



GETTLER-RYAN INC.

TRANSMITTAL

November 13, 2000

G-R #: 180108

ENVIRONMENTAL
PROTECTION
00 NOV 27 PM 2:55

TO: Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

CC: Mr. Tim Ripp
IT Corporation
1921 Ringwood Avenue
San Jose, California 95131

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Tosco (Unocal) SS #5367
500 Bancroft Avenue
San Leandro, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 9, 2000	Groundwater Monitoring and Sampling Report Second Semi-Annual 2000 - Event of September 15, 2000

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by **November 22, 2000**, this report will be distributed to the following:

Enclosure

cc: Mr. Scott Seery, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502
Mr. Michael Bakaldin, City of San Leandro Fire Department, 835 East 14th Street, San Leandro, CA 94577

trans/5367dbd.qmt



ENVIRONMENTAL PROTECTION

OCT 26 PM 4: 12

IT Corporation
1921 Ringwood Avenue
San Jose, CA 95131-1721
Tel. 408.453.7300
Fax. 408.437.9526

A Member of The IT Group

505
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October 20, 2000
Project 311-127.1A

Mr. Chuck Headlee
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Re: 76 Service Station 5367
Quarterly Summary Report
Third Quarter 2000

Dear Mr. Headlee:

As directed by Mr. David DeWitt of Tosco Marketing Company, IT Corporation (IT) is forwarding the quarterly summary report for the following location:

<u>Service Station</u>	<u>Location</u>
5367	500 Bancroft Avenue, San Leandro

Should you have questions or comments, please do not hesitate to contact our office at (408) 453-7300.

Sincerely,

IT Corporation

Timothy L. Ripp
Project Geologist

Enclosure

cc: Mr. David DeWitt, Tosco Marketing Company
Ms. Amy Leech, Alameda County Health Care Services

Quarterly Summary Report Third Quarter 2000

76 Service Station 5367
500 Bancroft Avenue
San Leandro, California

City/County ID #: None
County: Alameda

BACKGROUND

The underground fuel storage tanks, product dispensers, and associated underground piping were replaced in 1987. The underground product piping was replaced again in October and November 1998. There are currently five on-site groundwater monitoring wells and five off-site groundwater monitoring wells in use at the site. Soil vapor extraction and groundwater extraction systems were operated at the site from March 1996 to March 1997, removing an estimated 108 pounds of gasoline hydrocarbons.

RECENT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities were performed in September 2000.

NEXT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities performed in September 2000 will be reported in November 2000.

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.
Start? March 1996.
Completion date? March 1997.
Dissolved/free product remediation in progress? No.
Start? March 1996.
Completion? March 1997.

CONSULTANT: IT Corporation



GETTLER - RYAN Inc.

November 9, 2000

G-R Job #180108

Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Second Semi-Annual 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On September 15, 2000, field personnel monitored and sampled ten wells (MW-1 through MW-10) at the above referenced site.

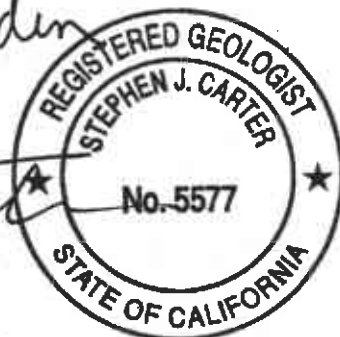
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 3. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Table 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

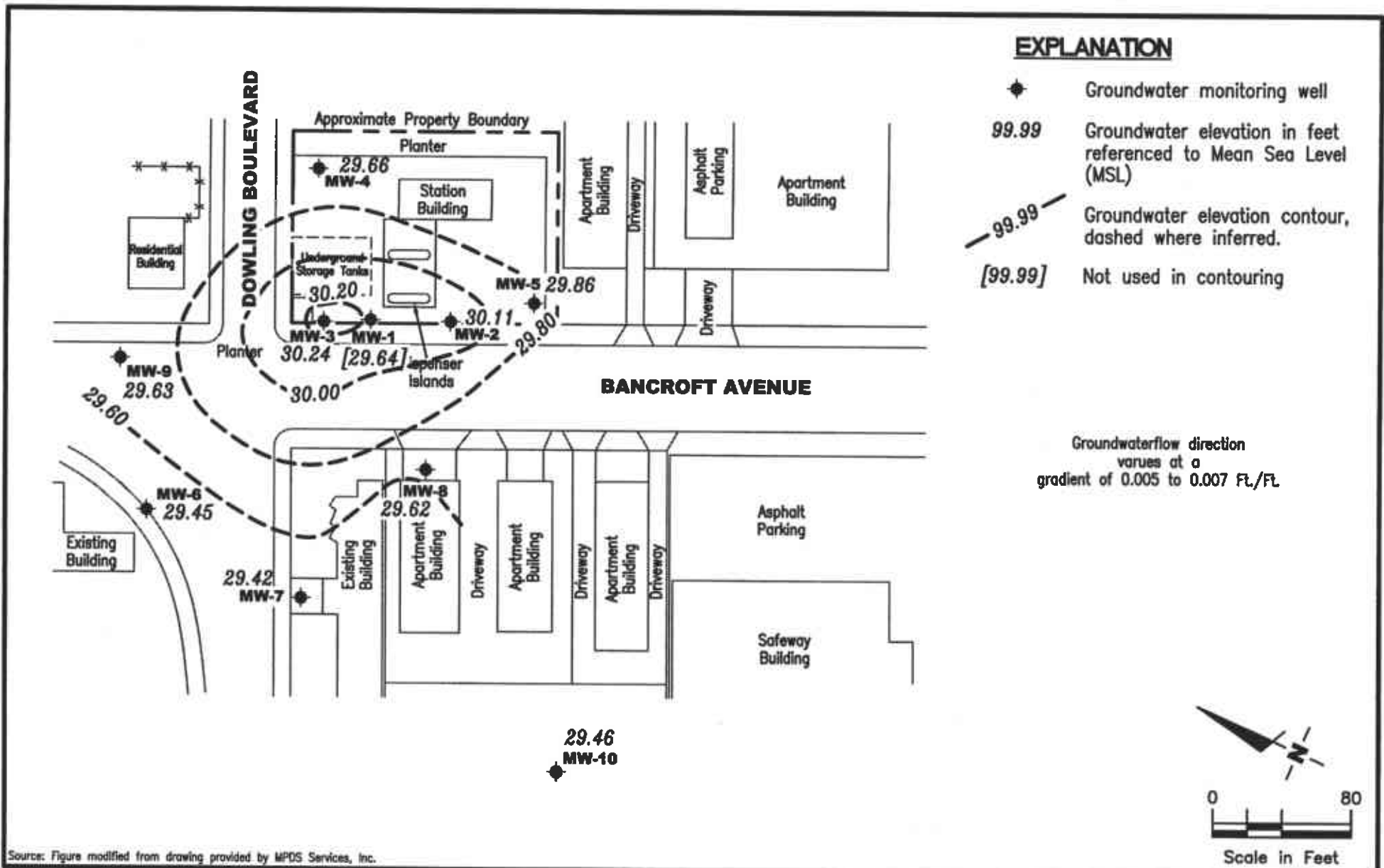
Deanna L. Harding
Project Coordinator

Stephen J. Carter
Senior Geologist, R.G. No. 5577



- Figure 1: Potentiometric Map
- Figure 2: Concentration Map
- Table 1: Groundwater Monitoring Data and Analytical Results
- Table 2: Groundwater Analytical Results - Oxygenate Compounds
- Table 3: Dissolved Oxygen Concentrations
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

5367.qml



Source: Figure modified from drawing provided by MPDS Services, Inc.



