



GETTLER-RYAN INC.

TRANSMITTAL

April 1, 1999

G-R #:180065

#521

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

CC: Mr. Doug Lee
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

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

RE: Tosco (Unocal) SS#5043
449 Hegenberger Road
Oakland, California

- confirm presence of FP in MW-6. what's its source? removed majority of compacted soils from former dispensers
- maybe should check for presence of MBE
- w/o removal of FP, must continue monitoring
- consider dual phase ext. from MW-6?

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	March 30, 1999	Groundwater Monitoring and Sampling Report First Quarter 1999 - Event of January 25, 1999

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 **April 15, 1999**, this report will be distributed to the following:

Enclosure

cc: **Mr. M. Chan, Alameda County Health Care Services, 1121 Harbor Bay Parkway, Suite 250, Alameda, California 94502**
Mr. Frank deFurio, Shuwa Investment Group, 515 S. Flower Street, Suite 1270, Los Angeles, CA 90071

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COMMUNICATIONS SECTION

agency/5043dbd.qmt



GETTLER-RYAN INC.

March 30, 1999
G-R Job #180065

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

RE: First Quarter 1999 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

Dear Mr. De Witt:

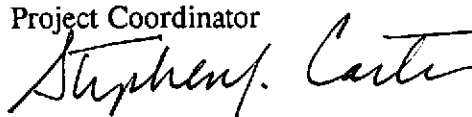
This report documents the monthly site visits and the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On November 6, 25, and December 28, 1998, field personnel monitored one well (MW-6). On January 25, 1999, field personnel monitored six wells (MW-3, MW-6, MW-7, MW-8, MW-9, and MW-10) and sampled five wells (MW-3, MW-7, MW-8, MW-9 and 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 present in one well (MW-6). Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data is summarized in Table 2. 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 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

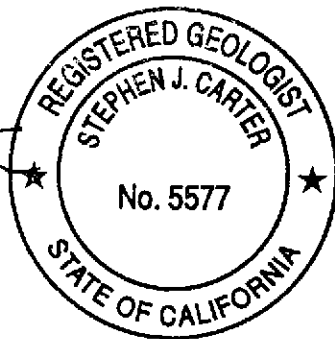
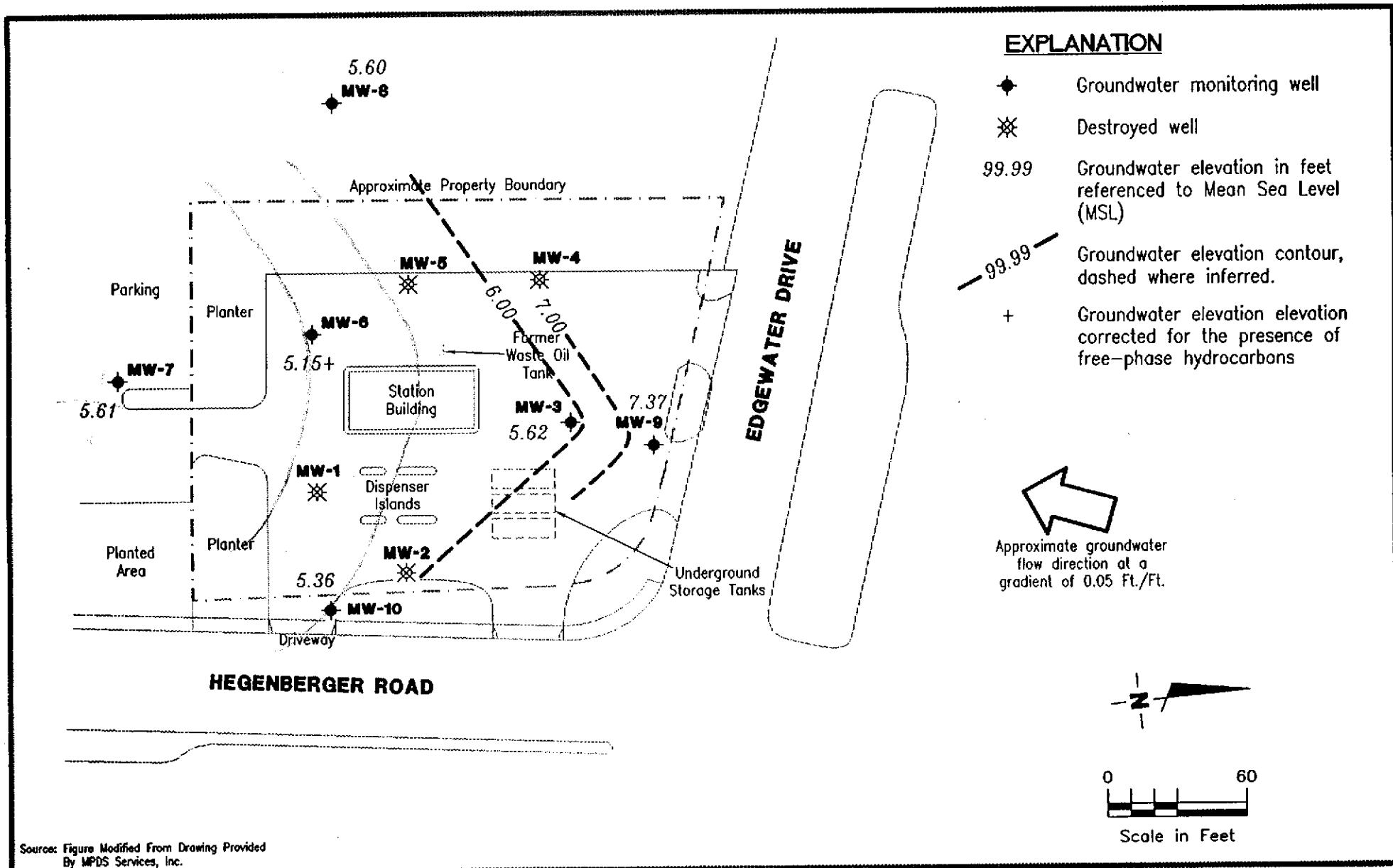


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Product Thickness/Removal Data
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets



Source: Figure Modified From Drawing Provided By MPDS Services, Inc.



