TT Corporation 1921 Ringwood Avenue San Jose, CA 95131-1721 Tel. 408.453.7300

Fax. 408.437.9526

A Member of The IT Croup



July 18, 2001 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
Second Quarter 2001

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:

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) 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 Second Quarter 2001

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 to March 1996 to March 1997, removing an estimated 108 pounds of gasoline hydrocarbons.

RECENT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities performed in March 2001 were reported in April 2001.

NEXT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities will be performed in September 2001.

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.

TRANSMITTAL MAY 18 2001 CC:

April 30, 2001 G-R #: 180108

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400 San Ramon, California 94583

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	April 19, 2001	Groundwater Monitoring and Sampling Report First Semi-Annual - Event of March 16, 2001

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 May 14, 2001, this report will be distributed to the following:

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

Enclosure

trans/5367dbd.qmt

April 19, 2001 G-R Job #180108

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

First Semi-Annual Event of March 16, 2001 RE:

> Groundwater Monitoring & Sampling Report Tosco (Unocal) Service Station #5367

500 Bancroft Avenue San Leandro, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

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 Groundwater Analytical Results - Oxygenate Compounds

Table 2:

Dissolved Oxygen Concentrations

Table 3: Attachments:

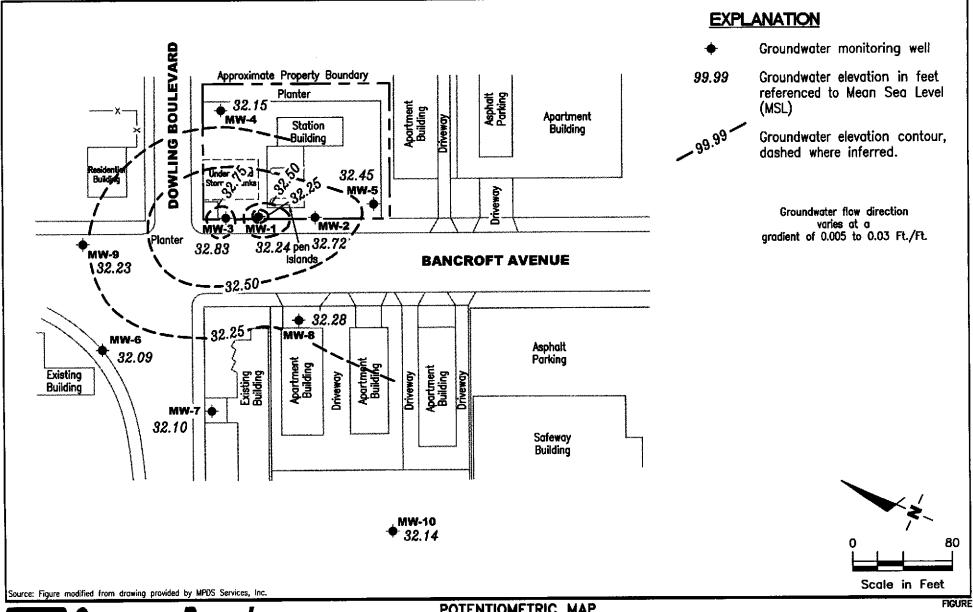
Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports

5367.qml







POTENTIOMETRIC MAP

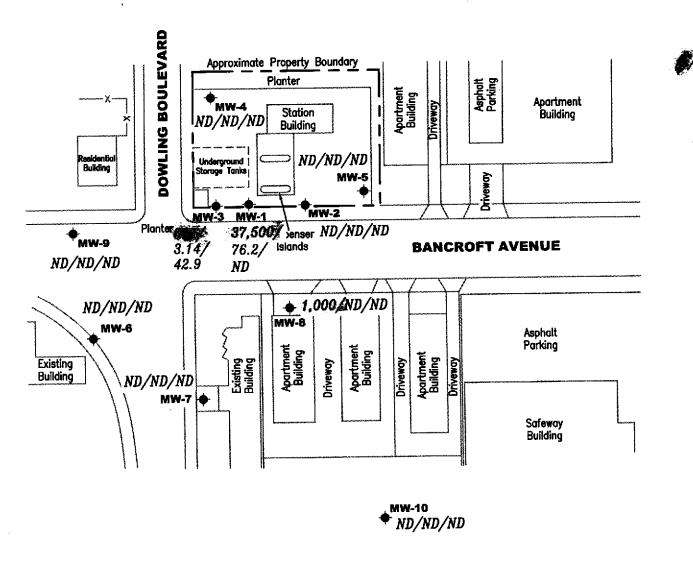
Tosco (Unocal) Service Station #5367 500 Bancroft Avenue San Leandro, California

PROJECT NUMBER 180108

REVIEWED BY

DATE March 16, 2001 REVISED DATE





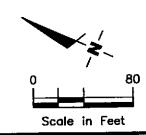
EXPLANATION

Groundwater monitoring well

/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/ Benzene/MTBE concentrations

in ppb

ND Not Detected



Source: Figure modified from drowing 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

REVISED DATE

PROJECT NUMBER REVIEWED BY 180108

March 16, 2001

FILE NAME: P:\Enviro\Tosco\5367\Q01-5367.dwg | Layout Tab: Con1

FIGURE 2

Table 1
Groundwater Monitoring Data and Analytical Results

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					san Leandro, Cam	Olliu				
WELL ID/ TOC*	DATE	DTW (fi.)	GWE (msl)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
amana pagagagagaga										
MW-1										
57.83	09/23/87	33.40	24.43**	0.02	NOT SAMPLED					
	09/24/87	33.24	24.59**	0.01	NOT SAMPLED					
	10/06/87	33.39	24.44**	0.01	NOT SAMPLED					
	11/05/87	34.14	23.69**	0.31	NOT SAMPLED					
	11/13/87	34.15	23.68**	0.38	NOT SAMPLED					
	11/19/87	33.89	23.94**	0.06	NOT SAMPLED					
	04/27/88	32.40	25.43**	0.01	NOT SAMPLED	DUE TO THE PR	RESENCE OF FRI	EE 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	
	05(41175				•					

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
- X						V 4		4 3		
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	45,800 ⁹	ND ⁵	ND^5	3,150	10,500	ND ⁵
	03/16/01	25.59	32.24	0.00	37,500	76.2	16.6	2,010	7,330	ND
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						

