



ENVIRONMENTAL
SERVICES, INCORPORATED, SECTION

96 FEB 15 PM 1:13

February 14, 1996

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

Attention: Mr. Scott Seery

RE: Unocal Service Station #5367
500 Bancroft Avenue
San Leandro, California

Dear Mr. Seery:

Per the request of the Unocal Corporation Project Manager, Ms. Tina R. Berry, 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) 277-2321.

Sincerely,

MPDS Services, Inc.

Jarrel F. Crider

/jfc

Enclosure

cc: Ms. Tina R. Berry

May 20, 1996

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

Attention: Mr. Scott Seery

RE: Unocal Service Station #5367
500 Bancroft Avenue
San Leandro, California

ENVIRONMENTAL
PROTECTION
96 MAY 21 AM 11:05

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MPDS Services, Inc.



Jarrel F. Crider

/dr

Enclosure

cc: Ms. Tina R. Berry



PACIFIC
ENVIRONMENTAL
GROUP, INC.

ENVIRONMENTAL
PROTECTION

97 JAN 22 AM 9:20

Scott

January 13, 1997
Project 311-127.1A

Mr. Richard Hiett
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Re: 76 Products Company
Quarterly Summary Report
Fourth Quarter 1996

Dear Mr. Hiett:

As directed by Ms. Tina Berry of 76 Products Company, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

Service Station

Location

5367

500 Bancroft Avenue, San Leandro

Should you have questions or comments, please do not hesitate to contact our office at (408) 441-7500.

Sincerely,

Pacific Environmental Group, Inc.

Joseph Muzzio
Project Geologist

Enclosure

cc: Ms. Tina Berry, 76 Products Company
Ms. Amy Leech, Alameda County Health Care Services

Quarterly Summary Report Fourth Quarter 1996

76 Products Company Service Station 5367
500 Bancroft Avenue
San Leandro, California

City/County ID #: None
County: Alameda

BACKGROUND

The site is an active 76 Products Company service station. In 1987, limited soil excavation was performed at the site during the replacement of underground storage tanks, product lines and product dispensers. One groundwater monitoring well was installed following these activities. Between 1988 and 1994, eight monitoring wells were installed, aquifer testing was performed and a remedial action plan was prepared. In 1995, one additional monitoring well was installed, and a soil vapor extraction and groundwater extraction remediation system was constructed. During the first quarter of 1996, remedial system start up and operation were performed. During the third quarter 1996, Unocal submit revisions to the groundwater monitoring program requesting a sampling reduction from quarterly to semiannually.

RECENT QUARTER ACTIVITIES

Monthly monitoring of the soil vapor and groundwater extraction and treatment system was performed and appropriate compliance documentation was submitted.

NEXT QUARTER ACTIVITIES

Operation and maintenance of the remedial system will continue. Groundwater monitoring and sampling will be performed in March.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.

Dissolved groundwater delineated? Yes.

Free product delineated? Not applicable.

Amount of groundwater contaminant recovered this quarter? Approximately 100 pounds.

Soil remediation in progress? Yes.

Start? March 1996.

Anticipated completion date? Unknown.

Dissolved/free product remediation in progress? Yes.

Start? March 1996.

Anticipated completion? Unknown.

CONSULTANT: Pacific Environmental Group, Inc.



PACIFIC
ENVIRONMENTAL
GROUP, INC.

Scott

January 13, 1997
Project 311-127.1A

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Regional Water Quality Control Board
San Francisco Bay Region
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Fourth Quarter 1996

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<u>Service Station</u>	<u>Location</u>
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Pacific Environmental Group, Inc.

Joseph Muzzio
Project Geologist

Enclosure

cc: ✓ Ms. Tina Berry, 76 Products Company
✓ Ms. Amy Leech, Alameda County Health Care Services

Quarterly Summary Report Fourth Quarter 1996

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500 Bancroft Avenue
San Leandro, California

City/County ID #: None
County: Alameda

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Dissolved groundwater delineated? Yes.
Free product delineated? Not applicable.
Amount of groundwater contaminant recovered this quarter? Approximately 100 pounds.
Soil remediation in progress? Yes.
Start? March 1996.
Anticipated completion date? Unknown.
Dissolved/free product remediation in progress? Yes.
Start? March 1996.
Anticipated completion? Unknown.

CONSULTANT: Pacific Environmental Group, Inc.

MPDS-UN5367-10
May 3, 1996

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

Attention: Ms. Tina R. Berry

RE: Quarterly Data Report
Unocal Service Station #5367
500 Bancroft Avenue
San Leandro, 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 monitoring wells that were monitored and sampled during this quarter are indicated in Table 1. Oxygen Release Compound (ORC) filter socks were present in monitoring well MW-8. 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 March 27, 1996. Prior to sampling, the wells were each purged of between 9 and 67.5 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. Equipment blank, Trip blank and Field blank samples (denoted as ES1, ES2 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 Tables 3 and 4. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the ground water samples collected this

MPDS-UN5367-10

May 3, 1996

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.

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, and to Mr. Mike Bakaldin of the San Leandro Fire Department.

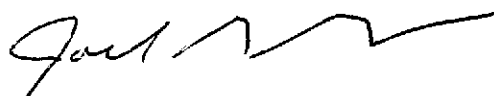
If you have any questions regarding this report, please do not hesitate to call Mr. Joel G. Greger at (510) 602-5120.

Sincerely,

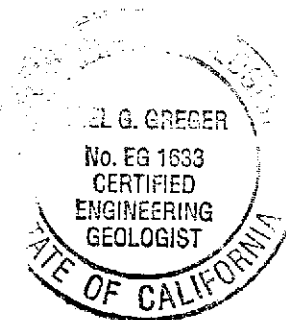
MPDS Services, Inc.



