GETTLER-RYAN INC.

TRANSMITTAL

May 13, 1999
G-R #:180075

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

CC: Mr. David Vossler
Gettler-Ryan Inc.
Novato, California

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

RE: Tosco (Unocal) SS #7376
4191 First Street
Pleasanton, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 10, 1999	Groundwater Monitoring and Sampling Report First Quarter 1999 - March Events

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 24, 1999***, this report will be distributed to the following:

Enclosure

cc: Mr. Scott Seery
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

ENVIRONMENTAL PROTECTION
99 MAY 25 PM 4:59

agency/7376dbd.qmt

GETTLER-RYAN INC.

May 10, 1999
G-R Job #180075

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 #7376
4191 First Street
Pleasanton, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On March 15, 1999, field personnel monitored seven wells (MW-1, MW-2B, MW-3, MW-4, MW-5, MW-6, and MW-7) and sampled six wells (MW-1, MW-2B, MW-3, MW-4, MW-6, and MW-7) at the above referenced site. One well (MW-8) was not located. On March 23, 1999, field personnel monitored eight wells (MW-1, MW-2B and MW-3 through MW-8) and sampled one well (MW-8).

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-5) during both visits. 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.

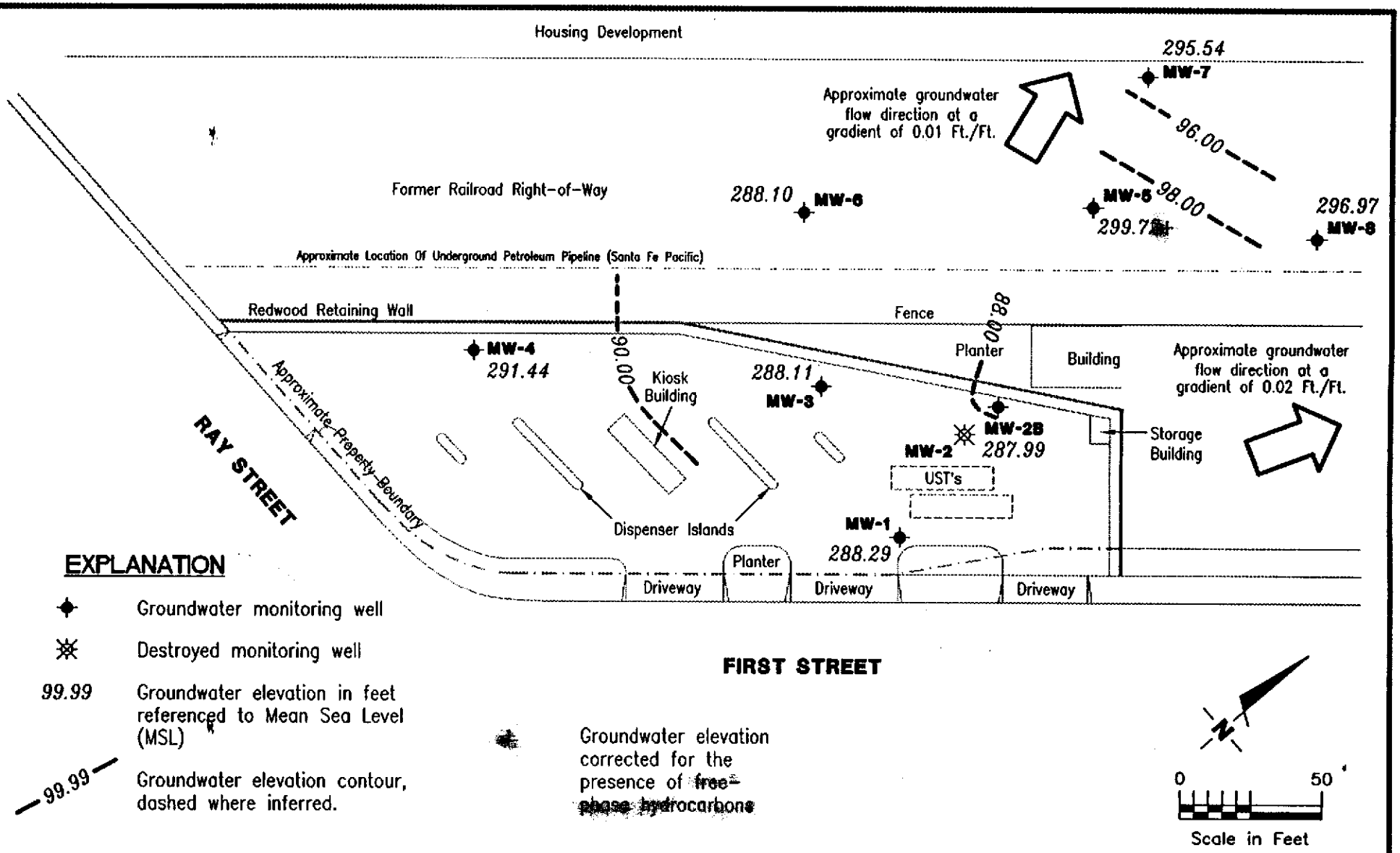
Sincerely,

Deanna L. Harding
Project Coordinator

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

REGISTERED GEOLOGIST
STEPHEN J. CARTER
No. 5577
STATE OF CALIFORNIA

Figure 1: Potentiometric Map -March 23, 1999
Figure 2: Concentration Map - March 15, 1999
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Product Thickness/Removal Data
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
7376.qml Chain of Custody Document and Laboratory Analytical Reports



