MONITORING
PURGING
DISPOSING
SAMPLING
mpds SERVICES, INCORPORATED

95 AUG 28 PM 2:38

August 25, 1995

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

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-UN6277-07) dated August 9, 1995 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) 277-2335.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Mr. David J. Camille

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

■ MONITORING
■ PURGING
■ DISPOSING
■ SAMPLING
mpds SERVICES, INCORPORATED

95 AUG 28 PM 2:38

MPDS-UN6277-07
August 9, 1995

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 July 14, 1995. 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 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 Mr. Scott Seery of 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 A. Karkarian
Staff Engineer

REGISTERED GEOLOGIST
JOEL G. GREGER
No. EG 1633
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

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

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

/bp

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

Well #	Ground Water Elevation (feet)	Depth to Water (feet)♦	Total Well Depth (feet)♦	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on July 14, 1995)						
MW1	22.26	10.24	24.44	0	No	10
MW2A	22.36	11.17	25.21	0	No	10
MW3	22.54	9.68	23.43	0	No	9.5
MW4	22.37	9.39	22.80	0	No	9.5
MW5	22.32	6.97	20.53	0	No	9.5
MW6	22.38	6.46	19.24	0	No	9
(Monitored and Sampled on April 4, 1995)						
MW1	22.52	9.98	24.88	0	No	10
MW2A	22.59	10.94	25.35	0	No	10
MW3	22.78	9.44	23.45	0	No	10
MW4	22.34	9.42	22.50	0	No	9
MW5	22.54	6.75	20.94	0	No	9.5
MW6	22.61	6.23	19.61	0	No	9
(Monitored and Sampled on January 5, 1995)						
MW1	23.02	9.48	24.88	0	No	10.5
MW2A	23.16	10.37	25.35	0	No	10.5
MW3	23.34	8.88	23.43	0	No	10
MW4	22.94	8.82	22.52	0	No	9.5
MW5	22.91	6.38	20.95	0	No	10
MW6	22.99	5.85	19.60	0	No	9.5
(Monitored and Sampled on October 6, 1994)						
MW1	22.16	10.34	24.43	0	No	10
MW2A	22.22	11.31	25.20	0	No	9.5
MW3	22.40	9.82	23.37	0	No	9.5
MW4	22.26	9.50	22.80	0	No	9.5
MW5	22.20	7.09	20.52	0	No	9.5
MW6	22.25	6.59	19.23	0	No	9

TABLE 1 (Continued)

SUMMARY OF MONITORING DATA

Well #	Well Casing Elevation (feet)*
MW1	32.50
MW2A	33.53
MW3	32.22
MW4	31.76
MW5	29.29
MW6	28.84

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

* The elevations of the top of the well casings are 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 feet MSL).

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
7/14/95	MW1	410	77	ND	7.4	30
4/04/95	MW1	410♦	19	ND	ND	ND
1/05/95	MW1	780	30	ND	ND	9.1
10/06/94	MW1	970	19	ND	ND	13
7/07/94	MW1	2,100♦♦	250	ND	57	200
4/04/94	MW1	1,100	15	ND	ND	7.4
1/06/94	MW1	260	21	ND	2.5	14
10/06/93	MW1	1,200♦	36	ND	ND	23
7/01/93	MW1	510	100	0.79	5.7	52
4/02/93	MW1	690	94	0.73	5.3	39
1/29/93	MW1	740♦♦	69	ND	3.8	43
10/20/92	MW1	720	110	1.4	18	110
7/20/92	MW1	630	100	2.8	6.3	52
4/23/92	MW1	530	100	7.9	4.6	60
1/13/92	MW1	450	240	4.6	8.6	73
9/10/91	MW1	280	38	3.1	4.1	22
6/10/91	MW1	310	1.5	ND	ND	0.31
3/15/91	MW1	110	21	ND	ND	8.4
12/14/90	MW1	450	150	6.8	0.28	49
9/19/90	MW1	140	ND	ND	ND	3.5
6/25/90	MW1	310	10	0.89	0.37	2.1
3/29/90	MW1	320	12	1.6	0.31	3.5
12/12/89	MW1	340	100	13	3.4	44
9/13/89	MW1	550	32	17	3.4	52
6/06/89	MW1	590	ND	ND	ND	ND
7/14/95	MW2A	60	3.0	ND	1.3	2.4
4/04/95	MW2A	67♦	1.0	ND	ND	ND
1/05/95	MW2A	140♦	1.4	ND	ND	ND
10/06/94	MW2A	71	6.4	ND	2.1	2.4
7/07/94	MW2A	90	5.2	ND	1.5	2.2
4/04/94	MW2A	80	8.0	ND	1.4	1.5
1/06/94	MW2A	110	2.6	ND	1.6	1.7
10/06/93	MW2A	110♦	12	ND	7.4	1.4
7/01/93	MW2A	74♦	0.75	ND	ND	ND
4/02/93	MW2A	120	7.2	ND	5.8	1.2