Table 1
Groundwater Monitoring Data and Analytical Results

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TO A TETE	ntw	CWF	i i fan it fan de fan de fan een een een een een de	TPH ₂ G	В	Т	E	X	MTBE
DATE	(P)		Mar Strategic Continues and Section Section 2	(*************************************	tan Katalan Marata Jawa Berata Barata Ba	\$40 00000000000000000000000000000000000	(ppb)	(ppb)	(ppb)
<u> </u>	Ų								
06/18/92	31.27	26.86	0.00	1,200	35	1.6	56	26	
				820	21	ND	42	25	
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	
	26.30	31.83	0.00	4,200	62	2.9	97	120	
	28.40	29.73	0.00	4,000	110	ND	320	280	
		27.03	0.00	1,400	31	4.3	99	53	
		25.10	0.00	260	7.7	0.83	17	23	
		27.79	0.00	250	6.4	0.64	28	24	
		26.50	0.00	420	3.9	0.66	23	11	
			0.00	ND	ND	ND	ND	ND	
			0.00	190	1.9	ND	15	6.8	`
			0.00	ND	ND	0.55	1.2	2.5	
			0.00	ND	ND	0.93	0.88	3.4	
			0.00						
			0.00	730	2.9	ND	41	2 9	
			0.00						
				860	4.3	1.0	27	50	
				NOT SAMPLED	(CONNECTED	TO REMEDIATIO	ON SYSTEM)		
			0.00	ND	ND	ND	ND	ND	ND
			0.00	ND	ND	ND	ND	ND	ND
				ND	ND	ND	ND	ND	ND
					ND	0.54	ND	0.57	ND
					ND	0.59	ND	1.1	ND
					ND	ND	ND	ND	ND
						ND	ND	ND	ND
						ND	ND	ND	ND
									ND
	06/18/92 09/30/92 10/16/92 11/18/92 03/03/93 06/25/93 09/03/93 12/13/93 03/18/94 06/23/94 09/21/94 12/19/94 03/27/95² 06/26/95 07/28/95 07/28/95 10/24/95 12/29/95 03/27/96 09/21/96 03/31/97 09/27/97 03/20/98 09/09/98 03/11/99 09/08/99 03/24/00 09/15/00 03/16/01	06/18/92 31.27 09/30/92 10/16/92 35.87 11/18/92 36.24 03/03/93 26.30 06/25/93 28.40 09/03/93 31.10 12/13/93 33.03 03/18/94 30.34 06/23/94 31.63 09/21/94 33.52 12/19/94 31.26 03/27/95² 23.02 06/26/95 25.98 07/28/95 27.26 09/28/95 29.77 10/24/95 30.56 12/29/95 30.25 03/27/96 22.30 09/21/96 29.47 03/31/97 24.20 09/27/97 31.07 03/20/98 16.73 09/09/98 26.03 03/11/99 23.46 09/08/99 28.53 03/24/00 21.45 09/15/00 28.02	(ft.) (msl) 06/18/92 31.27 26.86 09/30/92 10/16/92 35.87 22.26 11/18/92 36.24 21.89 03/03/93 26.30 31.83 06/25/93 28.40 29.73 09/03/93 31.10 27.03 12/13/93 33.03 25.10 03/18/94 30.34 27.79 06/23/94 31.63 26.50 09/21/94 33.52 24.61 12/19/94 31.26 26.87 03/27/95² 23.02 35.11 06/26/95 25.98 32.15 07/28/95 27.26 30.87 09/28/95 29.77 28.36 10/24/95 30.56 27.57 12/29/95 30.25 27.88 03/27/96 22.30 35.83 09/21/96 29.47 28.66 03/31/97 24.20 33.93 09/27/97 31.07 27.	O6/18/92 31.27 26.86 0.00 09/30/92 10/16/92 35.87 22.26 0.00 11/18/92 36.24 21.89 0.00 03/03/93 26.30 31.83 0.00 06/25/93 28.40 29.73 0.00 09/03/93 31.10 27.03 0.00 12/13/93 33.03 25.10 0.00 03/18/94 30.34 27.79 0.00 06/23/94 31.63 26.50 0.00 09/21/94 33.52 24.61 0.00 12/19/94 31.26 26.87 0.00 03/27/95² 23.02 35.11 0.00 06/26/95 25.98 32.15 0.00 07/28/95 27.26 30.87 0.00 09/28/95 29.77 28.36 0.00 03/27/96 22.30 35.83 0.00 03/27/96 22.30 35.83 0.00	DATE DTW (ft.) GWE (msl) Thickness (ft.) TPH-G (ppb) 06/18/92 31.27 26.86 0.00 1,200 09/30/92 820 10/16/92 35.87 22.26 0.00 11/18/92 36.24 21.89 0.00 65 03/03/93 26.30 31.83 0.00 4,200 06/25/93 28.40 29.73 0.00 4,000 09/03/93 31.10 27.03 0.00 1,400 12/13/93 33.03 25.10 0.00 260 03/18/94 30.34 27.79 0.00 250 06/23/94 31.63 26.50 0.00 420 09/21/94 33.52 24.61 0.00 ND 12/19/94 31.26 26.87 0.00 190 03/27/95² 23.02 35.11 0.00 ND 06/26/95 25.98 32.15 0.00 ND	DATE DTW GWE (nst) Thickness (ft.) TPH-G (ppb) B 06/18/92 31.27 26.86 0.00 1,200 35 09/30/92 820 21 10/16/92 35.87 22.26 0.00 11/18/92 36.24 21.89 0.00 65 1.2 03/03/93 26.30 31.83 0.00 4,200 62 06/25/93 28.40 29.73 0.00 4,000 110 09/03/93 31.10 27.03 0.00 1,400 31 12/13/93 33.03 25.10 0.00 260 7.7 03/18/94 30.34 27.79 0.00 250 6.4 06/23/94 31.63 26.50 0.00 MD ND 09/21/94 33.52 24.61 0.00 ND ND 03/27/95 ² 23.02 35.11 0.00 ND ND 06/	DATE DTW (fl.) GWE (misl) Thickness (fl.) TPH-G (ppb) B T. 06/18/92 31.27 26.86 0.00 1,200 35 1.6 09/30/92 820 21 ND 10/16/92 35.87 22.26 0.00 11/18/92 36.24 21.89 0.00 65 1.2 ND 03/03/93 26.30 31.83 0.00 4,200 62 2.9 06/25/93 28.40 29.73 0.00 4,000 110 ND 09/03/93 31.10 27.03 0.00 1,400 31 4.3 12/13/93 33.03 25.10 0.00 260 7.7 0.83 03/18/94 30.34 27.79 0.00 250 6.4 0.64 06/23/94 31.63 26.50 0.00 420 3.9 0.66 09/21/94 33.52 24.61	DATE DTW GWE Thickness TPH-G B T E	DATE DATE DATE CRUE Thickness TPI-C B T E X CRUE CRUE

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	GWE	Product Thickness	TPH-G	В	Т	E	X	МТВЕ
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-3							2.200	1.520	0.720	
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	24,0001	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	22.78 25.78	32.14	0.00	14,000	300	ND	1,300	3,900	
				0.00				1,500		
	07/28/95	27.06	30.86					4,000	8,800	3
	09/28/95	29:57	28.35	0.00	17,000	730	30	4,000		
	10/24/95	30.34	27.58	0.00				4 000		 4
	12/29/95	29.91	28.01	0.00	55,000	700	ND	4,900	16,000	