Gettler - Ryan Inc.
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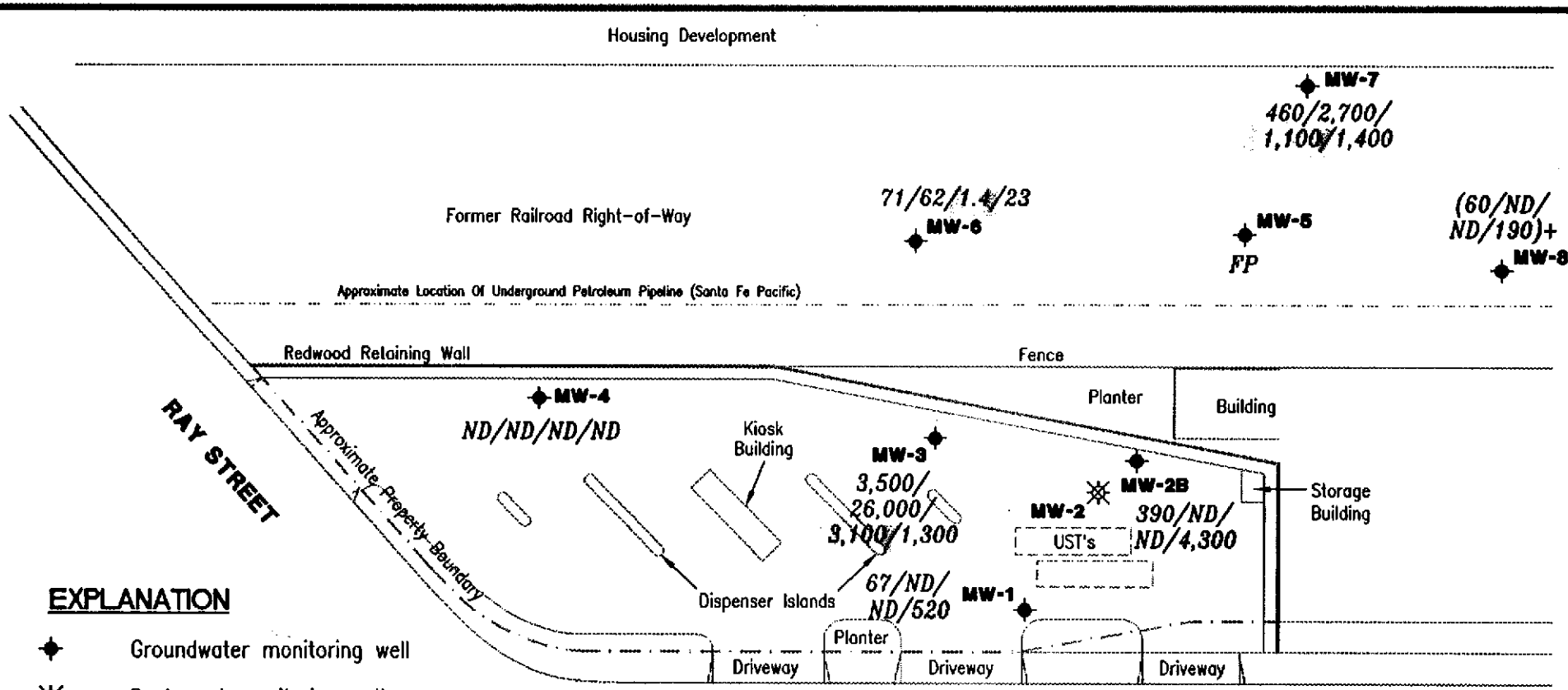
Dublin, CA 94568

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 7376
4191 First Street
Pleasanton, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180075		March 23, 1999	



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Dublin, CA 94568

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 7376
4191 First Street
Pleasanton, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180075		March 15, 1999	

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, 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	12/08/87[1]	--	--	--	2,100[2]	50[3]	58	8	ND	10	--
366.99	12/07/94	81.04	285.95	0.00	--	ND	ND	ND	ND	ND	--
	03/01/95	80.09	286.90	0.00	120	ND	ND	1.1	ND	1.3	--
	06/01/95	77.53	289.46	0.00	54[5]	130	1.0	2.9	0.79	4.5	--
	09/06/95	79.00	287.99	0.00	690	ND	ND	ND	ND	ND	--[6]
	12/12/95	77.55	289.44	0.00	190[5]	ND	ND	ND	ND	ND	--
	03/01/96	75.09	291.90	0.00	56	ND	ND	ND	ND	ND	370
	06/15/96	75.07	291.92	0.00	ND	ND	ND	ND	ND	ND	270
	09/18/96	79.90	287.09	0.00	130[5]	ND	ND	ND	ND	ND	590
	12/21/96	78.96	288.03	0.00	ND	ND	ND	ND	ND	ND	150
	03/07/97	71.49	295.50	0.00	ND	ND	ND	ND	ND	ND	220
	06/27/97	80.05	286.94	0.00	ND	ND	ND	ND	ND	ND	17
	09/29/97	80.04	286.95	0.00	ND	ND	ND	ND	ND	ND	24
	12/15/97	80.07	286.92	0.00	ND	ND	ND	ND	ND	ND	25
	03/16/98	71.00	295.99	0.00	ND	ND	ND	0.52	ND	0.71	190
366.98	06/26/98	79.29	287.69	0.00	ND	59[13]	0.90	ND	ND	ND	570
	08/18/98	79.93	287.05	0.00	--	--	--	--	--	--	--
	09/22/98	79.99	286.99	0.00	240[20]	ND	ND	ND	ND	ND	170
	12/15/98	80.02	286.96	0.00	ND	ND	ND	ND	ND	ND	63
	12/23/98	80.02	286.96	0.00	--	--	--	--	--	--	--
	03/15/99	**78.95**	**288.03**	**0.00**	**67[24]**	**ND[11]**	**ND[11]**	**ND[11]**	**ND[11]**	**ND[11]**	**520**
	03/23/99	**78.69**	**288.29**	**0.00**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-2	12/08/87				620[2]	1,800[3]	910	800	260	1,200	--
	12/07/94	DAMAGED	--	--	--	--	--	--	--	--	--
	02/07/95	DESTROYED	--	--	--	--	--	--	--	--	--
MW-2B											
365.05	03/01/95	80.80	284.25	0.00	320	ND	ND	ND	ND	ND	--
	06/01/95	75.69	289.36	0.00	280	350	19	5.8	ND	7.7	--
	09/06/95	77.54	287.51	0.00	ND	ND	90	ND	ND	ND	--[6]
	12/12/95	75.96	289.09	0.00	850[4]	1,200	630	ND	15	57	--[7]
	03/01/96	73.27	291.78	0.00	870[4]	1,000	620	ND	ND	5.3	4,300

