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GETTLER-RYAN INC.

TRANSMITTAL

February 19, 2003

G-R #180068

Alameda County

MAR 07 2003

Environmental Health

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

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

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

RE: Tosco (Former Unocal)
Service Station #1871
96 MacArthur Boulevard
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	February 14, 2003	Groundwater Monitoring and Sampling Report First Quarter - Event of January 14, 2003

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 **March 4, 2003**, this report will be distributed to the following:

cc: Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, California 94502

Enclosure

trans/1871-DBD



GETTLER-RYAN INC.

February 14, 2003
G-R Job #180068

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

RE: First Quarter Event of January 14, 2003
Groundwater Monitoring & Sampling Report
Tosco (Former Unocal) Service Station #1871
96 MacArthur Boulevard
Oakland, California

Dear Mr. De Witt:

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

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

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

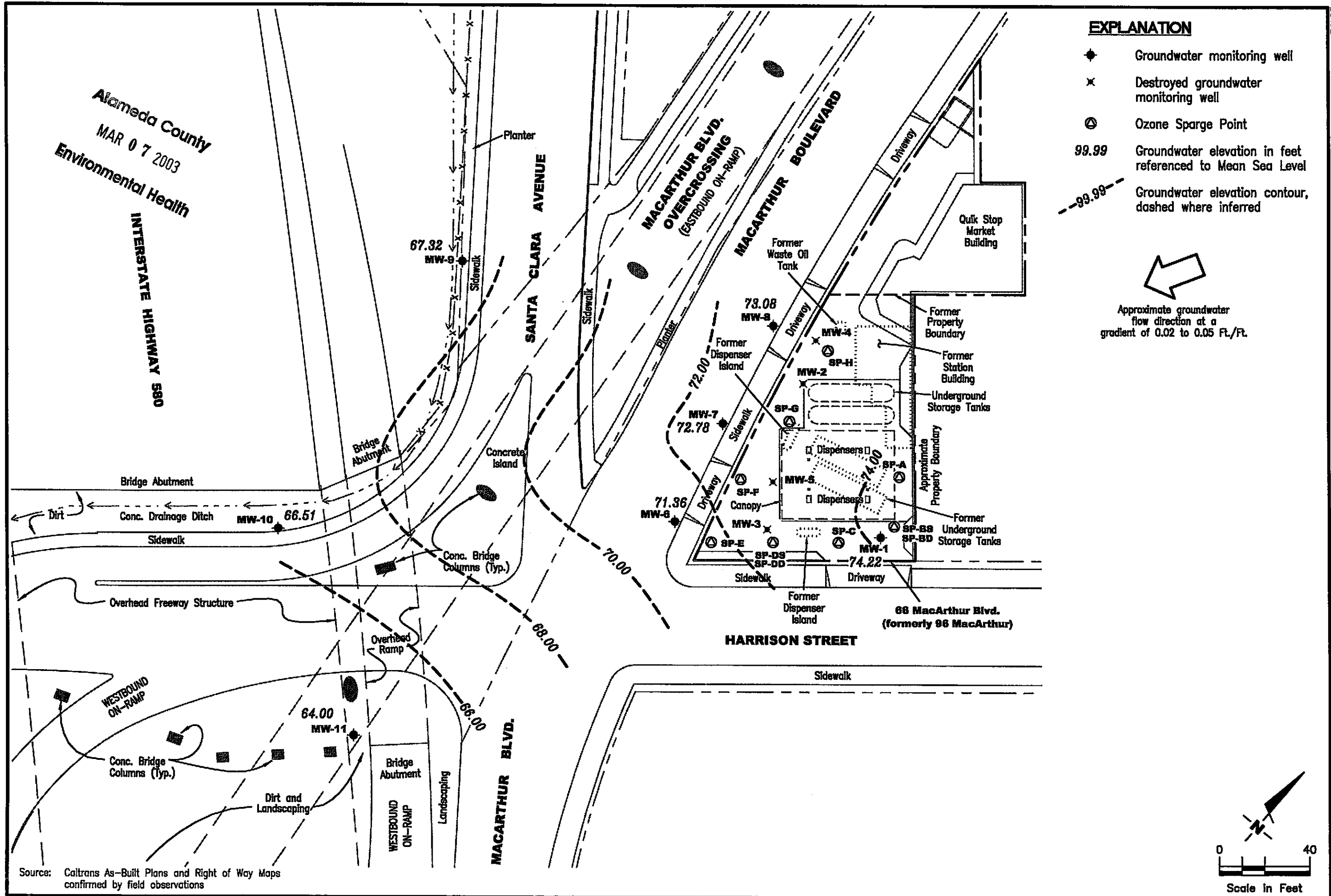
Sincerely,

Deanna L. Harding
Project Coordinator

Robert C. Mallory
Registered Geologist No. 7285



Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Field Measurements
Table 3: Groundwater Analytical Results - Oxygenate Compounds
Table 4: Groundwater Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



EXPLANATION

- ◆ Groundwater monitoring well
- ✕ Destroyed groundwater monitoring well
- ⊙ Ozone Sparge Point
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred

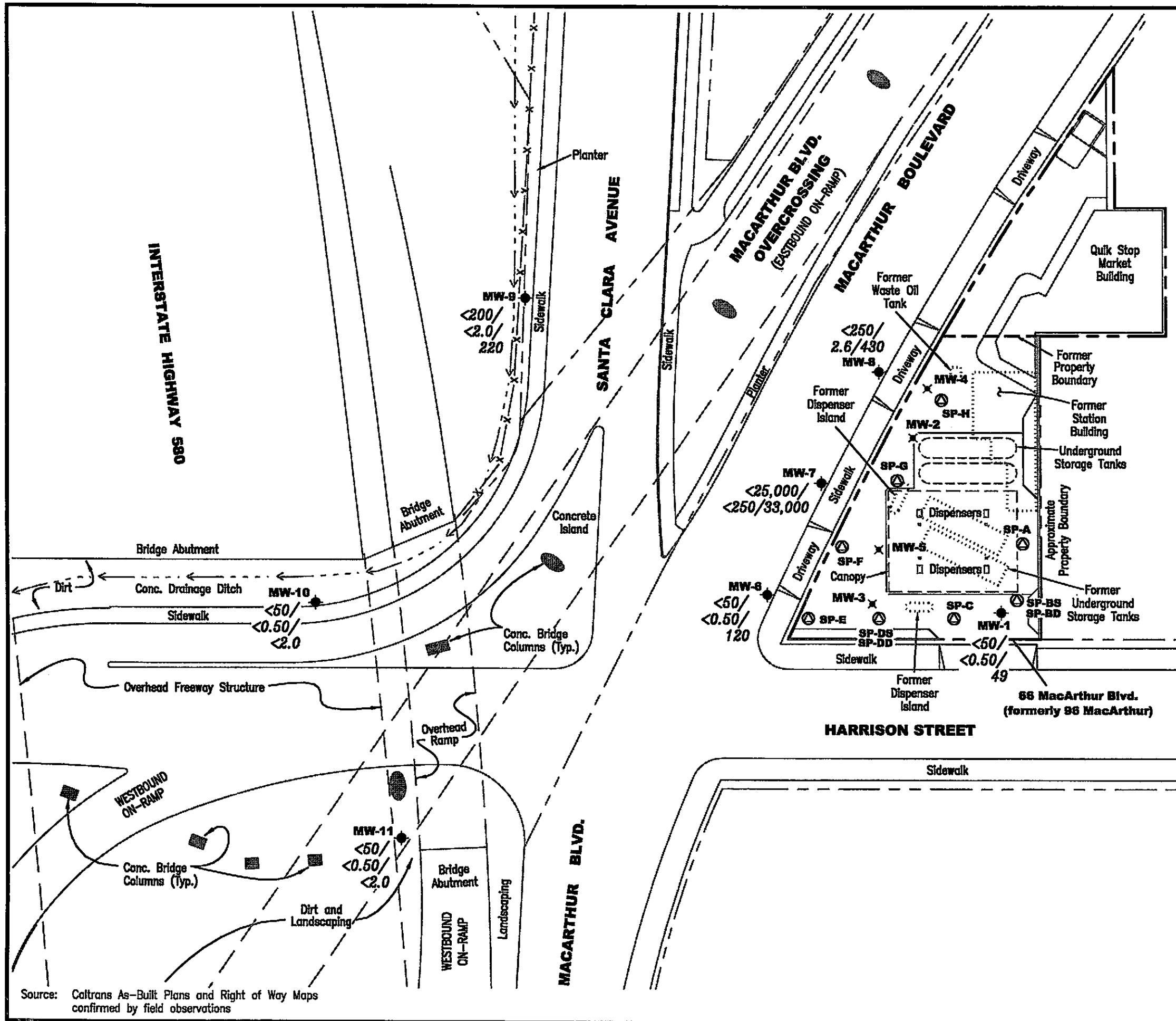
Approximate groundwater flow direction at a gradient of 0.02 to 0.05 Ft./Ft.

