MONITORING
PURGING
DISPOSING
SAMPLING
MPDS SERVICES, INCORPORATED

December 10, 1997

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 Tosco Marketing Company Project Manager, Ms. Tina R. Berry, enclosed please find our data report (MPDS-UN5367-13) dated October 29, 1997, 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

/dr

Enclosure

cc: Ms. Tina R. Berry

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

PACIFIC
ENVIRONMENTAL
GROUP INC.

ENVIRONMENTAL
PROTECTION
97 JUL 25 PM 2:26

July 18, 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: Unocal Station 5367
Quarterly Summary Report
Second Quarter 1997

Dear Mr. Hiett:

As directed by Ms. Tina Berry of Tosco Marketing 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, Tosco Marketing Company
Ms. Amy Leech, Alameda County Health Care Services

2025 Gateway Place, Suite 440, San Jose, California 95110 (408) 441-7500 FAX (408) 441-7539

Quarterly Summary Report
Second Quarter 1997

Unocal Service Station 5367
500 Bancroft Avenue
San Leandro, California

City/County ID #: None
County: Alameda

BACKGROUND

The site is an active Unocal 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 (SVE) 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. During February and March 1997, the SVE system was operated in pulsed mode to increase petroleum hydrocarbon vapor recovery. However, influent concentrations remained at non-detectable levels. Therefore, the SVE and dewatering system was shut down on March 13, 1997.

RECENT QUARTER ACTIVITIES

No activities were performed.

NEXT QUARTER ACTIVITIES

Semiannual groundwater monitoring will be performed.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.
Dissolved groundwater delineated? Yes.
Free product delineated? Not applicable.
Total amount of groundwater contaminant recovered? Approximately 108 pounds.
Soil remediation in progress? No. System shut down in March 1997
Start? March 1996.
Completion date? March 1997.
Dissolved/free product remediation in progress? No. System shut down in March 1997
Start? March 1996.
Completion? March 1997.

CONSULTANT: Pacific Environmental Group, Inc.

MONITORING
PURGING
DISPOSING
SAMPLING
mpds SERVICES, INCORPORATED

MPDS-UN5367-13
October 29, 1997

Tosco Marketing Company
Environmental Compliance Department
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

Attention: Ms. Tina R. Berry

RE: Semi-Annual 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 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 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 semi-annual period is shown on the attached Figure 1.

Ground water samples were collected on September 27, 1997. Prior to sampling, the wells were each purged of between 2 and 34 gallons of water. In addition, dissolved oxygen concentrations were measured and are presented in Table 3. During purging operations, the field parameters pH, temperature, and electrical conductivity were recorded on the purging/sampling data sheets which are attached to this report. Once the field parameters were observed to stabilize, and where possible, a minimum of approximately three 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. MPDS Services, Inc. transported the purged ground water to the Tosco Refinery located in Rodeo, California, for treatment and discharge to San Pablo Bay under NPDES permit.

ANALYTICAL RESULTS

The ground water samples were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The analytical results of the ground water samples collected to date are summarized in Table 2. The concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline and benzene detected in the ground water samples collected this semi-

annual period 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. Nubar Srabian at (510) 602-5120.

Sincerely,

MPDS Services, Inc.

Haig (Gary) Tejirian
Senior Staff Geologist

Hagop Kevork, P.E.
Senior Staff Engineer

REGISTERED PROFESSIONAL ENGINEER
HAGOP KEVORK
No. C 55734
Exp. 12/31/00
CIVIL
STATE OF CALIFORNIA

License No. C55734
Exp. Date December 31, 2000

Attachments: Tables 1, 2 & 3
Location Map
Figures 1 & 2
Laboratory Analyses
Chain of Custody documentation
Purging/Sampling Data Sheets

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)
(Monitored and Sampled on September 27, 1997)						
MW-1	25.97	31.86	35.14	0	No	2
MW-2	27.06	31.07	46.91	0	No	31
MW-3	27.16	30.76	48.20	0	No	34
MW-4	26.61	31.68	48.52	0	No	33
MW-5	26.85	31.65	44.38	0	No	7
MW-6	26.44	30.52	44.62	0	No	8
MW-7	26.41	30.84	43.96	0	No	7
MW-8	26.56	31.15	43.88	0	No	7
MW-9	26.09	30.38	44.63	0	No	8
MW-10	26.14	32.80	42.65	0	No	5
(Monitored and Sampled on March 31, 1997)						
MW-1	33.65	24.18	35.15	0	No	6
MW-2	33.93	24.20	46.90	0	No	45
MW-3	34.06	23.86	48.22	0	No	48
MW-4	33.57	24.72	48.50	0	No	46.5
MW-5	33.70	24.80	44.40	0	No	10
MW-6	33.24	23.72	44.60	0	No	11
MW-7	33.23	24.02	43.97	0	No	10.5
MW-8	33.36	24.35	43.90	0	No	10
MW-9	32.99	23.48	44.65	0	No	11
MW-10	32.89	26.05	42.68	0	No	9
(Monitored and Sampled on September 21, 1996)						
MW-1	28.39	29.44	35.15	0	No	3
MW-2*	28.66	29.47	46.89	0	–	0
MW-3	28.77	29.15	48.23	0	–	§
MW-4	28.41	29.88	48.51	0	No	36
MW-5	28.55	29.95	44.42	0	No	7.5
MW-6	28.24	28.72	44.61	0	No	9
MW-7	28.18	29.07	43.98	0	No	8
MW-8	28.37	29.34	43.91	0	No	8
MW-9	28.42	28.05	44.65	0	No	9
MW-10	28.17	30.77	42.70	0	No	6

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 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

Well #	Well Casing Elevation (feet)**
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

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

§ Well is connected to remediation system. Sampled from valve on well head.