Table 1
Groundwater Monitoring Data and Analytical Results

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	03/27/96	21.99	35.93	0.00	NOT SAMPLED	(CONNECTED	TO REMEDIATIO	ON SYSTEM)		
(cont)	09/21/96	29.15	28.77	0.00	34,000	140	ND	2,200	6,600	1,800
(cont)	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/12.68
	03/16/01	25.09	32.83	0.00	678	3.14	1.00	16.4	14.6	42,9
MW-4										
58.29	10/03/88	36.12	22.17	0.00	ND	ND	ND	ND	ND	
36.27	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					,	

Table 1
Groundwater Monitoring Data and Analytical Results

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	09/03/93	31.05	27.24	0.00	86	14	13	1.4	7.1	
(cont)	12/13/93	33.09	25.20	0.00	SAMPLED SEMI					
(com)	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
	03/16/01	26.14	32.15	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ TOC*	DATE	DTW (ft.)	GWE	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
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						
-	09/27/91	37.23	21.27	0.00	ND	ND	ND	ND	ND	
	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 SEM	II-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	NĎ
	03/31/97	24.80	33.70	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	GWE	Product Thickness	TPH-G	В	T	E	X	мтве
LOC*		(ft.)	(msl)	(fi.)	(ppb)	(ppb)	(ррб)	(ppb)	(ppb)	(ppb)
ANN E	00/27/07	21 65	26.85	0.00	ND	ND	ND	ND	ND	ND
MW-5	09/27/97	31.65	41.19	0.00	ND ND	ND ND	ND	ND	ND	ND
(cont)	03/20/98	17.31			ND ND	ND ND	ND	ND	ND	ND
	09/09/98	26.63	31.87	0.00		ND ND	0.96	ND	1.7	ND
	03/11/99	24.08	34.42	0.00	ND ND	ND ND	ND	ND	ND	ND
	09/08/99	29.16	29.34	0.00	ND ND	ND ND	ND ND	ND	0.957	ND
	03/24/00	22.06	36.44	0.00	ND ND	ND ND	ND ND	ND	ND	ND
	09/15/00	28.64	29.86	0.00	ND			ND ND	ND ND	ND
	03/16/01	26.05	32.45	0.00	ND	ND	ND	ND	ND	ND
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 SEM	I-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	

As of 03/16/01

Table 1
Groundwater Monitoring Data and Analytical Results

				Product						
WELL ID/	DATE	DTW	GWE	Thickness	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-6	12/19/94	30.32	26.64	0.00					2.2	
(cont)	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
	09/27/97	30.52	26.44	0.00	ND	ND	ND	ND	ND	ND
	03/20/98	16.35	40.61	0.00	ND	ND	ND	ND	ND	ND
	09/09/98	25.53	31.43	0.00	ND	ND	0.64	ND	0.65	3.3
	03/11/99	22.85	34.11	0.00	ND	ND	0.71	ND	1.4	ND
	09/08/99	28.01	28.95	0.00	ND	ND	ND	ND	ND	ND
	03/24/00	20.93	36.03	0.00	ND	ND	ND	ND	ND	ND
	09/15/00	27.51	29.45	0.00	ND	ND	ND	ND	ND	ND
	03/16/01	24.87	32.09	0.00	ND	ND	ND	ND	ND	ND
MW-7										
57.25	02/16/90	35.75	21.50	0.00	ND	ND	ND	ND	ND	
57.25	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	
	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	
	05/06/91	32.69	24.56	0.00	ND	ND	ND	ND	ND	
	09/27/91	36.18	21.07	0.00	ND	ND	ND	ND	ND	
		36.96	20.29	0.00	ND	ND	ND	ND	ND	
	12/27/91		26.69	0.00	ND	ND	ND	ND	0.9	
	03/31/92	30.56	20.09	0.00	ND	ND	ND	ND	0.7	

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	GWE	Product Thickness	TPH-G	В	T	E	X	мтве
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-7	06/18/92	32.52	24.73	0.00						T -
(cont)	10/16/92	35.24	22.01	0.00	ND	ND	ND	ND	ND	
(com)	11/18/92	35.59	21.66	0.00						
	03/03/93	25.66	31.59	0.00	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	
	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	
	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						
	03/27/95	22.43	34.82	0.00	ND	ND	0.54	ND	1.9	
	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
	03/16/01	25.15	32.10	0.00	ND	ND	ND	ND	ND	ND

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Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ TOC*	DATE	DTW <i>(ft.)</i>	GWE (msl)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8										
57.71	02/16/90	35.10	22.61	0.00	1,900	11	ND	52	55	
21.11	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	
	11/18/92	35.94	21.77	0.00	1,100	6.1	ND	13	5.6	
	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						
	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

Table 1
Groundwater Monitoring Data and Analytical Results

		D.T.	gavres.	Product	TIME		nia -	10	X	MTBE
WELL ID/	DATE	DTW	GWE	Thickness	TPH-G	B	T (ppb)	E (ppb)	A (ppb)	(ppb)
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(рро)	(PQV)	(рро)	(рро)
MW-8	09/27/97	31.15	26.56	0.00	78	0.90	ND	12	ND	ND
(cont)	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
	03/16/01	25.43	32.28	0.00	1,000	ND	ND	17.8	44.5	ND
MW-9	10/10/04	20.51	26.76	0.00	NITS.	ND	1.6	1 5	0.4	
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		 ND			ND.	
	09/28/95	28.23	28.24	0.00	ND	ND	ND	ND	ND	
	10/24/95	29.21	27.26	0.00		*** ****			0.50	~-
	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 ND
	09/27/97	30.38	26.09	0.00	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
	03/16/01	24.24	32.23	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

				Product						
WELL ID/	DATE	DTW	GWE	Thickness	TPH-G	В	T	E (pph)	X (ppb)	MTBE (ppb)
тос*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(upu)	(ұрға)	(μμο)
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
	03/11/99	24.85	34.09	0.00	ND	ND	0.61	ND	0.87	ND
	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
	03/16/01	26.80	32.14	0.00	ND	ND	ND	ND	ND	ND
Trip Blank					NIE	ND	NIYO	NID	ND	ND
TB-LB	03/20/98				ND	ND	ND	ND		ND ND
	09/09/98				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
	03/16/01				ND	ND	ND	ND	ND	ND

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

B = Benzene

(ppb) = Parts per billion

DTW = Depth to Water

T = Toluene

(ppm) = Parts per million

(ft.) = Feet

E = Ethylbenzene

ND = Not Detected

GWE = Groundwater Elevation

X = Xylenes

-- = Not Measured/Not Analyzed

(msl) = Mean sea level

MTBE = Methyl tertiary butyl ether

TPH-G = Total Petroleum Hydrocarbons as Gasoline

- * TOC elevations have been surveyed relative to msl.
- ** GWE was not corrected due to the presence of free product.
- Chromatogram contains early eluting peak.
- 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.
- 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.
- Data suspect; not used in water-elevation determination.
- Daboratory report indicates gasoline C6-C12.
- 8 MTBE by EPA Method 8260.
- ⁹ Laboratory report indicates weathered gasoline C6-C12.