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, 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-2B	06/15/96	73.21	291.84	0.00	420	910	350	ND	ND	ND	3,700
(cont)	09/18/96	81.08	283.97	0.00	600	1,200	95	ND	ND	ND	5,200
	12/21/96	77.35	287.70	0.00	470	330[8]	57	ND	ND	ND	2,900
	03/07/97	69.67	295.38	Sheen	870[4]	190	28	0.64	ND	1.5	4,300
	06/27/97	82.40	282.65	0.00	680[4]	98	3.4	1.0	0.53	ND	3,100
	09/29/97	82.72	282.33	0.00	430	ND	ND	ND	ND	ND	3,000
	12/15/97	82.57	282.48	0.00	490	54[9]	ND	ND	ND	ND	4,100
	03/16/98	69.13	295.92	Sheen	4,000[10]	ND[11]	17	ND[11]	ND[11]	ND[11]	4,400
365.05	06/26/98	77.78	287.27	0.00	790[14]	ND	ND	ND	ND	ND	4,000
	08/18/98	83.99	281.06	0.00	--	--	--	--	--	--	--
	09/22/98	83.89	281.16	0.00	930[20]	ND[11]	ND[11]	ND[11]	ND[11]	21	4,600
	12/15/98	82.84	282.21	0.00	600	ND	ND	ND	ND	ND	5,100
	12/23/98	82.55	282.50	0.00	--	--	--	--	--	--	--
	03/15/99	**77.31**	**287.74**	**0.00**	**390[25]**	**ND[11]**	**ND[11]**	**ND[11]**	**ND[11]**	**ND[11]**	**4,300/4,800[27]**
	03/23/99	**77.06**	**287.99**	**0.00**	--	--	--	--	--	--	--
MW-3	12/08/87	--	--	--	2,300[2]	24,000[3]	2,600	1,300	160	660	--
367.01	12/07/94	85.54	281.47	0.00	--	ND	ND	ND	ND	ND	--
	03/01/95	83.20	283.81	0.00	140[4]	ND	ND	1.1	ND	1.1	--
	06/01/95	77.60	289.41	0.00	140[5]	62	7.8	0.90	ND	1.6	--
	09/06/95	79.28	287.73	0.00	880[5]	4,100	380	490	130	710	--[6]
	12/12/95	77.73	289.28	0.00	3,100[4]	19,000	600	380	2,100	5,300	--[7]
	03/01/96	75.18	291.83	0.00	1,500[5]	3,400	950	3.2	1,900	290	59
	06/15/96	75.13	291.88	0.00	400[4]	780	190	8.8	3.8	4.0	630
	09/18/96	82.84	284.17	0.00	170	2,800	340	12	11	110	2,500
	12/21/96	79.29	287.72	0.00	64[4]	51	1.3	ND	ND	0.53	20
	03/07/97	71.58	295.43	0.00	570[4]	1,400	53	14	29	68	220
	06/27/97	83.27	283.74	0.00	ND	ND	ND	ND	ND	ND	27
	09/29/97	83.33	283.68	0.00	ND	ND	ND	ND	ND	ND	11
	12/15/97	83.35	283.66	0.00	ND	ND	ND	ND	ND	ND	19
	03/16/98	71.07	295.94	0.00	670[10]	130[12]	6.5	1.9	1.5	1.6	210
367.03	06/26/98	79.65	287.38	0.00	63[13]	400[15]	15	ND[11]	ND[11]	1.9	490
	08/18/98	83.29	283.74	0.00	--	--	--	--	--	--	--
	09/22/98	83.33	283.70	0.00	95[20]	ND	ND	ND	ND	ND	24