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
10/20/92	MW2A	96	2.8	ND	1.8	1.6
7/20/92	MW2A	99	8.6	ND	2.4	0.95
4/23/92	MW2A	190	15	ND	15	2.0
1/13/92	MW2A	160	11	2.0	10	5.9
9/10/91	MW2A	180	8.7	0.93	15	13
6/10/91	MW2A	54	1.2	ND	ND	0.69
3/15/91	MW2A	160	2.5	ND	ND	51
12/12/89	MW2	660	220	6.6	13	36
9/13/89	MW2	170	2.0	0.38	ND	9.5
6/06/89	MW2	77	ND	ND	ND	ND
7/14/95	MW3	130♦	ND	ND	1.3	4.2
4/04/95	MW3	100♦	0.62	ND	ND	ND
1/05/95	MW3	140♦	ND	ND	ND	ND
10/06/94	MW3	93♦	ND	ND	ND	ND
7/07/94	MW3	190♦	ND	ND	ND	ND
4/04/94	MW3	170♦	ND	ND	ND	ND
1/06/94	MW3	140♦	ND	ND	ND	ND
10/06/93	MW3	140♦	ND	ND	ND	ND
7/01/93	MW3	120♦	ND	ND	ND	ND
4/02/93	MW3	130♦	ND	ND	ND	ND
1/29/93	MW3	130♦	0.84	ND	ND	ND
10/20/92	MW3	180♦	ND	ND	ND	ND
7/20/92	MW3	120♦	ND	ND	ND	ND
4/23/92	MW3	150♦	1.6	ND	ND	ND
1/13/92	MW3	120♦	ND	ND	ND	ND
9/10/91	MW3	170	ND	ND	ND	ND
6/10/91	MW3	160	0.65	ND	ND	ND
3/15/91	MW3	150	ND	ND	ND	0.45
12/14/90	MW3	150	ND	ND	ND	ND
9/19/90	MW3	74	0.74	ND	ND	ND
6/25/90	MW3	190	1.5	0.68	ND	5.3
3/29/90	MW3	85	ND	ND	ND	ND
12/12/89	MW3	120	6.7	0.64	0.46	1.5
9/13/89	MW3	76	ND	ND	ND	ND
6/06/89	MW3	32	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
7/14/95	MW4	89♦	ND	ND	0.97	0.52
4/04/95	MW4	82♦	ND	ND	ND	ND
1/05/95	MW4	150♦	ND	ND	ND	ND
10/06/94	MW4	78♦	ND	ND	ND	ND
7/07/94	MW4	150♦	ND	ND	ND	ND
4/04/94	MW4	120	0.76	0.76	ND	0.98
1/06/94	MW4	100♦	ND	ND	ND	ND
10/06/93	MW4	130♦	ND	ND	ND	ND
7/01/93	MW4	91♦	ND	ND	ND	ND
4/02/93	MW4	110♦	ND	ND	ND	ND
1/29/93	MW4	130♦	0.95	ND	ND	ND
10/20/92	MW4	110♦	ND	ND	ND	ND
7/20/92	MW4	80♦	ND	ND	ND	ND
4/23/92	MW4	120♦	ND	ND	ND	ND
1/13/92	MW4	58♦	ND	ND	ND	ND
9/10/91	MW4	56	ND	ND	ND	ND
6/10/91	MW4	64	ND	ND	ND	ND
3/15/91	MW4	53	ND	ND	ND	ND
12/14/90	MW4	54	ND	ND	ND	ND
9/19/90	MW4	61	ND	ND	ND	ND
6/25/90	MW4	66	ND	ND	ND	ND
3/29/90	MW4	120	0.39	ND	ND	ND
12/12/89	MW4	97	4.6	ND	ND	ND
9/13/89	MW4	77	ND	ND	ND	ND
6/06/89	MW4	37	ND	ND	ND	ND
7/14/95	MW5	ND	ND	0.91	ND	1.1
4/04/95	MW5	ND	ND	ND	ND	ND
1/05/95	MW5	ND	ND	ND	ND	ND
10/06/94	MW5	ND	ND	ND	ND	ND
7/07/94	MW5	72♦	ND	ND	ND	ND
4/04/94	MW5	65♦	ND	ND	ND	ND
1/06/94	MW5	62♦	ND	ND	ND	ND
10/06/93	MW5	60♦	ND	ND	ND	ND
7/01/93	MW5	54♦	ND	ND	ND	ND
4/02/93	MW5	65♦	ND	ND	ND	ND

TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

Date	Well #	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes
7/14/95	MW6	ND	ND	ND	ND	ND
4/04/95	MW6	ND	ND	ND	ND	ND
1/05/95	MW6	ND	ND	ND	ND	ND
10/06/94	MW6	ND	ND	ND	ND	ND
7/07/94	MW6	ND	ND	ND	ND	ND
4/04/94	MW6	57♦	ND	ND	ND	ND
1/06/94	MW6	53♦	ND	ND	ND	ND
10/06/93	MW6	ND	ND	ND	ND	ND
7/01/93	MW6	ND	ND	ND	ND	ND
4/02/93	MW6	ND	ND	ND	ND	ND

♦ 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.

ND = Non-detectable.

Results are in micrograms per liter (μg/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

Date	Well #	TPH as Diesel	Tetra-chloroethene	Trichloro-ethene	1,2-Dichloro-ethane	Cis-1,2-Dichloro-ethene	Total Oil & Grease (mg/L)
4/04/94	MW1*	--	390	38	ND	17	--
4/02/93	MW1	ND	--	--	--	--	--
1/29/93	MW1	ND	300	ND	ND	ND	--
10/20/92	MW1	ND	230	22	ND	16	--
7/20/92	MW1	62♦	200	7.4	ND	ND	--
4/02/93	MW2	ND	--	--	--	--	--
12/12/89	MW2	1,700	30	9.0	ND	ND	1.2
9/13/89	MW2	ND	18	6.1	4.2	1.2	ND
6/06/89	MW2	ND	110	4.4	2.8	ND	ND
9/10/93	MW2A	65	--	--	--	--	--
1/29/93	MW2A	ND	140	10	ND	ND	--
10/20/92	MW2A	ND	64	11	ND	ND	--
7/20/92	MW2A	ND	85	7.2	ND	4.8	ND
4/23/92	MW2A	ND	17	5.6	ND	1.9	ND
1/13/92	MW2A**	ND	33	ND	ND	2.1	ND
6/10/91	MW2A	100	150	10	ND	ND	ND
3/15/91	MW2A	ND	67	8.2	ND	2.6	ND
1/05/95	MW3	--	1,100	18	ND	6.2	--
1/06/94	MW3	--	960	ND	ND	ND	--
4/02/93	MW3	ND	--	--	--	--	--
1/29/93	MW3	ND	980	ND	ND	ND	--
10/20/92	MW3	ND	1,100	20	ND	ND	--
7/20/92	MW3	ND	1,400	25	ND	ND	--
1/29/93	MW4	ND	950	ND	ND	ND	--
10/20/92	MW4	ND	440	11	ND	ND	--
4/02/93	MW4	ND	--	--	--	--	--
10/20/92	MW4	ND	360	17	ND	ND	--
4/02/93	MW5	ND	190	ND	ND	ND	--
4/02/93	MW6	ND	71	ND	ND	ND	--