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)	EDR (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

ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Dissolved Oxygen Concentrations

MW-1	03/27/95 ¹ 06/26/95 09/28/95 12/29/95	(mg/L) 	(mg/L) 1.5
MW-1	06/26/95 09/28/95 12/29/95		
	09/28/95 12/29/95		1.60
	12/29/95		1.60
			1.22
			1.74
	03/27/96	1.48	1.02
	09/21/96		1.01
	03/31/97	1.47	1.49
MW-2	03/27/951		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	03/27/951		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	03/27/951		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

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)
	<u>-</u>		
MW-6	03/27/951		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
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	v-	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
ings to the	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
U k- 77 E74	03/27/96	4.38	4.57
	09/21/96		5.38
	03/31/97	4.48	4.83

Dissolved Oxygen Concentrations

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

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
- 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.

ddress: <u>50</u>	co # 5367 O Bancost Leandnã,	Ave.	Date:	<u> 180108</u> <u> 3/16/0/</u> er: <u>VartKes</u>	
Well ID	44	Well	Condition: —	3K	
'ell Diameter			carbon cness:	Amount B	
otal Depth	<u>35.14 m</u> 25.59 m	Volu	xme 2" = 0.1 or (VF)	17 3" = 0.3 6" = 1.50	8 4" = 0.66 12" = 5.80
Purge Equipment:	P.55 x Disposable Bailer Bailer Stack Suction Grundfos Other:	vf 0.17	Sampling Equipment:		ler .
Starting Time: Sampling Time: Purging Flow Ra Did well de-wate		gpm.	Weather Condition Water Color: Sediment Descriptif yes; Time:	otion:	Octor Land
	Volume pH (gal.)	μπ	nhos/cm	perature D.O. (mg/L)	ORP Alkalinity (mV) (ppm)
2:17 2:19 2:11	1.3 7.10 37 6.93 5 6.8		250 6	9.8 9.5 9.3 —	
SAMPLE ID	(#) - CONTAINER	LABC REFRIG.	RATORY INFORM	ATION LABORATORY SEQUOIA	ANALYSES TPHG BTEX MTOE
MW- 1	3 × VDA VIAL	4	Her	JE GUOTA	THE STATE OF THE S
1		 			

Address: 500	0 # 5367 Bancost Leandra, C	Ave.		lob#: Date: Sampler	18016 31161 1: Vartt	01		
Well ID Well Diameter Total Depth Depth to Water		Hydro Thici Vole	Condition: ocarbon kness:	2° = 0.17	in (produ	unt Baik ect/water = 0.38): <u>P</u>	(gal.) == 0.66
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	_{rf} <u>0.66</u>	Sam	pling pment:	Disposa Bailer Pressure Grab Sather:	ble Baile Bailer		13, Olgali
Starting Time: Sampling Time: Purging Flow Rate Did well de-water	12:05 12:40 e: 2 er		Weather C Water Cold Sediment If yes; Ti	or: Descriptic	on:		Odor:_ <i>M</i>	_
Time V	Volume pH (gal.) 14 7.67 28 7.48		aductivity ahos/cm	Temper 68.	() 	D.O. mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE ID	(#) - CONTAINER	LABO REFRIG.	PRESERV	TYPE:			ANAI TPHG BTE	YSES x /MTOE
Mw-2	3 × VDA VIAL							
COMMENTS: _								

		FIEL	אואטט					
lient/ acility # <u>Tos</u> e	CO # 536	7		Job#:	<u> 1801</u>		•	
Address: 500	Banco	it Ave.		Date:			<u>_</u>	
City:	leandre	, <u>Ca.</u>		Sampler	: Kart	Kas		
Well ID	110.3	Wel	Condition	: _ ව	K_		_	
Well Diameter		n. Hyd Thio	rocarbon kness:	0.00		ount Baik duct/weter		(04)
Total Depth	48.20	E	dume ctor (VF)	2" = 0.17	6" = 1.50	" = 0.38 . 1	4" 12" = 5.80	- 0.66
Depth to Water	25.09	# <u> </u>						
	•	× vF 0.66			urne) = Estir	nated Purg	e Volume: _	46, 9 ₀₀₁
Purge Equipment:	Disposable Ba Bailer	iler		mpling vipment:	Dispos	able Baile	ep)	•
(Stack Suction				Pressu	re Bailer		÷
	Grundfos			Ot		ample		
	Other:		•					
Starting Time: Sampling Time: Purging Flow Rat	<u> /;30</u> <u> Z;00</u>		Water Co	Conditions: olor: t Description				
Did well de-water			If yes;	Time:		Volume	:	lost
Time	Volume pl	Η Co	nductivity mhos/cm	Tempera F		D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:37 _		<u> 35 _ </u>	704	<u>68.</u>				
		·20	690 683	68.				
1:52 -	<u> 46</u> 글	·17					 	•
								
			ORATORY	INFORMAT IV. TYPE:	TION LABORA	TORY	ANA	LYSES
SAMPLE ID	(#) - CONTAIN	- 4			SEQUE	PIA	TPHE BTE	X/MTOE
MW-3	3 x VDA VI	AL T	HC				٠	
	1							
						•		
COMMENTS:								

Client/ Facility # Tos Address: <u>50</u> City: <u>Sa</u>	O Bac	crift Av	٤	 !	Job#: Date: Sample	3/1	0108 16/01 rHen		
Well ID Well Diameter Total Depth Depth to Water	48. 26.	4 in. 52 tr. 14 tr.	Hydro Thick Volu Factor	or (VF)	0 <u>.00</u> 2" = 0.17	in. (or):	(gal.) = 0.66
Purge Equipment:	Disposa Bailer Stack Suction Grundfo Other:) DS			ipment:	Bail Pre:	ssure Baile b Sample		
Starting Time: Sampling Time: Purging Flow Ra Did well de-wat		10 2 gpm 10	•	Weather Col Water Col Sediment If yes; To	or: Descripti	ion:	<u>.</u>	Odor:	
5:47 8:55 9:02	Volume (gal.) 15 30 44.5	7.68 7.50 7.47	اممر <u>ک</u>	inctivity hos/cm	66. 66.	<u>5</u> .	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
SAMPLE ID	(#) - CI	ONTAINER	LABOI	RATORY II	NFORMÁ /. TYPE	TION LABO	RATORY		LYSES
Mw. 4		PA VIAL	4	НС		SEQ	u0]A	TPHG BTE	k /MTOE
COMMENTS:				<u>, , , , , , , , , , , , , , , , , , , </u>			,		