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, 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	12/15/98	83.29	283.74	0.00	ND	ND	ND	ND	ND	ND	18
(cont)	12/23/98	83.28	283.75	0.00	--	--	--	--	--	--	--
	03/15/99	**79.19**	**287.84**	**0.00**	**3,500[26]**	**26,000**	**3,100**	**270**	**2,200**	**3,100**	**1,300**
	03/23/99	**78.92**	**288.11**	**0.00**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-4											
369.03	09/18/96	73.67	295.36	0.00	200	160	14	ND	ND	1.6	ND
	12/21/96	77.69	291.34	0.00	ND	ND	ND	ND	ND	ND	ND
	03/07/97	68.04	300.99	0.00	ND	ND	1.9	0.99	ND	1.5	ND
	06/27/97	79.06	289.97	0.00	ND	ND	ND	ND	ND	ND	ND
	09/29/97	85.83	283.20	0.00	ND	ND	ND	ND	ND	ND	ND
	12/15/97	87.26	281.77	0.00	ND	ND	ND	ND	ND	ND	ND
	03/16/98	75.09	293.94	0.00	ND	ND	ND	0.69	ND	0.82	ND
368.81	06/26/98	73.81	295.00	0.00	630[16]	100[13]	62	ND	ND	ND	ND
	08/18/98	78.75	290.06	0.00	--	--	--	--	--	--	--
	09/22/98	83.95	284.86	0.00	74[20]	ND	ND	ND	ND	ND	2.8
	12/15/98	85.41	283.40	0.00	ND	ND	ND	ND	ND	ND	ND
	12/23/98	84.95	283.86	0.00	--	--	--	--	--	--	--
	03/15/99	**78.47**	**290.34**	**0.00**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
	03/23/99	**77.37**	**291.44**	**0.00**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
MW-5											
363.23	09/18/96	64.20	299.03	0.00	4,700[5]	36,000	6,700	410	730	6,500	4,100
	12/21/96	61.77	301.46	Sheen	4,700[4]	25,000	3,200	300	780	3,600	2,600
	03/07/97	56.30	306.93	Sheen	2,100[4]	14,000	1,300	120	410	1,200	1,700
	06/27/97	68.88	295.03**	0.90	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	09/29/97	69.47	294.02**	0.35	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	12/15/97	64.92	298.53**	0.30	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	03/16/98	49.63	313.67**	0.09	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
363.21	06/26/98	64.13	299.08	Sheen	230,000[17]	490[18]	6.3	2.8	4.2	5.1	10
	08/18/98	70.40	292.81**	0.005	--	--	--	--	--	--	--
	09/22/98	69.10	294.16**	0.06	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--
	12/15/98	68.84	294.50**	0.17	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, 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-5	12/23/98	68.42	295.18**	0.50	--	--	--	--	--	--	--
(cont)	**03/15/99**	**63.81**	**299.59****	**0.25**	--	--	--	--	--	--	--
	03/23/99	**63.59**	**299.72****	**0.13**	--	--	--	--	--	--	--
MW-6											
363.12	09/18/96	79.07	284.05	0.00	ND	160	5.4	ND	ND	ND	ND
	12/21/96	75.40	287.72	0.00	ND	300[8]	96	1.3	ND	1.7	21
	03/07/97	67.61	295.51	0.00	190[4]	1,800[8]	920	18	ND	31	290
	06/27/97	80.45	282.67	0.00	73[5]	ND	0.73	ND	ND	38	38
	09/29/97	86.02	277.10	0.00	ND	62[9]	ND	ND	ND	ND	43
	12/15/97	84.03	279.09	0.00	ND	78[9]	ND	ND	ND	ND	39
	03/16/98	67.15	295.97	0.00	100[10]	210[12]	36	2.5	ND	3.0	64
363.13	06/26/98	75.71	287.42	0.00	180[14]	530	300	8.3	2.8	8.7	81
	08/18/98	74.86	288.27	0.00	--	--	--	--	--	--	--
	09/22/98	UNABLE TO LOCATE		--	--	--	--	--	--	--	--
	12/15/98	UNABLE TO LOCATE		--	--	--	--	--	--	--	--
	12/23/98	80.80	282.33	0.00	--	120[23]	1.1	ND	ND	0.78	25
	01/23/99	80.68	282.45	0.00	ND	--	--	--	--	--	--
	03/15/99	**75.29**	**287.84**	**0.00**	**71[24]**	**62[22]**	**1.4**	**ND**	**ND**	**ND**	**23**
	03/23/99	**75.03**	**288.10**	**0.00**	--	--	--	--	--	--	--
MW-7											
355.97	06/26/98	--	--	--	--	--	--	--	--	--	--
	08/18/98	68.75	287.22	0.00	1,400[20]	4,000	1,900	48	160	ND[11]	1,700
	09/22/98	66.35	289.62	0.00	780[20]	3,200	1,100	ND	22	ND	1,500
	12/15/98	65.03	290.94	0.00	350[21]	1,900[22]	180	2.7	2.9	3.8	1,400
	12/23/98	64.82	291.15	0.00	--	--	--	--	--	--	--
	03/15/99	**60.44**	**295.53**	**0.00**	**460[26]**	**2,700**	**1,100**	**ND[11]**	**30**	**16**	**1,400/970[27]**
	03/23/99	**60.43**	**295.54**	**0.00**	--	--	--	--	--	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, 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-8											
362.37	06/26/98	63.00	299.37	0.00	80[19]	ND	6.0	ND	ND	ND	150
	08/18/98	73.38	288.99	0.00	--	--	--	--	--	--	--
	09/22/98	70.89	291.48	0.00	120[20]	ND	ND	ND	ND	ND	9.5
	12/15/98	70.29	292.08	0.00	ND	ND	ND	ND	ND	ND	3.0
	12/23/98	70.03	292.34	0.00	--	--	--	--	--	--	--
	03/15/99	**UNABLE TO LOCATE**		--	--	--	--	--	--	--	--
361.83	**03/23/99**	**64.86**	**296.97**	**0.00**	**60[24]**	**ND**	**ND**	**0.77**	**ND**	**0.96**	**190**
Trip Blank											
TB-LB	03/16/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	06/26/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	08/18/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	09/22/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	12/15/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	12/23/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	03/15/99	--	--	--	--	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
	03/23/99	--	--	--	--	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 16, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level
TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether

ppb = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed

* TOC elevations have been surveyed relative to mean sea level (msl) per City of Pleasanton Benchmark V1, a brass disk on the north curb of Ray Street, approximately 200 feet northwest of the centerline of First Street (Elevation = 367.17 feet msl). On March 22, 1999, MW-8 was re-surveyed, the Benchmark was a cut "+" on a concrete transformer pad on the north side of the property to the northwest (Elevation = 353.92 feet, msl).

** Groundwater elevation corrected for the presence of free product; correction factor = [(TOC-DTW)+(Product Thickness x 0.75)].

1 1,2-Dichloroethene (1,2-DCE) was detected at a concentration of 18 ppb.
2 Reported as Total Extractable Hydrocarbons (TEH).
3 Reported as Total Petroleum Hydrocarbons (TPH).
4 Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
5 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
6 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
7 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
8 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
9 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
10 Laboratory report indicates diesel and unidentified hydrocarbons >C16.
11 Detection limit raised. Refer to analytical results.
12 Laboratory report indicates gasoline and unidentified hydrocarbons <C7.
13 Laboratory report indicates discrete peaks.
14 Laboratory report indicates diesel and unidentified hydrocarbons >C20.
15 Laboratory report indicates discrete peaks and unidentified hydrocarbons <C7.
16 Laboratory report indicates diesel and unidentified hydrocarbons <C15.
17 Laboratory report indicates diesel and unidentified hydrocarbons <C15 and >C20.
18 Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
19 Laboratory report indicates unidentified hydrocarbons >C16.
20 Laboratory report indicates unidentified hydrocarbons C9-C24.
21 Laboratory report indicates diesel and unidentified hydrocarbons <C12.
22 Laboratory report indicates unidentified hydrocarbons C6-C12.
23 Laboratory report indicates unidentified hydrocarbons C6-C9.

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

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[24] Laboratory report indicates unidentified hydrocarbons > C14.

[25] Laboratory report indicates unidentified hydrocarbons > C10.

[26] Laboratory report indicates unidentified hydrocarbons > C9.

[27] MTBE by EPA Method 8260.

Table 2

Product Thickness/Removal Data

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

Well ID	Date	DTW (ft.)	Product Thickness (ft.)	Amount Bailed (Product + Water) gallons
MW-5	03/07/97	56.30	Sheen	--
	06/27/97	68.88	0.90	--
	09/29/97	69.47	0.35	--
	12/15/97	64.92	0.30	--
	03/16/98	49.63	0.09	0.25
	06/26/98	63.00	Sheen	--
	08/18/98	70.40	0.005	--
	09/22/98	69.10	0.06	--
	12/15/98	68.84	0.17	--
	12/23/98	68.42	0.50	--
	03/15/99	**63.81**	**0.25**	**0.13**
	03/23/99	**63.59**	**0.13**	**0.00**

EXPLANATIONS:

Product thickness/removal data prior to March 16, 1998, were compiled from reports prepared by MPDS Services, Inc.