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Dublin, CA 94568

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 5043
449 Hegenberger Road
Oakland, California

FIGURE

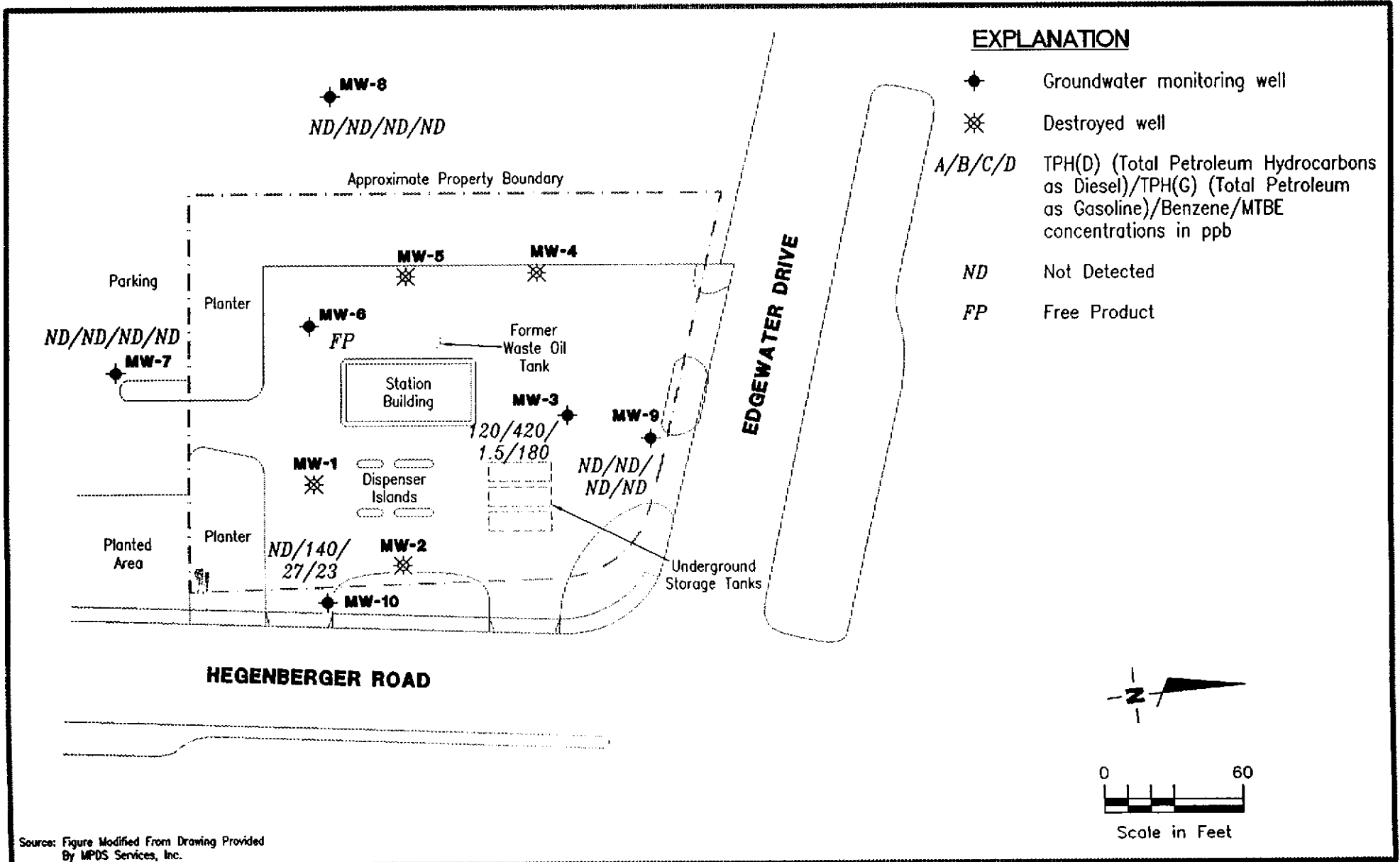
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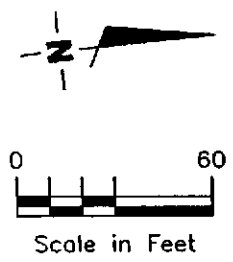
REVIEWED BY

DATE
January 25, 1999

REVISED DATE



Source: Figure Modified From Drawing Provided By MPDS Services, Inc.



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 Dublin, CA 94568

CONCENTRATION MAP
 Tosco (Unocal) Service Station No. 5043
 449 Hegenberger Road
 Oakland, California