* Monitored only.

** The elevations of the top of the well casings have been surveyed relative to Mean Sea Level.

-- Sheen determination was not performed.

Table 2

Summary of Laboratory Analyses
Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-1	9/27/97	81,000	ND	1,000	5,900	31,000	ND
	3/31/97	82,000	240	8,700	3,800	23,000	ND
	9/21/96	110,000	270	3,500	5,900	16,000	260
	3/27/96	120,000	920	17,000	7,100	41,000	180
	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					
MW-2	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)					
	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	--

Table 2

Summary of Laboratory Analyses
Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-2	6/26/95	ND	ND	0.93	0.88	3.4	--
(Cont.)	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	9/27/97	11,000	19	ND	850	420	140
	3/31/97	17,000	58	110	530	1,500	ND
	9/21/96	34,000	140	ND	2,200	6,600	1,800
	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	--
	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	--	--	--	--	--	--

Table 2

Summary of Laboratory Analyses

Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-3	9/30/92	36,000	730	200	1,000	4,400	--
(Cont.)	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	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	ND	ND	0.70	ND	0.79	ND
	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	--	--	--	--	--	--
	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	--

Table 2

Summary of Laboratory Analyses
Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-5	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	ND	ND	1.7	ND	2.4	ND
	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	--
MW-6	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	73	0.67	0.82	ND	ND	ND
	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	50	ND	0.92	ND	0.96	ND
	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					

Table 2

Summary of Laboratory Analyses
Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-6	10/16/92	ND	ND	ND	ND	ND	--
(Cont.)	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	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	ND	ND	1.1	ND	1.7	ND
	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	--
	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	--

Table 2

Summary of Laboratory Analyses

Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-8	9/27/97	78	0.90	ND	12	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	3,800	27	ND	46	45	ND
	3/27/96	970	29	0.77	82	85	ND
	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	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	ND	ND	0.68	ND	0.51	ND
	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	--

Table 2

Summary of Laboratory Analyses

Water

Well	Date	TPH as Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE
MW-10	9/27/97	ND	ND	ND	ND	ND	ND
	3/31/97	ND	ND	ND	ND	ND	ND
	9/21/96	ND	ND	ND	ND	ND	ND
	3/27/96	ND	ND	0.68	ND	0.69	ND
	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 mg/L; MW3 at 450 mg/L; MW8 at 490 mg/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 3

Summary of Monitoring Data
Dissolved Oxygen Concentration Measurements

Well #	Date	Dissolved Oxygen (mg/L)	
		Before Purging	After Purging
MW-8	9/27/97	3.11	--
MW-1	3/31/97	1.47	1.49
MW-2		2.18	2.12
MW-3		1.95	2.06
MW-4		2.66	2.63
MW-5		2.98	3.11
MW-6		3.21	3.11
MW-7		2.29	2.16
MW-8		2.81	2.91
MW-9		3.36	3.27
MW-10		4.48	4.83
MW-1	9/21/96	--	1.01
MW-2		--	--
MW-3		--	--
MW-4		--	2.82
MW-5		--	4.12
MW-6		--	3.74
MW-7		--	1.19
MW-8		--	2.16
MW-9		--	4.13
MW-10		--	5.38
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

Table 3

Summary of Monitoring Data
Dissolved Oxygen Concentration Measurements

Well #	Date	Dissolved Oxygen (mg/L)	
		Before Purging	After Purging
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
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