Haig (Gary) Tejirian
Senior Staff Geologist



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



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

/bp

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

cc: Mr. Joe Muzzio, Pacific Environmental Group, 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)
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(Monitored and Sampled on March 27, 1996)

MW-1	35.54	22.29	35.18	0	No	9
MW-2	35.83	22.30	46.90	0	--	0
MW-3	35.93	21.99	48.25	0	--	0
MW-4	35.58	22.71	48.52	0	No	67.5
MW-5	35.75	22.75	44.40	0	No	15
MW-6	35.37	21.59	44.53	0	No	16
MW-7	35.31	21.94	43.80	0	No	15
MW-8	35.51	22.20	43.92	0	No	15
MW-9	35.56	20.91	44.52	0	No	16.5
MW-10	35.32	23.62	42.60	0	No	13

(Monitored and Sampled on December 29, 1995)

MW-1	27.43	30.40	35.15	0	No	3.5
MW-2	27.88	30.25	46.70	0	No	43
MW-3	28.01	29.91	48.07	0	No	47.5
MW-4*	27.33	30.96	48.50	0	--	0
MW-5*	27.63	30.87	44.52	0	--	0
MW-6*	27.34	29.62	44.56	0	--	0
MW-7*	27.34	29.91	43.70	0	--	0
MW-8	27.46	30.25	43.90	0	No	9.5
MW-9	27.45	29.02	44.63	0	No	11
MW-10	27.39	31.55	42.60	0	No	8

(Monitored and Sampled on October 24, 1995)

MW-1*	27.84	29.99	★	0	--	0
MW-2*	27.57	30.56	★	0	--	0
MW-3*	27.58	30.34	★	0	--	0
MW-4*	27.50	30.79	★	0	--	0
MW-5*	27.52	30.98	★	0	--	0
MW-6*	27.23	29.73	★	0	--	0
MW-7*	27.20	30.05	★	0	--	0
MW-8*	27.31	30.40	★	0	--	0
MW-9*	27.26	29.21	★	0	--	0
MW-10	27.18	31.76	44.15	0	No	8.5

Table 1
 Summary of Monitoring Data

Well #	Ground Water Elevation (feet)	Depth to Water (feet)*	Total Well Depth (feet)*	Product Thickness (feet)	Seen	Water Purged (gallons)
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(Monitored and Sampled on September 28, 1995)

MW-1	28.28	29.55	35.05	0	No	4
MW-2	28.36	29.77	47.00	0	No	45
MW-3	28.35	29.57	48.60	0	No	50
MW-4	28.24	30.05	48.55	0	No	49
MW-5	28.35	30.15	44.50	0	No	10
MW-6	28.04	28.92	44.70	0	No	11
MW-7	27.96	29.29	43.85	0	No	10
MW-8	28.13	29.58	43.95	0	No	10
MW-9	28.24	28.23	44.75	0	No	11.5

(Monitored and Sampled on July 28, 1995)

MW-1*	30.86	26.97	34.98	0	--	0
MW-2*	30.87	27.26	46.95	0	--	0
MW-3*	30.86	27.06	48.55	0	--	0
MW-4*	30.76	27.53	48.50	0	--	0
MW-5*	30.87	27.63	44.40	0	--	0
MW-6*	30.48	26.48	44.60	0	--	0
MW-7*	30.41	26.84	43.65	0	--	0
MW-8*	30.61	27.10	43.91	0	--	0
MW-9*	30.70	25.77	44.66	0	--	0
MW-10	33.41	25.53	44.20	0	No	13

Well #	Well Casing Elevation (feet)**
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MW-1	57.83
MW-2	58.13
MW-3	57.92
MW-4	58.29
MW-5	58.50
MW-6	56.96
MW-7	57.25
MW-8	57.71
MW-9	56.47
MW-10	58.94

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.
- * Monitored only.
- ** The elevations of the top of the well casings have been surveyed relative to Mean Sea Level.
- ★ Total well depth was not measured.
- Sheen determination was not performed.

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 March 27, 1996)							
MW-1	2.19	15:15	0	0	81.6	0.68	6.74
			2	0.91	81.1	0.70	6.72
			4.5	2.05	80.8	0.69	6.71
			6.5	2.97	80.6	0.66	6.72
			9	4.11	81.1	0.64	6.72
MW-4	16.78	9:35	0	0	71.3	0.42	6.80
			17	1.01	74.5	0.39	6.82
			33.5	2.00	75.1	0.39	6.82
			50.5	3.01	75.2	0.38	6.82
			67.5	4.02	75.1	0.40	6.82
MW-5	3.68	10:40	0	0	74.8	0.40	6.82
			3.5	0.95	75.0	0.47	6.65
			7.5	2.04	75.2	0.47	6.64
			11	2.99	75.5	0.46	6.64
			15	4.08	75.7	0.47	6.63
MW-6	3.90	11:30	0	0	79.0	0.41	6.71
			4	1.03	78.7	0.44	6.68
			8	2.05	78.5	0.43	6.68
			12	3.08	78.8	0.42	6.68
			16	4.10	79.0	0.43	6.69
MW-7	3.72	12:20	0	0	83.5	0.40	6.80
			4	1.08	78.7	0.48	6.62
			7.5	2.02	78.0	0.47	6.61
			11	2.96	77.5	0.48	6.62
			15	4.03	77.8	0.50	6.64
MW-8	3.69	14:35	0	0	76.8	0.61	6.69
			3.5	0.95	76.7	0.83	6.90
			7.5	2.03	77.2	0.74	6.72
			11	2.98	77.3	0.74	6.72
			15	4.07	77.0	0.74	6.69

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 March 27, 1996 - Continued)							
MW-9	4.01	13:05	0	0	82.0	0.43	6.65
			4	1.00	78.5	0.36	6.74
			8	2.00	77.2	0.40	6.78
			12	2.99	76.5	0.41	6.76
		13:15	16.5	4.11	76.5	0.40	6.77
MW-10	3.23	13:50	0	0	81.5	0.51	6.67
			3	0.93	77.1	0.56	6.53
			6.5	2.01	75.5	0.55	6.53
			10	3.10	74.9	0.53	6.52
		14:00	13	4.02	74.5	0.55	6.51