Gottler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568

(925) 551-7556

POTENTIOMETRIC MAP

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue
San Leandro, California

FIGURE

1

PROJECT NUMBER
180108

REVIEWED BY

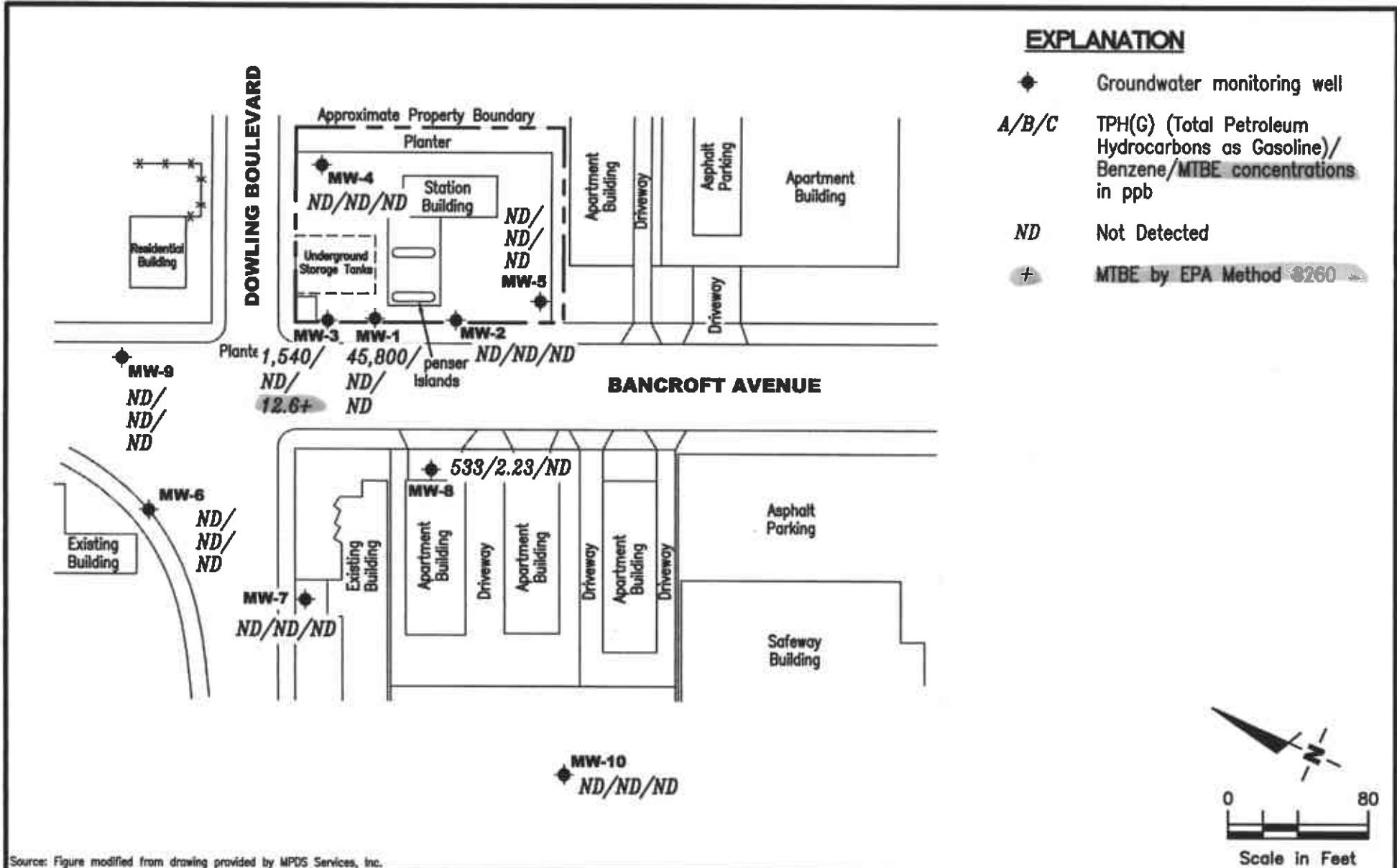
DATE

September 15, 2000

REVISED DATE

EXPLANATION

- ◆ Groundwater monitoring well
- A/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/ Benzene/MTBE concentrations in ppb
- ND Not Detected
- + MTBE by EPA Method 8260



Source: Figure modified from drawing provided by MPDS Services, Inc.