DTW = Depth to water

(ft.) = Feet

-- = Not Measured/Not Available

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

Well ID	Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-2B	03/15/99	ND	3,800	4,800	13	ND	ND
MW-7	03/15/99	ND	610	970	4.3	ND	ND

EXPLANATIONS:

TBA = Tertiary Butyl Alcohol
MTBE = Methyl Tertiary Butyl Ether
DIPE = Di-isopropyl Ether
ETBE = Ethyl Tertiary Butyl Ether
TAME = Tertiary Amyl Methyl Ether
ppb = Parts per billion
-- = Not Analyzed
ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

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.

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TOSCO (UNOCAL) SS#7376
PLEASANTON, CA

MONITORING & SAMPLING
EVENT OF MARCH 15, 1999

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 180075

Address: 4191 First st. — Date: 3/15/99

City: Pleasanton — Sampler: Vanthen

Well ID: MW-1 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 86.43 ft.

Depth to Water: 78.95 ft.

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

7.48 X VF 0.17 = 1.27 X 3 (case volume) = Estimated Purge Volume: 381 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; (Grundfos); Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 12:32 — Weather Conditions: cldy

Sampling Time: 12:55 — Water Color: clear — Odor: no

Purging Flow Rate: 1 gpm. — Sediment Description: _____

Did well de-water? no — If yes; Time: _____ — Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cmX100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:34	1.5	7.60	5.67	68.2			
12:35	3	7.42	5.59	69.2			
12:37	4	7.35	5.58	69.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPHD

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 180075

Address: 4191 First St. — Date: 3/15/99

City: Pleasanton — Sampler: Vartkes

Well ID: MW-2B — Well Condition: Ok

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 85.25 ft.

Depth to Water: 77.31 ft.

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

7.94 X VF 0.17 = 1.35 X 3 (case volume) = Estimated Purge Volume: 4.05 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; (Grundfos); Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 3:55 — Weather Conditions: cldy

Sampling Time: 4:20 — Water Color: clear — Odor: no

Purging Flow Rate: 1 gpm. — Sediment Description: _____

Did well de-water? no — If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
3:57	1.1	7.35	6.84	69.1			
4:00	3	7.19	6.79	68.3			
4:02	4.0	7.11	6.76	68.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2B	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPHD
"	2 VOA	"	HCl	"	8260(5)04p. Comp-

COMMENTS: _____

9/97-fieldst.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Tosco
Facility # 7376 Job#: 180075

Address: 4191 First st. Date: 5/15/99

City: Pleasanton Sampler: Vartkes

Well ID MW-3 Well Condition: OK

Well Diameter 2 in. Hydrocarbon Thickness: Φ (feet) Amount Bailed (product/water): Φ (Gallons)

Total Depth 94.11 ft.

Depth to Water 79.19 ft.

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

14.92 X VF 0.17 = 2.54 X 3 (case volume) = Estimated Purge Volume: 7.61 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, (Grundfos), Other: _____

Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 11:53 Weather Conditions: cldy

Sampling Time: 12:20 Water Color: clear Odor: no

Purging Flow Rate: 1 gpm. Sediment Description: _____

Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:55	2.5	7.58	5.37	67.8			
11:58	5	7.41	5.29	68.1			
12:03	8	7.36	5.32	68.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPH-D

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 180075

Address: 4191 First st. — Date: 3/15/99

City: Pleasanton — Sampler: Vasilios

Well ID: MW-4 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: ϕ (feet) — Amount Bailed (product/water): ϕ (Gallons)

Total Depth: 93.01 ft.

Depth to Water: 78.47 ft.

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

14.54 X VF 0.17 = 2.47 X 3 (case volume) = Estimated Purge Volume: 7.42 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; (Grundfos); Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 11:15 — Weather Conditions: cldy

Sampling Time: 11:40 — Water Color: clear — Odor: no

Purging Flow Rate: 1 gpm. — Sediment Description: _____

Did well de-water? no — If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:17	2.5	7.52	4.92	66.8			
11:20	5	7.35	4.85	67.3			
11:23	7.5	7.30	4.79	67.6			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPHD

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 180075

Address: 4191 First St. — Date: 3/15/99

City: Pleasanton — Sampler: Vart Kas

Well ID: MW-5 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: 0.25 (feet) — Amount Bailed (product/water): 0.5 liter ~~(Gallons)~~

Total Depth: 72.52 ft.

Depth to Water: 63.81 ft.

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: 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 µmhos/cm X/DO	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	~~3 VOA~~	~~Y~~	~~HCl~~	~~SEQUOIA~~	~~TPH(G)~~/btex/mtbe

COMMENTS: Not sampled due to the presence of free product

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 180075

Address: 4191 First St. — Date: 3/15/99

City: Pleasanton — Sampler: Vanthes

Well ID: MW-6 — Well Condition: ok

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 86.85 ft.

Depth to Water: 75.29 ft.

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

11.56 X VF 0.17 = 1.96 X 3 (case volume) = Estimated Purge Volume: 5.90 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; (Grundfos); Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 1:15 — Weather Conditions: cldy

Sampling Time: 1:37 — Water Color: brn — Odor: _____

Purging Flow Rate: 1 gpm. — Sediment Description: silt

Did well de-water? NO — If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm X/00	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
~~1:17~~	2	7.50	5.70	69.8			
1:19	4	7.37	5.63	69.4			
1:21	6	7.33	5.60	69.2			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPHD

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Tosco
Facility #7376 Job#: 180075
Address: 4191 First St. Date: 3/15/99
City: Pleasanton Sampler: Vartkes

Well ID MW-7 Well Condition: OK
Well Diameter 2 in. Hydrocarbon Thickness: ϕ (feet) Amount Bailed (product/water): ϕ (Gallons)
Total Depth 76.90 ft.
Depth to Water 60.44 ft.

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

16.46 X VF 017 = 2.80 X 3 (case volume) = Estimated Purge Volume: 8.39 (gal.)

Purge Equipment: (Disposable Bailer) Bailer, Stack, Suction, Grundfos, Other: _____

Sampling Equipment: (Disposable Bailer) Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 11:55 Weather Conditions: cldy
Sampling Time: 2:20 Water Color: brn Odor: + (mild)
Purging Flow Rate: _____ gpm. Sediment Description: silt
Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cmX/00	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2:02	3	7.28	5.42	68.3			
2:09	6	7.09	5.31	68.7			
2:17	8.5	7.03	5.29	68.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPHD
"	2 VOA	"	HCl	"	8260 (5) Oxy. only

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Tosco
Facility # 7376 Job#: 180075
Address: 4191 First St. Date: 3/15/99
City: Pleasanton Sampler: Vartk.