		FIELD DA	, Oliman			
Client/ Facility #_ <i>To &</i>	co # 5367		Job#:	180108 3/16/01		
Address: 50	O Bancost A	<u>/e</u>	Date:	3/16/01		<u>. </u>
City:	Leandra, C	<u>a,</u>	Sample	r: Vartker		
Well ID	_ MW_5	Well Condi	tion: $-\frac{\mathcal{E}}{2}$	ik		
Well Diameter		Hydrocarbo Thickness:		Amount in (product/v	Bailed water):	<u>(gal.)</u>
Total Depth	44.38 +	Volume Factor (VF	2" = 0.17	3" = 0 6" = 1.50	~	- 0.66
Depth to Water	26.05 4	12 3.	1-l × a /a	shume) = Estimated	l Purge Volume:	, 5 (gel)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	-	Sampling Equipment:	Disposable Bailer Pressure B Grab Samp	Baller ailer ole	
Starting Time: Sampling Time: Purging Flow Ra Did well de-wat	_	_ Wate	ther Condition or Color: ment Descript os; Time:	ion:	Odor: no	
Time	Volume pH (gal.)	Conductiv µmhos/cr	n T	(mg		Alkalinity (ppm)
9:27 9:30 9:33	3 6 7.57 9.5 7.58	57 579 57		-		
			ORY INFORMA	TION LABORATOR	Y ANA	LYSES
SAMPLE ID	(#) - CONTAINER	REFRIG. PI	Her	SEQUOIA		K MTOE
MW- 5	3 x VD4 VIAL					
		<u> </u>				
COMMENTS:						
	<u></u>					

Address: 500	8 ancrit A Leandri, C	ve.	Job#: Date: Sample	3/1	0108 16/01 14Kes		
Well ID _	HW-6	Well Co	ndition:	ok_			
Well Diameter .	2 in.	Hydroca Thickne		•	mount Baile product/water	~11	(gel.)
Total Depth .	24.87 m	Volume Factor (2" = 0.1		3° = 0.38 0	12" = 5.80	→ 0.66
Depth to Water		0.17	3,35 × 3 (case v	olume) = E	stimated Purg	ge Volume: <u> </u>	<u>0.5 (an).</u>
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	-	Sampling Equipment:	Bail Pres Gra Other:	ssure Bailer b Sample		
Starting Time: Sampling Time: Purging Flow Rate:		_ W	eather Condition ater Color: ediment Descrip yes; Time:	cion:		Odor: 🗠	
	lume pH gal.)	Conduc _{um} hos	tivity Tempe	ature.	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:46 3 10:50 7 10:53 10	,5 <u>7.60</u> 2 7.9 2.5 7.4 9	49 4°	7 <u>68</u> 30 <u>67</u> 86 <u>67</u>	.8			
		LABORA	TORY INFORMA	TION			
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABO	RATORY	ANAL	
Mw- 6	3 x VDA VIAL	<u> </u>	HCL	3200	uo IA	TPHG BTE	1/4/02
COMMENTS:							

ent/ cility #_ <u>Tosc</u>	co # 5367	·	Job#:	180108		<u> </u>	
Idrose 500	O Bancost A	ve.	Date:	3/16/01			
uless. <u> </u>	Bancrift A Leandra, C	.a	Sampler	· Vartker	<u> </u>		
ty:							
	MW_7	Well Conditi	ion: <u> </u>	K			
Well ID				Amount	Bailed	T	•
ell Diameter		Hydrocarbo Thickness:		in (product/	water):	<u> 40</u>	(oel.)
otal Depth	43.96 4	Volume	2" = 0.17	3° = 0 6° = 1.50		_	0.66
epth to Water	25:15 4	Factor (VF)					
		FD-17 -3,1	a .	Enimated	i Puras Volu	ıme: 1 E	S-C Coal
	18.8(x vi	F 0-1+ = 211	X 3 (case vol	umaj = Esuriacoc			
Purge	Disposable Bailer		Sampling	Disposable	Bailer		-
quipment:	Bailer	•	Equipment:	Bailer			
•	Stack			Pressure B			
	Suction			Grab Samt	, TO		
	Grundfos		Δ.	Aban _			
Starting Time:	Grundfos Other:		ner Conditions	ther:		. rd	
Starting Time: Sampling Time: Purging Flow Ra	Other:	Wate	her Conditions r Color: nent Descripti	ii <u>el</u>		. rl)	(gal
Sampling Time: Purging Flow Ra Did well de-wate	Other:	Wate	ner Conditions r Color: nent Descriptions r; Time:	on:Vo	Odor		Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wate	Other:	Conductivity	ner Conditions r Color: nent Descriptions r; Time: ty Temper	on: Vo	Odor	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de-wate Time	Other:	Conductivity prohos/cm	ner Conditions r Color: nent Descriptions r; Time: ty Temper	on: Vo	Odor	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de wate Time 11.22	Other:	Conductivity	ner Conditions r Color: nent Descriptions r; Time: ty Temper	on: Vo	Odor	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de-wate Time	Other:	Conductivity prohos/cm	ner Conditions r Color: nent Descriptions r; Time: ty Temper	on: Vo	Odor	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de wate Time 11.22	Other:	Conductivity prohos/cm	ner Conditions r Color: nent Descriptions r; Time: ty Temper	on: Vo	Odor	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de wate Time 11.22	Other:	Conductivism 602	ty Temper 68.	on:	Odor	ORP	Alkalinity
Sampling Time: Purging Flow Ra Did well de wate Time 11.22	Other: 11, 24 11, 45 12, 45 12, 45 12, 45 13, 46 14, 45 15, 50 10, 7, 76 10, 7, 76	Conductiving minos/cm 602 596 LABORATO	Temper St. 168.	on:	Odor	ORP	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de wate Time 11.22	Other:	Conductivity pulsos/cm Conduc	Temper SRY INFORMA BESERV. TYPE	on:	Odor	ORP mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wate Time 11:27 11:30 11:34	Other: 11, 24 11, 45 12, 45 12, 45 12, 45 13, 46 14, 45 15, 50 10, 7, 76 10, 7, 76	Conductivity pulsos/cm Conduc	Temper St. 168.	on: Vo sture D.0 (mg	Odor	ORP mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wate Time 11:30 11:34 SAMPLE ID	Other:	Conductivity pulsos/cm Conduc	Temper SRY INFORMA BESERV. TYPE	on: Vo sture D.0 (mg	Odor	ORP mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wate Time 11:30 11:34 SAMPLE ID	Other:	Conductivity pulsos/cm Conduc	Temper SRY INFORMA BESERV. TYPE	on: Vo sture D.0 (mg	Odor	ORP mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Ra Did well de-wate Time 11:30 11:34 SAMPLE ID	Other:	Conductivity pulsos/cm Conduc	Temper SRY INFORMA BESERV. TYPE	on: Vo sture D.0 (mg	Odor	ORP mV)	Alkalinity (ppm)