Table 3

Summary of Monitoring Data
Dissolved Oxygen Concentration Measurements

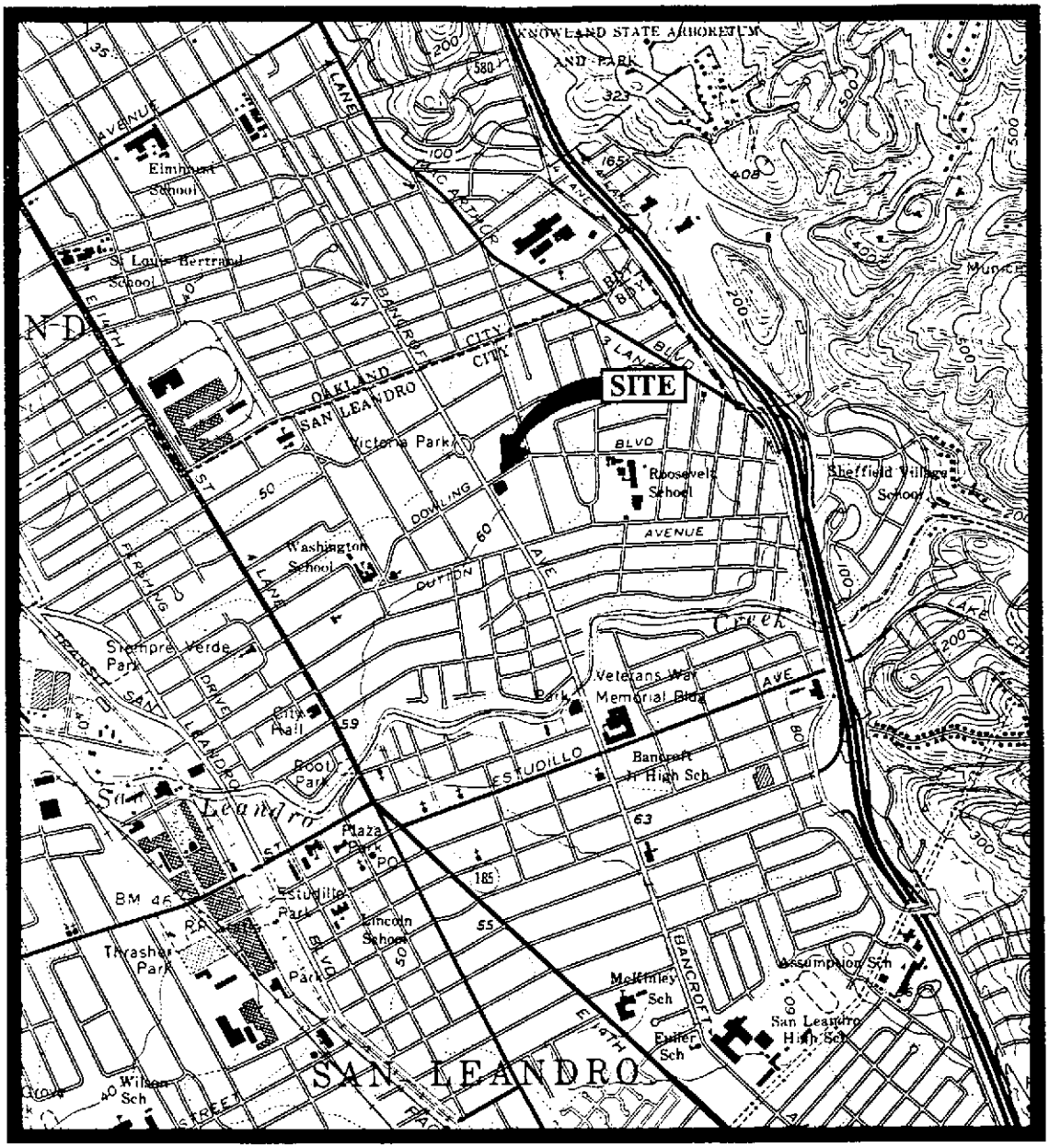
---

* On March 3, 1995, the measurements were taken at Sequoia Analytical Laboratory.

-- Indicates measurement was not taken.

mg/L = milligrams per liter.