Gettler - Ryan Inc.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

CONCENTRATION MAP
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

FIGURE
2

PROJECT NUMBER 180108	REVIEWED BY	DATE September 15, 2000	REVISED DATE
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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
				Thickness (ft.)						
MW-1										
57.83	09/23/87	33.40	24.43**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/24/87	33.24	24.59**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	10/06/87	33.39	24.44**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/05/87	34.14	23.69**	0.31	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/13/87	34.15	23.68**	0.38	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/19/87	33.89	23.94**	0.06	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	04/27/88	32.40	25.43**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/07/88	DRY	--	--	--	--	--	--	--	--
	10/03/88	DRY	--	--	--	--	--	--	--	--
	01/27/89	DRY	--	--	--	--	--	--	--	--
	02/16/90	DRY	--	--	--	--	--	--	--	--
	07/19/90	DRY	--	--	--	--	--	--	--	--
	08/24/90	DRY	--	--	--	--	--	--	--	--
	11/30/90	DRY	--	--	--	--	--	--	--	--
	02/06/91	DRY	--	--	--	--	--	--	--	--
	05/06/91	33.00	24.83	0.00	--	--	--	--	--	--
	09/27/91	DRY	--	--	--	--	--	--	--	--
	03/31/92	31.00	26.83	0.00	330,000	8,200	33,000	6,800	36,000	--
	06/18/92	32.76	25.07	0.00	680,000	9,000	40,000	7,600	44,000	--
	10/16/92	DRY	--	--	--	--	--	--	--	--
	11/18/92	DRY	--	--	--	--	--	--	--	--
	03/03/93	26.03	31.80	0.00	330,000	3,800	21,000	4,200	24,000	--
	06/25/93	28.36	29.47	0.00	160,000	4,300	36,000	5,800	34,000	--
	09/03/93	30.80	27.03	0.00	160,000	3,900	41,000	6,800	38,000	--
	12/13/93	32.73	25.10	0.00	140,000	3,600	37,000	7,100	40,000	--
	03/18/94	30.10	27.73	0.00	99,000	3,800	37,000	6,800	36,000	--
	06/23/94	31.32	26.51	0.00	150,000	2,500	33,000	6,400	37,000	--
	09/21/94	33.21	24.62	0.00	110,000	2,500	23,000	4,500	25,000	--
	12/19/94	30.97	26.86	0.00	200,000	2,400	28,000	6,600	37,000	--
	03/27/95	22.77	35.06	0.00	88,000	1,500	20,000	4,200	25,000	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	06/26/95	25.69	32.14	0.00	130,000	1,000	23,000	5,600	33,000	--
(cont)	07/28/95	26.97	30.86	0.00	--	--	--	--	--	--
	09/28/95	29.55	28.28	0.00	100,000	810	21,000	6,500	37,000	--
	10/24/95	29.99	27.84	0.00	--	--	--	--	--	--
	12/29/95	30.40	27.43	0.00	110,000	990	22,000	8,300	47,000	--
	03/27/96	22.29	35.54	0.00	120,000	920	17,000	7,100	41,000	180
	09/21/96	29.44	28.39	0.00	110,000	270	3,500	5,900	16,000	260
	03/31/97	24.18	33.65	0.00	82,000	240	8,700	3,800	23,000	ND
	09/27/97	31.86	25.97	0.00	81,000	ND	1,000	5,900	31,000	ND
	03/20/98	16.88	40.95	0.00	52,000	ND ⁵	350	2,900	14,000	ND ⁵
	09/09/98	26.21	31.62	0.00	59,000	51	64	6,000	4,800	ND ⁵
	03/11/99	23.60	34.23	0.00	60,000	130	ND ⁵	2,900	12,000	ND ⁵
	09/08/99	28.70	29.13	0.00	74,000 ⁷	ND ⁵	ND ⁵	2,600	10,000	ND ⁵
	03/24/00	21.61	36.22	0.00	37,000 ⁷	ND ⁵	ND ⁵	1,980	6,880	ND ⁵
	09/15/00	28.19	29.64	0.00	45,800⁹	ND⁵	ND⁵	3,150	10,500	ND⁵
MW-2										
58.13	10/03/88	36.04	22.09	0.00	1,760	47.8	7.4	20.9	81.6	--
	01/27/89	34.77	23.36	0.00	510	58	8.7	22.6	20.3	--
	02/16/90	34.50	23.63	0.00	840	50	0.5	28	44	--
	05/01/90	--	--	--	1,000	39	ND	32	52	--
	07/19/90	35.72	22.41	0.00	--	--	--	--	--	--
	08/24/90	36.30	21.83	0.00	330	17	ND	19	20	--
	11/30/90	37.40	20.73	0.00	400	41	ND	39	37	--
	02/07/91	37.27	20.86	0.00	510	40	ND	29	44	--
	05/06/91	33.31	24.82	0.00	2,300	150	10	52	110	--
	09/27/91	36.86	21.27	0.00	110	2.6	ND	5.6	5.1	--
	12/27/91	37.66	20.47	0.00	170	3.9	ND	7.3	60	--
	03/31/92	37.66	20.47	0.00	--	--	--	--	--	--
	06/18/92	31.27	26.86	0.00	1,200	35	1.6	56	26	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	09/30/92	--	--	--	820	21	ND	42	25	--
(cont)	10/16/92	35.87	22.26	0.00	--	--	--	--	--	--
	11/18/92	36.24	21.89	0.00	65	1.2	ND	2.8	1.4	--
	03/03/93	26.30	31.83	0.00	4,200	62	2.9	97	120	--
	06/25/93	28.40	29.73	0.00	4,000	110	ND	320	280	--
	09/03/93	31.10	27.03	0.00	1,400	31	4.3	99	53	--
	12/13/93	33.03	25.10	0.00	260	7.7	0.83	17	23	--
	03/18/94	30.34	27.79	0.00	250	6.4	0.64	28	24	--
	06/23/94	31.63	26.50	0.00	420	3.9	0.66	23	11	--
	09/21/94	33.52	24.61	0.00	ND	ND	ND	ND	ND	--
	12/19/94	31.26	26.87	0.00	190	1.9	ND	15	6.8	--
	03/27/95 ²	23.02	35.11	0.00	ND	ND	0.55	1.2	2.5	--
	06/26/95	25.98	32.15	0.00	ND	ND	0.93	0.88	3.4	--
	07/28/95	27.26	30.87	0.00	--	--	--	--	--	--
	09/28/95	29.77	28.36	0.00	730	2.9	ND	41	29	--
	10/24/95	30.56	27.57	0.00	--	--	--	--	--	--
	12/29/95	30.25	27.88	0.00	860	4.3	1.0	27	50	--
	03/27/96	22.30	35.83	0.00	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				--	--
	09/21/96	29.47	28.66	0.00	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				--	--
	03/31/97	24.20	33.93	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	31.07	27.06	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	16.73	41.40	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	26.03	32.10	0.00	ND	ND	0.54	ND	0.57	ND
	03/11/99	23.46	34.67	0.00	ND	ND	0.59	ND	1.1	ND
	09/08/99	28.53	29.60	0.00	ND	ND	ND	ND	ND	ND
	03/24/00	21.45	36.68	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	28.02	30.11	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3										
57.92	10/03/88	35.86	22.06	0.00	61,000	1,060	3,380	1,520	8,720	--
	01/27/89	34.60	23.32	0.00	39,000	1,570	2,830	1,250	7,070	--
	02/16/90	35.23	22.69	0.00	22,000	710	4,100	6,900	33,000	--
	05/01/90	--	--	--	19,000	330	170	310	1,500	--
	07/19/90	35.50	22.42	0.00	--	--	--	--	--	--
	08/24/90	36.08	21.84	0.00	19,000	480	160	510	1,500	--
	11/30/90	37.17	20.75	0.00	13,000	390	81	410	1,000	--
	02/06/91	37.07	20.85	0.00	13,000	310	150	380	1,200	--
	05/06/91	33.11	24.81	0.00	39,000	1,000	570	930	3,900	--
	09/27/91	36.64	21.28	0.00	4,000	160	84	180	560	--
	12/27/91	37.46	20.46	0.00	31,000	240	280	400	1,600	--
	03/31/92	31.10	26.82	0.00	100,000	1,900	1,900	2,300	9,400	--
	06/18/92	32.83	25.09	0.00	180,000	2,200	1,700	2,300	1,100	--
	09/30/92	--	--	--	36,000	730	200	1,000	4,400	--
	10/16/92	35.66	22.26	0.00	--	--	--	--	--	--
	11/18/92	36.04	21.88	0.00	24,000 ¹	430	160	640	2,800	--
	03/03/93	26.11	31.81	0.00	96,000 ¹	1,400	1,900	1,400	8,400	--
	06/25/93	28.43	29.49	0.00	27,000	1,200	980	1,700	6,900	--
	09/03/93	30.88	27.04	0.00	82,000	2,400	3,400	4,200	21,000	--
	12/13/93	32.82	25.10	0.00	49,000	1,300	360	2,300	9,200	--
	03/18/94	30.17	27.75	0.00	22,000	1,200	430	2,200	9,700	--
	06/23/94	31.42	26.50	0.00	37,000	1,300	670	3,100	14,000	--
	09/21/94	33.30	24.62	0.00	24,000	890	110	2,200	8,800	--
	12/19/94	31.07	26.85	0.00	100,000	1,200	2,900	4,200	23,000	--
	03/27/95 ²	22.78	35.14	0.00	33,000	410	66	1,600	6,500	--
	06/26/95	25.78	32.14	0.00	14,000	300	ND	1,300	3,900	--
	07/28/95	27.06	30.86	0.00	--	--	--	--	--	--
	09/28/95	29.57	28.35	0.00	17,000	730	30	4,000	8,800	-- ³
	10/24/95	30.34	27.58	0.00	--	--	--	--	--	--
	12/29/95	29.91	28.01	0.00	55,000	700	ND	4,900	16,000	-- ⁴

