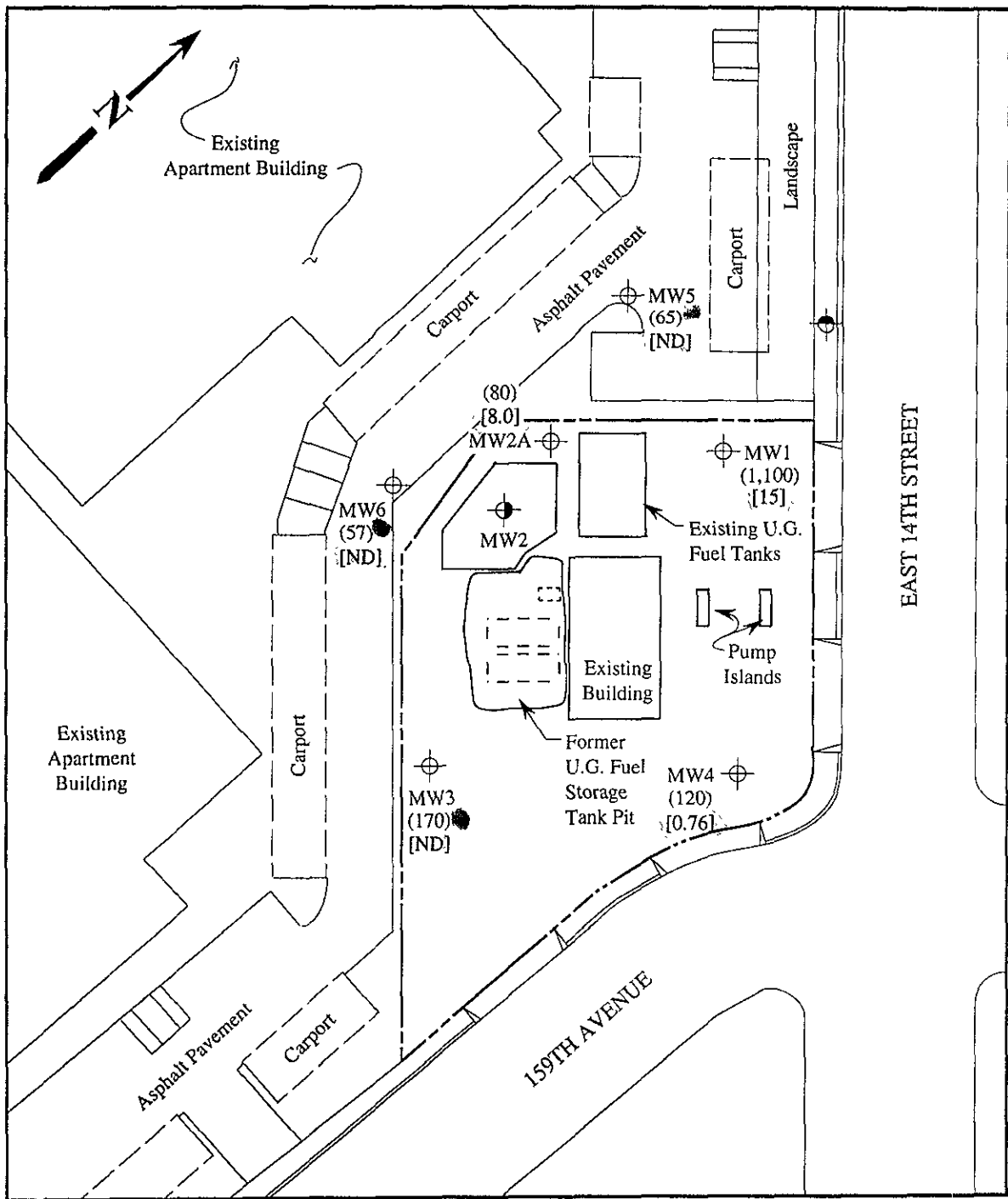


POTENTIOMETRIC SURFACE MAP FOR THE APRIL 4, 1994 MONITORING EVENT

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

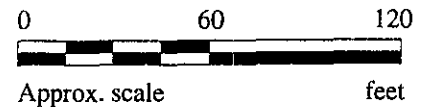
FIGURE
1



LEGEND

- ⊕ Monitoring well (existing)
- Monitoring well (previously attempted)
- ⊖ Monitoring well (destroyed February 1, 1990)
- () Concentration of TPH as gasoline in µg/L
- [] Concentration of benzene in µg/L
- ND = Non-detectable

● This well reported that the hydrocarbons detected did not appear to be gasoline.