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes
MW-1	3/27/96	120,000	920	17,000	7,100	41,000
	12/29/95	110,000	990	22,000	8,300	47,000
	9/28/95	100,000	810	21,000	6,500	37,000
	6/26/95	130,000	1,000	23,000	5,600	33,000
	3/27/95	88,000	1,500	20,000	4,200	25,000
	12/19/94	200,000	2,400	28,000	6,600	37,000
	9/21/94	110,000	2,500	23,000	4,500	25,000
	6/23/94	150,000	2,500	33,000	6,400	37,000
	3/18/94	99,000	3,800	37,000	6,800	36,000
	12/13/93	140,000	3,600	37,000	7,100	40,000
	9/3/93	160,000	3,900	41,000	6,800	38,000
	6/25/93	160,000	4,300	36,000	5,800	34,000
	3/3/93	330,000	3,800	21,000	4,200	24,000
	11/18/92	WELL WAS DRY				
	10/16/92	WELL WAS DRY				
	6/18/92	680,000	9,000	40,000	7,600	44,000
	3/31/92	330,000	8,200	33,000	6,800	36,000
	9/27/91	WELL WAS DRY				
	5/6/91	--	--	--	--	--
	2/6/91	WELL WAS DRY				
	11/30/90	WELL WAS DRY				
	8/24/90	WELL WAS DRY				
	7/19/90	WELL WAS DRY				
	2/16/90	WELL WAS DRY				
	1/27/89	WELL WAS DRY				
	10/3/88	WELL WAS DRY				
	9/7/88	WELL WAS DRY				
	4/27/88	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	11/19/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	11/13/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	11/5/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	10/6/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	9/24/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				
	9/23/87	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes
MW-2	3/27/96	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				
	12/29/95	860	4.3	1.0	27	50
	9/28/95	730	2.9	ND	41	29
	6/26/95	ND	ND	0.93	0.88	3.4
	3/27/95**	ND	ND	0.55	1.2	2.5
	12/19/94	190	1.9	ND	15	6.8
	9/21/94	ND	ND	ND	ND	ND
	6/23/94	420	3.9	0.66	23	11
	3/18/94	250	6.4	0.64	28	24
	12/13/93	260	7.7	0.83	17	23
	9/3/93	1,400	31	4.3	99	53
	6/25/93	4,000	110	ND	320	280
	3/3/93	4,200	62	2.9	97	120
	11/18/92	65	1.2	ND	2.8	1.4
	10/16/92	--	--	--	--	--
	9/30/92	820	21	ND	42	25
	6/18/92	1,200	35	1.6	56	26
	12/27/91	170	3.9	ND	7.3	60
	9/27/91	110	2.6	ND	5.6	5.1
	5/6/91	2,300	150	10	52	110
	2/7/91	510	40	ND	29	44
	11/30/90	400	41	ND	39	37
	8/24/90	330	17	ND	19	20
	7/19/90	--	--	--	--	--
	2/16/90	840	50	0.5	28	44
	1/27/89	510	58	8.7	22.6	20.3
	10/3/88	1,760	47.8	7.4	20.9	81.6
	May-90	1,000	39	ND	32	52
MW-3	3/27/96	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				
	12/29/95✓✓	55,000	700	ND	4,900	16,000
	9/28/95✓	17,000	730	30	4,000	8,800
	6/26/95	14,000	300	ND	1,300	3,900
	3/27/95**	33,000	410	66	1,600	6,500
	12/19/94	100,000	1,200	2,900	4,200	23,000
	9/21/94	24,000	890	110	2,200	8,800
	6/23/94	37,000	1,300	670	3,100	14,000
	3/18/94	22,000	1,200	430	2,200	9,700
	12/13/93	49,000	1,300	360	2,300	9,200
	9/3/93	82,000	2,400	3,400	4,200	21,000

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes
MW-3						
(Cont.)	6/25/93	27,000	1,200	980	1,700	6,900
	3/3/93	96,000*	1,400	1,900	1,400	8,400
	11/18/92	24,000*	430	160	640	2,800
	10/16/92	--	--	--	--	--
	9/30/92	36,000	730	200	1,000	4,400
	6/18/92	180,000	2,200	1,700	2,300	1,100
	3/31/92	100,000	1,900	1,900	2,300	9,400
	12/27/91	31,000	240	280	400	1,600
	9/27/91	4,000	160	84	180	560
	5/6/91	39,000	1,000	570	930	3,900
	2/6/91	13,000	310	150	380	1,200
	11/30/90	13,000	390	81	410	1,000
	8/24/90	19,000	480	160	510	1,500
	7/19/90	--	--	--	--	--
	2/16/90	22,000	710	4,100	6,900	33,000
	1/27/89	39,000	1,570	2,830	1,250	7,070
	10/3/88	61,000	1,060	3,380	1,520	8,720
	May-90	19,000	330	170	310	1,500
MW-4	3/27/96	ND	ND	0.70	ND	0.79
	12/29/95	SAMPLED SEMI-ANNUALLY				
	9/28/95	ND	ND	ND	ND	ND
	6/26/95	SAMPLED SEMI-ANNUALLY				
	3/27/95	ND	ND	0.79	0.5	3.1
	12/19/94	SAMPLED SEMI-ANNUALLY				
	9/21/94	ND	ND	0.78	ND	0.81
	3/18/94	ND	ND	ND	ND	ND
	12/13/93	SAMPLED SEMI-ANNUALLY				
	9/3/93	86	14	13	1.4	7.1
	6/25/93	NOT SAMPLED				
	3/3/93	68	0.9	0.6	ND	1.9
	11/18/92	NOT SAMPLED				
	10/16/92	ND	ND	ND	ND	ND
	6/18/92	ND	ND	ND	ND	ND
	3/31/92	ND	ND	ND	ND	ND
	12/27/91	ND	ND	ND	ND	ND
	9/27/91	ND	ND	ND	ND	ND
	5/6/91	--	--	--	--	--
	2/6/91	ND	ND	ND	ND	ND
	11/30/90	ND	ND	ND	ND	1.2
	8/24/90	ND	ND	ND	ND	ND
	7/19/90	--	--	--	--	--