7/20/92 10/20/92 1/29/93

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

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

** 1,1,2-trichloroethane was detected at a concentration of 9.9 µg/L.

♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear be a diesel.

ND = Non-detectable.

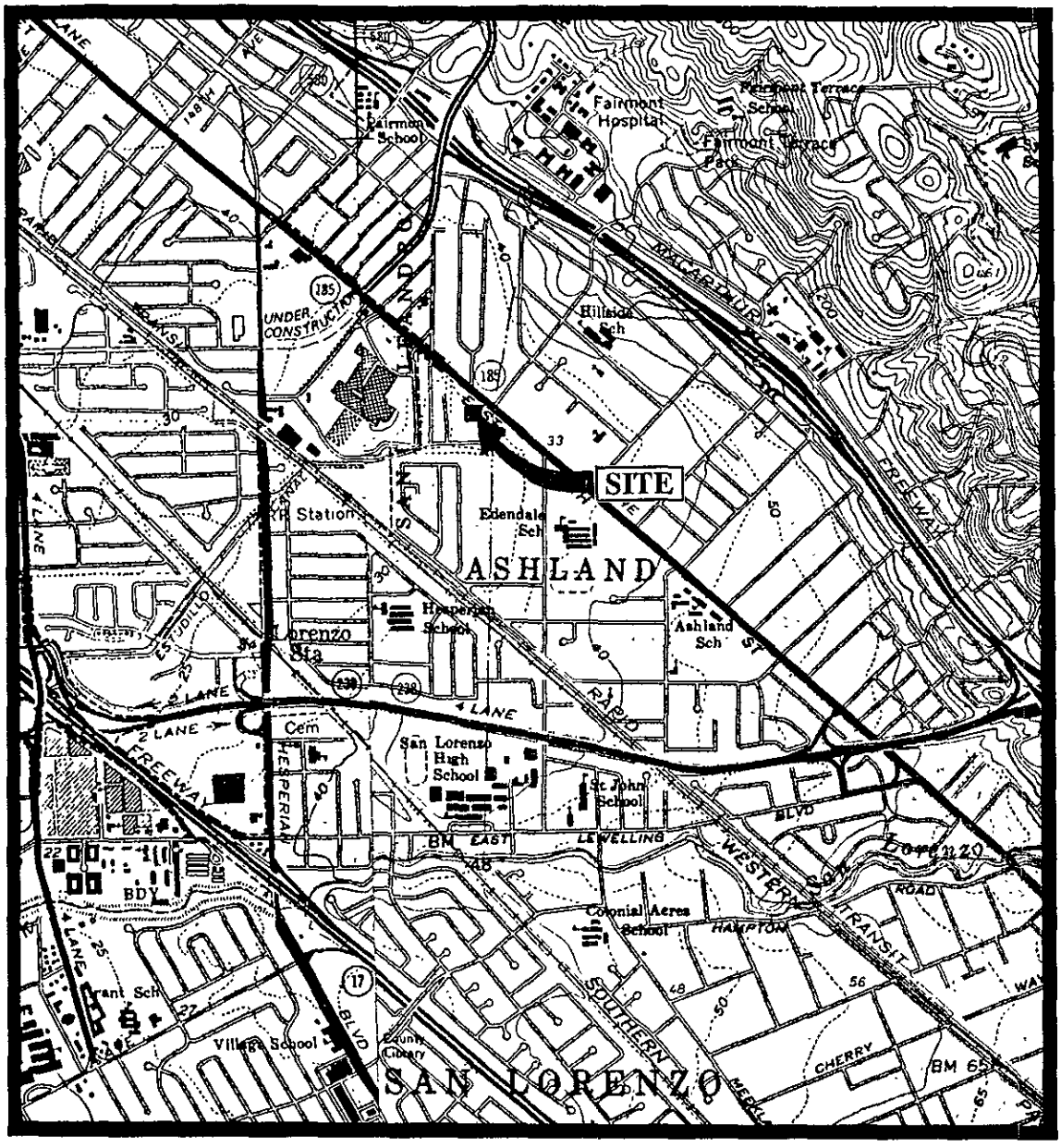
-- Indicates analysis was not performed.