FIGURE
2

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5043
 449 Hegenberger Road
 Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-1	02/18/92	--	--	--	13,000	150,000	17,000	26,000	5,200	26,000	--	
	05/20/92	--	--	--	--	--	--	--	--	--	--	
	08/31/92	--	--	--	8,900 ¹	64,000	13,000	12,000	2,500	22,000	--	
	11/30/92	--	--	--	--	--	--	--	--	--	--	
	02/04/93	--	--	--	--	--	--	--	--	--	--	
8.96*	05/04/93	2.13	5.73**	0.10	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	08/04/93	2.92	4.88**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
7.38	11/03/93	3.04	4.74	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	02/07/94	2.55	4.85**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	05/19/94	2.23	5.16**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	06/25/94	2.49	4.90**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	07/27/94	3.10	4.28	0.00	--	--	--	--	--	--	--	
	08/15/94	2.85	4.61**	0.11	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	11/14/94	2.97	4.50**	0.12	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	02/21/95	1.53	5.87**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	05/18/95	DESTROYED (3/95)		--	--	--	--	--	--	--	--	--
	MW-2	02/18/92	--	--	--	4,300	29,000	1,000	5,300	260	7,900	--
05/20/92		--	--	--	4,300 ¹	24,000	2,200	7,600	630	11,000	--	
08/31/92		--	--	--	1,600 ¹	9,000	1,800	640	140	2,000	--	
11/30/92		--	--	--	5,700 ¹	29,000	2,000	3,400	1,200	6,900	--	
02/04/93		--	--	--	6,100 ¹	18,000	1,600	3,000	ND	6,900	--	
8.96*	05/04/93	2.48	6.48	0.00	7,100 ¹	63,000	3,200	17,000	470	17,000	--	
	08/04/93	3.20	5.76	0.00	1,800 ²	45,000	2,100	6,600	1,400	12,000	--	
8.58	11/03/93	3.37	5.21	0.00	2,600 ²	72,000	3,700	16,000	3,700	20,000	--	
	02/07/94	2.40	6.18	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--	
	05/19/94	2.13	6.45	0.00	3,000 ²	42,000	2,500	1,300	2,300	13,000	--	
	06/25/94	2.65	5.93	0.00	--	--	--	--	--	--	--	
	07/27/94	3.44	5.14	0.00	--	--	--	--	--	--	--	
	08/15/94	3.25	5.33	0.00	2,800 ²	35,000	2,400	850	1,700	15,000	--	
	11/14/94	2.13	6.45	0.00	10,000 ¹	43,000	2,200	6,500	1,800	14,000	--	
	02/21/95	1.65	6.93	0.00	2,000 ²	44,000	2,200	3,200	1,300	1,500	--	
	05/18/95	DESTROYED (3/95)		--	--	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5043
 449 Hegenberger Road
 Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3	02/18/92	--	--	--	ND	230	4.8	22	1.8	33	--
	05/20/92	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	08/31/92	--	--	--	92 ²	210 ⁴	1	ND	ND	ND	--
	11/30/92	--	--	--	94	790 ⁴	ND	ND	ND	ND	--
7.84*	02/04/93	--	--	--	550 ²	3,300	320	ND	96	6.1	--
	05/04/93	4.32	3.52	0.00	250 ²	1,800 ³	95	ND	ND	ND	--
7.42	08/04/93	4.94	2.90	0.00	100	210 ⁴	ND	ND	ND	ND	--
	11/03/93	4.53	2.89	0.00	160	640 ⁴	ND	ND	ND	ND	--
	02/07/94	2.40	5.02	0.00	620 ²	2,700	110	ND	17	ND	--
	05/19/94	3.60	3.82	0.00	480 ²	1,800	83	ND	6.2	9.1	--
	06/25/94	4.58	2.84	0.00	--	--	--	--	--	--	--
	07/27/94	4.58	2.84	0.00	--	--	--	--	--	--	--
	08/15/94	4.65	2.77	0.00	110 ²	130	1.1	0.54	ND	0.97	--
	11/14/94	3.18	4.24	0.00	150 ²	1,600 ⁴	ND	ND	ND	ND	--
	02/21/95	1.81	5.61	0.00	850 ²	3,800	350	ND	130	22	--
	05/18/95	4.56	2.86	0.00	150 ¹	1,300 ³	42	ND	ND	ND	--
	08/17/95	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	07/26/96	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	10/28/96 ⁶	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	01/29/97	INACCESSIBLE	--	--	--	--	--	--	--	--	--
04/15/97	INACCESSIBLE	--	--	--	--	--	--	--	--	--	
8.04	05/27/97	3.45	4.59	0.00	--	670	6.5	ND	ND	ND	250
	06/01/97	3.50	4.54	0.00	610 ²	--	--	--	--	--	--
	07/15/97	3.71	4.33	0.00	240 ²	240	ND	ND	ND	ND	490
	10/09/97	3.70	4.34	0.00	500 ²	270	1.1	ND	2.4	1.4	910
	01/14/98	2.16	5.88	0.00	340 ⁷	310	ND	ND	0.62	0.65	140
	04/01/98	2.20	5.84	0.00	320 ⁷	370	5.7	ND ⁹	ND ⁹	ND ⁹	93
	07/15/98	3.38	4.66	0.00	510 ¹⁰	460 ¹¹	ND ⁹	ND ⁹	ND ⁹	ND ⁹	230
	10/16/98	2.30	5.74	0.00	67 ¹³	330 ¹⁴	4.7	ND ⁹	ND ⁹	ND ⁹	60
	01/25/99	2.42	5.62	0.00	120 ⁷	420 ¹⁴	1.5	ND ⁹	ND ⁹	ND ⁹	180