FIGURE 1
 POTENTIOMETRIC MAP
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California
 DATE: January 14, 2003
 REVISED DATE:

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568
 (925) 551-7555

PROJECT NUMBER: 180068
 REVIEWED BY:
 FILE NAME: F:\ENVIRO\OSCO\1871\003-1871.DWG | Layout Tab: Pot

Source: Caltrans As-Built Plans and Right of Way Maps confirmed by field observations



EXPLANATION

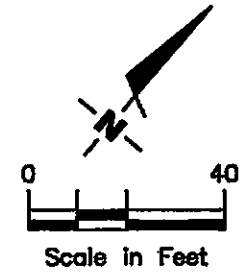
- ◆ Groundwater monitoring well
 - ✕ Destroyed groundwater monitoring well
 - ⊙ Ozone Sparge Point
 - A/B/C Total Petroleum Hydrocarbons (TPH) as Gasoline/Benzene/MTBE concentrations in ppb
- NOTE:** Analyses by EPA Method 8260

CONCENTRATION MAP
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

DATE: January 14, 2003
 REVISED DATE:

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568
 (925) 551-7555

PROJECT NUMBER: 180068
 REVIEWED BY:



Source: Caltrans As-Built Plans and Right of Way Maps confirmed by field observations

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	11/03/92	--	9.5-24.5	--	260,000	2,300	4,600	3,700	17,000	--
	01/25/93	--		--	120,000	2,100	4,600	4,900	22,000	--
81.18	04/29/93	13.71		67.47	100,000	850	2,000	4,300	19,000	--
	07/16/93	14.51		66.67	29,000	590	560	980	4,200	--
	10/19/93	15.20		65.98	67,000	1,400	2,600	2,900	5,000	--
	01/20/94	15.17		66.01	92,000	1,200	3,000	3,400	17,000	--
	04/13/94	14.44		66.74	51,000	1,000	2,600	3,200	15,000	--
	07/13/94	14.88		66.30	35,000	550	150	1,400	5,700	--
	10/10/94	15.55		65.63	52,000	1,000	810	3,300	12,000	--
	01/10/95	12.44		68.74	810	16	18	59	250	--
	04/17/95	12.68		68.50	48,000	880	530	2,500	11,000	--
	07/24/95	13.97		67.21	48,000	1,500	420	2,700	9,700	--
	10/23/95	14.85		66.33	47,000	780	210	2,100	11,000	270
	86.24	01/18/96	14.21		66.97	30,000	1,500	500	3,500	13,000
04/18/96		13.40		72.84	66,000	2,700	2,200	3,100	13,000	57,000
07/24/96		14.15		72.09	5,600	2,100	ND	160	160	24,000
10/24/96		14.85		71.39	110,000	7,500	8,000	3,300	14,000	58,000
01/28/97		11.25		74.99	94,000	7,700	19,000	3,100	15,000	120,000
07/29/97		14.67		71.57	ND	ND	ND	ND	ND	70,000
01/14/98		12.27		73.97	85,000	6,100	10,000	3,000	17,000	110,000
07/01/98		14.32		71.92	110,000	8,700	12,000	2,700	15,000	110,000
06/18/99		13.93		72.31	49,000	6,900	6,500	380	12,000	72,000/47,000 ⁴
01/21/00		15.05		71.19	63,700 ⁵	5,520	2,000	2,640	13,100	57,100
07/10/00		13.97		72.27	67,800 ⁵	9,910	4,120	3,330	16,100	67,400/54,000 ⁴
01/04/01		14.92		71.32	63,900 ⁵	6,270	784	2,670	12,900	--/38,100 ⁴
86.99	07/16/01	14.32		71.92	66,000 ⁵	7,100	330	2,300	9,800	36,000/41,000 ⁴
	◆ 01/31/02	13.54		73.45	42,000 ⁵	5,800	1,800	2,000	8,200	26,000/26,000 ⁴
	04/11/02	13.64		73.35	58,000	2,900	1,200	1,800	10,000	19,000
	07/11/02 ⁸	13.96		73.03	5,900	330	<10	230	600	3,400
	10/15/02 ⁸	14.71		72.28	470	16	<2.5	14	16	390
01/14/03 ⁸	12.77		74.22	<50	<0.50	<0.50	<0.50	<1.0	49	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	11/03/92	--	--	--	140	2.2	ND	ND	2.0	--
	01/25/93	--	--	--	2,100	56	1.1	90	140	--
76.61	04/29/93	9.73		66.88	1,500	290	ND	33	11	--
	07/16/93	10.17		66.44	510 ¹	17	0.60	3.2	2.5	--
	10/19/93	11.18		65.43	670	24	1.1	7.7	23	--
	01/20/94	11.12		65.49	820	97	ND	12	ND	--
	04/13/94	10.12		66.49	550	71	ND	5.1	1.3	--
	07/13/94	10.86		65.75	2,000	490	ND	17	13	--
	10/10/94	11.48		65.13	2,300	340	ND	25	ND	--
	01/10/95	8.71		67.90	850	3.8	ND	8.5	1.3	--
	04/17/95	8.90		67.71	1,300	4.7	ND	8.3	1.2	--
	07/24/95	9.94		66.67	960	20	ND	4.2	6.2	--
	10/23/95	10.70		65.91	ND	ND	ND	ND	ND	19
81.66	01/18/96	10.11		66.50	900	300	86	7.6	18	4,300
	04/18/96	9.27		72.39	18,000	3,600	680	890	4,100	19,000
	07/24/96	10.02		71.64	100,000	13,000	21,000	2,700	16,000	120,000
	10/24/96	10.78		70.88	800	110	17	11	20	20,000
	01/28/97	7.70		73.96	45,000	2,400	2,900	2,000	7,600	29,000
	07/29/97	10.28		71.38	ND	1.2	0.72	0.63	0.62	17,000
	01/14/98	8.63		73.03	14,000	1,000	150	790	3,300	23,000
	07/01/98	9.53		72.13	2,700	100	ND ³	180	78	7,100
DESTROYED										
MW-3	11/03/92	--	--	--	2,100	120	15	38	200	--
	01/25/93	--	--	--	2,300	80	1	55	52	--
77.48	04/29/93	11.37		66.11	4,500	1,700	ND	200	140	--
	07/16/93	12.09		65.39	4,000 ¹	1,100	28	52	70	--
	10/19/93	12.69		64.79	3,800	42	ND	50	56	--
	01/20/94	12.65		64.83	4,200	11	ND	21	15	--
	04/13/94	12.02		65.46	4,200	210	ND	36	53	--
	07/13/94	12.46		65.02	1,800 ²	16	16	ND	21	--
	10/10/94	12.98		64.50	4,300	11	ND	12	ND	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3	01/10/95	10.42	--	67.06	310	4.6	ND	3.5	2.1	--
(cont)	04/17/95	10.42		67.06	7,800	ND	4.6	300	450	--
	07/24/95	11.76		65.72	3,200	170	ND	22	16	--
	10/23/95	12.50		64.98	3,900	55	ND	19	11	4,500
	01/18/96	11.79		65.69	2,200	270	33	26	18	5,500
82.55	04/18/96	11.30		71.25	6,000	1,800	ND	100	230	48,000
	07/24/96	12.17		70.38	ND	2,500	ND	ND	ND	71,000
	10/24/96	12.65		69.90	3,800	660	ND	15	ND	65,000
	01/28/97	9.50		73.05	4,400	250	13	87	47	54,000
	07/29/97	11.99		70.56	ND	3,500	ND	220	ND	75,000
	01/14/98	10.30		72.25	ND ³	430	ND ³	100	380	37,000
	07/01/98	11.70		70.85	ND ³	430	ND ³	ND ³	ND ³	45,000
DESTROYED										
MW-4										
82.04	04/18/96	9.83	--	72.21	ND	630	ND	ND	ND	18,000
	07/24/96	10.47		71.57	ND	ND	ND	ND	5.2	3,900
	10/24/96	11.14		70.90	ND	ND	ND	ND	ND	6,300
	01/28/97	7.94		74.10	1,200	490	ND	17	6.8	16,000
	07/29/97	10.86		71.18	50	1.5	0.61	0.73	0.78	15,000
	01/14/98	8.73		73.31	ND ³	ND ³	ND ³	ND ³	ND ³	5,200
	07/01/98	10.51		71.53	ND	ND	ND	ND	ND	640
DESTROYED										
MW-5										
81.80	04/18/96	9.65	--	72.15	31,000	5,500	1,400	1,700	8,100	66,000
	07/24/96	10.80		71.00	32,000	6,400	ND	1,600	6,100	120,000
	10/24/96	11.40		70.40	17,000	6,900	ND	970	130	84,000
	01/28/97	7.76		74.04	19,000	6,100	62	82	310	160,000
	07/29/97	11.58		70.22	ND	ND	ND	ND	ND	71,000