mg/L = milligrams per liter.

Results are in micrograms per liter (µg/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.

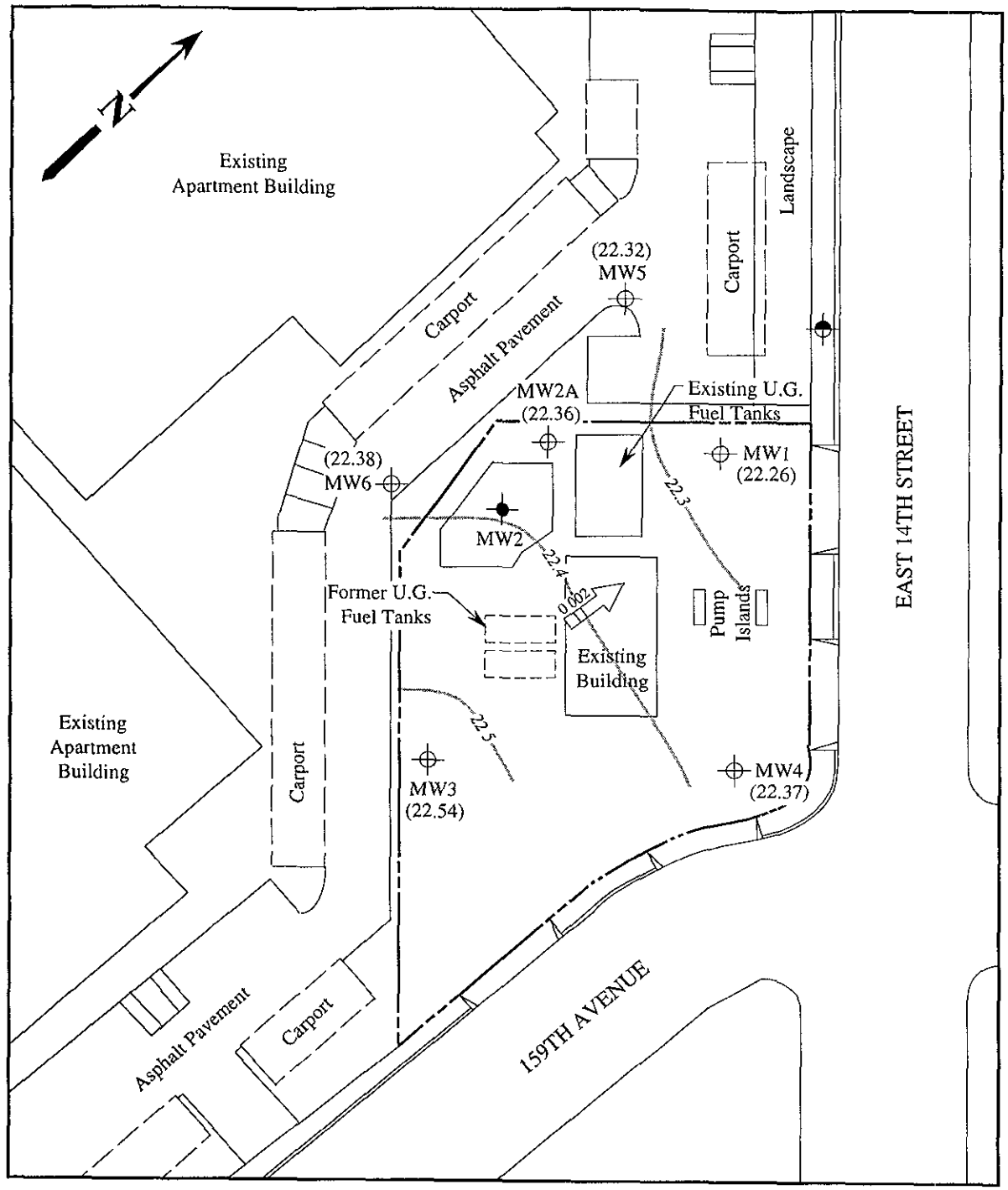


Base modified from 7.5 minute U.S.G.S.
Hayward and San Leandro Quadrangles
(both photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #6277** **15803 E. 14TH STREET** **SAN LEANDRO, CALIFORNIA**	**LOCATION MAP**



LEGEND

- Monitoring well (existing)
- Monitoring well (previously attempted)