Note: In the field, measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

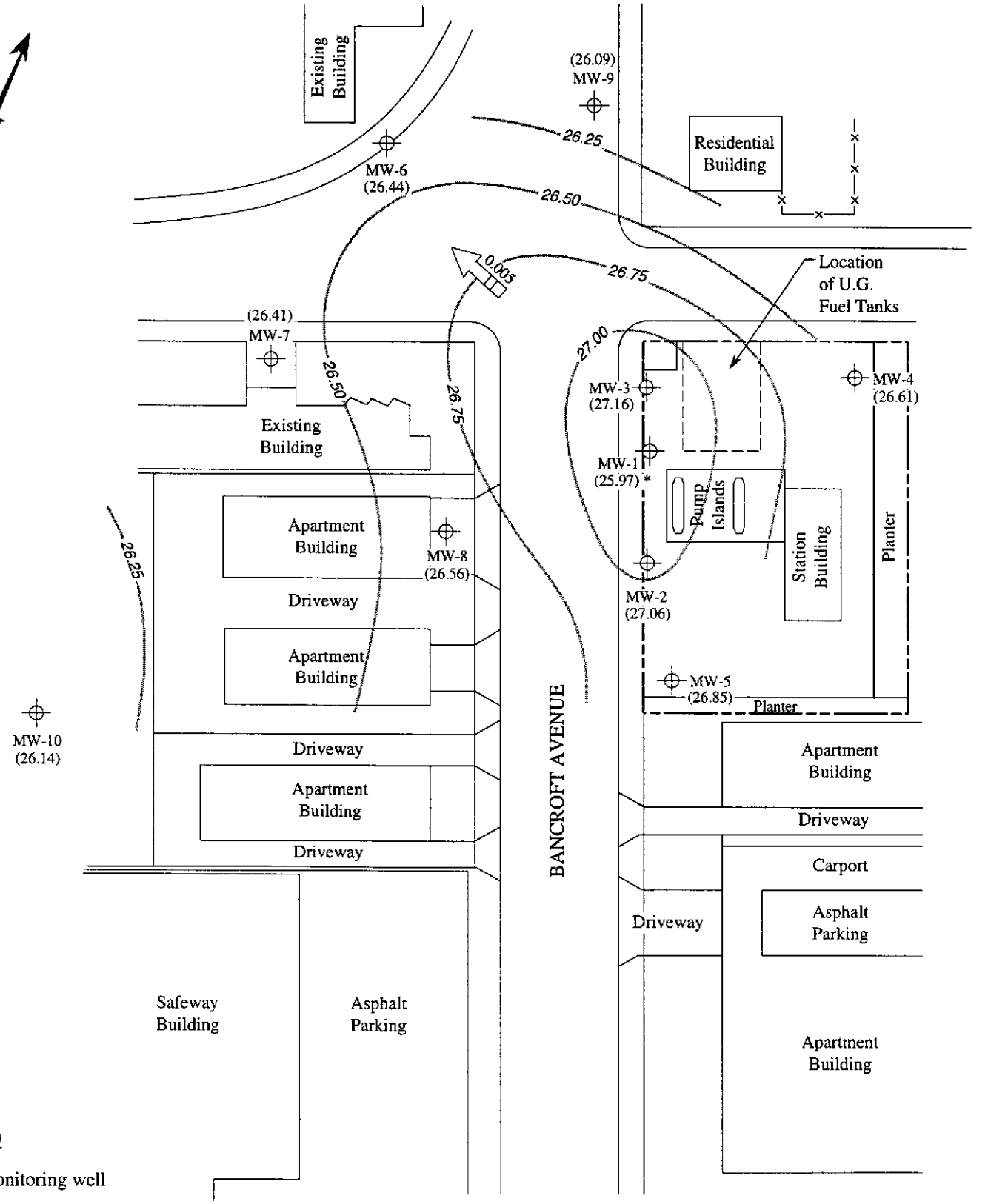


Base modified from 7.5 minute U.S.G.S. San Leandro Quadrangle
(photorevised 1980)

0 2000 4000

Approx. scale feet

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5367** **500 BANCROFT AVENUE** **SAN LEANDRO, CALIFORNIA**	**LOCATION MAP**



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation
- * Elevation appeared anomalous and was not used to calculate contours.

0 60 120

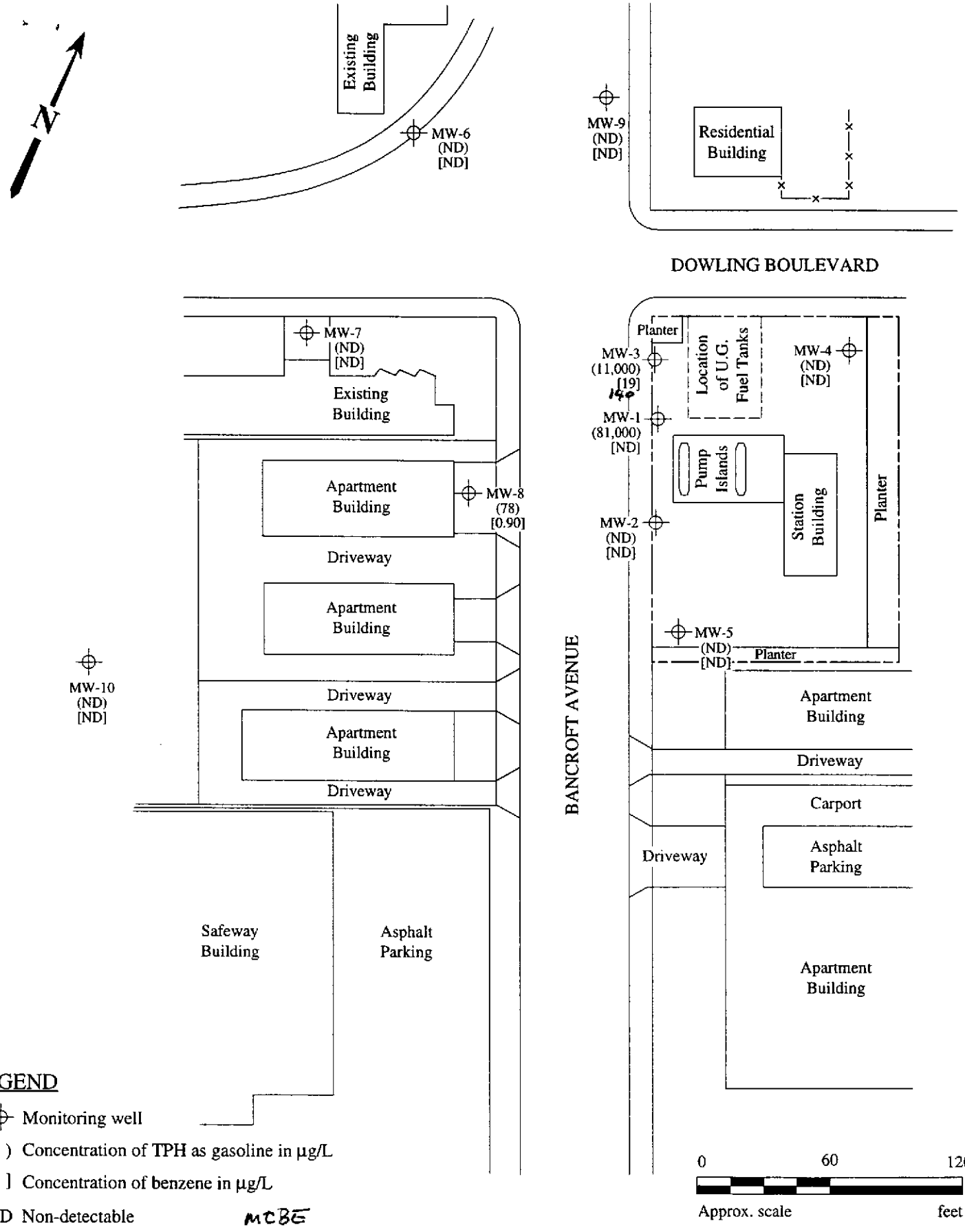
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE SEPTEMBER 27, 1997 MONITORING EVENT