Well ID MW-8 Well Condition: Covered over. Unable to locate

Well Diameter ____ in. Hydrocarbon Thickness: ____ (feet) Amount Bailed (product/water): ____ (Gallons)

Total Depth ____ ft.

Depth to Water ____ ft.

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:
- 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 µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 VOA	Y	HCl	SEQUOIA	~~TPH(G)/btex/mtbe~~

COMMENTS: Unable to locate (with metal detector). spent 1 hr. Clyde Came to help me find it, ~~[illegible]~~ after ½ hr. We gave up.

9/97-fieldat.frm

TOSCO

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

Facility Number TOSCO (UNOCAL) SS#7376
Facility Address 4191 First Street, Pleasanton, CA
Consultant Project Number 180075.85
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) ~~Ms. Tina R. Berry~~ DAVID DEWITT
(Phone) (~~510~~ 925) 277-~~2384~~
Laboratory Name Sequoia Analytical 9903367
Laboratory Release Number
Samples Collected by (Name) Varthes Tashjian
Collection Date 3/5/99
Signature Vartha Tashjian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015) (8020)	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)	8260 (5) OXY. Comp					DO NOT BILL TB-LB ANALYSIS Remarks
TB-LB		1	W	G		HCl	Y	X										9031564			
MW-1		4	"	"	12:15 pm	"	"	X	X									9031565			A-D
MW-2B		6	"	"	4:20 pm	"	"	X	X							X		9031566			A-F
MW-3		4	"	"	12:20 pm	"	"	X	X									9031567			A-D
MW-4		4	"	"	11:40 AM	"	"	X	X									9031568			↓
MW-6		4	"	"	1:17 pm	"	"	X	X									9031569			↓
MW-7		6	"	"	2:20 pm	"	"	X	X							X		9031570			A-F

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Vartha Tashjian	G-R Inc.	3/5/99 7:30 pm	[signature]	CAC	3-16-1500
[signature]	CAC	3-16 1700	[signature]		
			Received For Laboratory By (Signature): Anna [signature]		3/15/99 1930

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Ronald C. [signature] 3/16/99 17:00

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-[illegible], FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Tosco SS#7376, Pleasanton	Sampled: Mar 15, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Mar 16, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 1, 1999
Attention: Deanna Harding	First Sample #:	903-1564	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 903-1564 TB-LB	Sample I.D. 903-1565 MW-1	Sample I.D. 903-1566 MW-2B	Sample I.D. 903-1567 MW-3	Sample I.D. 903-1568 MW-4	Sample I.D. 903-1569 MW-6
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	26,000	N.D.	62
Benzene	0.50	N.D.	N.D.	N.D.	3,100	N.D.	1.4
Toluene	0.50	N.D.	N.D.	N.D.	270	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	2,200	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	3,100	N.D.	N.D.
MTBE	2.5	N.D.	520	4,300	1,300	N.D.	23
Chromatogram Pattern:		--	--	--	Gasoline	--	Unidentified Hydrocarbons C6 - C12

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	20	200	1.0	1.0
Date Analyzed:	3/26/99	3/27/99	3/27/99	3/26/99	3/26/99	3/27/99
Instrument Identification:	HP-5	HP-9	HP-9	HP-5	HP-5	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	91	100	96	91	102	119

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

9031564.GET <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Tosco SS#7376, Pleasanton	Sampled:	Mar 15, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received:	Mar 16, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Apr 1, 1999
Attention: Deanna Harding	First Sample #:	903-1570		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 903-1570 MW-7
Purgeable Hydrocarbons	50	2,700
Benzene	0.50	1,100
Toluene	0.50	N.D.
Ethyl Benzene	0.50	30
Total Xylenes	0.50	16
MTBE	2.5	1,400
Chromatogram Pattern:		Gasoline

Quality Control Data

Report Limit Multiplication Factor:	20
Date Analyzed:	3/27/99
Instrument Identification:	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	116

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
Project Manager

9031564.GET <2>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Tosco SS#7376, Pleasanton	Sampled: Mar 15, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Mar 16, 1999
Dublin, CA 94568	Analysis Method:	EPA 3510/8015 Mod.	Reported: Apr 1, 1999
Attention: Deanna Harding	First Sample #:	903-1565	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 903-1565 MW-1	Sample I.D. 903-1566 MW-2B	Sample I.D. 903-1567 MW-3	Sample I.D. 903-1568 MW-4	Sample I.D. 903-1569 MW-6	Sample I.D. 903-1570 MW-7
Extractable Hydrocarbons	50	67	390	3,500	N.D.	71	460
Chromatogram Pattern:		Unidentified Hydrocarbons >C14	Unidentified Hydrocarbons >C10	Unidentified Hydrocarbons >C9	--	Unidentified Hydrocarbons >C14	Unidentified Hydrocarbons >C9

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/22/99	3/22/99	3/22/99	3/22/99	3/22/99	3/22/99
Date Analyzed:	3/24/99	3/24/99	3/24/99	3/24/99	3/24/99	3/24/99
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B

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

Julianne Fegley
Project Manager

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Sequoia Analytical

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Gettler-Ryan - Dublin	Client Project ID:	Tosco SS#7376, Pleasanton	Sampled:	Mar 15, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-2B	Received:	Mar 16, 1999
Dublin, CA 94568	Analysis Method:	EPA 8260	Analyzed:	Mar 23, 1999
Attention: Deanna Harding	Lab Number:	903-1566	Reported:	Apr 1, 1999

OXYGENATED COMPOUNDS (EPA 8260)

Analyte	Detection Limit µg/L	Sample Results µg/L
Ethanol	500	N.D.
t-Butanol	**100**	**3,800**
Methyl t-Butyl Ether (MTBE)	**2.0**	**4,800**
Di-Isopropyl Ether (DIPE)	**2.0**	**13**
Ethyl t-Butyl Ether (ETBE)	2.0	N.D.
t-Amyl Methyl Ether (TAME)	2.0	N.D.