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes
MW-4 (Cont.)	May-90	ND	ND	ND	0.68	1.4
	2/16/90	ND	ND	ND	ND	ND
	1/27/89	ND	ND	ND	ND	ND
	10/3/88	ND	ND	ND	ND	ND
MW-5	3/27/96	ND	ND	1.7	ND	2.4
	12/29/95	SAMPLED SEMI-ANNUALLY				
	9/28/95	ND	ND	ND	ND	ND
	6/26/95	SAMPLED SEMI-ANNUALLY				
	3/27/95	ND	ND	0.66	ND	2.9
	12/19/94	SAMPLED SEMI-ANNUALLY				
	9/21/94	ND	ND	0.98	ND	1.6
	3/18/94	ND	ND	ND	ND	ND
	12/13/93	SAMPLED SEMI-ANNUALLY				
	9/3/93	ND	ND	1.5	ND	7.9
	6/25/93	WELL WAS INACCESSIBLE				
	3/3/93	ND	ND	ND	ND	ND
	11/18/92	NOT SAMPLED				
	10/16/92	ND	ND	ND	ND	ND
	6/18/92	--	--	--	--	--
	3/31/92	ND	ND	ND	ND	1.1
	12/27/91	ND	ND	ND	ND	ND
	9/27/91	ND	ND	ND	ND	ND
	5/6/91	--	--	--	--	--
	2/6/91	ND	ND	ND	ND	ND
	11/30/90	ND	ND	0.7	ND	ND
	8/24/90	ND	ND	ND	ND	ND
	7/19/90	--	--	--	--	--
	2/16/90	67	0.51	1.6	2.9	7.5
	May-90	ND	ND	ND	ND	ND

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl- Benzene	Xylenes
MW-6	3/27/96	50	ND	0.92	ND	0.96
	12/29/95	SAMPLED SEMI-ANNUALLY				
	9/28/95	ND	ND	ND	ND	ND
	6/26/95	SAMPLED SEMI-ANNUALLY				
	3/27/95	56	ND	0.65	ND	3.3
	12/19/94	SAMPLED SEMI-ANNUALLY				
	9/21/94	ND	ND	ND	ND	ND
	3/18/94	ND	ND	0.93	ND	1.4
	12/13/93	SAMPLED SEMI-ANNUALLY				
	9/3/93	ND	ND	ND	ND	ND
	6/25/93	NOT SAMPLED				
	3/3/93	ND*	ND	ND	ND	ND
	11/18/92	NOT SAMPLED				
	10/16/92	ND	ND	ND	ND	ND
	6/18/92	ND	ND	ND	ND	ND
	3/31/92	ND	ND	1.3	ND	2
	12/27/91	ND	ND	ND	ND	ND
	9/27/91	ND	ND	ND	ND	ND
	5/6/91	--	--	--	--	--
	2/6/91	ND	ND	ND	ND	ND
	11/30/90	ND	ND	ND	ND	ND
	8/24/90	ND	ND	ND	ND	ND
	7/19/90	ND	ND	ND	ND	ND
2/16/90	ND	ND	ND	ND	ND	
May-90	ND	ND	ND	ND	ND	
MW-7	3/27/96	ND	ND	1.1	ND	1.7
	12/29/95	SAMPLED SEMI-ANNUALLY				
	9/28/95	ND	ND	ND	ND	ND
	6/26/95	SAMPLED SEMI-ANNUALLY				
	3/27/95	ND	ND	0.54	ND	1.9
	12/19/94	SAMPLED SEMI-ANNUALLY				
	9/21/94	ND	0.5	ND	ND	0.89
	3/18/94	ND	ND	ND	ND	ND
	12/13/93	SAMPLED SEMI-ANNUALLY				
	9/3/93	ND	ND	ND	ND	ND
	6/25/93	NOT SAMPLED				
	3/3/93	ND	ND	ND	ND	ND
	11/18/92	NOT SAMPLED				
	10/16/92	ND	ND	ND	ND	ND
	6/18/92	--	--	--	--	--
	3/31/92	ND	ND	ND	ND	0.9
	12/27/91	ND	ND	ND	ND	ND

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	
MW-7 (Cont.)	9/27/91	ND	ND	ND	ND	ND	
	5/6/91	ND	ND	ND	ND	ND	
	2/6/91	ND	ND	ND	ND	ND	
	11/30/90	ND	ND	ND	0.6	1.5	
	8/24/90	ND	ND	ND	ND	ND	
	7/19/90	--	--	--	--	--	
	2/16/90	ND	ND	ND	ND	ND	
	May-90	24	ND	ND	0.74	1.7	
MW-8	3/27/96	970	29	0.77	82	85	
	12/29/95	7,500	260	ND	580	870	
	9/28/95	10,000	250	ND	760	910	
	6/26/95	11,000	320	ND	680	2,000	
	3/27/95**	9,200	240	ND	200	1,400	
	12/19/94	6,200	91	ND	230	210	
	9/21/94	6,900	190	ND	460	510	
	6/23/94	12,000	210	ND	610	860	
	3/18/94	6,100	85	ND	260	260	
	12/13/93	6,900	180	ND	240	550	
	9/3/93	9,800	180	ND	580	700	
	6/25/93	8,100	160	ND	580	740	
	3/3/93	13,000	33	ND	160	290	
	11/18/92	1,100	6.1	ND	13	5.6	
	10/16/92	300	0.96	ND	4.0	3.5	
	6/18/92	WELL WAS INACCESSIBLE					
	3/31/92	15,000	120	1.0	430	530	
	12/27/91	1,600	15	2.9	40	49	
	9/27/91	720	13	4.3	26	26	
	5/6/91	14,000	80	ND	250	550	
	2/6/91	630	9.6	ND	35	36	
	11/30/90	570	13	ND	45	36	
	8/24/90	990	13	ND	48	66	
7/19/90	--	--	--	--	--		
2/16/90	1,900	11	ND	52	55		
May-90	770	6.5	ND	20	32		
MW-9	3/27/96	ND	ND	0.68	ND	0.51	
	12/29/95	ND	ND	0.58	ND	0.52	
	9/28/95	ND	ND	ND	ND	ND	
	6/26/95	ND	ND	ND	ND	3.9	
	3/27/95	ND	ND	0.61	ND	2.8	
	12/19/94	ND	ND	1.6	1.5	8.4	

> ORC placed
 in well
 between
 events

Table 3
 Summary of Laboratory Analyses
 Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes
MW-10	3/27/96	ND	ND	0.68	ND	0.69
	12/29/95	ND	ND	0.65	ND	1.1
	10/24/95	ND	ND	ND	ND	ND
	7/28/95	ND	ND	ND	ND	ND

- ▼ Sequoia Analytical Laboratory has potentially identified the presence of MTBE at reportable levels in the ground water sample collected from this well.
- ▼▼ Sequoia Analytical Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 µg/L in the ground water sample collected from this well.
- * Chromatogram contains early eluting peak.
- ** On March 27, 1995, total dissolved solid concentrations were as follows: MW-2 at 410 µg/L; MW3 at 450 µg/L; MW8 at 490 µg/L.
- On March 27, 1996, MTBE was non-detectable in all wells, except in well MW-1 where MTBE was detected at a concentration of 180 µg/L.