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Groundwater Monitoring Data and Analytical Results
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Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-4	08/31/92	--	--	--	90 ²	240 ⁴	ND	ND	ND	0.54	--	
	11/30/92	--	--	--	61	420 ⁴	ND	ND	ND	ND	--	
	02/04/93	--	--	--	ND	ND	ND	ND	ND	ND	--	
9.00*	05/04/93	4.09	4.91	0.00	ND	110 ³	0.95	ND	ND	ND	--	
	08/04/93	5.01	3.99	0.00	81	250 ⁴	ND	3.5	ND	4.1	--	
8.41	11/03/93	4.23	4.18	0.00	68	130 ⁴	ND	ND	ND	ND	--	
	02/07/94	3.35	5.06	0.00	ND	56 ⁴	ND	ND	ND	ND	--	
	05/19/94	3.92	4.49	0.00	90 ²	140 ⁴	ND	ND	ND	ND	--	
	06/25/94	4.35	4.06	0.00	--	--	--	--	--	--	--	
	07/27/94	4.28	4.13	0.00	--	--	--	--	--	--	--	
	08/15/94	4.27	4.14	0.00	72 ²	59 ⁴	ND	0.6	ND	ND	--	
	11/14/94	4.05	4.36	0.00	ND	130 ⁴	ND	ND	ND	ND	--	
	02/21/95	DESTROYED (1/95)		--	--	--	--	--	--	--	--	--
	MW-5	08/31/92	--	--	--	690 ¹	78	0.89	ND	ND	13	--
		11/30/92 ⁵	--	--	--	470 ²	930	70	290	0.79	14	--
02/04/93 ⁵		--	--	--	5,500 ²	5,700	38	ND	620	170	--	
05/04/93 ⁵		4.37	4.90	0.00	4,600 ¹	7,400	41	ND	1,000	35	--	
08/04/93 ⁵		5.81	3.46	0.00	970 ²	1,500	130	1	460	11	--	
8.95		11/03/93	5.68	3.27	0.00	2,100 ²	13,000	350	ND	3,500	530	--
		02/07/94	5.11	3.84	0.00	830 ²	2,000	87	ND	370	110	--
		05/19/94	5.09	3.86	0.00	600 ²	260	44	ND	32	4.1	--
		06/25/94	4.55	4.40	0.00	--	--	--	--	--	--	--
		07/27/94	5.72	3.23	0.00	--	--	--	--	--	--	--
08/15/94		5.68	3.27	0.00	860 ²	1,600	110	ND	340	72	--	
11/14/94	5.63	3.32	0.00	290 ¹	250	40	ND	ND	5	--		
02/21/95	DESTROYED (1/95)		--	--	--	--	--	--	--	--	--	
MW-6	08/31/92	--	--	--	750 ²	ND	ND	ND	ND	ND	--	
	11/30/92	--	--	--	1,400 ¹	9,200	550	ND	740	1,600	--	
	02/04/93	--	--	--	890 ²	3,600	340	ND	290	550	--	
9.12*	05/04/93	3.72	5.40	0.00	1,800 ¹	4,900	360	18	450	430	--	
	08/04/93	5.15	3.97	0.00	1,100 ²	3,400	390	ND	440	190	--	
8.87	11/03/93	5.25	3.62	0.00	390 ²	1,400	320	ND	200	7.7	--	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5043
 449 Hegenberger Road
 Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product		B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
				Thickness (ft.)	TPH(D) (ppb)						TPH(G) (ppb)
MW-6	02/07/94	4.55	4.32	0.00	970 ²	4,900	650	ND	250	35	--
(cont)	05/19/94	4.62	4.25	0.00	1,400 ²	3,600	300	1.7	210	41	--
	08/15/94	5.08	3.79	0.00	790 ²	1,300	130	6.7	54	57	--
	11/14/94	5.30	3.57	0.00	800 ²	730	50	ND	ND	39	--
	02/21/95	5.37	3.50	0.00	730 ²	2,000	250	4.6	25	30	--
	05/18/95	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	08/17/95	INACCESSIBLE	--	--	--	--	--	--	--	--	--
	07/26/96	6.40	5.03**	3.33	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	10/28/96	4.10	4.93**	0.21	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	11/13/96	4.02	5.04**	0.25	--	--	--	--	--	--	--
	11/25/96	4.01	5.44**	0.75	--	--	--	--	--	--	--
	12/04/96	3.65	5.61**	0.50	--	--	--	--	--	--	--
	12/19/96	4.80	5.76**	2.20	--	--	--	--	--	--	--
	01/08/97	4.84	5.38**	1.75	--	--	--	--	--	--	--
	01/14/97	4.51	5.25**	1.15	--	--	--	--	--	--	--
	01/27/97	4.00	6.22**	1.75	--	--	--	--	--	--	--
	01/29/97	3.24	5.87**	0.31	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	02/11/97	4.65	5.14**	1.20	--	--	--	--	--	--	--
	02/24/97	4.81	4.91**	1.10	--	--	--	--	--	--	--
	03/10/97	4.60	5.00**	0.95	--	--	--	--	--	--	--
	03/17/97	4.50	5.06**	0.89	--	--	--	--	--	--	--
	03/31/97	4.65	4.99**	1.00	--	--	--	--	--	--	--
	04/15/97	4.90	4.76**	1.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	04/28/97	4.78	4.11**	0.03	--	--	--	--	--	--	--
	05/15/97	4.60	4.46**	0.25	--	--	--	--	--	--	--
	05/27/97	4.50	4.56**	0.25	--	--	--	--	--	--	--
	06/09/97	4.60	4.42**	0.20	--	--	--	--	--	--	--
	06/24/97	4.50	4.56**	0.25	--	--	--	--	--	--	--
	07/09/97	4.80	4.53**	0.60	--	--	--	--	--	--	--
	07/15/97	4.63	4.56**	0.42	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	07/21/97	4.75	4.31**	0.25	--	--	--	--	--	--	--
	08/06/97	4.50	4.45**	0.10	--	--	--	--	--	--	--
	08/20/97	4.55	4.40**	0.10	--	--	--	--	--	--	--
	09/02/97	4.75	4.16**	0.05	--	--	--	--	--	--	--
	10/09/97	4.84	4.06**	0.04	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	01/14/98	3.90	5.69**	0.94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5043
 449 Hegenberger Road
 Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-6 (cont)	02/12/98	3.35	6.01**	0.64	--	--	--	--	--	--	--	
	03/03/98	4.51	4.38**	0.02	--	--	--	--	--	--	--	
	04/01/98	3.67	6.43**	1.60	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	05/26/98	4.11	5.15**	0.50	--	--	--	--	--	--	--	
	06/15/98	5.03	4.07**	0.30	--	--	--	--	--	--	--	
	07/15/98	4.56	4.35**	0.05	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	08/21/98	4.77	4.12**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	09/30/98	5.08	3.81**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	10/16/98	4.31	6.41**	2.40	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	11/06/98	3.98	5.02**	0.17	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	11/25/98	3.92	5.03**	0.10	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
12/28/98	3.90	5.12**	0.20	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--	
01/25/99	4.18	5.15**	0.60	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--	
MW-7 8.83	05/27/97	4.50	4.33	0.00	--	68	ND	ND	ND	ND	ND	
	06/01/97	4.54	4.29	0.00	69 ²	--	--	--	--	--	--	
	07/15/97	4.70	4.13	0.00	ND	ND	ND	ND	ND	ND	ND	
	10/09/97	4.30	4.53	0.00	190 ¹	ND	ND	ND	ND	ND	ND	
	01/14/98	2.88	5.95	0.00	65 ⁷	ND	ND	ND	ND	ND	36	
	04/01/98	3.13	5.70	0.00	ND	ND	ND	ND	ND	ND	ND	
	07/15/98	4.45	4.38	0.00	74 ¹²	ND	ND	ND	ND	ND	ND	
	10/16/98	3.45	5.38	0.00	ND	ND	ND	ND	ND	ND	ND	
01/25/99	3.22	5.61	0.00	ND	ND	ND	ND	ND	ND	ND		
MW-8 8.52	05/27/97	3.42	5.10	0.00	--	310	0.88	0.67	15	70	ND	
	06/01/97	3.46	5.06	0.00	320 ²	--	--	--	--	--	--	
	07/15/97	3.49	5.03	0.00	ND	ND	ND	ND	2.7	3.8	ND	
	10/09/97	3.73	4.79	0.00	390 ¹	590	1.4	ND	32	4.1	ND	
	01/14/98	1.92	6.60	0.00	230 ⁷	ND	ND	ND	ND	ND	ND	
	04/01/98	2.38	6.14	0.00	510 ⁷	ND	ND	ND	ND	ND	4.7	
	07/15/98	3.53	4.99	0.00	140 ¹²	ND	ND	ND	0.56	1.1	ND	
	10/16/98	3.04	5.48	0.00	170 ¹⁵	ND	ND	ND	ND	ND	ND	
01/25/99	2.92	5.60	0.00	ND ⁹	ND	ND	ND	ND	ND	ND		