- Monitoring well (destroyed February1, 1990)
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation

0 60 120

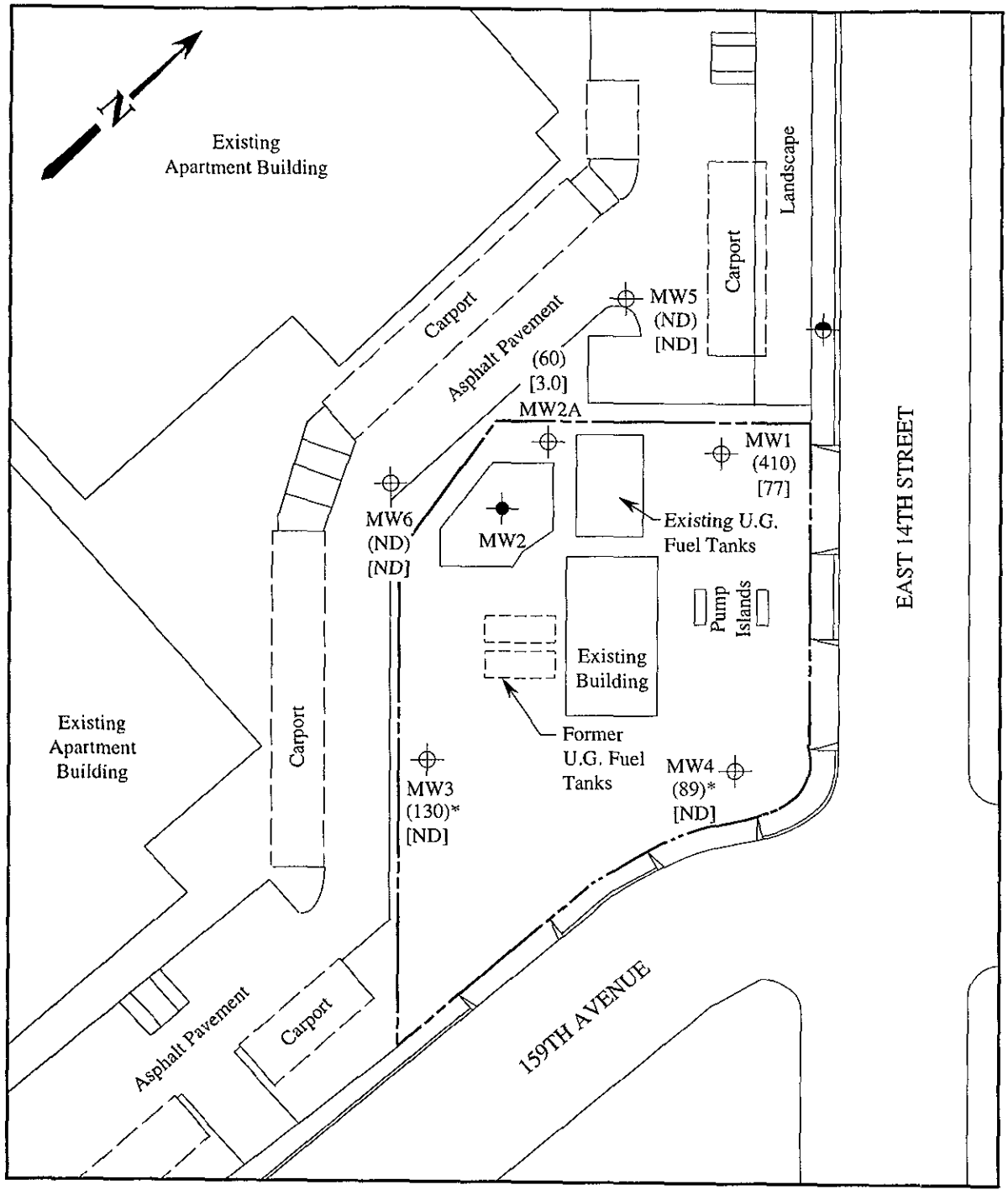
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE JULY 14, 1995 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 February1, 1990)
- ( ) Concentration of TPH as gasoline in µg/L
- [ ] Concentration of benzene in µg/L
- ND Non-detectable
- * The lab reported that the hydrocarbons detected did not appear to be gasoline.