MPDS SERVICES, INCORPORATED

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

FIGURE
1



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON SEPTEMBER 27, 1997

mpds SERVICES, INCORPORATED	**UNOCAL SERVICE STATION #5367** **500 BANCROFT AVENUE** **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	Client Project ID:	Unocal #5367, 500 Bancroft, San Leandro	Sampled: Sep 27, 1997
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received: Sep 29, 1997
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Oct 20, 1997
Attention: Jarrel Crider	First Sample #:	709-2352	

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
709-2352	MW-1	81,000	ND	1,000	5,900	31,000
709-2353	MW-2	ND	ND	ND	ND	ND
709-2354	MW-3	11,000	19	ND	850	420
709-2355	MW-4	ND	ND	ND	ND	ND
709-2356	MW-5	ND	ND	ND	ND	ND
709-2357	MW-6	ND	ND	ND	ND	ND
709-2358	MW-7	ND	ND	ND	ND	ND
709-2359	MW-8	78	0.90	ND	12	ND
709-2360	MW-9	ND	ND	ND	ND	ND
709-2361	MW-10	ND	ND	ND	ND	ND
Detection Limits:		**50**	**0.50**	**0.50**	**0.50**	**0.50**

Total Purgeable Petroleum Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as ND were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

7092352.MPD <1>

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5367, 500 Bancroft, San Leandro	Sampled:	Sep 27, 1997
2401 Stanwell Dr., Ste. 300	Matrix Descript:	Water	Received:	Sep 29, 1997
Concord, CA 94520	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Oct 20, 1997
Attention: Jarrel Crider	First Sample #:	709-2352		

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
709-2352	MW-1	Gasoline	400	10/10/97	HP-2	108
709-2353	MW-2	--	1.0	10/9/97	HP-9	90
709-2354	MW-3	Gasoline	20	10/9/97	HP-9	93
709-2355	MW-4	--	1.0	10/9/97	HP-9	92
709-2356	MW-5	--	1.0	10/9/97	HP-9	93
709-2357	MW-6	--	1.0	10/9/97	HP-9	92
709-2358	MW-7	--	1.0	10/9/97	HP-9	91
709-2359	MW-8	Gasoline	1.0	10/10/97	HP-4	93
709-2360	MW-9	--	1.0	10/9/97	HP-9	93
709-2361	MW-10	--	1.0	10/9/97	HP-9	93

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

7092352.MPD <2>

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

MPDS Services	Client Project ID:	Unocal #5367, 500 Bancroft, San Leandro	Sampled: Sep 27, 1997
2401 Stanwell Dr., Ste. 300	Sample Descript:	Water	Received: Sep 29, 1997
Concord, CA 94520	Analysis for:	MTBE (Modified EPA 8020)	
Attention: Jarrel Crider	First Sample #:	709-2352	Analyzed: Oct 9 - 10, 97
			Reported: Oct 20, 1997

LABORATORY ANALYSIS FOR: MTBE (Modified EPA 8020)

Sample Number	Sample Description	Detection Limit µg/L	Sample Result µg/L
709-2352	MW-1	1,000	N.D.
709-2353	MW-2	5.0	N.D.
709-2354	MW-3	50	140
709-2355	MW-4	5.0	N.D.
709-2356	MW-5	5.0	N.D.
709-2357	MW-6	5.0	N.D.
709-2358	MW-7	5.0	N.D.
709-2359	MW-8	5.0	N.D.
709-2360	MW-9	5.0	N.D.
709-2361	MW-10	5.0	N.D.