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-5	01/14/98	9.08	--	72.72	ND ³	3,600	ND ³	ND ³	ND ³	80,000	
(cont)	07/01/98	11.25		70.55	6,400	2,100	21	120	330	61,000	
	DESTROYED										
MW-6											
78.91	06/18/99	9.30	5.0-25.0	69.61	2,100	21	29	ND ³	47	97,000/71,000 ⁴	
	01/21/00	9.37		69.54	1,880 ⁵	143	31.2	106	196	41,200/48,800 ⁴	
	07/10/00	8.94		69.97	5,710 ⁵	869	209	301	1,430	22,200/19,500 ⁴	
	01/04/01	9.21		69.70	ND	ND	ND	ND	ND	--/9,510 ⁴	
	07/16/01	9.42		69.49	4,800 ⁵	200	21	150	440	29,000/34,000 ⁴	
	01/31/02	8.50		70.41	12,000 ⁷	250	92	500	1,500	26,000/31,000 ⁴	
79.67	04/11/02	9.08		70.59	3,600	42	32	39	280	120,000	
	07/11/02 ⁸	9.70		69.97	12,000 ⁹	<100	<100	<100	<200	15,000	
	10/15/02 ⁸	9.96		69.71	1,300 ⁹	<10	<10	<10	<20	3,200	
	01/14/03 ⁸	8.31		71.36	<50	<0.50	<0.50	<0.50	<1.0	120	
MW-7											
79.92	06/18/99	8.70	5.0-25.0	71.22	ND	ND	ND	ND	ND	16,000/13,000 ⁴	
	01/21/00	9.30		70.62	ND ³	ND ³	ND ³	ND ³	ND ³	12,300/18,200 ⁴	
	07/10/00	8.72		71.20	ND ³	ND ³	ND ³	ND ³	ND ³	16,900/13,800 ⁴	
	01/04/01	9.17		70.75	ND	ND	ND	ND	0.719	--/37.3 ⁴	
	07/16/01	9.02		70.90	ND	ND	ND	ND	ND	7,200/4,700 ⁴	
	01/31/02	7.91		72.01	<50	<0.50	<0.50	<0.50	<0.50	8,900/9,900 ⁴	
80.67	04/11/02	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--	--
	07/11/02	INACCESSIBLE - TRUCK PARKED OVER WELL				--	--	--	--	--	--
	10/15/02 ⁸	9.81		70.86	<5,000 ⁹	<50	<50	<50	<100	12,000	
	01/14/03 ⁸	7.89		72.78	<25,000	<250	<250	<250	<500	33,000	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8										
80.96	06/18/99	9.10	5.0-25.0	71.86	ND	ND	ND	ND	ND	290/160 ⁴
	01/21/00	10.00		70.96	ND	ND	ND	ND	1.09	224/221 ⁴
	07/10/00	7.94		73.02	ND	ND	ND	ND	ND	234/223 ⁴
	01/04/01	9.76		71.20	3,790 ⁵	141	8.92	128	375	--/34,200 ⁴
	07/16/01	9.15		71.81	ND	ND	ND	ND	ND	66/70 ⁴
	01/31/02	7.99		72.97	5,900 ⁷	86	<10	630	390	670/700 ⁴
81.71	04/11/02	9.00		72.71	250	2.0	<0.50	38	2.2	410
	07/11/02 ⁸	9.60		72.11	110 ⁹	<0.50	<0.50	<0.50	<1.0	120
	10/15/02 ⁸	10.60		71.11	<50	<0.50	<0.50	<0.50	<1.0	21
	01/14/03 ⁸	8.63		73.08	<250	2.6	<2.5	18	<5.0	430
MW-9										
82.07	01/31/02 ⁶	14.72	--	67.35	<50	<0.50	<0.50	<0.50	<0.50	680/910 ⁴
	04/11/02	14.85		67.22	<50	<0.50	<0.50	<0.50	<0.50	620
	07/11/02 ⁸	15.39		66.68	580 ⁹	<5.0	<5.0	<5.0	<10	580
	10/15/02 ⁸	16.16		65.91	570 ⁹	<5.0	<5.0	<5.0	<10	1,400
	01/14/03 ⁸	14.75		67.32	<200	<2.0	<2.0	<2.0	<4.0	220
MW-10										
74.98	01/31/02 ⁶	8.02	--	66.96	<50	<0.50	<0.50	<0.50	<0.50	<5.0/1.2 ⁴
	04/11/02	7.60		67.38	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/11/02 ⁸	8.91		66.07	<50	<0.50	<0.50	<0.50	<1.0	1.1
	10/15/02 ⁸	11.49		63.49	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	01/14/03 ⁸	8.47		66.51	<50	<0.50	<0.50	<0.50	<1.0	<2.0

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-11										
77.31	01/31/02 ⁶	11.71	—	65.60	<50	<0.50	<0.50	<0.50	<0.50	<5.0/<1.0 ⁴
	04/11/02	11.95		65.36	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/11/02 ⁸	12.79		64.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50
	10/15/02 ⁸	13.67		63.64	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	01/14/03 ⁸	13.31		64.00	<50	<0.50	<0.50	<0.50	<1.0	<2.0
Trip Blank										
TB-LB	01/14/98	--	--	--	ND	ND	ND	ND	ND	ND
	07/01/98	--	--	--	ND	ND	ND	ND	ND	ND
	06/18/99	--	--	--	ND	ND	ND	ND	ND	ND
	01/21/00	--	--	--	ND	ND	ND	ND	ND	14.6
	07/10/00	--	--	--	ND	ND	ND	ND	ND	ND
	01/04/01	--	--	--	ND	ND	ND	ND	ND	ND
	07/16/01	--	--	--	ND	ND	ND	ND	ND	ND
	01/31/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	04/11/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	07/11/02 ⁸	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<0.50
	10/15/02 ⁸	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	01/14/03 ⁸	--	--	--	<50	<0.50	2.1 ¹⁰	<0.50	1.1 ¹⁰	<2.0

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 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	TPH-G = Total Petroleum Hydrocarbons as Gasoline	(ppb) = Parts per billion
(ft.) = Feet	B = Benzene	ND = Not Detected
DTW = Depth to Water	T = Toluene	-- = Not Measured/Not Analyzed
S. I. = Screen Interval	E = Ethylbenzene	QA = Quality Assurance/Trip Blank
(ft. bgs.) = Feet Below Ground Surface	X = Xylenes	
GWE = Groundwater Elevation	MTBE = Methyl tertiary butyl ether	
(msl) = Mean sea level		

* TOC elevation were surveyed by Virgil Chaves Land Surveying on January 15, 2002. Elevations were based on a USGS bronze disc located near the north end of the curb return at the northwest corner of 38th Street and Broadway, Oakland, California, (Benchmark = 85.41 feet NGVD 29). TOC elevations were re-surveyed by Kier & Wright in May, 1996, per City of Oakland Benchmark No. 2310, a cut square in concrete curb at mid point of return at the northeast corner of El Dorado and Fairmont Street. (Elevation = 77.53 feet msl).