ND = Non-detectable.

-- Indicates analysis was not performed.

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 December 13, 1993, were provided by RESNA.

Table 4
 Summary of Monitoring Data
 Dissolved Oxygen Concentration Measurements

Well #	Date	Dissolved Oxygen (mg/L)	
		Before Purging	After Purging
MW-1	3/27/96	1.48	1.02
MW-2		--	--
MW-3		--	--
MW-4		4.32	3.91
MW-5		4.03	4.71
MW-6		5.94	4.96
MW-7		6.63	5.23
MW-8		11.73	9.76
MW-9		5.62	5.23
MW-10		4.38	4.57
MW-1	12/29/95	--	1.74
MW-2		--	8.71
MW-3		--	6.97
MW-4		--	--
MW-5		--	--
MW-6		--	--
MW-7		--	--
MW-8		--	2.03
MW-9		--	5.32
MW-10		--	5.11
MW-1	9/28/95	--	1.22
MW-2		--	3.00
MW-3		--	1.63
MW-4		--	6.29
MW-5		--	1.96
MW-6		--	4.19
MW-7		--	2.04
MW-8		--	1.85
MW-9		--	5.76
MW-1	6/26/95	--	1.60
MW-2		--	4.55
MW-3		--	1.55
MW-4		--	--
MW-5		--	--
MW-6		--	--
MW-7		--	--
MW-8		--	3.86
MW-9		--	4.61

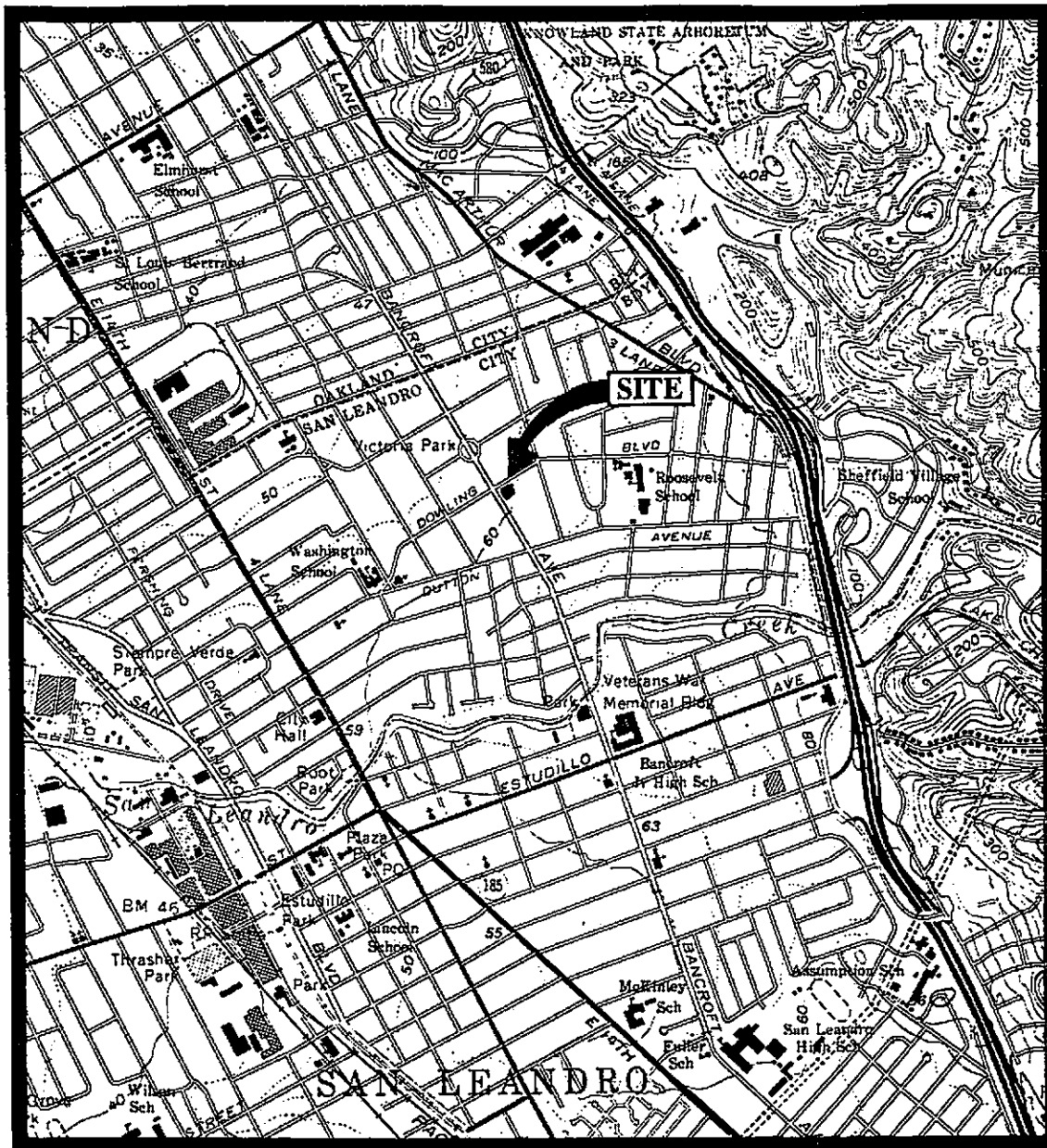
Table 4
Summary of Monitoring Data
Dissolved Oxygen Concentration Measurements

Well #	Date	Dissolved Oxygen (mg/L)	
		<u>Before Purging</u>	<u>After Purging</u>
MW-1	3/27/95*	--	1.5
MW-2		--	1.7
MW-3		--	0.90
MW-4		--	4.90
MW-5		--	5.20
MW-6		--	7.4
MW-7		--	8.4
MW-8		--	2.2
MW-9		--	7.8

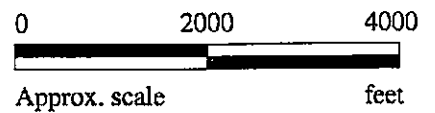
* Measurements taken at Sequoia Analytical Laboratory.

