



R 409  
2000 Crow Canyon Place  
Suite 400  
San Ramon, CA 94583

Phone: (925) 277-2305  
Fax: (925) 277-2361

Environmental Department

May 29, 2003

Alameda County  
JUN 03 2003  
Environmental Health

Re: **Tosco 76 Service Station #1156**  
**4276 MacArthur Blvd.**  
**Oakland, California**

" I declare under penalty of perjury, that to the best of my knowledge at the present time, the information and/or recommendations contained in the attached proposal or report is true and correct."

A handwritten signature in cursive script that reads "David B. DeWitt".

David B. DeWitt  
Site Manager  
ConocoPhillips



# GETTLER-RYAN INC.

## TRANSMITTAL

May 15, 2003  
G-R #180225

Alameda County

JUN 03 2003

Environmental Health

TO: Mr. David B. De Witt  
ConocoPhillips  
76 Broadway Avenue  
Sacramento, California 95818

CC: Mr. Paul Blank  
GRI, Inc.  
73 Digital Drive, Suite 100  
Novato, California

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

RE: **Tosco 76 Service Station  
#1156  
4276 MacArthur Boulevard  
Oakland, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 12, 2003	Groundwater Monitoring and Sampling Report Second Quarter - Event of April 7, 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 **May 29, 2003**, this report will be distributed to the following:

cc: Ms. Eva Chu, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502  
Mr. Bob Hale, Alameda County Public Works Agency, Water Resources Section, 951 Turner Court, Suite 300,  
Hayward, CA 94545

Enclosure

trans/1156-DBD



# GETTLER-RYAN INC.

May 12, 2003  
G-R Job #180225

Mr. David B. De Witt  
ConocoPhillips  
76 Broadway Avenue  
Sacramento, California 95818

**RE: Second Quarter Event of April 7, 2003**  
Groundwater Monitoring & Sampling Report  
Tosco 76 Service Station #1156  
4276 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). A joint groundwater monitoring event was conducted with the Shell Service Station, located at 4255 MacArthur Boulevard, Oakland, California, however, data was not provided.

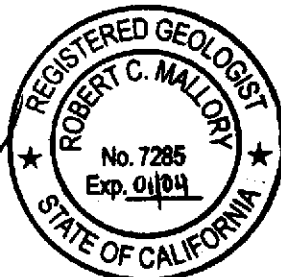
Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 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: Groundwater Analytical Results
- Table 3: Groundwater Analytical Results
- Table 4: Joint Groundwater Monitoring Data and Analytical Results Provided by Blaine Tech Services, Inc.
- Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