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product		B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
				Thickness (ft.)	TPH(G) (ppb)					
MW-3	03/27/96	21.99	35.93	0.00	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)					--
(cont)	09/21/96	29.15	28.77	0.00	34,000	140	ND	2,200	6,600	1,800
	03/31/97	23.86	34.06	0.00	17,000	58	110	530	1,500	ND
	09/27/97	30.76	27.16	0.00	11,000	19	ND	850	420	140
	03/20/98	16.39	41.53	0.00	ND	ND	ND	ND	ND	74
	09/09/98	25.70	32.22	0.00	ND ⁵	ND ⁵	ND ⁵	ND ⁵	ND ⁵	ND ⁵
	03/11/99	23.12	34.80	0.00	7,300	ND	ND	320	210	ND
	09/08/99	28.21	29.71	0.00	7,900 ⁷	ND ⁵	ND ⁵	ND ⁵	160	ND ⁵
	03/24/00	21.12	36.80	0.00	3,310 ⁷	5.40	ND ⁵	101	43.3	ND ⁵
	09/15/00	27.68	30.24	0.00	1,540 ⁹	ND ⁵	ND ⁵	56.4	ND	ND/12.6 ⁸
MW-4										
58.29	10/03/88	36.12	22.17	0.00	ND	ND	ND	ND	ND	--
	01/27/89	34.87	23.42	0.00	ND	ND	ND	ND	ND	--
	02/16/90	35.60	22.69	0.00	ND	ND	ND	ND	ND	--
	05/01/90	--	--	--	ND	ND	ND	0.68	1.4	--
	07/19/90	35.78	22.51	0.00	--	--	--	--	--	--
	08/24/90	36.35	21.94	0.00	ND	ND	ND	ND	ND	--
	11/30/90	37.46	20.83	0.00	ND	ND	ND	ND	1.2	--
	02/06/91	37.40	20.89	0.00	ND	ND	ND	ND	ND	--
	05/06/91	33.39	24.90	0.00	--	--	--	--	--	--
	09/27/91	36.90	21.39	0.00	ND	ND	ND	ND	ND	--
	12/27/91	37.76	20.53	0.00	ND	ND	ND	ND	ND	--
	03/31/92	31.41	26.88	0.00	ND	ND	ND	ND	ND	--
	06/18/92	33.09	25.20	0.00	ND	ND	ND	ND	ND	--
	10/16/92	35.92	22.37	0.00	ND	ND	ND	ND	ND	--
	11/18/92	36.33	21.96	0.00	--	--	--	--	--	--
	03/03/93	26.43	31.86	0.00	68	0.9	0.6	ND	1.9	--
	06/25/93	28.60	29.69	0.00	--	--	--	--	--	--
	09/03/93	31.05	27.24	0.00	86	14	13	1.4	7.1	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4	12/13/93	33.09	25.20	0.00	SAMPLED SEMI-ANNUALLY	--	--	--	--	--
(cont)	03/18/94	30.42	27.87	0.00	ND	ND	ND	ND	ND	--
	06/23/94	31.95	26.34	0.00	--	--	--	--	--	--
	09/21/94	33.86	24.43	0.00	ND	ND	0.78	ND	0.81	--
	12/19/94	31.72	26.57	0.00	--	--	--	--	--	--
	03/27/95	23.44	34.85	0.00	ND	ND	0.79	0.5	3.1	--
	06/26/95	26.26	32.03	0.00	--	--	--	--	--	--
	07/28/95	27.53	30.76	0.00	--	--	--	--	--	--
	09/28/95	30.05	28.24	0.00	ND	ND	ND	ND	ND	-- ³
	10/24/95	30.79	27.50	0.00	--	--	--	--	--	--
	12/29/95	30.96	27.33	0.00	--	--	--	--	--	--
	03/27/96	22.71	35.58	0.00	ND	ND	0.70	ND	0.79	ND
	09/21/96	29.88	28.41	0.00	ND	ND	ND	ND	ND	ND
	03/31/97	24.72	33.57	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	31.68	26.61	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	17.27	41.02	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	26.58	31.71	0.00	ND	ND	ND	ND	0.65	3.0
	03/11/99	24.12	34.17	0.00	ND	ND	0.70	ND	1.2	ND
	09/08/99	29.18	29.11	0.00	ND	ND	ND	ND	0.78	ND
	03/24/00	22.08	36.21	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	28.63	29.66	0.00	ND	ND	1.36	ND	1.46	ND
MW-5										
58.50	02/16/90	35.89	22.61	0.00	67	0.51	1.6	2.9	7.5	--
	05/01/90	--	--	--	ND	ND	ND	ND	ND	--
	07/19/90	36.10	22.40	0.00	--	--	--	--	--	--
	08/24/90	36.67	21.83	0.00	ND	ND	ND	ND	ND	--
	11/30/90	37.74	20.76	0.00	ND	ND	0.7	ND	ND	--
	02/06/91	37.62	20.88	0.00	ND	ND	ND	ND	ND	--
	05/06/91	33.67	24.83	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
				Thickness (ft.)						
MW-5	09/27/91	37.23	21.27	0.00	ND	ND	ND	ND	ND	--
(cont)	12/27/91	38.02	20.48	0.00	ND	ND	ND	ND	ND	--
	03/31/92	31.62	26.88	0.00	ND	ND	ND	ND	1.1	--
	06/18/92	33.46	25.04	0.00	--	--	--	--	--	--
	10/16/92	36.23	22.27	0.00	ND	ND	ND	ND	ND	--
	11/18/92	36.62	21.88	0.00	--	--	--	--	--	--
	03/03/93	26.62	31.88	0.00	ND	ND	ND	ND	ND	--
	06/25/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	09/03/93	31.45	27.05	0.00	ND	ND	1.5	ND	7.9	--
	12/13/93	33.39	25.11	0.00	SAMPLED SEMI-ANNUALLY			--	--	--
	03/18/94	30.67	27.83	0.00	ND	ND	ND	ND	ND	--
	06/23/94	32.00	26.50	0.00	--	--	--	--	--	--
	09/21/94	33.90	24.60	0.00	ND	ND	0.98	ND	1.6	--
	12/19/94	31.63	26.87	0.00	--	--	--	--	--	--
	03/27/95	23.44	35.06	0.00	ND	ND	0.66	ND	2.9	--
	06/26/95	26.35	32.15	0.00	--	--	--	--	--	--
	07/28/95	27.63	30.87	0.00	--	--	--	--	--	--
	09/28/95	30.15	28.35	0.00	ND	ND	ND	ND	ND	--
	10/24/95	30.98	27.52	0.00	--	--	--	--	--	--
	12/29/95	30.87	27.63	0.00	--	--	--	--	--	--
	03/27/96	22.75	35.75	0.00	ND	ND	1.7	ND	2.4	ND
	09/21/96	29.95	28.55	0.00	ND	ND	ND	ND	ND	ND
	03/31/97	24.80	33.70	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	31.65	26.85	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	17.31	41.19	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	26.63	31.87	0.00	ND	ND	ND	ND	ND	ND
	03/11/99	24.08	34.42	0.00	ND	ND	0.96	ND	1.7	ND
	09/08/99	29.16	29.34	0.00	ND	ND	ND	ND	ND	ND
	03/24/00	22.06	36.44	0.00	ND	ND	ND	ND	0.957	ND
	09/15/00	28.64	29.86	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6										
56.96	02/16/90	34.50	22.46	0.00	ND	ND	ND	ND	ND	--
	05/01/90	--	--	--	ND	ND	ND	ND	ND	--
	07/19/90	34.74	22.22	0.00	ND	ND	ND	ND	ND	--
	08/24/90	35.32	21.64	0.00	ND	ND	ND	ND	ND	--
	11/30/90	36.38	20.58	0.00	ND	ND	ND	ND	ND	--
	02/06/91	36.27	20.69	0.00	ND	ND	ND	ND	ND	--
	05/06/91	32.41	24.55	0.00	--	--	--	--	--	--
	09/27/91	35.87	21.09	0.00	ND	ND	ND	ND	ND	--
	12/27/91	36.67	20.29	0.00	ND	ND	ND	ND	ND	--
	03/31/92	30.32	26.64	0.00	ND	ND	1.3	ND	2	--
	06/18/92	32.18	24.78	0.00	ND	ND	ND	ND	ND	--
	10/16/92	34.92	22.04	0.00	ND	ND	ND	ND	ND	--
	11/18/92	35.28	21.68	0.00	--	--	--	--	--	--
	03/03/93	25.43	31.53	0.00	ND ¹	ND	ND	ND	ND	--
	06/25/93	27.86	29.10	0.00	--	--	--	--	--	--
	09/03/93	30.25	26.71	0.00	ND	ND	ND	ND	ND	--
	12/13/93	32.14	24.82	0.00	SAMPLED SEMI-ANNUALLY			--	--	--
	03/18/94	29.46	27.50	0.00	ND	ND	0.93	ND	1.4	--
	06/23/94	30.76	26.20	0.00	--	--	--	--	--	--
	09/21/94	32.62	24.34	0.00	ND	ND	ND	ND	ND	--
	12/19/94	30.32	26.64	0.00	--	--	--	--	--	--
	03/27/95	22.10	34.86	0.00	56	ND	0.65	ND	3.3	--
	06/26/95	25.20	31.76	0.00	--	--	--	--	--	--
	07/28/95	26.48	30.48	0.00	--	--	--	--	--	--
	09/28/95	28.92	28.04	0.00	ND	ND	ND	ND	ND	--
	10/24/95	29.73	27.23	0.00	--	--	--	--	--	--
	12/29/95	29.62	27.34	0.00	--	--	--	--	--	--
	03/27/96	21.59	35.37	0.00	50	ND	0.92	ND	0.96	ND
	09/21/96	28.72	28.24	0.00	ND	ND	ND	ND	ND	ND
	03/31/97	23.72	33.24	0.00	73	0.67	0.82	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product							
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-6	09/27/97	30.52	26.44	0.00	ND	ND	ND	ND	ND	ND	ND
(cont)	03/20/98	16.35	40.61	0.00	ND	ND	ND	ND	ND	ND	ND