-- Indicates reading was not taken.

mg/L = milligrams per liter.



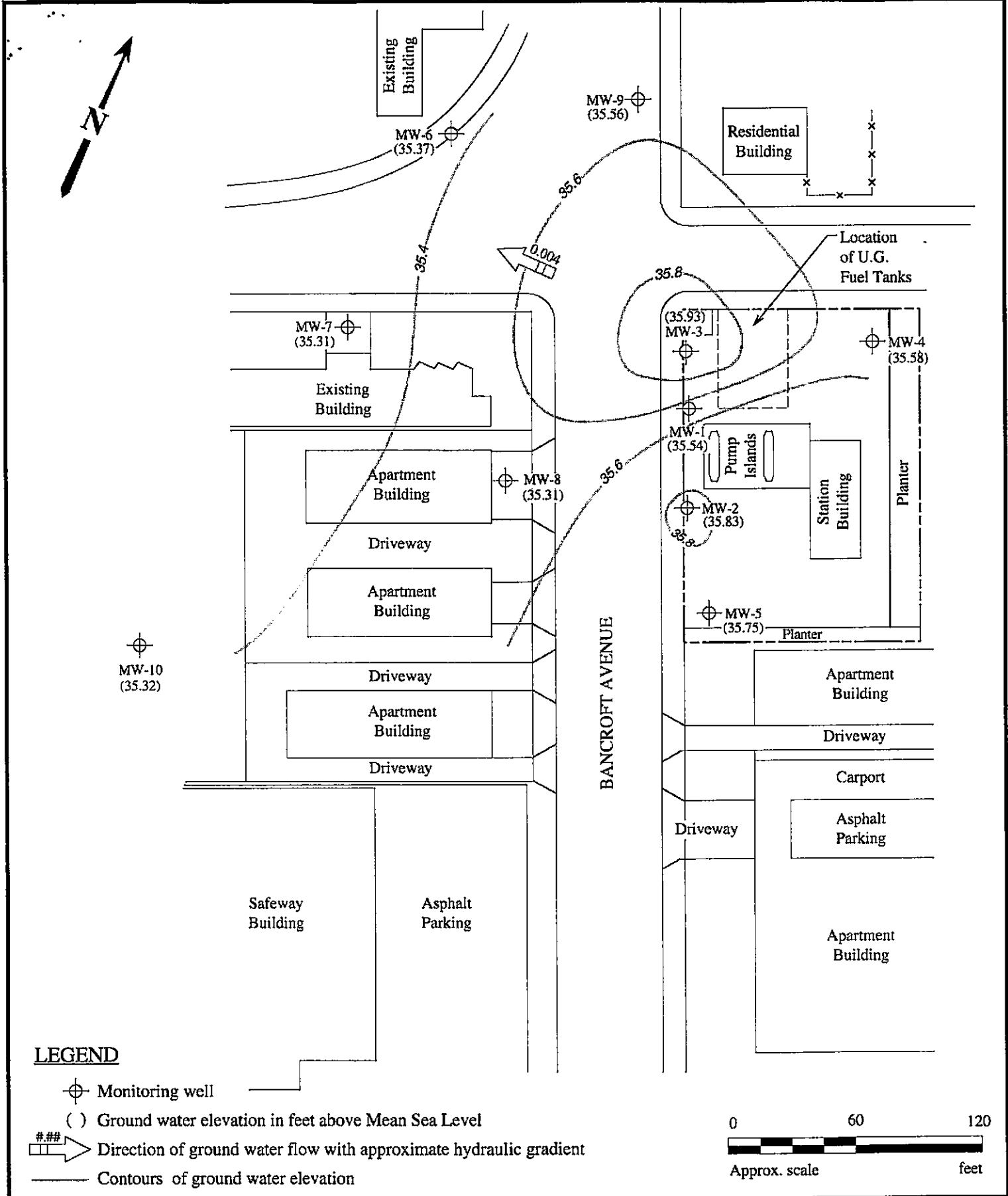
Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle
 (photorevised 1980)