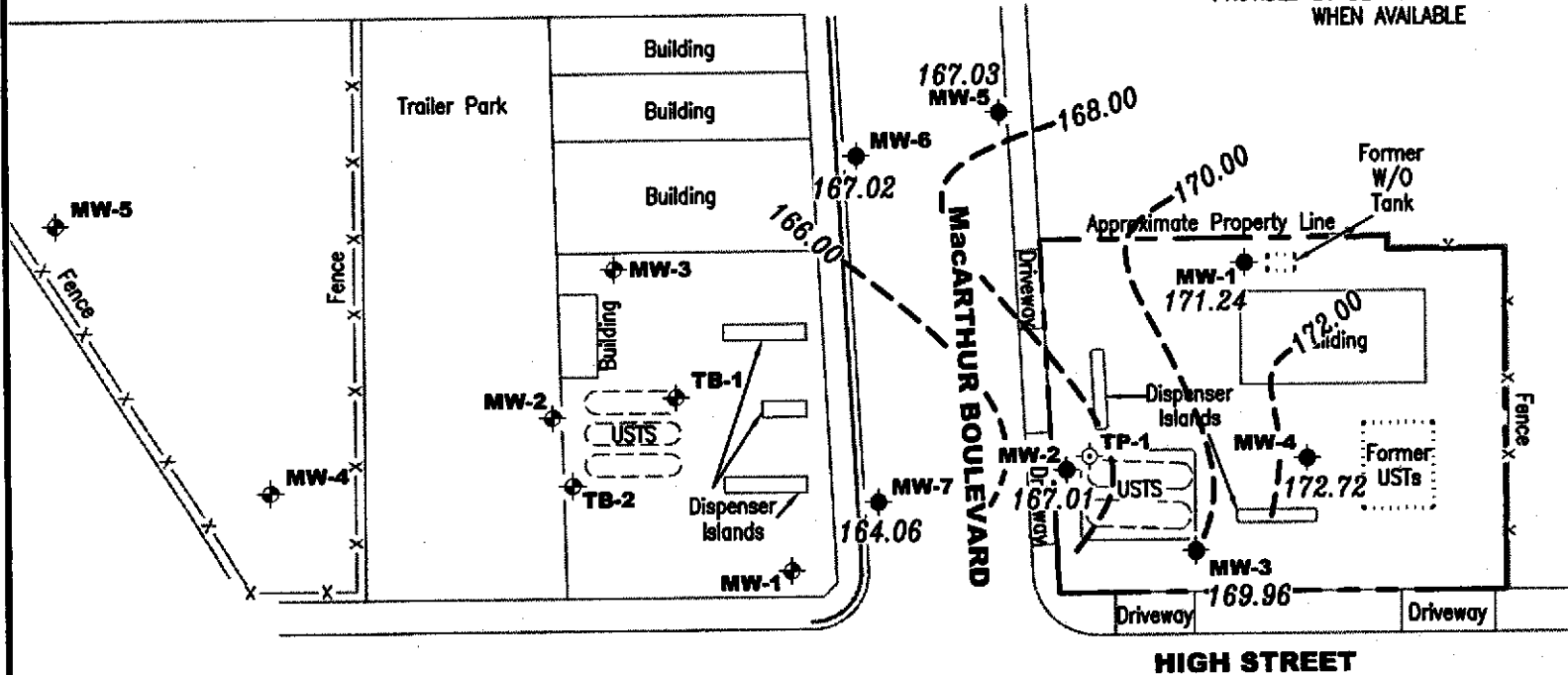
**EXPLANATION**

- ◆ Groundwater monitoring well (Tosco)      99.99      Groundwater elevation in feet referenced to Mean Sea Level
- ◆ Groundwater monitoring well (Shell)      - - - 99.99 - - -      Groundwater elevation contour, dashed where inferred
- ⊕ Tank Pit Backfill Well



Approximate groundwater flow direction at a gradient of 0.03 to 0.1 Ft./Ft.

JOINT MONITORING/SAMPLING DATA PROVIDED BY BLAINE TECH SERVICES WHEN AVAILABLE



Source: Figure modified from drawing provided by Environmental Resolutions Inc.