	09/09/98	25.53	31.43	0.00	ND	ND	0.64	ND	0.65	3.3	ND
	03/11/99	22.85	34.11	0.00	ND	ND	0.71	ND	1.4	ND	ND
	09/08/99	28.01	28.95	0.00	ND	ND	ND	ND	ND	ND	ND
	03/24/00	20.93	36.03	0.00	ND	ND	ND	ND	ND	ND	ND
	09/15/00	27.51	29.45	0.00	ND	ND	ND	ND	ND	ND	ND
MW-7											
57.25	02/16/90	35.75	21.50	0.00	ND	ND	ND	ND	ND	ND	--
	05/01/90	--	--	--	24	ND	ND	0.74	1.7	--	--
	07/19/90	35.03	22.22	0.00	--	--	--	--	--	--	--
	08/24/90	35.64	21.61	0.00	ND	ND	ND	ND	ND	ND	--
	11/30/90	36.68	20.57	0.00	ND	ND	ND	0.6	1.5	--	--
	02/06/91	36.55	20.70	0.00	ND	ND	ND	ND	ND	ND	--
	05/06/91	32.69	24.56	0.00	ND	ND	ND	ND	ND	ND	--
	09/27/91	36.18	21.07	0.00	ND	ND	ND	ND	ND	ND	--
	12/27/91	36.96	20.29	0.00	ND	ND	ND	ND	ND	ND	--
	03/31/92	30.56	26.69	0.00	ND	ND	ND	ND	0.9	--	--
	06/18/92	32.52	24.73	0.00	--	--	--	--	--	--	--
	10/16/92	35.24	22.01	0.00	ND	ND	ND	ND	ND	ND	--
	11/18/92	35.59	21.66	0.00	--	--	--	--	--	--	--
	03/03/93	25.66	31.59	0.00	ND	ND	ND	ND	ND	ND	--
	06/25/93	28.25	29.00	0.00	--	--	--	--	--	--	--
	09/03/93	30.60	26.65	0.00	ND	ND	ND	ND	ND	ND	--
	12/13/93	32.45	24.80	0.00	SAMPLED SEMI-ANNUALLY			--	--	--	--
	03/18/94	29.76	27.49	0.00	ND	ND	ND	ND	ND	ND	--
	06/23/94	31.10	26.15	0.00	--	--	--	--	--	--	--
	09/21/94	32.96	24.29	0.00	ND	0.5	ND	ND	0.89	--	--
	12/19/94	30.60	26.65	0.00	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-7	03/27/95	22.43	34.82	0.00	ND	ND	0.54	ND	1.9	--
(cont)	06/26/95	25.55	31.70	0.00	--	--	--	--	--	--
	07/28/95	26.84	30.41	0.00	--	--	--	--	--	--
	09/28/95	29.29	27.96	0.00	ND	ND	ND	ND	ND	-- ³
	10/24/95	30.05	27.20	0.00	--	--	--	--	--	--
	12/29/95	29.91	27.34	0.00	--	--	--	--	--	--
	03/27/96	21.94	35.31	0.00	ND	ND	1.1	ND	1.7	ND
	09/21/96	29.07	28.18	0.00	ND	ND	ND	ND	ND	ND
	03/31/97	24.02	33.23	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	30.84	26.41	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	16.68	40.57	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	25.89	31.36	0.00	ND	ND	ND	ND	ND	4.1
	03/11/99	23.16	34.09	0.00	ND	ND	0.91	ND	1.6	5.7
	09/08/99	28.32	28.93	0.00	ND	ND	ND	ND	ND	2.7
	03/24/00	21.23	36.02	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	27.83	29.42	0.00	ND	ND	ND	ND	ND	ND
MW-8										
57.71	02/16/90	35.10	22.61	0.00	1,900	11	ND	52	55	--
	05/01/90	--	--	--	770	6.5	ND	20	32	--
	07/19/90	35.41	22.30	0.00	--	--	--	--	--	--
	08/24/90	36.00	21.71	0.00	990	13	ND	48	66	--
	11/30/90	37.08	20.63	0.00	570	13	ND	45	36	--
	02/06/91	36.92	20.79	0.00	630	9.6	ND	35	36	--
	05/06/91	33.03	24.68	0.00	14,000	80	ND	250	550	--
	09/27/91	36.55	21.16	0.00	720	13	4.3	26	26	--
	12/27/91	37.34	20.37	0.00	1,600	15	2.9	40	49	--
	03/31/92	31.93 ⁶	25.78	0.00	15,000	120	1.0	430	530	--
	06/18/92	INACCESSIBLE	--	--	--	--	--	--	--	--
	10/16/92	35.58	22.13	0.00	300	0.96	ND	4.0	3.5	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	11/18/92	35.94	21.77	0.00	1,100	6.1	ND	13	5.6	--
(cont)	03/03/93	26.00	31.71	0.00	13,000	33	ND	160	290	--
	06/25/93	28.27	29.44	0.00	8,100	160	ND	580	740	--
	09/03/93	30.90	26.81	0.00	9,800	180	ND	580	700	--
	12/13/93	32.75	24.96	0.00	6,900	180	ND	240	550	--
	03/18/94	30.12	27.59	0.00	6,100	85	ND	260	260	--
	06/23/94	31.40	26.31	0.00	12,000	210	ND	610	860	--
	09/21/94	33.30	24.41	0.00	6,900	190	ND	460	510	--
	12/19/94	30.95	26.76	0.00	6,200	91	ND	230	210	--
	03/27/95 ²	22.78	34.93	0.00	9,200	240	ND	200	1,400	--
	06/26/95	24.83	32.88	0.00	11,000	320	ND	680	2,000	--
	07/28/95	27.10	30.61	0.00	--	--	--	--	--	--
	09/28/95	29.58	28.13	0.00	10,000	250	ND	760	910	-- ³
	10/24/95	30.40	27.31	0.00	--	--	--	--	--	-- ⁴
	12/29/95	30.25	27.46	0.00	7,500	260	ND	580	870	-- ⁴
	03/27/96	22.20	35.51	0.00	970	29	0.77	82	85	ND
	09/21/96	29.34	28.37	0.00	3,800	27	ND	46	45	ND
	03/31/97	24.35	33.36	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	31.15	26.56	0.00	78	0.90	ND	12	ND	ND
	03/20/98	16.84	40.87	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	26.14	31.57	0.00	910	ND	49	12	2.2	1.5
	03/11/99	23.48	34.23	0.00	4,700	9.6	ND ⁵	280	95	ND ⁵
	09/08/99	28.60	29.11	0.00	1,900 ⁷	ND ⁵	ND ⁵	36	ND ⁵	ND ⁵
	03/24/00	21.49	36.22	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	28.09	29.62	0.00	533 ⁹	2.23	ND	6.27	0.684	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-9										
56.47	12/19/94	29.71	26.76	0.00	ND	ND	1.6	1.5	8.4	--
	03/27/95	21.48	34.99	0.00	ND	ND	0.61	ND	2.8	--
	06/26/95	24.50	31.97	0.00	ND	ND	ND	ND	3.9	--
	07/28/95	25.77	30.70	0.00	--	--	--	--	--	--
	09/28/95	28.23	28.24	0.00	ND	ND	ND	ND	ND	--
	10/24/95	29.21	27.26	0.00	--	--	--	--	--	--
	12/29/95	29.02	27.45	0.00	ND	ND	0.58	ND	0.52	--
	03/27/96	20.91	35.56	0.00	ND	ND	0.68	ND	0.51	ND
	09/21/96	28.05	28.42	0.00	ND	ND	ND	ND	ND	ND
	03/31/97	23.48	32.99	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	30.38	26.09	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	15.60	40.87	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	24.85	31.62	0.00	ND	0.69	ND	ND	0.61	ND
	03/11/99	22.23	34.24	0.00	ND	ND	ND	ND	0.76	ND
	09/08/99	27.34	29.13	0.00	ND	ND	ND	ND	ND	ND
	03/24/00	20.27	36.20	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	26.84	29.63	0.00	ND	ND	ND	ND	ND	ND
MW-10										
58.94	07/28/95	25.53	33.41	0.00	ND	ND	ND	ND	ND	--
	09/28/95	--	--	--	--	--	--	--	--	--
	10/24/95	31.76	27.18	0.00	ND	ND	ND	ND	ND	--
	12/29/95	31.55	27.39	0.00	ND	ND	0.65	ND	1.1	--
	03/27/96	23.62	35.32	0.00	ND	ND	0.68	ND	0.69	ND
	09/21/96	30.77	28.17	0.00	ND	ND	ND	ND	ND	ND
	03/31/97	26.05	32.89	0.00	ND	ND	ND	ND	ND	ND
	09/27/97	32.80	26.14	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	18.13	40.81	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	27.54	31.40	0.00	ND	ND	0.55	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-10	03/11/99	24.85	34.09	0.00	ND	ND	0.61	ND	0.87	ND
(cont)	09/08/99	29.97	28.97	0.00	ND	ND	ND	ND	ND	ND
	03/24/00	22.90	36.04	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	29.48	29.46	0.00	ND	ND	ND	ND	ND	ND
Trip Blank										
TB-LB	03/20/98	--	--	--	ND	ND	ND	ND	ND	ND
	09/09/98	--	--	--	ND	ND	ND	ND	ND	ND
	03/11/99	--	--	--	ND	ND	ND	ND	ND	ND
	09/08/99	--	--	--	ND	ND	ND	ND	ND	ND
	03/24/00	--	--	--	ND	ND	ND	ND	ND	ND
	09/15/00	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 20, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