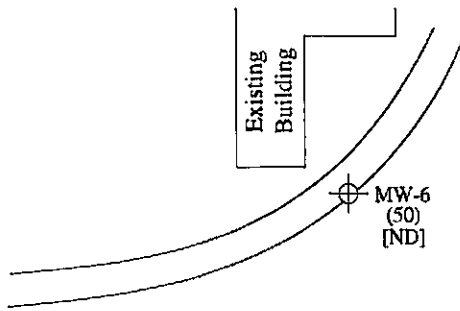
MPDS SERVICES, INCORPORATED

**UNOCAL SERVICE STATION #5367
 500 BANCROFT AVENUE
 SAN LEANDRO, CALIFORNIA**

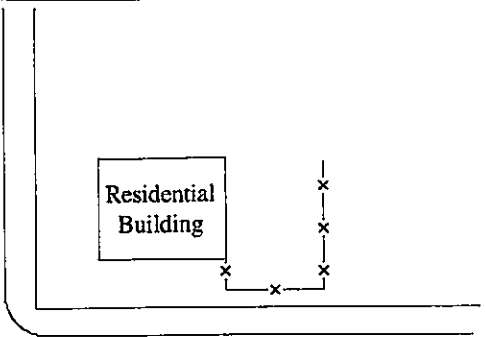
**LOCATION
 MAP**



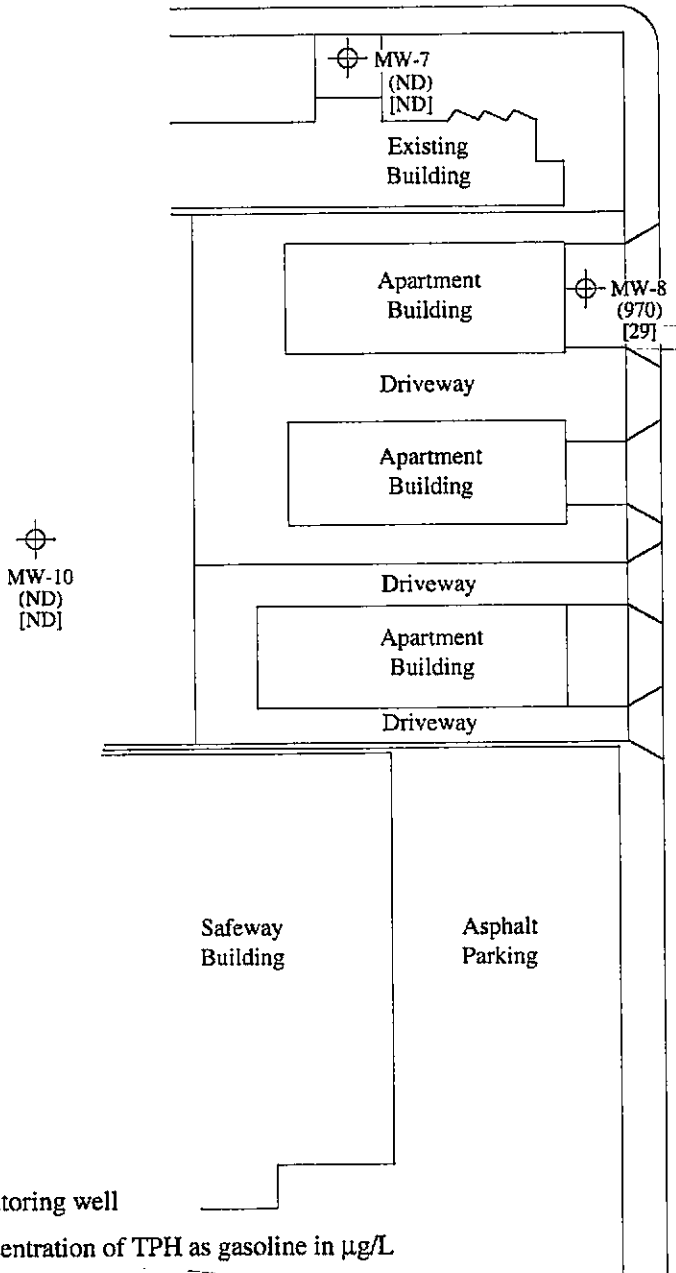
POTENTIOMETRIC SURFACE MAP FOR THE MARCH 27, 1996 MONITORING EVENT



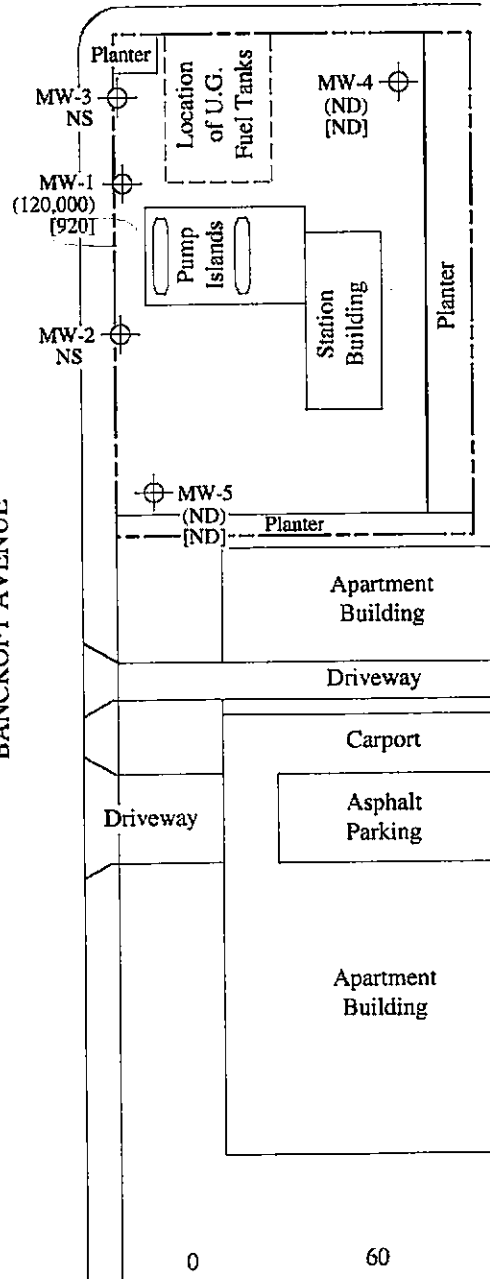
MW-9
(ND)
[ND]



DOWLING BOULEVARD

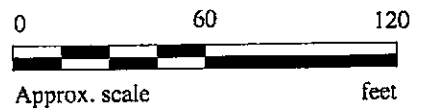


BANCROFT AVENUE



LEGEND

- ⊕ Monitoring well
- () Concentration of TPH as gasoline in $\mu\text{g/L}$
- [] Concentration of benzene in $\mu\text{g/L}$
- ND Non-detectable, NS Not sampled



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON MARCH 27, 1996



UNOCAL SERVICE STATION #5367
500 BANCROFT AVENUE
SAN LEANDRO, CALIFORNIA

FIGURE
2



MPDS Services	Client Project ID: Unocal #5367, 500 Bancroft Ave.,	Sampled: Mar 27, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript: Water	Received: Mar 27, 1996
Concord, CA 94520	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Apr 19, 1996
Attention: Jarrel Crider	First Sample #: 603-2478	

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	MTB µg/L
603-2478	MW-1	120,000	920	17,000	7,100	41,000	180
603-2479	MW-4	ND	ND	0.70	ND	0.79	N.D.
603-2480	MW-5	ND	ND	1.7	ND	2.4	N.D.
603-2481	MW-6	50	ND	0.92	ND	0.96	N.D.
603-2482	MW-7	ND	ND	1.1	ND	1.7	N.D.
603-2483	MW-8	970	29	0.77	82	85	N.D.
603-2484	MW-9	ND	ND	0.68	ND	0.51	N.D.
603-2485	MW-10	ND	ND	0.68	ND	0.69	N.D.
603-2486	ES-1	ND	ND	ND	ND	ND	--
603-2487	ES-2	ND	ND	ND	ND	ND	--
603-2488	ES-3	ND	ND	ND	ND	ND	--