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

**POTENTIOMETRIC MAP**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

FIGURE

1

PROJECT NUMBER  
180225

REVIEWED BY

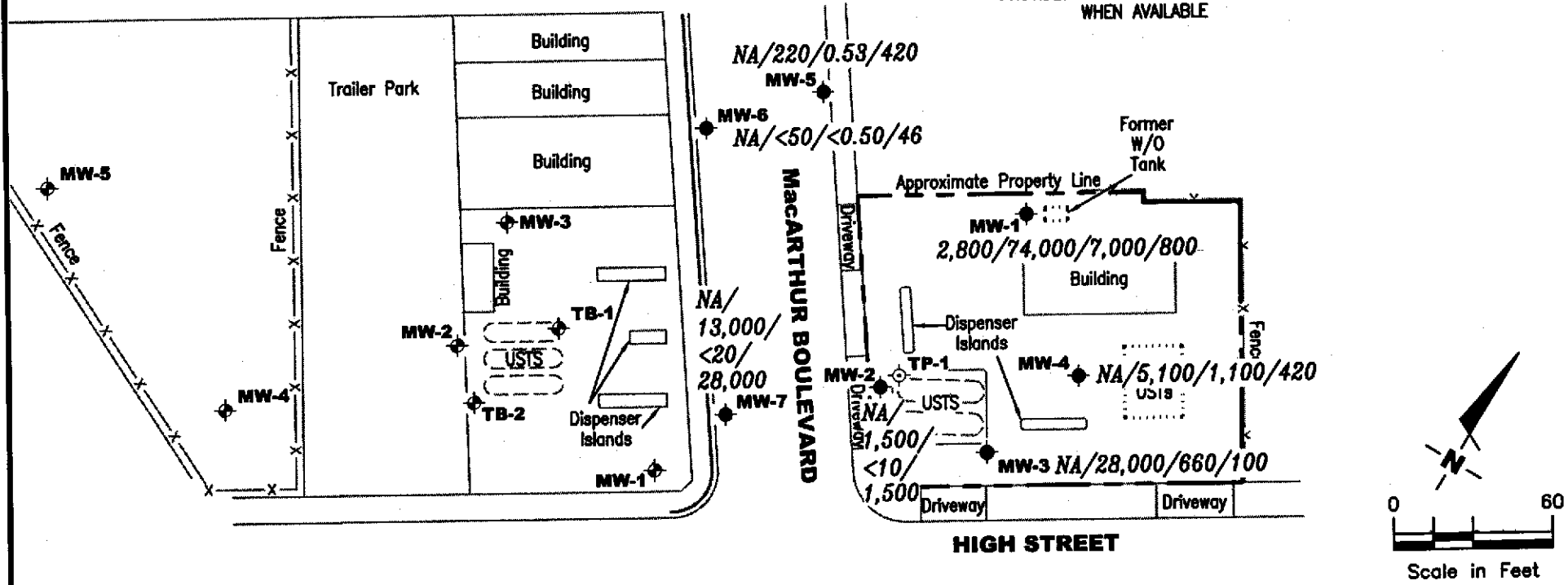
DATE  
April 7, 2003

REVISED DATE

# EXPLANATION

- ◆ Groundwater monitoring well (Tosco)      A/B/C/D Total Petroleum Hydrocarbons (TPH) as Diesel/TPH as Gasoline/Benzene/MTBE concentrations in ppb
  - ◆ Groundwater monitoring well (Shell)
  - ⊙ Tank Pit Backfill Well      NA Not Analyzed
- NOTE:** MTBE by EPA Method 8260

JOINT MONITORING/SAMPLING DATA PROVIDED BY BLAINE TECH SERVICES WHEN AVAILABLE



Source: Figure modified from drawing provided by Environmental Resolutions Inc.