msl = Mean sea level

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

ppb = Parts per billion

ppm = Parts per million

ND = Not Detected

-- = Not Measured/Not Analyzed

* TOC elevations have been surveyed relative to mean sea level (msl).

** Groundwater elevation was not corrected due to the presence of free product.

¹ Chromatogram contains early eluting peak.

² On March 27, 1995, total dissolved solid concentrations were as follows: MW-2 at 410 ppm; MW-3 at 450 ppm; MW-8 at 490 ppm.

³ Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.

⁴ Laboratory has identified the presence of MTBE at a level above or equal to the taste odor threshold of 40 ppb in the groundwater sample from this well.

⁵ Detection limit raised. Refer to analytical reports.

⁶ Data suspect; not used in water-elevation determination.

⁷ Laboratory report indicates gasoline C6-C12.

⁸ MTBE by EPA method 8260.

⁹ Laboratory report indicates weathered gasoline C6-C12.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	09/15/00	<1,000	<100	12.6	<2.00	<2.00	<2.00	<2.00	<2.00

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether
 ppb = Parts per billion
 -- = Not Analyzed
 ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 3
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #5367
 500 Bancroft Avenue
 San Leandro, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-1	03/27/95 ¹	--	1.5
	06/26/95	--	1.60
	09/28/95	--	1.22
	12/29/95	--	1.74
	03/27/96	1.48	1.02
	09/21/96	--	1.01
	03/31/97	1.47	1.49
MW-2	03/27/95 ¹	--	1.7
	06/26/95	--	4.55
	09/28/95	--	3.00
	12/29/95	--	8.71
	03/27/96	--	--
	09/21/96	--	--
	03/31/97	2.18	2.12
MW-3	03/27/95 ¹	--	0.90
	06/26/95	--	1.55
	09/28/95	--	1.63
	12/29/95	--	6.97
	03/27/96	--	--
	09/21/96	--	--
	03/31/97	1.95	2.06
MW-4	03/27/95 ¹	--	4.90
	06/26/95	--	--
	09/28/95	--	6.29
	12/29/95	--	--
	03/27/96	4.32	3.91
	09/21/96	--	2.82
	03/31/97	2.66	2.63
MW-5	03/27/95 ¹	--	5.20
	06/26/95	--	--
	09/28/95	--	1.96
	12/29/95	--	--
	03/27/96	4.03	4.71
	09/21/96	--	4.12
	03/31/97	2.98	3.11
MW-6	03/27/95 ¹	--	7.4
	06/26/95	--	--
	09/28/95	--	4.19
	12/29/95	--	--
	03/27/96	5.94	4.96
	09/21/96	--	3.74
	03/31/97	3.21	3.11

Table 3
Dissolved Oxygen Concentrations
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-7	03/27/95 ¹	--	8.4
	06/26/95	--	--
	09/28/95	--	2.04
	12/29/95	--	--
	03/27/96	6.63	5.23
	09/21/96	--	1.19
	03/31/97	2.29	2.16
MW-8	03/27/95 ¹	--	2.2
	06/26/95	--	3.86
	09/28/95	--	1.85
	12/29/95	--	2.03
	03/27/96	11.73	9.76
	09/21/96	--	2.16
	03/31/97	2.81	2.91
	09/27/97	3.11	--
03/20/98	--	2.65	
MW-9	03/27/95 ¹	--	7.8
	06/26/95	--	4.61
	09/28/95	--	5.76
	12/29/95	--	5.32
	03/27/96	5.62	5.23
	09/21/96	--	4.13
	03/31/97	3.36	3.27
MW-10	12/29/95	--	5.11
	03/27/96	4.38	4.57
	09/21/96	--	5.38
	03/31/97	4.48	4.83

EXPLANATIONS:

Dissolved oxygen concentrations prior to March 20, 1998, were compiled from reports prepared by MPDS Services, Inc.

mg/L = milligrams per liter

-- = Not Measured

¹ The measurements were taken at Sequoia Analytical Laboratory.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID Well Condition: ok
 Well Diameter 2 in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
 Total Depth 35.14 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 28.19 ft. Factor (VF) 6" = 1.50 12" = 5.80

6.95 X VF 0.17 = 1.18 X 3 (case volume) = Estimated Purge Volume: 4.0 (gal.)

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: _____
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: _____

Starting Time: 2:55 Weather Conditions: clear
 Sampling Time: 3:10 Water Color: clear
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>2:56</u>	<u>1</u>	<u>7.13</u>	<u>730</u>	<u>70.3</u>			
<u>2:58</u>	<u>2.5</u>	<u>7.02</u>	<u>722</u>	<u>69.8</u>			
<u>3:00</u>	<u>4</u>	<u>6.96</u>	<u>718</u>	<u>69.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btax/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-2 Well Condition: OK
 Well Diameter 4 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 46.91 ft.
 Depth to Water 28.02 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

18.89 x VF 0.66 = 12.46 x 3 (case volume) = Estimated Purge Volume: 37.5 (gal.)

Purge Equipment: Disposable Bailer Stack Suction Grundfos Other: _____
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: _____

Starting Time: 12:45 Weather Conditions: clear
 Sampling Time: 1:15 Water Color: clear Odor: no
 Purging Flow Rate: 2 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:51</u>	<u>12.5</u>	<u>7.62</u>	<u>583</u>	<u>68.8</u>			
<u>12:57</u>	<u>25</u>	<u>7.47</u>	<u>579</u>	<u>68.5</u>			
<u>1:04</u>	<u>37.5</u>	<u>7.44</u>	<u>574</u>	<u>68.5</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-3 Well Condition: OK
 Well Diameter 4 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 4820 ft.
 Depth to Water 27.68 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

20.52 x VF 0.66 = 13.54 x 3 (case volume) = Estimated Purge Volume: 41.0 gal.

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: _____
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: _____

Starting Time: 2:10 Weather Conditions: clear
 Sampling Time: 2:42 Water Color: clear odor: yes
 Purging Flow Rate: 2 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>2:17</u>	<u>13.5</u>	<u>7.28</u>	<u>685</u>	<u>69.8</u>			
<u>2:23</u>	<u>27</u>	<u>7.14</u>	<u>673</u>	<u>69.5</u>			
<u>2:30</u>	<u>41</u>	<u>7.09</u>	<u>670</u>	<u>69.3</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>5 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u> <u>(6)oxy's + 1,2,4-CAT + CB (8260)</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-4 Well Condition: OK
 Well Diameter 4 in. Hydrocarbon Thickness: Φ (feet) Amount Bailed (Gallons) Φ
 Total Depth 48.52 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 28.63 ft. Factor (VF) 6" = 1.50 12" = 5.80

19.89 x VF 0.66 = 13.12 x 3 (case volume) = Estimated Purge Volume: 39.5 (gal.)

Purge Equipment: Disposable Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 9:50 Weather Conditions: clear
 Sampling Time: 10:22 Water Color: clear Odor: no
 Purging Flow Rate: 2 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:57</u>	<u>13</u>	<u>7.78</u>	<u>537</u>	<u>67.2</u>			
<u>10:03</u>	<u>26</u>	<u>7.54</u>	<u>525</u>	<u>66.7</u>			
<u>10:10</u>	<u>39.5</u>	<u>7.51</u>	<u>521</u>	<u>66.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-5 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 44.38 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 28.64 ft. Factor (VF) 6" = 1.50 12" = 5.80

15.74 x VF 0.17 2.67 x 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
~~Stack~~
 Suction
 Grundfos
 Other: _____
 Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 9:16 Weather Conditions: overcast
 Sampling Time: 9:35 Water Color: clear Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:19</u>	<u>7</u>	<u>7.78</u>	<u>602</u>	<u>67.5</u>			
<u>9:22</u>	<u>6</u>	<u>7.60</u>	<u>598</u>	<u>67.2</u>			
<u>9:25</u>	<u>8.5</u>	<u>7.54</u>	<u>590</u>	<u>67.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vortex

Well ID MW-6 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth 44.62 ft.
 Depth to Water 27.51 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

17.11 x VF 0.17 = 2.90 x 3 (case volume) = Estimated Purge Volume: 9.0 (gal.)