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-9 8.29	02/21/95	1.98	6.31	0.00	71 ²	70 ⁴	ND	ND	ND	ND	--
	05/18/95	3.47	4.82	0.00	ND	52	ND	1.1	ND	1.9	--
	08/17/95	1.49	6.80	0.00	ND	ND	ND	ND	ND	ND	--
	07/26/96	0.28	8.01	0.00	98	ND	ND	ND	ND	ND	ND
	10/28/96	1.15	7.14	0.00	99 ¹	ND	ND	ND	ND	ND	7.6
	01/29/97	1.05	7.24	0.00	54	ND	ND	ND	ND	ND	5.4
	04/15/97	1.88	6.41	0.00	94 ¹	ND	ND	ND	ND	ND	5.4
	05/27/97	1.05	7.24	0.00	--	--	--	--	--	--	--
	07/15/97	1.90	6.39	0.00	ND	ND	ND	ND	ND	ND	ND
	10/09/97	1.76	6.53	0.00	160 ¹	ND	ND	ND	ND	ND	ND
	01/14/98	1.26	7.03	0.00	110 ⁷	ND	ND	ND	ND	ND	3.0
	04/01/98	0.85	7.44	0.00	110 ⁷	ND	ND	ND	ND	ND	ND
	07/15/98	1.52	6.77	0.00	200 ¹²	ND	ND	ND	ND	ND	ND
	10/16/98	0.81	7.48	0.00	ND	ND	ND	ND	ND	ND	ND
	01/25/99	0.92	7.37	0.00	ND	ND	ND	ND	ND	ND	ND
MW-10 8.62	02/21/95	4.69	3.93	0.00	270 ²	1,500	250	26	9.1	160	--
	05/18/95	4.92	3.70	0.00	75 ¹	810	520	ND	18	23	--
	08/17/95	4.05	4.57	0.00	ND	67	25	ND	2.4	ND	--
	07/26/96	4.08	4.54	0.00	ND	ND	3.7	ND	ND	ND	ND
	10/28/96	4.09	4.53	0.00	ND	ND	1.1	ND	ND	ND	ND
	01/29/97	2.94	5.68	0.00	ND	210	41	0.67	7.2	4.8	11
	04/15/97	4.07	4.55	0.00	ND	110	12	ND	0.77	ND	9.7
	05/27/97	4.40	4.22	0.00	--	--	--	--	--	--	--
	07/15/97	4.19	4.43	0.00	ND	ND	2.1	ND	0.67	0.73	ND
	10/09/97	4.75	3.87	0.00	ND	190	38	0.92	6.6	7.6	ND
	01/14/98	2.66	5.96	0.00	-- ⁸	59	9.5	0.85	1.2	1.7	4.5
	04/01/98	3.45	5.17	0.00	62 ⁷	230	66	1.7	12	17	6.4
	07/15/98	4.21	4.41	0.00	78 ¹²	290	98	45	21	38	21
	10/16/98	4.11	4.51	0.00	ND	160 ¹⁶	44	0.96	2.5	10	17
	01/25/99	3.26	5.36	0.00	ND	140	27	ND	2.8	6.8	23

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5043
 449 Hegenberger Road
 Oakland, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
Trip Blank											
TB-LB	01/14/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	04/01/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	07/15/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	10/16/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	01/25/99	--	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5043
 449 Hegenberger Road
 Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing elevation	B = Benzene	ppb = Parts per billion
DTW = Depth to Water	T = Toluene	ND = Not Detected
(ft.) = Feet	E = Ethylbenzene	-- = Not Measured/Not Analyzed
GWE = Groundwater Elevation	X = Xylenes	TOG = Total Oil and Grease
msl = Relative to mean sea level	MTBE = Methyl tertiary butyl ether	
TPH(G) = Total Petroleum Hydrocarbons as Gasoline		

- * TOC elevations are relative to msl, per the City of Oakland Benchmark #3880 (Elevation = 20.37 feet msl).
- ** Groundwater elevation corrected for the presence of free product [(TOC-DTW)+(Product Thickness x 0.77)].
- ♦ Elevations were based on the top of the well covers, and were surveyed relative to msl, per the City of Oakland Benchmark #3880 (Elevation = 20.37 feet).