◆ Well elevation has been adjusted up 0.75 feet based on Virgil Chavez Land Survey dated March 5, 2002.

- 1 Laboratory report indicates the presence of discrete peaks not indicative of gasoline.
- 2 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 3 Detection limit raised. Refer to analytical reports.
- 4 MTBE by EPA Method 8260.
- 5 Laboratory report indicates gasoline C6-C12.
- 6 Well development performed.
- 7 Laboratory report indicates weathered gasoline C6-C12.
- 8 TPH-G, BTEX and MTBE by EPA Method 8260.
- 9 Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- 10 Laboratory report indicates the trip blank for this set of samples contained detectable levels of Toluene and Xylene. These results were confirmed by the laboratory. Since many of the samples in this set were Not Detect for these compounds, it is not likely that this contamination was introduced in the field.

Table 2
Field Measurements
Tosco (Former Unocal) Service Station #1871
96 MacArthur Boulevard
Oakland, California

WELL ID	DATE	POST FIRST CASING VOLUME PURGE		POST SECOND CASING VOLUME PURGE		POST THIRD CASING VOLUME PURGE	
		D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)
MW-1	07/11/02	5.0	122	3.1	118	2.9	116
	10/15/02	6.65	132	5.76	147	5.35	152
	01/14/03	4.64	125	4.66	112	4.71	138
MW-6	07/11/02	0.7	-17	3.4	13	2.4	12
	10/15/02	7.92	114	6.38	111	5.94	129
	01/14/03	5.51	95	5.50	107	5.11	116
MW-7	10/15/02	3.88	121	3.90	156	4.04	152
	01/14/03	2.95	137	2.92	130	3.16	124
MW-8	07/11/02	1.1	26	1.6	10	2.4	13
	10/15/02	4.65	218	4.53	241	4.57	231
	01/14/03	5.19	210	4.85	187	4.96	184
MW-9	07/11/02	1.1	10	1.0	11	1.2	15
	10/15/02	2.95	154	2.89	161	3.08	166
	01/14/03	3.81	144	3.47	136	3.53	128
MW-10	07/11/02	1.1	36	1.0	31	1.2	24
	10/15/02	6.80	158	6.70	161	6.73	148
	01/14/03	5.54	178	5.18	171	5.21	163

Table 2
Field Measurements
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	POST FIRST CASING VOLUME PURGE		POST SECOND CASING VOLUME PURGE		POST THIRD CASING VOLUME PURGE	
		D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)
MW-11	07/11/02	1.8	419	1.4	400	1.1	391
	10/15/02	4.39	98	4.20	110	4.27	96
	01/14/03	5.42	120	5.31	147	5.36	138

Table 2
Field Measurements
Tosco (Former Unocal) Service Station #1871
96 MacArthur Boulevard
Oakland, California

EXPLANATIONS:

D.O. = Dissolved Oxygen

(mg/L) = Milligrams per liter

ORP = Oxidation Reduction Potential

(mV) = Millivolts

Table 3
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
MW-1	06/18/99	ND ¹	ND ¹	47,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	07/10/00	--	--	54,000	--	--	--	--	--
	01/04/01	--	--	38,100	--	--	--	--	--
	07/16/01	ND ¹	ND ¹	41,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/31/02	--	--	26,000	--	--	--	--	--
	07/11/02	--	--	3,400	--	--	--	--	--
	10/15/02	--	--	390	--	--	--	--	--
	01/14/03	<500	<100	49	<2.0	<2.0	<2.0	<2.0	<2.0
MW-6	06/18/99	ND ¹	ND ¹	71,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/21/00	--	--	48,800	--	--	--	--	--
	07/10/00	--	--	19,500	--	--	--	--	--
	01/04/01	--	--	9,510	--	--	--	--	--
	07/16/01	ND ¹	ND ¹	34,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/31/02	--	--	31,000	--	--	--	--	--
	07/11/02	<5,000	<1,000	15,000	<200	<100	<100	<100	<100
	10/15/02	--	--	3,200	--	--	--	--	--
01/14/03	<500	<100	120	<2.0	<2.0	<2.0	<2.0	<2.0	
MW-7	06/18/99	ND ¹	ND ¹	13,000	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/21/00	--	--	18,200	--	--	--	--	--
	07/10/00	--	--	13,800	--	--	--	--	--
	01/04/01	--	--	37.3	--	--	--	--	--
	07/16/01	ND ¹	ND ¹	4,700	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/31/02	--	--	9,900	--	--	--	--	--
	07/11/02	INACCESSIBLE - TRUCK PARKED OVER WELL				--	--	--	--
	10/15/02	--	--	12,000	--	--	--	--	--
	01/14/03	<250,000	<50,000	33,000	<1,000	<1,000	<1,000	<1,000	<1,000

Table 3
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
MW-8	06/18/99	ND ¹	ND ¹	160	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹
	01/21/00	--	--	221	--	--	--	--	--
	07/10/00	--	--	223	--	--	--	--	--
	01/04/01	--	--	34,200	--	--	--	--	--
	07/16/01	ND	ND	70	ND	ND	ND	ND	ND
	01/31/02	--	--	700	--	--	--	--	--
	07/11/02	--	--	120	--	--	--	--	--
	10/15/02	--	--	21	--	--	--	--	--
	01/14/03	<2,500	<500	430	<10	<10	<10	<10	<10
MW-9	01/31/02	<3,600	<140	910	<7.1	<7.1	<7.1	<7.1	<7.1
	07/11/02	--	--	580	--	--	--	--	--
	10/15/02	--	--	1,400	--	--	--	--	--
	01/14/03	<2,000	<400	220	<8.0	<8.0	<8.0	<8.0	<8.0
MW-10	01/31/02	<500	<20	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
	07/11/02	--	--	1.1	--	--	--	--	--
	10/15/02	--	--	<2.0	--	--	--	--	--
	01/14/03	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-11	01/31/02	<500	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/11/02	--	--	<0.50	--	--	--	--	--
	10/15/02	--	--	<2.0	--	--	--	--	--
	01/14/03	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Table 3
Groundwater Analytical Results - Oxygenate Compounds
Tosco (Former Unocal) Service Station #1871
96 MacArthur Boulevard
Oakland, California

EXPLANATIONS:

TBA = Tertiary butyl alcohol
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane
(ppb) = Parts per billion
-- = Not Analyzed
ND = Not Detected

¹ Detection limit raised. Refer to analytical reports.

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 4
Groundwater Analytical Results
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

WELL ID	DATE	TPH-D (ppb)	TOG (ppb)	HVOC (ppb)	SVOC (ppb)
MW-1	06/18/99	--	--	ND	--
MW-4	04/18/96	110 ¹	ND	ND	--
	07/24/96	ND	ND	ND	ND
	10/24/96	ND	ND	ND	ND ²
	01/28/97	210 ³	ND	ND	ND ⁴
	07/29/97	ND	ND	ND	ND
	01/14/98	ND	ND	ND	ND
	07/01/98	ND	ND	ND	ND
	DESTROYED				
MW-6	06/18/99	--	--	ND	--
MW-7	06/18/99	--	--	ND	--
MW-8	06/18/99	--	--	ND	ND ⁵

EXPLANATIONS:

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

TPH-D = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

HVOC = Halogenated Volatile Organic Compounds by EPA Method 8010

SVOC = Semi-Volatile Organic Compounds by EPA Method 8270

(ppb) = Parts per billion

-- = Not Analyzed

ND = Not Detected

¹ Laboratory report indicates the hydrocarbons detected did not appear to contain diesel.

² Bis (2-ethylhexyl) phthalate was detected at a concentration of 14 ppb.

³ Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

⁴ Naphthalene was detected at a concentration of 17 ppb.

⁵ All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 11 ppb.

All EPA Method 8010 and 8270 constituents were ND, unless noted.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

A laboratory supplied trip blank accompanies each sampling set and is labeled as QA. 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 Phillips 66 Company, the purge water and decontamination water generated during sampling activities is transported to Phillips 66 - San Francisco Refinery, located in Rodeo, California.