Purge Equipment: Disposable Bailer Stack Suction Grundfos Other: _____
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: _____

Starting Time: 11:20 Weather Conditions: clear
 Sampling Time: 11:40 Water Color: clear Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:23</u>	<u>3</u>	<u>7.63</u>	<u>473</u>	<u>68.3</u>			
<u>11:26</u>	<u>6</u>	<u>7.52</u>	<u>460</u>	<u>68.2</u>			
<u>11:29</u>	<u>9</u>	<u>7.47</u>	<u>463</u>	<u>68.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancraft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vaults

Well ID MW-7 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: Ø Amount Bailed (product/water): Ø (Gallons)
 Total Depth 43.96 ft. Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 27.83 ft. 6" = 1.50 12" = 5.80

16.13 x VF 0.17 = 2.74 x 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

Purge Equipment: Disposable Bailer Stack Sampling Equipment: Disposable Bailer
 Bailer Pressure Bailer
 Suction Grab Sample
 Grundfos Other: _____
 Other: _____

Starting Time: 12:01 Weather Conditions: clear
 Sampling Time: 12:23 Water Color: clear Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:04</u>	<u>3</u>	<u>7.61</u>	<u>553</u>	<u>69.1</u>			
<u>12:07</u>	<u>6</u>	<u>7.46</u>	<u>547</u>	<u>68.7</u>			
<u>12:10</u>	<u>8.5</u>	<u>7.42</u>	<u>544</u>	<u>68.5</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-8 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Amount Bailed
 Thickness: ∅ (feet) (product/water): ∅ (Gallons)
 Total Depth 43.88 ft.
 Depth to Water 28.09 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

15.79 x VF 0.17 = 2.68 x 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

Purge Equipment: Disposable Bailer
~~Stack~~
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1:32 Weather Conditions: clear
 Sampling Time: 1:50 Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:35</u>	<u>3</u>	<u>7.33</u>	<u>773</u>	<u>69.6</u>			
<u>1:38</u>	<u>6</u>	<u>7.21</u>	<u>715</u>	<u>69.2</u>			
<u>1:41</u>	<u>8.5</u>	<u>7.20</u>	<u>710</u>	<u>69.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-9 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Amount Bailed
 Thickness: Ø (feet) (product/water): Ø (Gallons)
 Total Depth 44.63 ft.
 Depth to Water 26.84 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

17.79 x VF 0.17 = 3.02 x 3 (case volume) = Estimated Purge Volume: 9.5 (gal.)

Purge Equipment: Disposable Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 10:40 Weather Conditions: clear
 Sampling Time: 11:00 Water Color: clear Odor: NO
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:43</u>	<u>3</u>	<u>7.70</u>	<u>513</u>	<u>67.9</u>			
<u>10:46</u>	<u>6</u>	<u>7.53</u>	<u>501</u>	<u>67.5</u>			
<u>10:50</u>	<u>9.5</u>	<u>7.50</u>	<u>496</u>	<u>67.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Tosco
 Facility# 5367 Job#: 180108
 Address: 500 Bancroft Ave. Date: 9/15/00
 City: San Leandro Sampler: Vattley

Well ID MW-10 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
 Total Depth 42.65 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 29.48 ft. Factor (VF) 6" = 1.50 12" = 5.80

13.17 x VF 0.17 = 2.23 x 3 (case volume) = Estimated Purge Volume: 7.0 (gal.)

Purge Equipment: Disposable Bailer Stack Sampling Equipment: Disposable Bailer
 Bailer
 Suction
 Grundfos
 Other: _____
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 8:40 Weather Conditions: overcast
 Sampling Time: 8:58 Water Color: dia Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>8:42</u>	<u>2</u>	<u>7.85</u>	<u>693</u>	<u>66.8</u>			
<u>8:45</u>	<u>4.5</u>	<u>7.69</u>	<u>705</u>	<u>67.2</u>			
<u>8:47</u>	<u>7</u>	<u>7.60</u>	<u>710</u>	<u>67.3</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3 YVOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btax/mtbe</u>

COMMENTS: _____



Sequoia Analytical

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October 2, 2000

Deanna Harding
Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

RE: Tosco(4)/L009120

Dear Deanna Harding

Enclosed are the results of analyses for sample(s) received by the laboratory on September 15, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager

CA ELAP Certificate Number I2360





Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

Project: Tosco(4)
Project Number: Unocal SS#5367
Project Manager: Deanna Harding

Sampled: 9/15/00
Received: 9/15/00
Reported: 10/2/00

ANALYTICAL REPORT FOR L009120

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L009120-01	Water	9/15/00
MW-1	L009120-02	Water	9/15/00
MW-2	L009120-03	Water	9/15/00
MW-3	L009120-04	Water	9/15/00
MW-4	L009120-05	Water	9/15/00
MW-5	L009120-06	Water	9/15/00
MW-6	L009120-07	Water	9/15/00
MW-7	L009120-08	Water	9/15/00
MW-8	L009120-09	Water	9/15/00
MW-9	L009120-10	Water	9/15/00
MW-10	L009120-11	Water	9/15/00



Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
TB-LB				L009120-01			Water	
Purgeable Hydrocarbons as Gasoline	0090129	9/27/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		94.5	%	
MW-1				L009120-02			Water	
Purgeable Hydrocarbons as Gasoline	0090129	9/27/00	9/28/00		10000	45800	ug/l	1
Benzene	"	"	"		100	ND	"	
Toluene	"	"	"		100	ND	"	
Ethylbenzene	"	"	"		100	3150	"	
Xylenes (total)	"	"	"		100	10500	"	
Methyl tert-butyl ether	"	"	"		1000	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		96.4	%	
MW-2				L009120-03			Water	
Purgeable Hydrocarbons as Gasoline	0090129	9/27/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		98.9	%	
MW-3				L009120-04			Water	
Purgeable Hydrocarbons as Gasoline	0090129	9/27/00	9/28/00		500	1540	ug/l	1
Benzene	"	"	"		5.00	ND	"	
Toluene	"	"	"		5.00	ND	"	
Ethylbenzene	"	"	"		5.00	56.4	"	
Xylenes (total)	"	"	"		5.00	ND	"	
Methyl tert-butyl ether	"	"	"		50.0	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		88.2	%	
MW-4				L009120-05			Water	
Purgeable Hydrocarbons as Gasoline	0090137	9/28/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.36	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	1.46	"	





Gettler-Ryan/Geostrategies(1)	Project: Tosco(4)	Sampled: 9/15/00
6747 Sierra Court, Suite J	Project Number: Unocal SS#5367	Received: 9/15/00
Dublin, CA 94568	Project Manager: Deanna Harding	Reported: 10/2/00

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - San Carlos

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4 (continued)								
				L009120-05			Water	
Methyl tert-butyl ether	0090137	9/28/00	9/28/00		5.00	ND	ug/l	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		119	%	
MW-5								
				L009120-06			Water	
Purgeable Hydrocarbons as Gasoline	0090137	9/28/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		108	%	
MW-6								
				L009120-07			Water	
Purgeable Hydrocarbons as Gasoline	0090137	9/28/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		116	%	
MW-7								
				L009120-08			Water	
Purgeable Hydrocarbons as Gasoline	0090137	9/28/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		111	%	
MW-8								
				L009120-09			Water	
Purgeable Hydrocarbons as Gasoline	0090138	9/28/00	9/28/00		50.0	533	ug/l	1
Benzene	"	"	"		0.500	2.23	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	6.27	"	
Xylenes (total)	"	"	"		0.500	0.684	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		168	%	2
MW-9								
				L009120-10			Water	
Purgeable Hydrocarbons as Gasoline	0090137	9/28/00	9/28/00		50.0	ND	ug/l	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-9 (continued)			L009120-10				Water	
Benzene	0090137	9/28/00	9/28/00		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		108	%	
MW-10			L009120-11				Water	
Purgeable Hydrocarbons as Gasoline	0090137	9/28/00	9/28/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	"	"	"	70.0-130		98.4	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4)	Sampled: 9/15/00
	Project Number: Unocal SS#5367	Received: 9/15/00
	Project Manager: Deanna Harding	Reported: 10/2/00

**Volatile Organic Oxygenated Compounds by EPA Method 8260B
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-3</u>				<u>L009120-04</u>				<u>Water</u>
Ethanol	0090109	9/22/00	9/23/00		1000	ND	ug/l	
1,2-Dibromoethane	"	"	"		2.00	ND	"	
1,2-Dichloroethane	"	"	"		2.00	ND	"	
Di-isopropyl ether	"	"	"		2.00	ND	"	
Ethyl tert-butyl ether	"	"	"		2.00	ND	"	
Methyl tert-butyl ether	"	"	"		2.00	12.6	"	
Tert-amyl methyl ether	"	"	"		2.00	ND	"	
Tert-butyl alcohol	"	"	"		100	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		114	%	
Surrogate: Toluene-d8	"	"	"	88.0-110		103	"	