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

SEQUOIA ANALYTICAL, #1271

Signature on File

Alan B. Kemp
Project Manager

Sequoia Analytical

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

Client Project ID: Unocal #5367, 500 Bancroft, San Leandro
Matrix: Liquid
QC Sample Group: 7092352-361
Reported: Oct 20, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD Batch#:	7100438	7100438	7100438	7100438
Date Prepared:	10/10/97	10/10/97	10/10/97	10/10/97
Date Analyzed:	10/10/97	10/10/97	10/10/97	10/10/97
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:	80	80	85	85
Matrix Spike Duplicate % Recovery:	100	100	105	107
Relative % Difference:	22	22	21	23
LCS Batch#:	2LCS101097	2LCS101097	2LCS101097	2LCS101097
Date Prepared:	10/10/97	10/10/97	10/10/97	10/10/97
Date Analyzed:	10/10/97	10/10/97	10/10/97	10/10/97
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	105	105	110	112
% Recovery Control Limits:	70-130	70-130	70-130	70-130

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

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

Client Project ID: Unocal #5367, 500 Bancroft, San Leandro
Matrix: Liquid
QC Sample Group: 7092352-361

Reported: Oct 20, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD Batch#:	7092366	7092366	7092366	7092366
Date Prepared:	10/9/97	10/9/97	10/9/97	10/9/97
Date Analyzed:	10/9/97	10/9/97	10/9/97	10/9/97
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:	105	110	110	112
Matrix Spike Duplicate % Recovery:	100	105	110	112
Relative % Difference:	4.9	4.7	0.0	0.0
LCS Batch#:	9LCS100997	9LCS100997	9LCS100997	9LCS100997
Date Prepared:	10/9/97	10/9/97	10/9/97	10/9/97
Date Analyzed:	10/9/97	10/9/97	10/9/97	10/9/97
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
LCS % Recovery:	100	110	110	112
% Recovery Control Limits:	70-130	70-130	70-130	70-130

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.

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

Client Project ID: Unocal #5367, 500 Bancroft, San Leandro
Matrix: Liquid
QC Sample Group: 7092352-361
Reported: Oct 20, 1997

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD Batch#:	7100440	7100440	7100440	7100440
Date Prepared:	10/10/97	10/10/97	10/10/97	10/10/97
Date Analyzed:	10/10/97	10/10/97	10/10/97	10/10/97
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	95	90	95
Matrix Spike Duplicate % Recovery:	95	95	90	93
Relative % Difference:	0.0	0.0	0.0	1.8
LCS Batch#:	4LCS101097	4LCS101097	4LCS101097	4LCS101097
Date Prepared:	10/10/97	10/10/97	10/10/97	10/10/97
Date Analyzed:	10/10/97	10/10/97	10/10/97	10/10/97
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	100	100	95	98
% Recovery Control Limits:	70-130	70-130	70-130	70-130

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.

CHAIN OF CUSTODY

SAMPLER	TOSCO	ANALYSES REQUESTED								TURN AROUND TIME:
JOE AJEMIAN	S/S # 5367 CITY: San Leandro	TPHG, BTEX MTBE	TPHD	TOG	8010					Regular
WITNESSING AGENCY	ADDRESS: 500 Bancroft									REMARKS

SAMPLE ID NO.	DATE	TIME	WATER	GRAB	COMP	NO. OF CONT.	SAMPLING LOCATION								
MW 1	6/27/97	3:45 P.M	—	—		2 VOA	wells	—	7092352						MTBE: 5 ppb.
MW 2	"	10:40 A.M	—	"		—	—	—	7092353						
MW 3	"	3:30 P.M	—	—		—	"	—	7092354						
MW 4	"	11:30 A.M	—	"		—	—	—	7092355						
MW 5	"	12:05 P.M	—	"		—	—	—	7092356						
MW 6	"	2:52 P.M	—	"		—	—	"	7092357						
MW 7	"	12:30 P.M	—	—		—	—	—	7092358						
MW 8	"	1:08 P.M	—	"		—	—	—	7092359						
MW 9	"	1:40 P.M		"		—	—	—	7092360						
MW 10	"	2:20 P.M	"	"		—	—	—	7092361						

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
	5:00 P.M		
(SIGNATURE)	6-27-97	(SIGNATURE)	6/27/97 1700
(SIGNATURE)	6/27/97	(SIGNATURE)	
(SIGNATURE)		(SIGNATURE)	9/29/97 1430
(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: [signature] TITLE: Analyst DATE: 6/27/97

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

MPDS Services Inc.
2401 Stanwell Drive
Concord, California 94520

Tel: (510) 602-5120
Fax: (510) 689-1918

PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 - S. Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 3:45 A.M. (P.M.)

FIELD TECHNICIAN Joe

PURGE METHOD Bail

DATE(S) PURGED 9-27-97

WELL NUMBER MW-1

WATER LEVEL-**INITIAL** 31.86

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 38.02

CONTAINERS 2

WELL DEPTH 35.14

PRESERVATIVES ✓

WELL CASING VOLUME 0.56

†CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx1000 or µS/cm	pH
3:35	0	66.5	1.48	7.60
	0.5	66.8	1.51	7.32
	1	67.0	1.56	7.25
3:40	2	67.2	1.53	7.25

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

MPDS Services Inc.
2401 Stanwell Drive
Concord, California 94520

Tel: (510) 602-5120
Fax: (510) 689-1918

PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 San Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 10:40 (A.M.) P.M.