Client/ Facility # <u>Tos</u>	co # 5367		Job#		20108		
Address: 50	O Banon H	Ave.	Date:		16/01		
City:Sar	r Leandro, C	<u>a.</u>	Samp	oler: 🚣	rtkas		
Well ID	_HW_8_	Weil (Condition: —	OK			
Well Diameter			carbon mess: <u>0.00</u>		Amount Bai (product/wate		(Jed.)
Total Depth	43.88 #	Volu	me 2° = 0	0.17	3" = 0.38	4" 12" = 5.80	- 0.66
Depth to Water	25,43 4		or (VF)				
Purge	Disposable Bailer	r 0.17	3.13_ x 3 (case Sampling		Estimated Purposable Bai	_	1.3 (gal.)
Equipment:	Stack Suction Grundfos Other:	-	Equipmen	Bai Pre	ler ssure Baile ab Sample		
Starting Time: Sampling Time: Purging Flow Ra	12:55 1:15 te: 1 or		Weather Conditi Water Color: Sediment Descr	iption: _		Odor: 1922/4	
Did well de-wate	er? <u>no</u>		If yes; Time: .	<u></u>	Volum	:	(gel.)
Time	Volume pH (gaL)	أحصير	hos/cm	F.	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:04	3 6 731 9.5 7.29	- - 1 1 3	-39 -39 -32 6	8.1 3.7			
							·
SAMPLE ID	(#) - CONTAINER	LABO	RATORY INFORM	LABO	ORATORY_	ANAL	
Mw . 8	3 × VDA VIAL	4	Heu	SEQ	401A	TPHG BTE	MIDE
				-		+	
L	1	<u> </u>					
COMMENTS: .							
					•		

			FIELD L	AIA OIL	•			
ent/ cility #_ <u>Tos</u>	co # 5	367	<u> </u>	_ Job#		6/0/		
idress: 50	0 Banc	enst A	le.	Date				
ty: <u>Sar</u>	n Lean	dna, C	<u>a, </u>	Sam	pler: Val			
Well ID	HW_	9_	Well Co	ndition: -	OK			
eli Diameter	2	in_	Hydroc Thickno	arbon ess: <u>0.0</u>	_	mount Baile product/water):	(gel.)
otal Depth		<u> 53 m.</u>	Volum Factor	2" =	0.17 6" = 1.50	3° = 0.38	4" 12" = 5.80	- 0.66
epth to Water		4 4	<u></u>				. Malumes /	0-5 (00)
	lo.	<u>39</u> x vf	0.17 =	3.46 x 3 (ca		atimated Purg	de Aoimine:	
Purge quipment:	Disposabl Bailer_	e Bailer		Sampling Equipme		osable Bail	BP	
deshusur.	Stack Suction		•		Pre:	ssure Bailer b Sample		
	Grundfos Other:		-		Other:			
	9-	05		Veather Cond	itions:	clear	<u> </u>	
Starting Time: Sampling Time:	<u> </u>	25	_ v	Vater Color:	Ue	ar	Odor: 120	
Purging Flow Ra			<u>.</u> .	Sediment Des	cription:	Volume	8:	
Did well de-wat	ter?	no	_	f yes; Time:				Alkalinity
Time	Volume (gal.)	PH	panh	os/cm	#	D.O. (mg/L)	ORP (mV)	(ppm)
8:08	3.5	7.81	57		66.6			
8:12	3	7.63	<u> </u>	17 -	66.8			. —
8:15	10.5	7.8					<u> </u>	
			LABOR	ATORY INFO	RMATION		ANA	LYSES
	(4) - CO	NTAINER	REFRIG.	PRESERV. TY	b€; rααι	UO IA	TPHG BTE	
SAMPLE ID				Hee			 	
MW-9		DA VIAL	4				<u> </u>	
		DA VIAL	Y					
		DAVIAL	Y					

ddress: 500	Bancrift to Leandra, C	lve.	Job#: Date: Sampler	180108 3116101 : VartKes	
Well ID	4W_10 2 in	Hydro	Condition:		er):
Total Depth Depth to Water	42,65 tr. 26,80tr 		or (VF)	3° = 0.38 6° = 1.50 ume) = Estimated Pu	12" = 5.80 12" = 5.80 toat)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	-	Sampling Equipment: Or	Disposable Ba Bailer Pressure Baile Grab Sample	
Starting Time: Sampling Time: Purging Flow Rate: Did well de-water?		-	Weather Conditions Water Color: Sediment Description If yes; Time:	de	Odor: N.E
	÷ 7.54	رممر 6 2	Huctivity hos/cm F 67 67 67 67 67	(mg/L)	ORP Alkalinity (mV) (ppm)
SAMPLE ID	(#) - CONTAINER	LABOI REFRIG.	RATORY INFORMAT	LABORATORY	ANALYSES
	3 × VDA VIAL	4	HCL	SEQUOIA	TPHG BTEX /MTOE
COMMENTS:					



والمراكب والمراجع والم
Foolity Number UNOCAL SS#5367
Seelling Address 500 Bancroft Ave. SAN LICATION.
180108.85
A 3 Decor 100 11 - R 11 1 1 1 1 1 1 1 1
Consultant Name Gettler-Ryan Inc. 1, Dublin, CA 94568 Address 6747 Sierra Court, Suite I, Dublin, CA 94568
Address B747 SIELLA BUSE

Contact (Name) __ DAVE DEWATT 510-277-2384 (Phone)_ Sequoia Analytical Laboratory Name ... Laboratory Release Number_ Samples Collected by (Name) Vanthus Collection Date

Project Contact (Nome) Deanna L. Harding (Phone) 510-551-7555 (Fax Number) 510-551-7888 Signature. DO NOT BILL Analyses To Be Performed TB-LB ANALYSIS Ar Chorteod Purgeable Halocarbons (8010) Grab Composite Discrete Oil and Gream (5520) Extractoble (8270) ∢υ Pure-abie (8020) Para oble (8240) TPH Dissel (8015) 111 ٤ 000 Remorks K = X 3 401 G 0TB-LB 230 N ٦ 3 ٦ 02 MW_ ٠, .3 4 03 Ť MW-3 4 40 MW-4 05 4 MW-5 06 4 25 4 MW-6 X 4 WW-7 04 4 4 4 MN-8 4 4 HV-9 4 G 4 10-7 4 MULLO Turn Around Time (Circle Cholos) 2 Am.