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: 502

Well ID: MW-1 Date Monitored: 1-14-03 Well Condition: o.k.
 Well Diameter: 2 1/4 in.
 Total Depth: 24.09 ft.
 Depth to Water: 12.77 ft.
11.32 xVF 0.66 = 7.47 x3 (case volume) = Estimated Purge Volume: 22.5 gal.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: _____ ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1242 Weather Conditions: Foggy
 Sample Time/Date: 1315, 1-14-03 Water Color: clear Odor: None
 Purging Flow Rate: 1.5 gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) X	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1250</u>	<u>7.5</u>	<u>7.36</u>	<u>256</u>	<u>69.5</u>	<u>4.64</u>	<u>125</u>
<u>1254</u>	<u>15</u>	<u>7.51</u>	<u>272</u>	<u>72.2</u>	<u>4.66</u>	<u>112</u>
<u>1257</u>	<u>22.5</u>	<u>7.53</u>	<u>291</u>	<u>71.6</u>	<u>4.71</u>	<u>138</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>2 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/8 Oxy's(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____
 Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: Joc

Well ID: MW-6 Date Monitored: 1-14-03 Well Condition: O.K.
 Well Diameter: 214 in.
 Total Depth: 24.75 ft.
 Depth to Water: 8.31 ft.
16.44 xVF 0.17 = 2.79 x3 (case volume) = Estimated Purge Volume: 8.5 gal.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump
 Grundfos _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 0745 Weather Conditions: Foggy
 Sample Time/Date: 0830 1-14-03 Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x ¹⁰⁰	Temperature (C)	D.O. (mg/L)	ORP (mV)
<u>0800</u>	<u>3.5</u>	<u>7.11</u>	<u>258</u>	<u>72.3</u>	<u>5.51</u>	<u>95</u>
<u>0802</u>	<u>5</u>	<u>6.85</u>	<u>275</u>	<u>71.2</u>	<u>5.50</u>	<u>107</u>
<u>0811</u>	<u>8.5</u>	<u>6.89</u>	<u>272</u>	<u>71.0</u>	<u>5.41</u>	<u>116</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3</u> x vov vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/8 Oxy's(B260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: Joe

Well ID: MW-7 Date Monitored: 1-14-03 Well Condition: O.K.

Well Diameter: 21.4 in.
 Total Depth: 24.48 ft.
 Depth to Water: 7.89 ft.
 $16.59 \times VF = 0.17 = 2.82 \times 3$ (case volume) = Estimated Purge Volume: 8.5 gal.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:
 Disposable Bailer _____
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft.
 Depth to Water: _____ ft.
 Hydrocarbon Thickness: 0 ft.
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 0843 Weather Conditions: Foggy
 Sample Time/Date: 0925 1-14-03 Water Color: clear Odor: yes
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°C)	D.O. (mg/L)	ORP (mV)
<u>0854</u>	<u>3</u>	<u>6.48</u>	<u>4.12</u>	<u>74.0</u>	<u>2.95</u>	<u>137</u>
<u>0856</u>	<u>5</u>	<u>6.67</u>	<u>3.84</u>	<u>73.7</u>	<u>2.92</u>	<u>130</u>
<u>0902</u>	<u>8.5</u>	<u>6.72</u>	<u>3.86</u>	<u>72.6</u>	<u>3.16</u>	<u>124</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/8 Oxy's(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: Soe

Well ID: MW-8 Date Monitored: 1-14-03 Well Condition: o.k.
 Well Diameter: (2) 14 in.
 Total Depth: 24.80 ft.
 Depth to Water: 8.63 ft.
16.18 xVF 0.17 = 2.75 x3 (case volume) = Estimated Purge Volume: 8.5 gal.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump ✓
 Grundfos _____
 Other: _____

Sampling Equipment:

Disposable Bailer ✓
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 0650 Weather Conditions: Foggy
 Sample Time/Date: 0730 1-14-03 Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) ^{x100}	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0700</u>	<u>3</u>	<u>7.44</u>	<u>6.97</u>	<u>69.6</u>	<u>5.19</u>	<u>210</u>
<u>0703</u>	<u>5</u>	<u>7.55</u>	<u>6.56</u>	<u>71.5</u>	<u>4.85</u>	<u>187</u>
<u>0705</u>	<u>8.5</u>	<u>7.60</u>	<u>6.52</u>	<u>71.2</u>	<u>4.96</u>	<u>184</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/8 Oxy's(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS:

Add/Replaced Lock: _____

Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: Joe

Well ID: MW-9
 Well Diameter: 214 in.
 Total Depth: 19.91 ft.
 Depth to Water: 14.75 ft.
5.16 xVF

Date Monitored: 1-14-03 Well Condition: o.k.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

0.17 = 0.88 x3 (case volume) = Estimated Purge Volume: _____ gal.

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description:
 Skimmer / Absorbent Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1150 Weather Conditions: Foggy
 Sample Time/Date: 1230 1/14/03 Water Color: clear Odor: mild
 Purging Flow Rate: 0.25 gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 10 ²	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1202</u>	<u>1</u>	<u>7.07</u>	<u>4.51</u>	<u>63.1</u>	<u>3.81</u>	<u>144</u>
<u>1205</u>	<u>2</u>	<u>7.25</u>	<u>4.56</u>	<u>64.2</u>	<u>3.47</u>	<u>136</u>
<u>1209</u>	<u>3</u>	<u>7.30</u>	<u>4.63</u>	<u>65.0</u>	<u>3.53</u>	<u>128</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/8 Oxy's(B260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS:

Add/Replaced Lock: _____

Add/Replaced Plug: _____ Size: _____



GETTLER - RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: 50^a

Well ID: MW-10
 Well Diameter: 2 1/4 in.
 Total Depth: 19.97 ft.
 Depth to Water: 8.47 ft.
11.5

Date Monitored: 1-14-03 Well Condition: O.K.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF 0.17 = 1.96 x3 (case volume) = Estimated Purge Volume: 6 gal.

Purge Equipment:

Disposable Bailer
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:

Disposable Bailer
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft.
 Depth to Water: _____ ft.
 Hydrocarbon Thickness: 0 ft.
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1000 Weather Conditions: Foggy
 Sample Time/Date: 1045/1-14-03 Water Color: clear Odor: none
 Purging Flow Rate: 0.6 gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) ^f	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1008</u>	<u>2</u>	<u>7.67</u>	<u>7.25</u>	<u>62.6</u>	<u>5.54</u>	<u>178</u>
<u>1012</u>	<u>4</u>	<u>7.60</u>	<u>6.57</u>	<u>63.7</u>	<u>5.18</u>	<u>171</u>
<u>1016</u>	<u>6</u>	<u>7.66</u>	<u>6.51</u>	<u>63.9</u>	<u>5.21</u>	<u>163</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/8 Oxy's(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #1871 Job Number: 180068
 Site Address: 96 MacArthur Event Date: 1-14-03 (inclusive)
 City: Oakland, CA Sampler: JDC

Well ID: MW-11 Date Monitored: 1-14-03 Well Condition: OK
 Well Diameter: (2) 14 in.
 Total Depth: 30.07 ft.
 Depth to Water: 13.31 ft.
16.76 xVF 0.17 = 2.85 x3 (case volume) = Estimated Purge Volume: 8.5 gal.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

Purge Equipment:
 Disposable Bailer _____
 Stainless Steel Bailer _____
 Stack Pump _____
 Suction Pump _____
 Grundfos _____
 Other: _____

Sampling Equipment:
 Disposable Bailer
 Pressure Bailer _____
 Discrete Bailer _____
 Other: _____

Time Started: _____ (2400 hrs)
 Time Bailed: _____ (2400 hrs)
 Depth to Product: _____ ft
 Depth to Water: _____ ft
 Hydrocarbon Thickness: 0 ft
 Visual Confirmation/Description: _____
 Skimmer / Absorbant Sock (circle one)
 Amt Removed from Skimmer: _____ gal
 Amt Removed from Well: _____ gal
 Product Transferred to: _____

Start Time (purge): 1100 Weather Conditions: Foggy
 Sample Time/Date: 1138 1-14-03 Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? _____ If yes, Time: _____ Volume: _____ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u/mhos/cm) ¹⁰⁰	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1108</u>	<u>3</u>	<u>7.20</u>	<u>6.13</u>	<u>72.0</u>	<u>5.42</u>	<u>120</u>
<u>1110</u>	<u>5</u>	<u>7.24</u>	<u>5.28</u>	<u>72.1</u>	<u>5.31</u>	<u>147</u>
<u>1113</u>	<u>8.5</u>	<u>7.34</u>	<u>5.39</u>	<u>72.4</u>	<u>5.36</u>	<u>138</u>
_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-11</u>	<u>3 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE/B Oxy's(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Size: _____