0 60 120

Approx. scale feet

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON JULY 14, 1995

MPDS SERVICES, INCORPORATED

UNOCAL SERVICE STATION #6277
15803 E. 14TH STREET
SAN LEANDRO, 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
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Sarkis Karkarian

Client Project ID: Unocal #6277, 15803 E. 14th St., San Leandro
Matrix Descript: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 507-0694

Sampled: Jul 14, 1995
Received: Jul 14, 1995
Reported: Jul 28, 1995

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
507-0694	MW-1	410	77	ND	7.4	30
507-0695	MW-2A	60	3.0	ND	1.3	2.4
507-0696	MW-3	130*	ND	ND	1.3	4.2
507-0697	MW-4	89*	ND	ND	0.97	0.52
507-0698	MW-5	ND	ND	0.91	ND	1.1
507-0699	MW-6	ND	ND	ND	ND	ND

*This sample does not appear to contain gasoline.

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

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 #6277, 15803 E. 14th St., San Leandro	Sampled: Jul 14, 1995
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Jul 14, 1995
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Jul 28, 1995
Attention: Sarkis Karkarian	First Sample #:	507-0694	

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
507-0694	MW-1	Gasoline	4.0	7/18/95	HP-4	102
507-0695	MW-2A	Gasoline	1.0	7/17/95	HP-9	115
507-0696	MW-3	Discrete Peaks*	1.0	7/17/95	HP-9	107
507-0697	MW-4	Discrete Peaks*	1.0	7/17/95	HP-9	116
507-0698	MW-5	--	1.0	7/17/95	HP-4	99
507-0699	MW-6	--	1.0	7/17/95	HP-5	93

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Please Note:
* "Discrete Peaks" refers to an unidentified peaks in the EPA 8010 range.

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

Client Project ID: Unocal #6277, 15803 E. 14th St. , San Leandro
Matrix: Liquid
QC Sample Group: 5060694-99
Reported: Jul 28, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere
MS/MSD Batch#:	5070681	5070681	5070681	5070681
Date Prepared:	7/18/95	7/18/95	7/18/95	7/18/95
Date Analyzed:	7/18/95	7/18/95	7/18/95	7/18/95
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:	85	105	110	112
Matrix Spike Duplicate % Recovery:	75	90	95	97
Relative % Difference:	13	15	15	14
LCS Batch#:	2LCS071895	2LCS071895	2LCS071895	2LCS071895
Date Prepared:	7/18/95	7/18/95	7/18/95	7/18/95
Date Analyzed:	7/18/95	7/18/95	7/18/95	7/18/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	88	106	111	111
% Recovery Control Limits:	71-133	72-128	72-130	71-120

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.