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON APRIL 4, 1994

MPDS
SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE
2



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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 404-0136

Sampled: Apr 4, 1994
Received: Apr 4, 1994
Reported: Apr 19, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 404-0136 MW-1	Sample I.D. 404-0137 MW-2A	Sample I.D. 404-0138 MW-3*	Sample I.D. 404-0139 MW-4	Sample I.D. 404-0140 MW-5*	Sample I.D. 404-0141 MW-6*
Purgeable Hydrocarbons	50	1,100	80	170	120	65	57
Benzene	0.5	15	8.0	N.D.	0.76	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	0.76	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	1.4	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.5	7.4	1.5	N.D.	0.98	N.D.	N.D.
Chromatogram Pattern:		Gasoline	Gasoline	Discrete Peak	Gasoline	Discrete Peak	Discrete Peak

Quality Control Data

Report Limit Multiplication Factor:	10	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	4/12/94	4/8/94	4/8/94	4/8/94	4/8/94	4/8/94
Instrument Identification:	HP-2	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	97	110	116	110	122	106

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

SEQUOIA ANALYTICAL, #1271

Please Note:

* This sample does not appear to contain gasoline. "Discrete Peak" refers to an unidentified peak in the EPA 8010 range.

Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
Sample Matrix: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: Matrix Blank

Sampled: --
Received: --
Reported: Apr 19, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. Matrix 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:	4/8/94
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	105

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

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
Sample Descript: Water, MW-1
Analysis Method: EPA 8240
Lab Number: 404-0136

Sampled: Apr 4, 1994
Received: Apr 4, 1994
Analyzed: Apr 8, 1994
Reported: Apr 19, 1994

VOLATILE ORGANICS by GC/MS (EPA 8240)

Analyte	Detection Limit µg/L	Sample Results µg/L
Acetone.....	10	N.D.
Benzene.....	2.0	29
Bromodichloromethane.....	2.0	N.D.
Bromoform.....	2.0	N.D.
Bromomethane.....	2.0	N.D.
2-Butanone.....	10	N.D.
Carbon disulfide.....	2.0	N.D.
Carbon tetrachloride.....	2.0	N.D.
Chlorobenzene.....	2.0	N.D.
Chloroethane.....	2.0	N.D.
2-Chloroethyl vinyl ether.....	10	N.D.
Chloroform.....	2.0	N.D.
Chloromethane.....	2.0	N.D.
Dibromochloromethane.....	2.0	N.D.
1,1-Dichloroethane.....	2.0	N.D.
1,2-Dichloroethane.....	2.0	N.D.
1,1-Dichloroethene.....	2.0	N.D.
cis-1,2-Dichloroethene.....	2.0	17
trans-1,2-Dichloroethene.....	2.0	2.4
1,2-Dichloropropane.....	2.0	N.D.
cis-1,3-Dichloropropene.....	2.0	N.D.
trans-1,3-Dichloropropene.....	2.0	N.D.
Ethylbenzene.....	2.0	3.4
2-Hexanone.....	10	N.D.
Methylene chloride.....	5.0	N.D.
4-Methyl-2-pentanone.....	10	N.D.
Styrene.....	2.0	N.D.
1,1,2,2-Tetrachloroethane.....	2.0	N.D.
Tetrachloroethene.....	10	390
Toluene.....	2.0	N.D.
1,1,1-Trichloroethane.....	2.0	N.D.
1,1,2-Trichloroethane.....	2.0	N.D.
Trichloroethene.....	2.0	38
Trichlorofluoromethane.....	2.0	N.D.
Vinyl acetate.....	2.0	N.D.
Vinyl chloride.....	2.0	N.D.
Total Xylenes.....	2.0	19

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

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
Matrix: Liquid

QC Sample Group: 4040136-41

Reported: Apr 19, 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#:	4040096	4040096	4040096	4040096
Date Prepared:	4/8/94	4/8/94	4/8/94	4/8/94
Date Analyzed:	4/8/94	4/8/94	4/8/94	4/8/94
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:	125	115	110	112
Matrix Spike Duplicate % Recovery:	125	105	100	102
Relative % Difference:	0.0	9.1	9.5	9.3