FIELD TECHNICIAN Joe

PURGE METHOD Pump

DATE(S) PURGED 9-27-97

WELL NUMBER mw-2

WATER LEVEL-**INITIAL** 31.07

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 32.11

CONTAINERS 2

WELL DEPTH 46.91

PRESERVATIVES ✓

WELL CASING VOLUME 10.30

†CASING DIAMETER 4"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
10:15	0	68.7	4.38	7.52
	10	69.5	4.36	7.27
	20	71.2	4.29	7.20
10:30	31	70.8	4.32	7.10

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 – S. Leandro 500 Bancroft

DATE & TIME SAMPLED: 9-27-97 3:30 A.M. (P.M.)

FIELD TECHNICIAN: Joe

PURGE METHOD: Pump

DATE(S) PURGED: 9-27-97

WELL NUMBER: MW-3

WATER LEVEL-**INITIAL**: 30.76

SAMPLING METHOD: Bail

WATER LEVEL-**FINAL**: 31.93

CONTAINERS: 2

WELL DEPTH: 48.20

PRESERVATIVES: ✓

WELL CASING VOLUME: 11.32

†CASING DIAMETER: 4"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx1000 or µS/cm	pH
3:05	0	70.1	1.80	7.53
	12	70.4	1.75	7.21
	23	70.5	1.75	7.12
3:20	34	70.5	1.72	7.17

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

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MPDS Services Inc.
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Concord, California 94520

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Fax: (510) 689-1918

PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 – S. Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 11:30 (A.M.) P.M.

FIELD TECHNICIAN Joe

PURGE METHOD Pump

DATE(S) PURGED 9-27-97

WELL NUMBER MW-4

WATER LEVEL-**INITIAL** 31.68

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 31.88

CONTAINERS 2

WELL DEPTH 48.52

PRESERVATIVES ✓

WELL CASING VOLUME 10.95

†CASING DIAMETER 4"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
11:00	0	70.4	5.18	8.02
	11	70.6	5.10	7.38
	22	70.7	5.47	7.49
11:15	33	70.3	5.46	7.50

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

MPDS Services Inc.
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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 S. Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 12:05 A.M. P.M.

FIELD TECHNICIAN Joe

PURGE METHOD Pump

DATE(S) PURGED 9-27-97

WELL NUMBER MW-5

WATER LEVEL-**INITIAL** 31.65

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 32.10

CONTAINERS 2

WELL DEPTH 44.38

PRESERVATIVES V

WELL CASING VOLUME 2.16

†CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
11:45	0	70.4	6.32	7.63
	2.5	70.9	6.30	7.27
	5	71.0	5.98	7.20
11:55	7	71.5	6.09	7.23

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 S. Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 2:52 A.M. (P.M.)

FIELD TECHNICIAN Joe

PURGE METHOD Pump

DATE(S) PURGED 9-27-97

WELL NUMBER MW-6

WATER LEVEL-**INITIAL** 30.52

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 31.36

CONTAINERS 2

WELL DEPTH 44.62

PRESERVATIVES ✓

WELL CASING VOLUME 2.40

†CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
2:30	0	71.2	4.18	7.63
	2.5	72.2	4.27	7.32
	5	72.5	4.22	7.16
2:40	8	72.7	4.24	7.17

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 - S. Leandro
500 Bancroft

DATE & TIME SAMPLED: 9-27-97 12:30 A.M. (P.M.)

FIELD TECHNICIAN: Joe

PURGE METHOD: Pump

DATE(S) PURGED: 9-27-97

WELL NUMBER: MW 7

WATER LEVEL-**INITIAL**: 30.84

SAMPLING METHOD: Bail

WATER LEVEL-**FINAL**: 31.19

CONTAINERS: 2

WELL DEPTH: 43.96

PRESERVATIVES: ✓

WELL CASING VOLUME: 2.23

†CASING DIAMETER: 4"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
12:10	0	70.8	5.13	7.99
	3	71.5	5.18	7.38
	5	72.0	5.14	7.28
12:20	7	72.0	5.16	7.30

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

MPDS Services Inc.
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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 – S. Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 1:08 A.M. (P.M.)

FIELD TECHNICIAN Joe

PURGE METHOD Pump

DATE(S) PURGED 9-27-97

WELL NUMBER MW-8

WATER LEVEL-**INITIAL** 31.15

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 31.57

CONTAINERS 2

WELL DEPTH 43.88

PRESERVATIVES ✓

WELL CASING VOLUME 2.16

†CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
12:45	0	71.0	5.33	7.48
	2.5	72.8	5.47	7.40
	5	73.2	5.51	7.32
12:55	7	73.6	5.54	7.35

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 - S. Leandro
500 Bancroft.