Detection Limits:	50	0.50	0.50	0.50	0.50	40
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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





MPDS Services	Client Project ID: Unocal #5367, 500 Bancroft Ave.,	Sampled: Mar 27, 1996
2401 Stanwell Dr., Ste. 300	Matrix Descript: Water	Received: Mar 27, 1996
Concord, CA 94520	Analysis Method: EPA 5030/8015 Mod./8020	Reported: Apr 19, 1996
Attention: Jarrel Crider	First Sample #: 603-2478	

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
603-2478	MW-1	Gasoline	200	4/9/96	HP-11	100
603-2479	MW-4	--	1.0	4/9/96	HP-11	96
603-2480	MW-5	--	1.0	4/9/96	HP-11	97
603-2481	MW-6	Gasoline	1.0	4/9/96	HP-11	96
603-2482	MW-7	--	1.0	4/9/96	HP-11	95
603-2483	MW-8	Gasoline	1.0	4/9/96	HP-11	103
603-2484	MW-9	--	1.0	4/9/96	HP-11	94
603-2485	MW-10	--	1.0	4/9/96	HP-11	98
603-2486	ES-1	--	1.0	4/17/96	HP-9	98
603-2487	ES-2	--	1.0	4/17/96	HP-9	102
603-2488	ES-3	--	1.0	4/17/96	HP-9	98

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager





MPDS Services
2401 Stanwell Dr., Ste. 300
Concord, CA 94520
Attention: Jarrel Crider

Client Project ID: Unocal #5367, 500 Bancroft Ave., San Leandro
Matrix: Liquid

QC Sample Group: 6032478-488

Reported: Apr 19, 1996

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	S. Chullakorn	S. Chullakorn	S. Chullakorn	S. Chullakorn

MS/MSD	Benzene	Toluene	Ethyl Benzene	Xylenes
Batch#:	6032398	6032398	6032398	6032398
Date Prepared:	4/9/96	4/9/96	4/9/96	4/9/96
Date Analyzed:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	HP-11	HP-11	HP-11	HP-11
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	145	120	130	133
Matrix Spike Duplicate % Recovery:	130	115	120	121
Relative % Difference:	11	4.2	8.0	9.1

LCS Batch#:	11LCS040996	11LCS040996	11LCS040996	11LCS040996
Date Prepared:	4/9/96	4/9/96	4/9/96	4/9/96
Date Analyzed:	4/9/96	4/9/96	4/9/96	4/9/96
Instrument I.D.#:	HP-11	HP-11	HP-11	HP-11
LCS % Recovery:	120	105	110	118

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

Signature on File

Alan B. Kemp
Project Manager



CHAIN OF CUSTODY

9603531

SAMPLER			UNOCAL					ANALYSES REQUESTED							TURN AROUND TIME:	
NICHOLAS PERROW			S/S # <u>5367</u> CITY: <u>SAN LEANDRO</u>					TPH-GAS BTEX	TPH- DIESEL	TOG	8010	MTBE				REG.
			ADDRESS: <u>500 BAUCROFT AVE</u>													
WITNESSING AGENCY	SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION								
	MW-1	3/27/96	15:40	✓	✓		4 VOAS	WELL	✓						6032478 A-D	
	MW-4	"	10:20	✓	✓		"	"	✓						6032479	
	MW-5	"	11:10	✓	✓		"	"	✓						6032480	
	MW-6	"	12:00	✓	✓		"	"	✓						6032481	
	MW-7	"	12:50	✓	✓		"	"	✓						6032482	
	MW-8	"	15:00	✓	✓		"	"	✓						6032483	
	MW-9	"	13:30	✓	✓		"	"	✓						6032484	
	MW-10	"	14:15	✓	✓		"	"	✓						6032485	
															6032486	

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	THE FOLLOWING <u>MUST BE</u> COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES: 1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? _____ 2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? _____ 3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? _____ 4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? _____ SIGNATURE: _____ TITLE: _____ DATE: _____
(SIGNATURE)	3/27/96 18:20	(SIGNATURE)	3-27-96 18:25	
(SIGNATURE)		(SIGNATURE)	(43) 3-28	
(SIGNATURE)	3/28	(SIGNATURE)		
(SIGNATURE)		(SIGNATURE)	16:00 3/28/96	

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.

CHAIN OF CUSTODY

9603531

SAMPLER			UNOCAL					ANALYSES REQUESTED								TURN AROUND TIME:		
NICHOLAS PERROW			S/S # <u>5367</u> CITY: <u>SAN LEANDRO</u>					TPH-GAS BTEX	TPH-DIESEL	TOG	8010							REG.
WITNESSING AGENCY			ADDRESS: <u>500 BAUCROFT AVE</u>															REMARKS
SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION											
ES-1	3/27/96		✓			1 VOA		✓									6032486	
ES-2	"		✓			"		✓									6032487	
ES-3	"		✓			"		✓									6032488	
RELINQUISHED BY:		DATE/TIME	RECEIVED BY:			DATE/TIME	THE FOLLOWING <u>MUST BE</u> COMPLETED BY THE LABORATORY ACCEPTING SAMPLES FOR ANALYSES:											
(SIGNATURE)		3/27/96 18:20	(SIGNATURE)			3-27-96 18:25	1. HAVE ALL SAMPLES RECEIVED FOR ANALYSIS BEEN STORED ON ICE? _____											
(SIGNATURE)			(SIGNATURE)			3-28	2. WILL SAMPLES REMAIN REFRIGERATED UNTIL ANALYZED? _____											
(SIGNATURE)			(SIGNATURE)				3. DID ANY SAMPLES RECEIVED FOR ANALYSIS HAVE HEAD SPACE? _____											
(SIGNATURE)			(SIGNATURE)				4. WERE SAMPLES IN APPROPRIATE CONTAINERS AND PROPERLY PACKAGED? _____											
(SIGNATURE)			(SIGNATURE)			16:00 3-28-96	SIGNATURE:			TITLE:			DATE:					

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.