Relinquished By Sig	pngture)	Organization	Date/Time 7 15	Received By (Signature)	Organization	3/140/ 7/42/
Relinquiched By (Si	gnoture)	G-R Inc.	3/16/01 Date/Ilme	Received By (Signature)	Organization	Date/Time
Relinquished By (51	gnature)	Organization	Date/Time	Realeved For Laboratory By (Signat	ture)	Date/Time

24 Hre. 48 Hre. 6 Days 10 Days

As Contracted





April 02, 2001

Deanna Harding Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568 RE: Tosco(1) / L103109

Enclosed are the results of analyses for samples received by the laboratory on 03/16/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt Project Manager

CA ELAP Certificate Number 2360

ya K. Pelt

Gettler-Ryan/Geostrategies(1)

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L103109-01	Water	03/16/01 00:00	03/16/01 19:42
MW-1	L103109-02	Water	03/16/01 14:30	03/16/01 19:42
MW-2	L103109-03	Water	03/16/01 12:40	03/16/01 19:42
MW-3	L103109-04	Water	03/16/01 14:00	03/16/01 19:42
MW-4	L103109-05	Water	03/16/01 09:10	03/16/01 19:42
MW-5	L103109-06	Water	03/16/01 09:44	03/16/01 19:42
MW-6	L103109-07	Water	03/16/01 11:05	03/16/01 19:42
MW-7	L103109-08	Water	03/16/01 11:45	03/16/01 19:42
MW-8	L103109-09	Water	03/16/01 13:15	03/16/01 19:42
MW-9	L103109-10	Water	03/16/01 08:25	03/16/01 19:42
MW-10	L103109-11	Water	03/16/01 10:25	03/16/01 19:42

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

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

Total Petroleum Hydrocarbons as Gasoline by EPA 8015M Great Lakes Analytical

		Reporting							j
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L103109-01) Water	Sampled: 03/16/01 00:00	Received:	03/16/01	19:42					
Gasoline	ND	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	
MW-1 (L103109-02) Water	Sampled: 03/16/01 14:30	Received: (03/16/01	19:42					
Gasoline	37500	5000	ug/l	100	1030469	03/28/01	03/29/01	EPA 8015M-VOA	G12,T1
MW-2 (L103109-03) Water	Sampled: 03/16/01 12:40	Received:	03/16/01	19:42				<u> </u>	
Gasoline	ND	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	
MW-3 (L103109-04) Water	Sampled: 03/16/01 14:00	Received:	03/16/01	19:42					
Gasoline	678	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	T1,T4
MW-4 (L103109-05) Water	Sampled: 03/16/01 09:10	Received:	03/16/01	19:42					
Gasoline	ND	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	
MW-5 (L103109-06) Water	Sampled: 03/16/01 09:44	Received:	03/16/01	19:42					
Gasoline	ND	50.0	ug/I	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	
MW-6 (L103109-07) Water	Sampled: 03/16/01 11:05	Received:	03/16/01	19:42					
Gasoline	ND	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	
MW-7 (L103109-08) Water	Sampled: 03/16/01 11:45	Received:	03/16/01	19:42					
Gasoline	ND	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	
MW-8 (L103109-09) Water	Sampled: 03/16/01 13:15	Received:	03/16/01	19:42					
Gasoline	1000	50.0	ug/l	1	1030469	03/28/01	03/29/01	EPA 8015M-VOA	Tl

Gettler-Ryan/Geostrategies(1)

6747 Sierra Court, Suite J

Dublin CA, 94568

Project: Tosco(1)

Project Number: Unocal SS#5367

Project Manager: Deanna Harding

Reported: 04/02/01 06:30

Total Petroleum Hydrocarbons as Gasoline by EPA 8015M

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (L103109-10) Water	Sampled: 03/16/01 08:25	Received: 0	3/16/01	19:42					-
Gasoline	ND	50.0	ug/l	ı	1030469	03/28/01	03/30/01	EPA 8015M-VOA	
MW-10 (L103109-11) Water	Sampled: 03/16/01 10:25	Received:	03/16/01	19:42					
Gasoline	ND	50.0	ug/l	1	1030469	03/28/01	03/30/01	EPA 8015M-VOA	

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

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

BTEX+MTBE by EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L103109-01) Water	Sampled: 03/16/01 00:00	Received: (3/16/01	19:42					
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	ND	0.500	41		н	Ħ	Ħ	ч	
Ethylbenzene	ND	0.500	Ħ	7	Ħ	"	· #	11	
Total Xylenes	ND	0.500	tt	**	. #1	U	**	п	
Methyl tert-butyl ether	ND	0.500	и	Ħ	N			**	
Surrogate: 4-BFB		90.0 %	86.0	142	н	"	π	,,	
MW-1 (L103109-02) Water	Sampled: 03/16/01 14:30	Received: 0	3/16/01	19:42			<u> </u>	_	
Benzene	76.2	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	16.6	0.500	#	"	•	11			
Ethylbenzene	2010	50.0	#	100	19	**	03/29/01	•	G12
Total Xylenes	7330	50.0	н		Ħ	Ħ	03/29/01	n	G12
Methyl tert-butyl ether	ND	0.500	71	1	#	H	. н		
Surrogate: 4-BFB		125 %	86.0)-142	"	"	n	#	
MW-2 (L103109-03) Water	Sampled: 03/16/01 12:40	Received: 0	3/16/01	19:42					
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	ND	0.500		Ħ	m	11	17	**	
Ethylbenzene	ND	0.500		"	n	Ħ	•	II.	
Total Xylenes	ND	0.500	**	н	U	#	**	n	
Methyl tert-butyl ether	ND	0.500	#				**	,	
Surrogate: 4-BFB		99.0 %	86.0	0-142	Ħ		*	Ħ	
MW-3 (L103109-04) Water	Sampled: 03/16/01 14:00	Received: 0	3/16/01	19:42					
Benzene	3.14	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	1.00	0.500	Ħ	"	н		n	п	
Ethylbenzene	16.4	0.500		"	н	•	n	11	
Total Xylenes	14.6	0.500	•	#	н	π	II .	#	
Methyl tert-butyl ether	42.9	0.500		h	H	11	11	#	
Surrogate: 4-BFB		103 %	86.	0-142	,,	"	п	n	

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

Dublin CA, 94568

Project: Tosco(1)

t Number: Unocal SS#53

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

BTEX+MTBE by EPA Method 8021B

*		Great L	ancs A	шагуис	81				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (L103109-05) Water	Sampled: 03/16/01 09:10	Received: 0	3/16/01	19:42					
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	ND	0.500	**	11	•	"	*	#	
Ethylbenzene	ND	0.500	n	н	11	•	**		
Total Xylenes	ND	0.500	P	*	н	*1	n	n n	
Methyl tert-butyl ether	ND	0.500			11	# H	#		
Surrogate: 4-BFB		83.5 %	86.0	-142	n	#	"	"	04
MW-5 (L103109-06) Water	Sampled: 03/16/01 09:44	Received: 0	3/16/01	19:42					
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	ND	0.500	n	π	н	#	Ħ	,, 	
Ethylbenzene	ND	0.500	*	н	W.	Ħ	**	-	
Total Xylenes	ND	0.500		Ħ	**	"	н	•	
Methyl tert-butyl ether	ND	0.500		n		<u></u> "	···		
Surrogate: 4-BFB	7	102 %	86.0	0-142	*	н	•	#	
MW-6 (L103109-07) Water	Sampled: 03/16/01 11:05	Received: 0	3/16/01	19:42					
Benzene	ND	0.500	ug/l	1,	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	ND	0.500	Ħ	m		H	H	**	
Ethylbenzene	ND	0.500	"	*	*	-			
Total Xylenes	ND	0.500		**	Ħ	•	*	"	
Methyl tert-butyl ether	ND	0.500	#	#1		. "	n —		
Surrogate: 4-BFB		103 %	86.	0-142	#	,,	"	Ħ	
MW-7 (L103109-08) Water	Sampled: 03/16/01 11:45	Received:	03/16/01	19:42					·
Benzene	ND	0,500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	. ND	0.500	H	it	•		₩	,	
Ethylbenzene	ND	0.500	H	n	n		n 		
Total Xylenes	ND	0.500	*	11	Ħ	n		11 H	
Methyl tert-butyl ether	ND	0.500	**	H	n		<u> </u>	<u></u>	
Surrogate: 4-BFB		94.0 %	86.	0-142	TT .	н	n	n	