Surrogates	Control Limit %		% Recovery
Dibromofluoromethane	50	150	100
1,2-Dichloroethane-d4	50	150	88

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

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Sequoia Analytical

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Gettler-Ryan - Dublin	Client Project ID:	Tosco SS#7376, Pleasanton	Sampled:	Mar 15, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-7	Received:	Mar 16, 1999
Dublin, CA 94568	Analysis Method:	EPA 8260	Analyzed:	Mar 23, 1999
Attention: Deanna Harding	Lab Number:	903-1570	Reported:	Apr 1, 1999

OXYGENATED COMPOUNDS (EPA 8260)

Analyte	Detection Limit µg/L	Sample Results µg/L
Ethanol	500	N.D.
t-Butanol	100	610
Methyl t-Butyl Ether (MTBE)	2.0	970
Di-Isopropyl Ether (DIPE)	2.0	4.3
Ethyl t-Butyl Ether (ETBE)	2.0	N.D.
t-Amyl Methyl Ether (TAME)	2.0	N.D.

Surrogates	Control Limit %		% Recovery
Dibromofluoromethane	50	150	80
1,2-Dichloroethane-d4	50	150	30 *

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

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
* Surrogate recovery below detection limit due to matrix interference.

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Sequoia Analytical

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

Client Project ID: Tosco SS#7376, Pleasanton
Matrix: Liquid
QC Sample Group: 9031564-570

Reported: Apr 1, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	9031387	9031387	9031387	9031387
Date Prepared:	3/26/99	3/26/99	3/26/99	3/26/99
Date Analyzed:	3/26/99	3/26/99	3/26/99	3/26/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	100	100	100	105
Matrix Spike Duplicate % Recovery:	100	100	100	105
Relative % Difference:	0.0	0.0	0.0	0.0
LCS Batch#:	5LCS032699	5LCS032699	5LCS032699	5LCS032699
Date Prepared:	3/26/99	3/26/99	3/26/99	3/26/99
Date Analyzed:	3/26/99	3/26/99	3/26/99	3/26/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	105	105	105	112
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Client Project ID: Tosco SS#7376, Pleasanton
Matrix: Liquid
QC Sample Group: 9031564-570

Reported: Apr 1, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	9031665	9031665	9031665	9031665
Date Prepared:	3/27/99	3/27/99	3/27/99	3/27/99
Date Analyzed:	3/27/99	3/27/99	3/27/99	3/27/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	100	105	113
Matrix Spike Duplicate % Recovery:	115	105	110	118
Relative % Difference:	9.1	4.9	4.7	4.3
LCS Batch#:	2LCS032799	2LCS032799	2LCS032799	2LCS032799
Date Prepared:	3/27/99	3/27/99	3/27/99	3/27/99
Date Analyzed:	3/27/99	3/27/99	3/27/99	3/27/99
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	110	105	110	118
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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

Sequoia Analytical

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

Client Project ID: Tosco SS#7376, Pleasanton
Matrix: Liquid
QC Sample Group: 9031564-570

Reported: Apr 1, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	MTBE
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M.	EPA 8260
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	K. Grubb	N. Nelson
MS/MSD Batch#:	9032012	9032012	9032012	9032012	BLK032299B	9031271
Date Prepared:	3/27/99	3/27/99	3/27/99	3/27/99	3/22/99	3/22/99
Date Analyzed:	3/27/99	3/27/99	3/27/99	3/27/99	3/24/99	3/22/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	GC/MS-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L	50 µg/L
Matrix Spike % Recovery:	125	90	125	129	88	-
Matrix Spike Duplicate % Recovery:	135	95	130	132	86	-
Relative % Difference:	7.7	5.4	3.9	2.0	2.3	-
LCS Batch#:	5LCS032799	5LCS032799	5LCS032799	5LCS032799	LCS032299B	LCS032299B
Date Prepared:	3/27/99	3/27/99	3/27/99	3/27/99	3/22/99	3/22/99
Date Analyzed:	3/27/99	3/27/99	3/27/99	3/27/99	3/24/99	3/22/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	GC/MS-2
LCS % Recovery:	115	115	115	120	84	108
% Recovery Control Limits:	70-130	70-130	70-130	70-130	60-140	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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

TOSCO (UNOCAL) SS#7376
PLEASANTON, CA

MONITORING & SAMPLING
EVENT OF MARCH 23, 1999

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Tosco
Facility # 7376 Job#: 140107.04
Address: 491 First st. Date: 3/23/99
City: Pleasanton Sampler: VanHoa

Well ID MW-1 Well Condition: ok

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 86.43 ft.

Depth to Water 78.69 ft.

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:
- Disposable Bailer
- Bailer
- Stack
- Suction
- ~~Equinelos~~
- 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 µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: Monitor only

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 140107.04

Address: 4191 First st. — Date: 3/23/99

City: Pleasanton — Sampler: Vasilas

Well ID: MW-2 — Well Condition: ok

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 85.25 ft.

Depth to Water: 77.06 ft.

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: 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 µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	~~3 VOA~~	~~Y~~	~~HCl~~	~~SEQUOIA~~	~~TPH(G)/btex/mtbe~~

COMMENTS: Monitor only

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Tosco
Facility # 7376 Job#: 140107.04
Address: 4491 First st. Date: 3/23/99
City: Pleasanton Sampler: Vasthas

Well ID MW-3 Well Condition: OK

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 94.11 ft.

Depth to Water 78.92 ft.

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:
- Disposable Bailer
- Bailer
- Stack
- Suction
- ~~Submersible~~
- 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 µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3-VOA	Y	HCl	SEQUOIA	~~TPH(G)/btex/mtbe~~

COMMENTS: Monitor only

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility: Tosco #7376 — Job#: 140107.04

Address: 4491 First st. — Date: 3/23/99

City: Pleasanton — Sampler: Vasthas

Well ID: MW-4 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 93.01 ft.

Depth to Water: 77.37 ft.

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: 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 µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: Monitor only.

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 140107.04

Address: 4491 First st. — Date: 3/23/99

City: Pleasanton — Sampler: Vasilios

Well ID: MW-5 — Well Condition: ok

Well Diameter: 2 in. — Hydrocarbon Thickness: 0.13 (feet) — Amount Bailed (product/water): ~~~ (Gallons)

Total Depth: 72.52 ft.

Depth to Water: 63.59 ft.