Tosco Corp./ Phillips 66 Co. 2000 Crow Canyon Place Suite 400 San Ramon, CA 94583	Facility Number <u>#1871</u>	Laboratory Name <u>STL Pleasanton</u>
	Facility Address <u>96 MACARTHUR, OAKLAND, CA</u>	Consultant <u>GETTLER-RYAN, INC. DEANNA L. HARDING</u>
	Global ID <u>T0600101493</u> Project <u>180068.80</u>	Address <u>6747 SIERRA CT., SUITE J, DUBLIN CA 94568</u>
	Client Contact <u>MR. DAVID B. DEWITT</u>	Phone <u>(925) 551-7555</u> Fax <u>(925) 551-7899</u>
Phone <u>(925) 277-2384</u>	Samples Collected by <u>JOE ASEMIAN</u>	

SAMPLE ID	Number of Containers Matrix	S = Soil W = Water A = Air C = Charcoal	Sample Preservation	Date/Time (2400 Hrs)	TPH-GAS/BTEX/MTBE EPA 8015/8021B	TPH-DIESEL EPA 8015	TPH-DIESEL w/Silica gel EPA 8015	TPH-GAS EPA 8015	TPH-GAS/BTEX/MTBE EPA 8260	OXYGENATES EPA 8260	METHANOL EPA 8015	TOTAL OIL & GREASE EPA 8520	METALS Cd, Cr, Pb, Zn, Ni	NITRATE/SULFATE/ALKALINITY EPA 300 SERIES	HYOC'S (8010) EPA 8021B	VOC'S (8240) EPA 8260	SVOC'S EPA 8270	Remarks	
QA	1	W	HCL	1-14-03					✓										
MW-1	3	✓	✓	1315					✓	✓									
MW-6	"	"	"	0830					✓	✓									
MW-7	"	"	"	0925					✓	✓									
MW-8	"	"	"	0730					✓	✓									
MW-9	"	"	"	1230					✓	✓									
MW-10	"	"	"	1045					✓	✓									
MW-11	"	"	"	1138					✓	✓									

- OXYGENATES 8260
- 1 - MTBE
 - 2 - TBA
 - 3 - TAME
 - 4 - DIPE
 - 5 - ETBE
 - 6 - 1,2-DCA
 - 7 - EDB
 - 8 - ETHANOL

Relinquished By (Signature) <i>[Signature]</i>	Organization	Date/Time 1-14-03	Received By (Signature) <i>[Signature]</i>	Organization	Date/Time	Iced <input checked="" type="checkbox"/> Y/N	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 72 Hrs. 5 Days 10 Days <input checked="" type="checkbox"/> As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <i>[Signature]</i>		Date/Time 1-15-03	Iced Y/N 1430	

Gettler Ryan

January 30, 2003

6747 Sierra Court Suite J
Dublin, CA 94568

Attn.: Deanna Harding

Project#: 180068.80

Project: Tosco # 1871

Site: 96 MacArthur
Oakland, CA

RECEIVED
JAN 31 2003
GETTLER RYAN INC
DEANNA HARDING

Dear Ms. Harding,

Attached is our report for your samples received on 01/15/2003 14:30

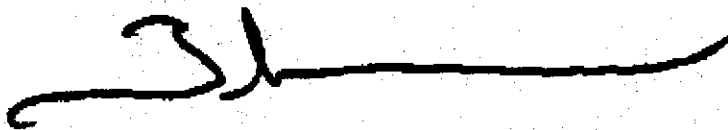
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 03/01/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: tgranicher@stl-inc.com

Sincerely,



Tod Granicher
Project Manager

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur

Oakland, CA

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
QA	01/14/2003	Water	1
MW-1	01/14/2003 13:15	Water	2
MW-6	01/14/2003 08:30	Water	3
MW-7	01/14/2003 09:25	Water	4
MW-8	01/14/2003 07:30	Water	5
MW-9	01/14/2003 12:30	Water	6
MW-10	01/14/2003 10:45	Water	7
MW-11	01/14/2003 11:38	Water	8

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: QA	Lab ID: 2003-01-0252-1
Sampled: 01/14/2003	Extracted: 1/23/2003 19:30
Matrix: Water	QC Batch#: 2003/01/23-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/23/2003 19:30	
Benzene	ND	0.50	ug/L	1.00	01/23/2003 19:30	
Toluene	2.1	0.50	ug/L	1.00	01/23/2003 19:30	
Ethylbenzene	ND	0.50	ug/L	1.00	01/23/2003 19:30	
Total xylenes	1.1	1.0	ug/L	1.00	01/23/2003 19:30	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	01/23/2003 19:30	
Surrogates(s)						
1,2-Dichloroethane-d4	93.1	76-114	%	1.00	01/23/2003 19:30	
Toluene-d8	99.2	88-110	%	1.00	01/23/2003 19:30	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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Dublin, CA 94568

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Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

 Site: 96 MacArthur
Oakland, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-1	Lab ID:	2003-01-0252 - 2
Sampled:	01/14/2003 13:15	Extracted:	1/23/2003 18:47
Matrix:	Water	QC Batch#:	2003/01/23-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/23/2003 18:47	
Benzene	ND	0.50	ug/L	1.00	01/23/2003 18:47	
Toluene	ND	0.50	ug/L	1.00	01/23/2003 18:47	
Ethylbenzene	ND	0.50	ug/L	1.00	01/23/2003 18:47	
Total xylenes	ND	1.0	ug/L	1.00	01/23/2003 18:47	
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	01/23/2003 18:47	
Methyl tert-butyl ether (MTBE)	49	2.0	ug/L	1.00	01/23/2003 18:47	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/23/2003 18:47	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/23/2003 18:47	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/23/2003 18:47	
1,2-DCA	ND	2.0	ug/L	1.00	01/23/2003 18:47	
EDB	ND	2.0	ug/L	1.00	01/23/2003 18:47	
Ethanol	ND	500	ug/L	1.00	01/23/2003 18:47	
Surrogates(s)						
1,2-Dichloroethane-d4	100.1	76-114	%	1.00	01/23/2003 18:47	
Toluene-d8	99.5	88-110	%	1.00	01/23/2003 18:47	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-6	Lab ID:	2003-01-0252-3
Sampled:	01/14/2003 08:30	Extracted:	1/27/2003 14:05
Matrix:	Water	QC Batch#:	2003/01/27-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/27/2003 14:05	
Benzene	ND	0.50	ug/L	1.00	01/27/2003 14:05	
Toluene	ND	0.50	ug/L	1.00	01/27/2003 14:05	
Ethylbenzene	ND	0.50	ug/L	1.00	01/27/2003 14:05	
Total xylenes	ND	1.0	ug/L	1.00	01/27/2003 14:05	
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	01/27/2003 14:05	
Methyl tert-butyl ether (MTBE)	120	2.0	ug/L	1.00	01/27/2003 14:05	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/27/2003 14:05	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/27/2003 14:05	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/27/2003 14:05	
1,2-DCA	ND	2.0	ug/L	1.00	01/27/2003 14:05	
EDB	ND	2.0	ug/L	1.00	01/27/2003 14:05	
Ethanol	ND	500	ug/L	1.00	01/27/2003 14:05	
Surrogates(s)						
1,2-Dichloroethane-d4	89.2	76-114	%	1.00	01/27/2003 14:05	
Toluene-d8	99.7	88-110	%	1.00	01/27/2003 14:05	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur

Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-7	Lab ID: 2003-01-0252-4
Sampled: 01/14/2003 09:25	Extracted: 1/26/2003 11:10
Matrix: Water	QC Batch#: 2003/01/26-01-27
Analysis Flag: o (See Legend and Note Section)	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	25000	ug/L	500.00	01/26/2003 11:10	
Benzene	ND	250	ug/L	500.00	01/26/2003 11:10	
Toluene	ND	250	ug/L	500.00	01/26/2003 11:10	
Ethylbenzene	ND	250	ug/L	500.00	01/26/2003 11:10	
Total xylenes	ND	500	ug/L	500.00	01/26/2003 11:10	
tert-Butyl alcohol (TBA)	ND	50000	ug/L	500.00	01/26/2003 11:10	
Methyl tert-butyl ether (MTBE)	33000	1000	ug/L	500.00	01/26/2003 11:10	
Di-isopropyl Ether (DIPE)	ND	1000	ug/L	500.00	01/26/2003 11:10	
Ethyl tert-butyl ether (ETBE)	ND	1000	ug/L	500.00	01/26/2003 11:10	
tert-Amyl methyl ether (TAME)	ND	1000	ug/L	500.00	01/26/2003 11:10	
1,2-DCA	ND	1000	ug/L	500.00	01/26/2003 11:10	
EDB	ND	1000	ug/L	500.00	01/26/2003 11:10	
Ethanol	ND	250000	ug/L	500.00	01/26/2003 11:10	
Surrogates(s)						
1,2-Dichloroethane-d4	95.3	76-114	%	500.00	01/26/2003 11:10	
Toluene-d8	100.8	88-110	%	500.00	01/26/2003 11:10	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur

Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-8	Lab ID: 2003-01-0252 - 5
Sampled: 01/14/2003 07:30	Extracted: 1/26/2003 11:40
Matrix: Water	QC Batch#: 2003/01/26-01-27
Analysis Flag: o (See Legend and Note Section)	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	250	ug/L	5.00	01/26/2003 11:40	
Benzene	2.6	2.5	ug/L	5.00	01/26/2003 11:40	
Toluene	ND	2.5	ug/L	5.00	01/26/2003 11:40	
Ethylbenzene	18	2.5	ug/L	5.00	01/26/2003 11:40	
Total xylenes	ND	5.0	ug/L	5.00	01/26/2003 11:40	
tert-Butyl alcohol (TBA)	ND	500	ug/L	5.00	01/26/2003 11:40	
Methyl tert-butyl ether (MTBE)	430	10	ug/L	5.00	01/26/2003 11:40	
Di-isopropyl Ether (DIPE)	ND	10	ug/L	5.00	01/26/2003 11:40	
Ethyl tert-butyl ether (ETBE)	ND	10	ug/L	5.00	01/26/2003 11:40	
tert-Amyl methyl ether (TAME)	ND	10	ug/L	5.00	01/26/2003 11:40	
1,2-DCA	ND	10	ug/L	5.00	01/26/2003 11:40	
EDB	ND	10	ug/L	5.00	01/26/2003 11:40	
Ethanol	ND	2500	ug/L	5.00	01/26/2003 11:40	
Surrogates(s)						
1,2-Dichloroethane-d4	107.4	76-114	%	5.00	01/26/2003 11:40	
Toluene-d8	102.8	88-110	%	5.00	01/26/2003 11:40	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-9	Lab ID: 2003-01-0252 - 6
Sampled: 01/14/2003 12:30	Extracted: 1/26/2003 12:01
Matrix: Water	QC Batch#: 2003/01/26-01.27
Analysis Flag: o (See Legend and Note Section)	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	200	ug/L	4.00	01/26/2003 12:01	
Benzene	ND	2.0	ug/L	4.00	01/26/2003 12:01	
Toluene	ND	2.0	ug/L	4.00	01/26/2003 12:01	
Ethylbenzene	ND	2.0	ug/L	4.00	01/26/2003 12:01	
Total xylenes	ND	4.0	ug/L	4.00	01/26/2003 12:01	
tert-Butyl alcohol (TBA)	ND	400	ug/L	4.00	01/26/2003 12:01	
Methyl tert-butyl ether (MTBE)	220	8.0	ug/L	4.00	01/26/2003 12:01	
Di-isopropyl Ether (DIPE)	ND	8.0	ug/L	4.00	01/26/2003 12:01	
Ethyl tert-butyl ether (ETBE)	ND	8.0	ug/L	4.00	01/26/2003 12:01	
tert-Amyl methyl ether (TAME)	ND	8.0	ug/L	4.00	01/26/2003 12:01	
1,2-DCA	ND	8.0	ug/L	4.00	01/26/2003 12:01	
EDB	ND	8.0	ug/L	4.00	01/26/2003 12:01	
Ethanol	ND	2000	ug/L	4.00	01/26/2003 12:01	
Surrogates(s)						
1,2-Dichloroethane-d4	98.7	76-114	%	4.00	01/26/2003 12:01	
Toluene-d8	97.2	88-110	%	4.00	01/26/2003 12:01	

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur

Oakland, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-10	Lab ID:	2003-01-0252 - 7
Sampled:	01/14/2003 10:45	Extracted:	1/24/2003 22:27
Matrix:	Water	QC Batch#:	2003/01/24-01-27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2003 22:27	
Benzene	ND	0.50	ug/L	1.00	01/24/2003 22:27	
Toluene	ND	0.50	ug/L	1.00	01/24/2003 22:27	
Ethylbenzene	ND	0.50	ug/L	1.00	01/24/2003 22:27	
Total xylenes	ND	1.0	ug/L	1.00	01/24/2003 22:27	
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	01/24/2003 22:27	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	01/24/2003 22:27	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/24/2003 22:27	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/24/2003 22:27	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/24/2003 22:27	
1,2-DCA	ND	2.0	ug/L	1.00	01/24/2003 22:27	
EDB	ND	2.0	ug/L	1.00	01/24/2003 22:27	
Ethanol	ND	500	ug/L	1.00	01/24/2003 22:27	
Surrogates(s)						
1,2-Dichloroethane-d4	102.6	76-114	%	1.00	01/24/2003 22:27	
Toluene-d8	99.9	88-110	%	1.00	01/24/2003 22:27	

Gas/BTEX Fuel Oxygenates by 8260B

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Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-11	Lab ID: 2003-01-0252 - 8
Sampled: 01/14/2003 11:38	Extracted: 1/24/2003 22:49
Matrix: Water	QC Batch#: 2003/01/24-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/24/2003 22:49	
Benzene	ND	0.50	ug/L	1.00	01/24/2003 22:49	
Toluene	ND	0.50	ug/L	1.00	01/24/2003 22:49	
Ethylbenzene	ND	0.50	ug/L	1.00	01/24/2003 22:49	
Total xylenes	ND	1.0	ug/L	1.00	01/24/2003 22:49	
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	01/24/2003 22:49	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	01/24/2003 22:49	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	01/24/2003 22:49	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	01/24/2003 22:49	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	01/24/2003 22:49	
1,2-DCA	ND	2.0	ug/L	1.00	01/24/2003 22:49	
EDB	ND	2.0	ug/L	1.00	01/24/2003 22:49	
Ethanol	ND	500	ug/L	1.00	01/24/2003 22:49	
Surrogates(s)						
1,2-Dichloroethane-d4	101.8	76-114	%	1.00	01/24/2003 22:49	
Toluene-d8	99.7	88-110	%	1.00	01/24/2003 22:49	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur

Oakland, CA

Batch QC Report		
Prep(s): 5030B		Test(s): 8260FAB
Method Blank	Water	QC Batch # 2003/01/23-01.27
MB: 2003/01/23-01.27-027		Date Extracted: 01/23/2003 10:36

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/23/2003 10:36	
Benzene	ND	0.5	ug/L	01/23/2003 10:36	
Toluene	ND	0.5	ug/L	01/23/2003 10:36	
Ethylbenzene	ND	0.5	ug/L	01/23/2003 10:36	
Total xylenes	ND	1.0	ug/L	01/23/2003 10:36	
tert-Butyl alcohol (TBA)	ND	100	ug/L	01/23/2003 10:36	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/23/2003 10:36	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/23/2003 10:36	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/23/2003 10:36	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/23/2003 10:36	
1,2-DCA	ND	2.0	ug/L	01/23/2003 10:36	
EDB	ND	2.0	ug/L	01/23/2003 10:36	
Ethanol	ND	500	ug/L	01/23/2003 10:36	
Surrogates(s)					
1,2-Dichloroethane-d4	93.4	76-114	%	01/23/2003 10:36	
Toluene-d8	98.4	88-110	%	01/23/2003 10:36	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur

Oakland, CA

Batch QC Report					
Prep(s): 5030B		Water		Test(s): 8260FAB	
Method Blank				QC Batch # 2003/01/24-01.27	
MB: 2003/01/24-01.27-041				Date Extracted: 01/24/2003 11:09	
Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/24/2003 11:09	
Benzene	ND	0.5	ug/L	01/24/2003 11:09	
Toluene	ND	0.5	ug/L	01/24/2003 11:09	
Ethylbenzene	ND	0.5	ug/L	01/24/2003 11:09	
Total xylenes	ND	1.0	ug/L	01/24/2003 11:09	
tert-Butyl alcohol (TBA)	ND	100	ug/L	01/24/2003 11:09	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/24/2003 11:09	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/24/2003 11:09	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/24/2003 11:09	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/24/2003 11:09	
1,2-DCA	ND	2.0	ug/L	01/24/2003 11:09	
EDB	ND	2.0	ug/L	01/24/2003 11:09	
Ethanol	ND	500	ug/L	01/24/2003 11:09	
Surrogates(s)					
1,2-Dichloroethane-d4	91.6	76-114	%	01/24/2003 11:09	
Toluene-d8	98.6	88-110	%	01/24/2003 11:09	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report					
Prep(s): 5030B				Test(s): 8260FAB	
Method Blank	Water			QC Batch # 2003/01/26-01.27	
MB: 2003/01/26-01.27-006				Date Extracted: 01/26/2003 10:26	

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/26/2003 10:26	
Benzene	ND	0.5	ug/L	01/26/2003 10:26	
Toluene	ND	0.5	ug/L	01/26/2003 10:26	
Ethylbenzene	ND	0.5	ug/L	01/26/2003 10:26	
Total xylenes	ND	1.0	ug/L	01/26/2003 10:26	
tert-Butyl alcohol (TBA)	ND	100	ug/L	01/26/2003 10:26	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/26/2003 10:26	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/26/2003 10:26	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/26/2003 10:26	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/26/2003 10:26	
1,2-DCA	ND	2.0	ug/L	01/26/2003 10:26	
EDB	ND	2.0	ug/L	01/26/2003 10:26	
Ethanol	ND	500	ug/L	01/26/2003 10:26	
Surrogates(s)					
1,2-Dichloroethane-d4	98.8	76-114	%	01/26/2003 10:26	
Toluene-d8	100.9	88-110	%	01/26/2003 10:26	

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 180068.80
Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report		
Prep(s): 5030B	Water	Test(s): 8260FAB
Method Blank		QC Batch # 2003/01/27-01.27
MB: 2003/01/27-01.27-007		Date Extracted: 01/27/2003 11:12

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/27/2003 11:12	
Benzene	ND	0.5	ug/L	01/27/2003 11:12	
Toluene	ND	0.5	ug/L	01/27/2003 11:12	
Ethylbenzene	ND	0.5	ug/L	01/27/2003 11:12	
Total xylenes	ND	1.0	ug/L	01/27/2003 11:12	
tert-Butyl alcohol (TBA)	ND	100	ug/L	01/27/2003 11:12	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	01/27/2003 11:12	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	01/27/2003 11:12	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	01/27/2003 11:12	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	01/27/2003 11:12	
1,2-DCA	ND	2.0	ug/L	01/27/2003 11:12	
EDB	ND	2.0	ug/L	01/27/2003 11:12	
Ethanol	ND	500	ug/L	01/27/2003 11:12	
Surrogates(s)					
1,2-Dichloroethane-d4	101.5	76-114	%	01/27/2003 11:12	
Toluene-d8	98.8	88-110	%	01/27/2003 11:12	

Gas/BTEX Fuel Oxygenates by 8260B

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Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2003/01/23-01.27

LCS 2003/01/23-01.27-004

Extracted: 01/23/2003

Analyzed: 01/23/2003 09:51

LCSD 2003/01/23-01.27-005

Extracted: 01/23/2003

Analyzed: 01/23/2003 10:14

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	24.2	24.5	25.0	96.8	98.0	1.2	65-165	20		
Benzene	21.5	21.3	25.0	86.0	85.2	0.9	69-129	20		
Toluene	22.5	21.8	25.0	90.0	87.2	3.2	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	473	473	500	94.6	94.6		76-114			
Toluene-d8	501	490	500	100.2	98.0		88-110			

Severn Trent Laboratories, Inc.

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02/07/2003 09:40

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Gas/BTEX Fuel Oxygenates by 8260B

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Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report										
Prep(s): 5030B						Test(s): 8260FAB				
Laboratory Control Spike				Water			QC Batch # 2003/01/24-01.27			
LCS		2003/01/24-01.27-005		Extracted: 01/24/2003		Analyzed: 01/24/2003 10:20				
LCSD		2003/01/24-01.27-006		Extracted: 01/24/2003		Analyzed: 01/24/2003 10:48				
Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	22.0	21.7	25.0	88.0	86.8	1.4	69-129	20		
Toluene	23.1	22.6	25.0	92.4	90.4	2.2	70-130	20		
Methyl tert-butyl ether (MTBE)	23.5	23.8	25.0	94.0	95.2	1.3	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	473	459	500	94.6	91.8		76-114			
Toluene-d8	503	501	500	100.6	100.2		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

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Project: 180068.80

Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2003/01/26-01.27

LCS 2003/01/26-01.27-004

Extracted: 01/26/2003

Analyzed: 01/26/2003 09:38

LCSD 2003/01/26-01.27-005

Extracted: 01/26/2003

Analyzed: 01/26/2003 10:05

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	20.9	20.8	25.0	83.6	83.2	0.5	69-129	20		
Toluene	21.5	22.2	25.0	86.0	88.8	3.2	70-130	20		
Methyl tert-butyl ether (MTBE)	23.7	22.3	25.0	94.8	89.2	6.1	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	483	459	500	96.6	91.8		76-114			
Toluene-d8	501	481	500	100.2	96.2		88-110			

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Gas/BTEX Fuel Oxygenates by 8260B

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Project: 180068.80
Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report										
Prep(s): 5030B						Test(s): 8260FAB				
Laboratory Control Spike				Water			QC Batch # 2003/01/27-01.27			
LCS	2003/01/27-01.27-005			Extracted: 01/27/2003			Analyzed: 01/27/2003 10:26			
LCSD	2003/01/27-01.27-006			Extracted: 01/27/2003			Analyzed: 01/27/2003 10:51			
Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	24.6	26.2	25.0	98.4	104.8	6.3	69-129	20		
Toluene	25.3	25.8	25.0	101.2	103.2	2.0	70-130	20		
Methyl tert-butyl ether (MTBE)	29.2	30.9	25.0	116.8	123.6	5.7	65-165	20		
Surrogates(s)										
1,2-Dichloroethane-d4	516	511	500	103.2	102.2		76-114			
Toluene-d8	490	506	500	98.0	101.2		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

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Tosco # 1871

Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Batch QC Report			
Prep(s): 5030B			Test(s): 8260FAB
Matrix Spike (MS / MSD)	Water		QC Batch # 2003/01/23-01.27
MW-1 >> MS			Lab ID: 2003-01-0252 - 002
MS: 2003/01/23-01.27-025	Extracted: 01/23/2003		Analyzed: 01/23/2003 18:00
			Dilution: 1.00
MSD: 2003/01/23-01.27-026	Extracted: 01/23/2003		Analyzed: 01/23/2003 18:25
			Dilution: 1.00

Compound	Conc. ug/L			Spk.Level ug/L	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	21.1	22.2	ND	25.0	84.4	88.8	5.1	69-129	20		
Toluene	22.3	22.8	ND	25.0	89.2	91.2	2.2	70-130	20		
Methyl tert-butyl ether	73.5	75.8	48.8	25.0	98.8	108.0	8.9	65-165	20		
Surrogate(s)											
1,2-Dichloroethane-d4	482	484		500	96.4	96.8		76-114			
Toluene-d8	489	500		500	97.8	100.0		88-110			

Gas/BTEX Fuel Oxygenates by 8260B

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Received: 01/15/2003 14:30

Site: 96 MacArthur
Oakland, CA

Legend and Notes

Report Comment

The trip blank for this set of samples contained detectable levels of Toluene and Xylene. These results were confirmed by the laboratory. Since many of the samples in this set were Not Detect for these compounds, it is not likely that this contamination was introduced in the field.

Analysis Flag

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Reporting limits were raised due to high level of analyte present in the sample.