Gettler-Ryan/Geostrategies(1)

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

BTEX+MTBE by EPA Method 8021B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (L103109-09) Water	Sampled: 03/16/01 13:15	Received: 0	3/16/01	19:42				···	
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/29/01	EPA 8021B	
Toluene	ND	0.500	"	**	•	н .	n	#	
Ethylbenzene	17.8	0.500	**		n	H	tt .	Ħ	
Total Xylenes	44.5	0.500		п	Ħ			11	
Methyl tert-butyl ether	ND	0.500	17	*	•	•	#	#	
Surrogate: 4-BFB		92.0 %	86.0	0-142	**	μ	"	n	
MW-9 (L103109-10) Water	Sampled: 03/16/01 08:25	Received: 0	3/16/01	19:42				 -	
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/30/01	EPA 8021B	
Toluene	ND	0.500	n	n	**	Ħ	**	•	
Ethylbenzene	ND	0.500	n	н	Ħ	Ħ	H	41	
Total Xylenes	ND	0.500	**		H	7		М	
Methyl tert-butyl ether	ND	0.500	•		#		H-		
Surrogate: 4-BFB		86.0 %	86.	0-142	"	W	. гг	"	
MW-10 (L103109-11) Water	r Sampled: 03/16/01 10:2	5 Received:	03/16/01	1 19:42					
Benzene	ND	0.500	ug/l	1	1030469	03/28/01	03/30/01	EPA 8021B	
Toluene	ND	0.500	H	n	π	n	π	и	
Ethylbenzene	ND	0.500	11		**	II .	Ħ		
Total Xylenes	ND	0.500	-	tr	н	**	n	"	
Methyl tert-butyl ether	ND	0.500	**		n	H	#		•
Surrogate: 4-BFB		85.0 %	86.	0-142	**	"	**	~	04

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

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

Total Petroleum Hydrocarbons as Gasoline by EPA 8015M - Quality Control Great Lakes Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1030469 - EPA 5030B (P/T)								<u>-</u>		
Blank (1030469-BLK1)				Prepared:	03/28/01	Analyzed	1: 03/29/01			
Gasoline	ND	50.0	ug/l							
LCS (1030469-BS2)				Prepared	& Analyz	ed: 03/28/				
Gasoline	2210	50.0	ug/l	2000		111	80.0-120			
Matrix Spike (1030469-MS2)	Sou	rce: B10325	58-06	Prepared:	03/28/01	Analyzex	1: 03/29/01			<u> </u>
Gasoline	2230	50.0	ug/l	2000	ND	112	80.0-120			
Matrix Spike Dup (1030469-MSD2)	Sou	ırce: B10325	58-06	Prepared	03/28/01	Analyze	1: 03/29/01			
Gasoline	1910	50.0	ug/l	2000	ND	95.5	80.0-120	15.9	20.0	

Gettler-Ryan/Geostrategies(1)

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5367 Project Manager: Deanna Harding Reported: 04/02/01 06:30

RPD

%REC

BTEX+MTBE by EPA Method 8021B - Quality Control

Great Lakes Analytical

Spike

Source

Reporting

		responding		-pine						
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1030469 - EPA 5030B (P/T)							<u></u>			
Blank (1030469-BLK1)				Prepared:	03/28/01	Analyze	d: 03/29/01			
Benzene	ND	0.500	ug/l							
Toluene	ND	0.500	n							
Ethylbenzene	ND	0.500	n							
Total Xylenes	ND	0.500	n							
Methyl tert-butyl ether	ND	0.500	н						· · — – — — — · ·	
Surrogate: 4-BFB	19.9		н	20.0		99.5	86.0-142			
LCS (1030469-BS1)				Prepared & Analyzed: 03/28/01						,
Benzene	22.9	0.500	ug/l	25.0		91.6	85.0-115			
Toluene	23.7	0,500	"	25.0		94.8	85.0-115			
Ethylbenzene	24.7	0.500	n	25.0		98.8	85.0-115			
Total Xylenes	74.0	0.500	11	75.0		98.7	85.0-115			
Methyl tert-butyl ether	23.7	0.500	n	25.0		94.8	85.0-115			
Surrogate: 4-BFB	20.8		п	20.0		104	86.0-142			
Matrix Spike (1030469-MS1)	Sou	urce: B10325	8-06	Prepared:	03/28/01	Analyze	d: 03/29/01			
Benzene	21.4	0.500	ug/l	25.0	ND	85.6	74.3-134			
Toluene	22.2	0.500	Ħ	25.0	ND	88.8	63.8-141			
Ethylbenzene	23.2	0.500	•	25.0	ND	92.8	64.3-140			
Total Xylenes	69.0	0.500	-	75.0	ND	92.0	67.6-143			
Methyl tert-butyl ether	21.6	0.500	-	25.0	ND	86.4	67.2-157			
Surrogate: 4-BFB	20.1		"	20.0		101	86.0-142			
Matrix Spike Dup (1030469-MSD1)	Son	Source: B103258-06		Prepared: 03/28/01 Analyzed: 03/29/01						
Benzene	22.0	0.500	ug/l	25.0	ND	88.0	74.3-134	2.76	21.1	
Toluene	23.2	0.500	**	25.0	ND	92.8	63.8-141	4.41	17.5	
Ethylbenzene	24.3	0.500	11	25.0	ND	97.2	64.3-140	4.63	17.5	
Total Xylenes	72.4	0.500	"	75.0	ND	96.5	67.6-143	4.77	17.6	
Methyl tert-butyl ether	22.1	0.500	11	25.0	ND	88.4	67.2-157	2.29	27.9	
Surrogate: 4-BFB	20.5		"	20.0		103	86.0-142			

Γ	Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
ł	6747 Sierra Court, Suite J	Project Number: Unocal SS#5367	Reported:
	Dublin CA, 94568	Project Manager: Deanna Harding	04/02/01 06:30

Notes and Definitions

G12	The reporting limit of this sample/analyte is elevated due to sample matrix and/or other effects.
O 4	The recovery for this analyte is below the laboratory's established acceptance criteria.
Tl	Gas Pattern
T4	Gas Range
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
фу	Sample results reported on a dry weight basis
RPD	Relative Percent Difference