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:
- 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 µmhos/cm X/00	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 VOA	X	HCl	SEQUOIA	TPH(G)/btex/mtbe

COMMENTS: Monitor only

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 140107.04

Address: 4491 First st. — Date: 3/23/99

City: Pleasanton — Sampler: Vasthas

Well ID: MW-6 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 86.85 ft.

Depth to Water: 75.03 ft.

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: Disposable Bailer; Bailer; Stack; Suction; ~~Equindos~~; 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 µmhos/cm X/00	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) · CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	3 VOA	Y	HCl	SEQUOIA	TPH(G)/~~btex/mtbe~~

COMMENTS: Monitor only

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Tosco
Facility # 7376 Job#: 140107.04
Address: 4191 First st. Date: 3/23/99
City: Pleasanton Sampler: Vasthas

Well ID MW-7 Well Condition: OK

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 76.90 ft.

Depth to Water 60.43 ft.

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:
- 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 µmhos/cm X100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	~~3 VOA~~	Y	HCl	SEQUOIA	~~TPH(G)/btex/mtbe~~

COMMENTS: Monitor only

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Tosco 7376 — Job#: 140107.04

Address: 4491 First st. — Date: 3/23/99

City: Pleasanton — Sampler: Vasthas

Well ID: MW-8 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)

Total Depth: 84.75 ft.

Depth to Water: 64.86 ft.

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

19.89 x VF 0.17 = 3.38 x 10 (develop). (case volume) = Estimated Purge Volume: 34 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; (Suction); ~~Grundfos~~; Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 1:40 — Weather Conditions: cldy

Sampling Time: 2:45 — Water Color: brn — Odor: _____

Purging Flow Rate: 4 gpm. — Sediment Description: sand + silt (muddy)

Did well de-water? _____ — If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cmX100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:50	11	7.57	6.94	66.3			
2:10	22	7.42	6.80	67.5			
2:28	34	7.38	6.72	68.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	3 VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
"	1 Amber	"	NONE	"	TPH-D

COMMENTS: Very Turbid water - submersible pump plugged-up Tonica.

TOSCO

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

Facility Number TOSCO (UNOCAL) SS#7376
Facility Address 4191 First Street, Pleasanton, CA
Consultant Project Number [redacted] 140107.04
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) ~~Mr. Tina R. Berry~~ DAVID DEWITT
(Phone) (~~510~~) 277-~~2324~~ 2324
Laboratory Name Sequoia Analytical
Laboratory Release Number 9903565
Samples Collected by (Name) Vasken Tashjian
Collection Date 3/23/99
Signature Vasken Tashjian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: TPH Gas + BTEX w/MTBE (8015) (8020)	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)						DO NOT BILL TB-LB ANALYSIS Remarks
TB-LB		1	W	Gr		HCl	Y	X			9032340										
MW-8		4	"	"	2:45 PM	"	"	X	X		9032341			A-D							

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Vasken Tashjian	G-R Inc.	3/23/99 3:40 PM	Joan Weber	G-R INC	3/23/99 3:40
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Joan Weber	G-R INC.	3/24/99 0800		W.C. Seq	3/24/99 1135
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
	W.C. Seq	3/24/99 1210	Ronald C. Jensen		3/24/99 12:10

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#7376, Pleasanton	Sampled: Mar 23, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: Mar 24, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Apr 21, 1999
Attention: Deanna Harding	First Sample #:	903-2340	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 903-2340 TB-LB	Sample I.D. 903-2341 MW-8
Purgeable Hydrocarbons	50	N.D.	N.D.
Benzene	0.50	N.D.	N.D.
Toluene	0.50	N.D.	0.77
Ethyl Benzene	0.50	N.D.	N.D.
Total Xylenes	0.50	N.D.	0.96
MTBE	2.5	N.D.	190
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	4/2/99	4/3/99
Instrument Identification:	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	102	89

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
Project Manager

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Unocal SS#7376, Pleasanton	Sampled:	Mar 23, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received:	Mar 24, 1999
Dublin, CA 94568	Analysis Method:	EPA 3510/8015 Mod.	Reported:	Apr 21, 1999
Attention: Deanna Harding	First Sample #:	903-2341		

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 903-2341 MW-8
Extractable Hydrocarbons	50	60
Chromatogram Pattern:		Unidentified Hydrocarbons >C14

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	3/30/99
Date Analyzed:	4/7/99
Instrument Identification:	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

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Sequoia Analytical

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

Client Project ID: Unocal SS#7376, Pleasanton
Matrix: Liquid
QC Sample Group: 9032340-341

Reported: Apr 21, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	9032236	9032236	9032236	9032236
Date Prepared:	4/2/99	4/2/99	4/2/99	4/2/99
Date Analyzed:	4/2/99	4/2/99	4/2/99	4/2/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike %.Recovery:	100	100	100	105
Matrix Spike Duplicate % Recovery:	95	100	100	105
Relative % Difference:	5.1	0.0	0.0	0.0
LCS Batch#:	5LCS040299	5LCS040299	5LCS040299	5LCS040299
Date Prepared:	4/2/99	4/2/99	4/2/99	4/2/99
Date Analyzed:	4/2/99	4/2/99	4/2/99	4/2/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	100	100	95	100
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

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

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

Client Project ID: Unocal SS#7376, Pleasanton
Matrix: Liquid
QC Sample Group: 9032340-341
Reported: Apr 21, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M.
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel	N. VanSlambrook
MS/MSD Batch#:	9032525	9032525	9032525	9032525	BLK033099
Date Prepared:	4/3/99	4/3/99	4/3/99	4/3/99	3/30/99
Date Analyzed:	4/3/99	4/3/99	4/3/99	4/3/99	4/7/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
Matrix Spike % Recovery:	115	120	115	120	90
Matrix Spike Duplicate % Recovery:	100	100	100	108	96
Relative % Difference:	14	18	14	10	6.5
LCS Batch#:	5LCS040399	5LCS040399	5LCS040399	5LCS040399	LCS033099
Date Prepared:	4/3/99	4/3/99	4/3/99	4/3/99	3/30/99
Date Analyzed:	4/3/99	4/3/99	4/3/99	4/3/99	4/7/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A
LCS % Recovery:	95	95	95	100	92
% Recovery Control Limits:	70-130	70-130	70-130	70-130	60-140

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
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ENVIRONMENTAL PROTECTION