- 1 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- 2 Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- 3 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 4 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 5 TOG was ND.
- 6 The well was obstructed with debris at 0.55 feet. A water sample was collected but was not analyzed as it was considered not representative of groundwater in this well.
- 7 Laboratory report indicates unidentified hydrocarbons C9-C24
- 8 Sample bottle broken at Laboratory.
- 9 Detection limit raised. Refer to analytical results.
- 10 Laboratory report indicates unidentified hydrocarbons > C14 and < C12.
- 11 Laboratory report indicates gasoline and unidentified hydrocarbons > C8.
- 12 Laboratory report indicates unidentified hydrocarbons > C14.
- 13 Laboratory report indicates non diesel mix > C14.
- 14 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- 15 Laboratory report indicates non diesel mix C9-C27.
- 16 Laboratory report indicates unidentified hydrocarbons < C7.

Table 2
Product Thickness/Removal Data
Tosco (Unocal) Service Station #5043
449 Hegenberger Road
Oakland, California

Well ID	Date	DTW (ft.)	Product Thickness (ft.)	Amount Bailed (Product + Water) Gallons
MW-6	07/26/96	6.40	3.33	2.10
	10/28/96	4.10	0.21	0.14
	11/13/96	4.02	0.25	0.09
	11/25/96	4.01	0.75	0.47
	12/04/96	3.65	0.50	0.43
	12/19/96	4.80	2.20	1.02
	01/08/97	4.84	1.75	0.59
	01/14/97	4.51	1.15	0.66
	01/27/97	4.00	1.75	0.78
	01/29/97	3.24	0.31	0.25
	02/11/97	4.65	1.20	0.62
	02/24/97	4.81	1.10	0.50
	03/10/97	4.60	0.95	0.47
	03/17/97	4.50	0.89	0.35
	03/31/97	4.65	1.00	0.50
	04/15/97	4.90	1.03	0.51
	04/28/97	4.78	0.03	0.20
	05/15/97	4.60	0.25	0.20
	05/27/97	4.50	0.25	0.00
	06/09/97	4.60	0.20	0.23
	06/24/97	4.50	0.25	0.25
	07/09/97	4.80	0.60	0.25
	07/15/97	4.63	0.42	0.20
	07/21/97	4.75	0.25	0.27
	08/06/97	4.50	0.10	0.16
	08/20/97	4.55	0.10	0.20
	09/02/97	4.75	0.05	0.12
	10/09/97	4.84	0.04	0.12
	01/14/98 ¹	3.90	0.94	1.50
	02/12/98 ¹	3.35	0.64	0.32
	03/03/98 ¹	4.51	0.02	2.00
	04/01/98 ¹	3.67	1.60	0.50
	05/26/98 ¹	4.11	0.50	0.08
	06/15/98 ¹	5.03	0.30	0.060
	07/15/98 ¹	4.56	0.05	0.10
08/21/98 ¹	4.77	0.02	0.040	
09/30/98 ¹	5.08	0.03	0.027	
10/16/98 ¹	4.32	2.40	0.98	
11/06/98 ¹	3.98	0.17	0.16	
11/25/98 ¹	3.92	0.10	0.12	
12/28/98 ¹	3.90	0.20	0.14	
01/25/99 ¹	4.18	0.60	0.27	

Table 2
Product Thickness/Removal Data
Tosco (Unocal) Service Station #5043
449 Hegeberger Road
Oakland, California

EXPLANATIONS:

Product Thickness/Removal Data prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

DTW = Depth to Water

(ft.) = Feet

¹ Skimmer present in well.

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 a MMC flexi-dip 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, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured 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.

*TOSCO (UNOCAL) SS#5043
OAKLAND, CA*

*MONITORING
EVENT OF NOVEMBER 6, 1998*

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # TOSCO 76 #5043
Address: 449 HEGENBERGER
City: OAKLAND, CA ROAD

Job#: 180065.85
Date: 11 / 6 / 98
Sampler: HAIG KEVORK

Well ID MW-6
Well Diameter 2 in
Total Depth 12.84 ft
Depth to Water 3.98 ft

Well Condition: OK
Hydrocarbon Thickness: 0.171
Amount Bailed (product/water): 2002

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal)

Purge Equipment: N/A
 Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: N/A
 Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: _____
 Sampling Time: N/A
 Purging Flow Rate: N/A gpm
 Did well de-water? _____

Weather Conditions: CLOUDY & LIGHT RAIN
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal)

Time	Volume (gal.)	pH	Conductivity μ hos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
_____	<u>N/A</u>	<u>N/A</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: 90 OZ OF FREE PRODUCT WAS STORED IN A DEDICATED DRUM ON-SITE (7 OZ FROM SKIMMER AND 13 OZ BAILED FROM MW-6).

*TOSCO (UNOCAL) SS#5043
OAKLAND, CA*

*MONITORING
EVENT OF NOVEMBER 25, 1998*

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility #5043
Address: 449 Heegenberger Rd.
City: Oakland

Job#: 180065
Date: 11-25-98
Sampler: See

Well ID mw-6
Well Diameter 2 in.
Total Depth 12.84 ft.
Depth to Water 3.92 ft.

Well Condition: o.k.

Hydrocarbon Thickness: 0.1 (feet) Amount Bailed App. 15 ounces of FP / 29. w. (product/water): _____ (Gallons)

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____ Weather Conditions: _____
 Sampling Time: _____ Water Color: _____ Odor: _____
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
		y		SEQUOIA	TPHIG/btex/mbs

COMMENTS: Approximately 2 ounces of FP found in skimmer and 13 ounces of FP removed from well; total of 15 ounces.
Well has a skimmer.