DATE & TIME SAMPLED: 9-27-97 1:40 A.M. P.M.

FIELD TECHNICIAN: Joe

PURGE METHOD: Pump

DATE(S) PURGED: 9-27-97

WELL NUMBER: MW-9

WATER LEVEL-**INITIAL**: 30.38

SAMPLING METHOD: Bail

WATER LEVEL-**FINAL**: 31.11

CONTAINERS: 2

WELL DEPTH: 44.63

PRESERVATIVES: ✓

WELL CASING VOLUME: 2.42

†CASING DIAMETER: 2"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
1:20	0	71.0	4.73	7.53
	3	72.0	4.81	7.24
	5	72.2	4.82	7.28
1:32	8	72.4	4.83	7.26

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

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PURGING/SAMPLING DATA SHEET

SAMPLING LOCATION: #5367 S. Leandro
500 Bancroft

DATE & TIME SAMPLED 9-27-97 2:20 A.M. (P.M.)

FIELD TECHNICIAN Joe

PURGE METHOD Pump

DATE(S) PURGED 9-27-97

WELL NUMBER MW-10

WATER LEVEL-**INITIAL** 32.80

SAMPLING METHOD Bail

WATER LEVEL-**FINAL** 33.06

CONTAINERS 2

WELL DEPTH 42.65

PRESERVATIVES ✓

WELL CASING VOLUME 1.67

†CASING DIAMETER 2"

TIME	GALLONS PURGED	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µmhos/cmx100) or µS/cm	pH
2:00	0	71.9	5.15	7.83
	1.5	72.3	5.37	7.36
	3	72.8	5.42	7.30
2:10	5	72.8	5.39	7.26

† Conversion Factors:

Well Diameter	Factor
2"	0.17
3"	0.37
4"	0.65
4.5"	0.82
6"	1.46
8"	2.60
12"	5.87

S = Siemens = mhos

Stabilization Criteria:
Temperature = ± 1 °F
Conductivity = ± 10% of total
pH = ± 0.2

/P&S

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-05

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/02/98
Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-5
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-06

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/02/98
Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-6
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-07

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/02/98
Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-7
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-08

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/02/98
Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-8
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-09

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/02/98
Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal SS#5367, 180108.85	Sampled: 03/20/98
6747 Sierra Court Suite J	Sample Descript: MW-9	Received: 03/23/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/02/98
Attention: Deanna Harding	Lab Number: 9803F13-10	Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-10
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-11

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/02/98
Reported: 04/08/98

QC Batch Number: GC040298802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	102

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85

Lab Proj. ID: 9803F13

Received: 03/23/98

Reported: 04/08/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 15 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal SS#5367, 180108.85
Matrix: Liquid
Work Order #: 9803F13 -01-04
Reported: Apr 9, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040198802004A	GC040198802004A	GC040198802004A	GC040198802004A	GC040198802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8032287	8032287	8032287	8032287	8032287
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/1/98	4/1/98	4/1/98	4/1/98	4/1/98
Analyzed Date:	4/1/98	4/1/98	4/1/98	4/1/98	4/1/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	270 µg/L
Result:	19	22	21	65	270
MS % Recovery:	95	110	105	108	100
Dup. Result:	22	24	22	72	400
MSD % Recov.:	110	120	110	120	148
RPD:	15	8.7	4.7	10	39
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS040198	LCS040198	LCS040198	LCS040198	LCS040198
Prepared Date:	4/1/98	4/1/98	4/1/98	4/1/98	4/1/98
Analyzed Date:	4/1/98	4/1/98	4/1/98	4/1/98	4/1/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	270 µg/L
LCS Result:	17	19	18	61	340
LCS % Recov.:	85	95	90	102	126
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL
Elap #1271

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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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Client Project ID: Unocal SS#5367, 180108.85
Matrix: Liquid
Work Order #: 9803F13-05-11
Reported: Apr 9, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC040298802004A	GC040298802004A	GC040298802004A	GC040298802004A	GC040298802004A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8032397	8032397	8032397	8032397	8032397
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/2/98	4/2/98	4/2/98	4/2/98	4/2/98
Analyzed Date:	4/2/98	4/2/98	4/2/98	4/2/98	4/2/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	290 µg/L
Result:	22	23	21	66	260
MS % Recovery:	110	115	105	110	97
Dup. Result:	21	21	23	64	370
MSD % Recov.:	105	105	115	107	128
RPD:	4.7	9.1	9.1	3.1	28
RPD Limit:	0-20	0-20	0-20	0-20	0-50
LCS #:	LCS040298	LCS040298	LCS040298	LCS040298	LCS040298
Prepared Date:	4/2/98	4/2/98	4/2/98	4/2/98	4/2/98
Analyzed Date:	4/2/98	4/2/98	4/2/98	4/2/98	4/2/98
Instrument I.D.#:	HP4	HP4	HP4	HP4	HP4
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	290 µg/L
LCS Result:	21	22	20	63	310
LCS % Recov.:	105	110	100	105	107
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

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