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

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

QC Sample Group: 5070694-99

Reported: Jul 28, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	M. Creusere	M. Creusere	M. Creusere	M. Creusere
MS/MSD Batch#:	5070681	5070681	5070681	5070681
Date Prepared:	7/17/95	7/17/95	7/17/95	7/17/95
Date Analyzed:	7/17/95	7/17/95	7/17/95	7/17/95
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	95	105	110	120
Matrix Spike Duplicate % Recovery:	85	100	100	113
Relative % Difference:	11	4.9	9.5	5.7
LCS Batch#:	4LCS071795	4LCS071795	4LCS071795	4LCS071795
Date Prepared:	7/17/95	7/17/95	7/17/95	7/17/95
Date Analyzed:	7/17/95	7/17/95	7/17/95	7/17/95
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
LCS % Recovery:	83	92	94	104
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Signature on File

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Project Manager

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Client Project ID: Unocal #6277, 15803 E. 14th St., San Leandro
Matrix: Liquid
QC Sample Group: 5070694-99
Reported: Jul 28, 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#:	5070698	5070698	5070698	5070698
Date Prepared:	7/17/95	7/17/95	7/17/95	7/17/95
Date Analyzed:	7/17/95	7/17/95	7/17/95	7/17/95
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	110	115	115
Matrix Spike Duplicate % Recovery:	100	110	115	115
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	2LCS071795	2LCS071795	2LCS071795	2LCS071795
Date Prepared:	7/17/95	7/17/95	7/17/95	7/17/95
Date Analyzed:	7/17/95	7/17/95	7/17/95	7/17/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	97	107	110	110
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #1271

Signature on File

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Project Manager

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Attention: Sarkis Karkarian

Client Project ID: Unocal #6277, 15803 E. 14th St., San Leandro
Matrix: Liquid
QC Sample Group: 5070694-99
Reported: Jul 28, 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#:	5070700	5070700	5070700	5070700
Date Prepared:	7/17/95	7/17/95	7/17/95	7/17/95
Date Analyzed:	7/17/95	7/17/95	7/17/95	7/17/95
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:	80	90	95	97
Matrix Spike Duplicate % Recovery:	80	90	95	97
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	3LCS071795	3LCS071795	3LCS071795	3LCS071795
Date Prepared:	7/17/95	7/17/95	7/17/95	7/17/95
Date Analyzed:	7/17/95	7/17/95	7/17/95	7/17/95
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	91	93	93	96
% 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, INCORPORATED
2401 Stanwell Drive, Suite 400
Concord, California 94520
Tel: (510) 602-5100, Fax: (510) 689-1918

CHAIN OF CUSTODY

SAMPLER: STEVE BALIAN

WITNESSING AGENCY:

UNOCAL S/S # 6277 CITY: SAN LEANDRO

ADDRESS: 15803 EAST 14th ST.

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
MW-1	7-14-95	12:20	X	X		2	WELL	X		5070694		AB				
MW-2A	"	11:50	X	X		2	"	X		5070695						
MW-3	"	11:15	X	X		2	"	X		5070696						
MW-4	"	10:45	X	X		2	"	X		5070697						
MW-5	"	9:50	X	X		2	"	X		5070698						
MW-6	"	10:15	X	X		2	"	X		5070699		↓				

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
	19:00		7/14/95
STEVE BALIAN (SIGNATURE)	7-14-95	RB Kelley (SIGNATURE)	1900
(SIGNATURE)		(SIGNATURE)	
(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? 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: RB Kelley TITLE: Sample Control Technician DATE: 7/14/95

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.