*TOSCO (UNOCAL) SS#5043
OAKLAND, CA*

*MONITORING
EVENT OF DECEMBER 28, 1998*

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility # 5043 Job#: 180065
Address: 449 Hegenberger Rd. Date: 12-28-98
City: Oakland Sampler: Joc

Well ID mw-C Well Condition: o.k
Well Diameter 2 in. Hydrocarbon Thickness: 0.2 (feet) Amount Bailed App. 17.5 ounces of FP / 39. water (Gallons)
Total Depth 12.84 ft. Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
Depth to Water 3.90 ft. 6" = 1.50 12" = 5.80

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

Starting Time: _____ Weather Conditions: _____
Sampling Time: _____ Water Color: _____ Odor: _____
Purging Flow Rate: _____ gpm. Sediment Description: _____
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
		✓		GEQUOTA	TPH(G)/benz/cmtbe

COMMENTS: Approximately 2.5 ounces of FP found in skimmer and 15 ounces of FP removed from well by bailing. A total of 17.5 ounces removed from well.

*TOSCO (UNOCAL) SS#5043
OAKLAND, CA*

*MONITORING & SAMPLING
EVENT OF JANUARY 25, 1999*

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5043 Job#: 180065
Address: 449 Hegeberger Rd. Date: 1-25-99
City: Oakland Sampler: Joe

Well ID MW-3 Well Condition: O.K.
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 (feet) (product/water): 0 (Gallons)
Total Depth 14.09 ft.
Depth to Water 2.42 ft.

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

11.67 X VF 0.17 = 1.98 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 11:07 Weather Conditions: cloudy/rainy
Sampling Time: 11:25 A.M. Water Color: clear Odor: yes
Purging Flow Rate: 1 gpm. Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:15</u>	<u>2</u>	<u>7.08</u>	<u>2.36</u>	<u>64.7</u>			
<u>11:17</u>	<u>4</u>	<u>6.85</u>	<u>2.27</u>	<u>65.4</u>			
<u>11:18</u>	<u>6</u>	<u>6.97</u>	<u>2.24</u>	<u>65.5</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 Vol A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>
<u>"</u>	<u>1 Amb</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>TPHD</u>
_____	_____	_____	_____	_____	_____

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility # 5043 Job#: 180065
 Address: 449 Hegeberger Rd. Date: 1-25-99
 City: Oakland Sampler: Joe

Well ID MW-6 Well Condition: O.K.
 Well Diameter 2 in. Hydrocarbon Thickness: 0.6' Amount Bailed App. 35 ounces of FP/3 gal w
 Total Depth 12.84 ft. (product/water): (Gallons)
 Depth to Water 4.18 ft.

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

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

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other:

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

Starting Time: Weather Conditions: cloudy/rainy
 Sampling Time: Water Color: clear Odor:
 Purging Flow Rate: gpm. Sediment Description: None
 Did well de-water? If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm) ^{at 25°C}	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 x 4	X	None	CEQUOL	TPH/Cl/Total/Free
	<u>1 AMB</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>TPH</u>

COMMENTS: Approximately 5 ounces in skimmer and 30 ounces of FP removed from well. A total of 35 ounces removed.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5043 Job#: 180065
Address: 449 Hegeyberger Rd. Date: 1-25-99
City: Oakland Sampler: Jac

Well ID MW-7 Well Condition: O.K.
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 (feet) (product/water): 0 (Gallons)
Total Depth 13.19 ft.
Depth to Water 3.22 ft.

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

9.97 X VF 0.17 = 1.69 X 3 (case volume) = Estimated Purge Volume: 5 (gal.)

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

Starting Time: 9:00 Weather Conditions: cloudy/rainy
Sampling Time: 9:20 A.M. Water Color: clear Odor: none
Purging Flow Rate: 1 gpm. Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity, $\mu\text{mhos/cm}^{\circ}\text{C}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:07</u>	<u>1.5</u>	<u>7.38</u>	<u>5.68</u>	<u>65.1</u>			
<u>9:08</u>	<u>3</u>	<u>7.33</u>	<u>5.24</u>	<u>65.4</u>			
<u>9:10</u>	<u>5</u>	<u>7.35</u>	<u>5.29</u>	<u>65.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>"</u>	<u>1 Amb</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>TPHD</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5043 Job#: 180065
Address: 449 Heggenberger Rd. Date: 1-25-99
City: Oakland Sampler: Joe

Well ID MW-8 Well Condition: O.K.
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 (feet) (product/water): 0 (Gallons)
Total Depth 14.87 ft.
Depth to Water 2.92 ft.

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

11.95 x VF 0.17 = 2.03 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 10:05 Weather Conditions: cloudy/rainy
Sampling Time: 10:25 A.M. Water Color: clear Odor: none
Purging Flow Rate: 1 gpm. Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity, μ hos/cm ^x	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:12</u>	<u>2</u>	<u>7.66</u>	<u>5.56</u>	<u>65.2</u>			
<u>10:14</u>	<u>4</u>	<u>7.60</u>	<u>5.55</u>	<u>64.8</u>			
<u>10:15</u>	<u>6</u>	<u>7.54</u>	<u>5.49</u>	<u>64.9</u>			
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3 VO A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>"</u>	<u>1 Amb</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>TPHD</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5043 Job#: 180065
Address: 449 Hegeberger Rd. Date: 1-25-99
City: Oakland Sampler: Joe

Well ID MW-9 Well Condition: O.K.
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 (feet) (product/water): 0 (Gallons)
Total Depth 11.95 ft.
Depth to Water 0.92 ft.

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

11.03 x VF 0.17 = 1.88 x 3 (case volume) = Estimated Purge Volume: 5.64 (gal.)

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

Starting Time: 9:33 Weather Conditions: cloudy/rainy
Sampling Time: 9:50 A.M. Water Color: clear Odor: none
Purging Flow Rate: 1 gpm. Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:40</u>	<u>2</u>	<u>8.08</u>	<u>5.90</u>	<u>65.7</u>			
<u>9:41</u>	<u>4</u>	<u>7.46</u>	<u>6.08</u>	<u>65.2</u>			
<u>9:43</u>	<u>6</u>	<u>7.53</u>	<u>6.02</u>	<u>65.6</u>			
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3 VO A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>
<u>"</u>	<u>1 Amb</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>TPHD</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5043 Job#: 180065
Address: 449 Heggenberger Rd. Date: 1-25-99
City: Oakland Sampler: Jac

Well ID MW-10 Well Condition: O.K.
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 (feet) (product/water): 0 (Gallons)
Total Depth 12.81 ft.
Depth to Water 3.26 ft.