LCS Batch#:	3LCS040894	3LCS040894	3LCS040894	3LCS040894
Date Prepared:	4/8/94	4/8/94	4/8/94	4/8/94
Date Analyzed:	4/8/94	4/8/94	4/8/94	4/8/94
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	102	104	100	106

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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SEQUOIA ANALYTICAL, #1271

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
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedessian

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
Matrix: Liquid

QC Sample Group: 4040136-41

Reported: Apr 19, 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#:	4031493	4031493	4031493	4031493
Date Prepared:	4/12/94	4/12/94	4/12/94	4/12/94
Date Analyzed:	4/12/94	4/12/94	4/12/94	4/12/94
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:	100	100	100	102
Matrix Spike Duplicate % Recovery:	100	95	95	98
Relative % Difference:	0.0	5.1	5.1	2.0

LCS Batch#:	Benzene	Toluene	Ethyl Benzene	Xylenes
Date Prepared:	4/12/94	4/12/94	4/12/94	4/12/94
Date Analyzed:	4/12/94	4/12/94	4/12/94	4/12/94
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	102	101	101	102

% Recovery Control Limits:	71-133	72-128	72-130	71-120
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SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
Project Manager





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

Client Project ID: Unocal #6277, 15803 E 14th St, San Leandro
 Matrix: Liquid

QC Sample Group: 4040136-41

Reported: Apr 19, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
Method:	EPA 8240	EPA 8240	EPA 8240	EPA 8240	EPA 8240
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen	M. Nguyen

MS/MSD Batch#:	4040136	4040136	4040136	4040136	4040136
Date Prepared:	4/8/94	4/8/94	4/8/94	4/8/94	4/8/94
Date Analyzed:	4/8/94	4/8/94	4/8/94	4/8/94	4/8/94
Instrument I.D.#:	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2
Conc. Spiked:	250 µg/L	250 µg/L	250 µg/L	250 µg/L	250 µg/L
Matrix Spike % Recovery:	104	102	108	108	104
Matrix Spike Duplicate % Recovery:	110	110	115	112	108
Relative % Difference:	6.0	7.5	6.5	4.0	3.0

LCS Batch#:	LCS040894	LCS040894	LCS040894	LCS040894	LCS040894
Date Prepared:	4/8/94	4/8/94	4/8/94	4/8/94	4/8/94
Date Analyzed:	4/8/94	4/8/94	4/8/94	4/8/94	4/8/94
Instrument I.D.#:	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2	GC/MS 2
LCS % Recovery:	111	30	112	110	112

% Recovery Control Limits:	DL-234	71-157	37-151	47-150	37-160
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SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
 Project Manager



M P D S Services, Inc.

2401 Stanwell Drive, Suite 400, Concord, CA 94520
 Tel: (510) 602-6120 Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER			UNOCAL					ANALYSES REQUESTED							TURN AROUND TIME:		
STEVE BALIAN			S/S # <u>6277</u> CITY: <u>SAN LEANDRO</u>					TPH-GAS BTEX	TPH-DIESEL	TOG	8010	8240					REGULAR
WITNESSING AGENCY			ADDRESS: <u>15803 E. 14th STREET</u>														REMARKS
SAMPLE ID NO	DATE	TIME	WATER	GRAB	COMP	NO OF CONT	SAMPLING LOCATION										
MW-1	4-4-94	2:18	X	X		4-V	WELL	X				X				4040136 AD 0137 AB 0138 0139 0140 0141	
MW-2A	"	1:45	X	X		2-V	"	X									
MW-3	"	1:10	X	X		"	"	X									
MW-4	"	12:43	X	X		"	"	X									
MW-5	"	12:11	X	X		"	"	X									
MW-6	"	11:40	X	X		"	"	X									

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	THE FOLLOWING MUST BE COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:			
STEVE BALIAN	4-4-94 17:22	Melissa Crewson	1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE?	YES		
(SIGNATURE)		(SIGNATURE)	2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED?	YES		
(SIGNATURE)		(SIGNATURE)	3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE?	NO		
(SIGNATURE)		(SIGNATURE)	4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED?	YES		
(SIGNATURE)		(SIGNATURE)	SIGNATURE:	Melissa Crewson	TITLE:	Sample Coordinator
			DATE:			