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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS EUFF/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0090129		Date Prepared: 9/27/00			Extraction Method: EPA 5030B [P/T]					
Blank	0090129-BLK2									
Purgeable Hydrocarbons as Gasoline	9/27/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.43	"	70.0-130	94.3			
LCS		0090129-BS1								
Benzene	9/27/00	10.0		10.6	ug/l	70.0-130	106			
Toluene	"	10.0		9.70	"	70.0-130	97.0			
Ethylbenzene	"	10.0		9.72	"	70.0-130	97.2			
Xylenes (total)	"	30.0		29.8	"	70.0-130	99.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.6	"	70.0-130	116			
LCS		0090129-BS2								
Purgeable Hydrocarbons as Gasoline	9/27/00	250		224	ug/l	70.0-130	89.6			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.81	"	70.0-130	98.1			
Matrix Spike		0090129-MS1		L009120-03						
Purgeable Hydrocarbons as Gasoline	9/27/00	250	ND	231	ug/l	60.0-140	92.4			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.10	"	70.0-130	91.0			
Matrix Spike Dup		0090129-MSD1		L009120-03						
Purgeable Hydrocarbons as Gasoline	9/27/00	250	ND	238	ug/l	60.0-140	95.2	25.0	2.99	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.09	"	70.0-130	90.9			
Batch: 0090137		Date Prepared: 9/28/00			Extraction Method: EPA 5030B [P/T]					
Blank	0090137-BLK1									
Purgeable Hydrocarbons as Gasoline	9/28/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.8	"	70.0-130	108			
LCS		0090137-BS1								
Benzene	9/28/00	10.0		10.5	ug/l	70.0-130	105			
Toluene	"	10.0		9.83	"	70.0-130	98.3			





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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4)	Sampled: 9/15/00
	Project Number: Unocal SS#5367	Received: 9/15/00
	Project Manager: Deanna Harding	Reported: 10/2/00

Total Purgeable Hydrocarbons (C6-C12) - BTX and MTBE by DHS/EUFI/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)										
	0090137-BS1									
Ethylbenzene	9/28/00	10.0		9.96	ug/l	70.0-130	99.6			
Xylenes (total)	"	30.0		30.3	"	70.0-130	101			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.70	"	70.0-130	97.0			
LCS										
	0090137-BS2									
Purgeable Hydrocarbons as Gasoline	9/28/00	250		225	ug/l	70.0-130	90.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.3	"	70.0-130	113			
Matrix Spike										
	0090137-MS1		L009120-06							
Benzene	9/28/00	10.0	ND	11.5	ug/l	60.0-140	115			
Toluene	"	10.0	ND	10.7	"	60.0-140	107			
Ethylbenzene	"	10.0	ND	10.9	"	60.0-140	109			
Xylenes (total)	"	30.0	ND	33.2	"	60.0-140	111			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.38	"	70.0-130	83.8			
Matrix Spike Dup										
	0090137-MSD1		L009120-06							
Benzene	9/29/00	10.0	ND	11.2	ug/l	60.0-140	112	25.0	2.64	
Toluene	"	10.0	ND	10.5	"	60.0-140	105	25.0	1.89	
Ethylbenzene	"	10.0	ND	10.7	"	60.0-140	107	25.0	1.85	
Xylenes (total)	"	30.0	ND	32.6	"	60.0-140	109	25.0	1.82	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.83	"	70.0-130	98.3			
Batch: 0090138										
	Date Prepared: 9/28/00									
	Blank									
Purgeable Hydrocarbons as Gasoline	9/28/00			ND	ug/l		50.0			
Benzene	"			ND	"		0.500			
Toluene	"			ND	"		0.500			
Ethylbenzene	"			ND	"		0.500			
Xylenes (total)	"			ND	"		0.500			
Methyl tert-butyl ether	"			ND	"		5.00			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		12.3	"	70.0-130	123			
LCS										
	0090138-BS1									
Benzene	9/28/00	10.0		11.0	ug/l	70.0-130	110			
Toluene	"	10.0		10.5	"	70.0-130	105			
Ethylbenzene	"	10.0		10.2	"	70.0-130	102			
Xylenes (total)	"	30.0		30.9	"	70.0-130	103			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		12.7	"	70.0-130	127			
LCS										
	0090138-BS2									
Purgeable Hydrocarbons as Gasoline	9/28/00	250		216	ug/l	70.0-130	86.4			

*Refer to end of report for text of notes and definitions.



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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUF/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)										
0090138-BS2										
Surrogate: a,a,a-Trifluorotoluene	9/28/00	10.0		12.8	ug/l	70.0-130	128			
Matrix Spike										
0090138-MS1 L009122-02										
Benzene	9/28/00	10.0	ND	10.6	ug/l	60.0-140	106			
Toluene	"	10.0	ND	10.1	"	60.0-140	101			
Ethylbenzene	"	10.0	ND	9.88	"	60.0-140	98.8			
Xylenes (total)	"	30.0	ND	29.4	"	60.0-140	98.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.78	"	70.0-130	97.8			
Matrix Spike Dup										
0090138-MSD1 L009122-02										
Benzene	9/28/00	10.0	ND	9.53	ug/l	60.0-140	95.3	25.0	10.6	
Toluene	"	10.0	ND	9.21	"	60.0-140	92.1	25.0	9.22	
Ethylbenzene	"	10.0	ND	8.84	"	60.0-140	88.4	25.0	11.1	
Xylenes (total)	"	30.0	ND	26.7	"	60.0-140	89.0	25.0	9.63	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.37	"	70.0-130	83.7			





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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0090109		Date Prepared: 9/22/00		Extraction Method: EPA 5030B [P/T]						
Blank		0090109-BLK1								
Ethanol	9/22/00			ND	ug/l	1000				
1,2-Dibromoethane	"			ND	"	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Methyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Tert-butyl alcohol	"			ND	"	100				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		56.9	"	76.0-114	114			
Surrogate: Toluene-d8	"	50.0		50.3	"	88.0-110	101			
Blank		0090109-BLK2								
Ethanol	9/25/00			ND	ug/l	1000				
1,2-Dibromoethane	"			ND	"	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Methyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Tert-butyl alcohol	"			ND	"	100				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		52.7	"	76.0-114	105			
Surrogate: Toluene-d8	"	50.0		48.3	"	88.0-110	96.6			
LCS		0090109-BS1								
Methyl tert-butyl ether	9/22/00	50.0		46.3	ug/l	70.0-130	92.6			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		52.7	"	76.0-114	105			
Surrogate: Toluene-d8	"	50.0		45.3	"	88.0-110	90.6			
LCS		0090109-BS2								
Methyl tert-butyl ether	9/25/00	50.0		50.3	ug/l	70.0-130	101			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		53.3	"	76.0-114	107			
Surrogate: Toluene-d8	"	50.0		50.9	"	88.0-110	102			
Matrix Spike		0090109-MS1		L009153-02						
Methyl tert-butyl ether	9/25/00	50.0	ND	56.4	ug/l	60.0-140	113			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.0	"	76.0-114	102			
Surrogate: Toluene-d8	"	50.0		51.5	"	88.0-110	103			
Matrix Spike Dup		0090109-MSD1		L009153-02						
Methyl tert-butyl ether	9/25/00	50.0	ND	44.1	ug/l	60.0-140	88.2	25.0	24.7	

*Refer to end of report for text of notes and definitions.



Sequoia Analytical

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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control
 Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup (continued)										
	0090109-MSD1	L009153-02								
Surrogate: 1,2-Dichloroethane-d4	9/25/00	50.0	44.1	44.1	ug/l	76.0-114	88.2			
Surrogate: Toluene-d8	"	50.0	51.1	51.1	"	88.0-110	102			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS#5367 Project Manager: Deanna Harding	Sampled: 9/15/00 Received: 9/15/00 Reported: 10/2/00
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Notes and Definitions

#	Note
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- 1 Chromatogram Pattern: Weathered Gasoline C6-C12
- 2 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