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

9.55 X VF 0.17 = 1.62 X 3 (case volume) = Estimated Purge Volume: 5 (gal.)

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

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

Starting Time: 10:35 Weather Conditions: cloudy/rainy
Sampling Time: 10:52 A.M. Water Color: clear Odor: some
Purging Flow Rate: 1 gpm. Sediment Description: None
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^{\circ}\text{C}$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:40</u>	<u>1.5</u>	<u>7.19</u>	<u>4.53</u>	<u>65.2</u>			
<u>10:41</u>	<u>3</u>	<u>7.27</u>	<u>4.48</u>	<u>64.7</u>			
<u>10:43</u>	<u>5</u>	<u>7.31</u>	<u>4.42</u>	<u>64.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3 Vol A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>"</u>	<u>1 Amb</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>TPHD</u>

COMMENTS: _____



Tosco Marketing Company
2000 Crow Canyon Pl, Ste. 400
San Ramon, California 94583

Facility Number # 5043 Job# 180065
 Facility Address 449 Hegenberger Rd. Oakland
 Consultant Project Number _____
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite J, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) _____
 (Phone) _____
 Laboratory Name Sequoia Analytical 9901476
 Laboratory Release Number _____
 Samples Collected by (Name) JOE ASEMIAN
 Collection Date 1-25-99
 Signature Joe Asemian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Load (Yes or No)	Analytes To Be Performed										DO NOT BILL TB-LB ANALYSIS
								TPH Gas + BTEX w/MIB (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	Remarks		
TB-LB		1	Soil	Grab		HCL	Y	✓										9011728
MW-3		3	Water	Composite	11:25 A.M.			✓	✓									9011729A
MW-7		"	"	"	7:20 A.M.			✓	✓									9011730
MW-8		"	"	"	10:25 A.M.			✓	✓									9011731
MW-9		"	"	"	9:50 A.M.			✓	✓									9011732
MW-10		"	"	"	10:52 A.M.			✓	✓									9011733 ✓

Relinquished By (Signature) <u>Joe Asemian</u>	Organization G-R Inc.	Date/Time 1-25-99	Received By (Signature) <u>[Signature]</u>	Organization CAC	Date/Time 1-26-1999	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature) <u>[Signature]</u>	Organization CAC	Date/Time 1-26	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time 1/25/99 14:30	

11/25/99 12:00 1/26/99 12:00



Sequoia Analytical

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(707) 792-1865

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FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342

RECEIVED

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

Client Project ID: Tosco #5043, Oakland
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 901-1728

Sampled: Jan 25, 1999
Received: Jan 26, 1999
Reported: Feb 10, 1999

GETTLER RYAN INC.

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 901-1728 TB-LB	Sample I.D. 901-1729 MW-3	Sample I.D. 901-1730 MW-7	Sample I.D. 901-1731 MW-8	Sample I.D. 901-1732 MW-9	Sample I.D. 901-1733 MW-10
Purgeable Hydrocarbons	50	N.D.	420	N.D.	N.D.	N.D.	140
Benzene	0.50	N.D.	1.5	N.D.	N.D.	N.D.	27
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	2.8
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	6.8
MTBE	2.5	N.D.	180	N.D.	N.D.	N.D.	23

Chromatogram Pattern: -- Gasoline & Unidentified Hydrocarbons C6 - C12 -- -- -- Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	2.0	1.0	1.0	1.0	1.0
Date Analyzed:	2/3/99	2/3/99	2/3/99	2/3/99	2/3/99	2/3/99
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	107	110	80	81	91	115

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Julianne Fegley
Project Manager



Sequoia Analytical

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FAX (707) 792-0342

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

Client Project ID: Tosco #5043, Oakland
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 901-1729

Sampled: Jan 25, 1999
Received: Jan 26, 1999
Reported: Feb 10, 1999

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 901-1729 MW-3	Sample I.D. 901-1730 MW-7	Sample I.D. 901-1731 MW-8	Sample I.D. 901-1732 MW-9	Sample I.D. 901-1733 MW-10
Extractable Hydrocarbons	50	120	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Unidentified Hydrocarbons C9 - C24	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.3	1.0	1.0
Date Extracted:	2/1/99	2/1/99	2/1/99	2/1/99	2/1/99
Date Analyzed:	2/2/99	2/2/99	2/2/99	2/2/99	2/2/99
Instrument Identification:	HP-3A	HP-3A	HP-3A	HP-3A	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager



Sequoia Analytical

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

Client Project ID: Tosco #5043, Oakland
Matrix: Liquid

QC Sample Group: 9011728-733

Reported: Feb 10, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 M.
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	K. Grubb

MS/MSD Batch#:	9011607	9011607	9011607	9011607	BLK020199B
Date Prepared:	2/3/99	2/3/99	2/3/99	2/3/99	2/1/99
Date Analyzed:	2/3/99	2/3/99	2/3/99	2/3/99	2/2/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3B
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
Matrix Spike % Recovery:	95	95	95	103	74
Matrix Spike Duplicate % Recovery:	95	95	100	107	82
Relative % Difference:	0.0	0.0	5.1	3.2	10

LCS Batch#:	2LCS020399	2LCS020399	2LCS020399	2LCS020399	LCS020199B
Date Prepared:	2/3/99	2/3/99	2/3/99	2/3/99	2/1/99
Date Analyzed:	2/3/99	2/3/99	2/3/99	2/3/99	2/2/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3B
LCS % Recovery:	95	95	100	105	86

% Recovery Control Limits:	70-130	70-130	70-130	70-130	60-140
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Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley

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Project Manager