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

**CONCENTRATION MAP**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

FIGURE  
**2**

PROJECT NUMBER 180225      REVIEWED BY \_\_\_\_\_      DATE April 7, 2003      REVISED DATE \_\_\_\_\_

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (mst)	Product	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
					Thickness (ft.)							
MW-1												
174.86	07/20/99 <sup>5</sup>	7.50	5.0-25.0	167.36	--	16,000 <sup>2</sup>	120,000	11,000	27,000	3,300	18,000	ND <sup>1</sup>
	09/28/99	8.75		166.11	<0.01	2,410 <sup>2</sup>	6,020 <sup>6</sup>	1,030	1,040	68.5	412	321/333 <sup>3</sup>
	01/07/00	9.05		165.83**	0.02	7,870 <sup>2,4</sup>	72,700 <sup>6</sup>	7,410	13,900	2,070	9,620	ND <sup>1</sup>
	03/31/00	7.18		167.68	0.00	3,600 <sup>2</sup>	92,000 <sup>6</sup>	10,000	23,000	3,200	14,000	ND <sup>1</sup>
	07/14/00	7.68		167.18	0.00	8,580 <sup>2</sup>	108,000 <sup>6</sup>	8,250	18,700	3,750	17,800	ND <sup>1</sup>
	10/03/00	7.99		166.87	0.00	9,260 <sup>2</sup>	96,000 <sup>6</sup>	8,760	20,000	3,350	15,600	ND <sup>1</sup>
	01/03/01	9.18		165.68	0.00	11,000 <sup>8</sup>	37,000 <sup>6</sup>	5,800	13,000	1,700	8,100	2,200
	04/04/01	8.05		166.81	0.00	14,000 <sup>8</sup>	86,900 <sup>6</sup>	7,780	18,500	2,470	11,800	<sup>1</sup> ND/481 <sup>3</sup>
	07/17/01	7.01		167.85	0.00	2,200 <sup>8</sup>	79,000 <sup>6</sup>	5,600	11,000	2,800	12,000	<sup>1</sup> ND/230 <sup>3</sup>
177.54	10/03/01	7.89		169.65	0.00	--	99,000 <sup>6</sup>	8,200	18,000	3,000	16,000	<2,500
	10/05/01	7.91		169.63	0.00	13,000 <sup>2</sup>	--	--	--	--	--	--
	01/28/02	5.98		171.56	0.00	4,400 <sup>11</sup>	110,000 <sup>12</sup>	8,900	19,000	2,600	12,000	3,000/440 <sup>3</sup>
	04/25/02	6.19		171.35	0.00	9,000 <sup>13</sup>	93,000	8,100	18,000	3,000	15,000	810/670 <sup>3</sup>
	07/18/02	6.99		170.55	0.00	9,200 <sup>13</sup>	69,000	5,400	10,000	2,100	10,000	<500/620 <sup>3</sup>
	10/07/02	7.73		169.81	0.00	3,400	82,000	9,200	20,000	2,600	13,000	1,300/760 <sup>3</sup>
	01/06/03	5.48		172.06	0.00	5,100 <sup>13</sup>	82,000	6,500	18,000	2,700	11,000	<1,000/790 <sup>3,4</sup>
	04/07/03	6.30		171.24	0.00	2,800 <sup>13</sup>	74,000	7,000	15,000	2,400	11,000	1,000/800 <sup>3</sup>
MW-2												
173.01	07/20/99	5.40	5.0-25.0	167.61	--	--	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	4,500/11,000 <sup>3,4</sup>
	09/28/99	5.60		167.41	0.00	--	1,390 <sup>6</sup>	124	ND <sup>1</sup>	62.9	43.1	5,280/6,150 <sup>3</sup>
	01/07/00	5.92		167.09	0.00	--	1,450 <sup>6</sup>	99.0	ND <sup>1</sup>	23.8	16.0	33,100
	03/31/00	5.23		167.78	0.00	--	ND <sup>1</sup>	42	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	17,000
	07/14/00	5.52		167.49	0.00	--	ND <sup>1</sup>	44.7	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	66,500
	10/03/00	6.04		166.97	0.00	--	ND <sup>1</sup>	56.7	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	57,500
	01/03/01	6.42		166.59	0.00	--	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	49,000

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product								
					Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-2	04/04/01	6.14	5.0-25.0	166.87	0.00	--	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	38,700/37,800 <sup>3</sup>
(cont)	07/17/01	5.30		167.71	0.00	--	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	65,000/56,000 <sup>3</sup>
173.50	10/03/01	7.38		166.12	0.00	--	<250	2.7	<2.5	<2.5	<2.5	<2.5	14,000/18,000 <sup>3</sup>
	01/28/02	5.68		167.82	0.00	--	<250	2.5	4.4	2.8	7.4		11,000/10,000 <sup>3</sup>
	04/25/02	5.82		167.68	0.00	--	<50	<0.50	<0.50	<0.50	<0.50		8,400/8,100 <sup>3</sup>
	07/18/02	6.90		166.60	0.00	--	<500	<5.0	<5.0	<5.0	<5.0		4,300/8,800 <sup>3</sup>
	10/07/02	7.54		165.96	0.00	--	4,300	<10	27	21	75		7,100/5,900 <sup>3</sup>
	01/06/03	6.79		166.71	0.00	--	5,900	<5.0	<5.0	<5.0	<5.0		31,000/35,000 <sup>3</sup>
	04/07/03	6.49		167.01	0.00	--	1,500	<10	14	11	38		2,000/1,500 <sup>3</sup>
MW-3													
178.44	07/20/99	8.50	5.0-25.0	169.94	--	--	1,000	76	52	79	76		330
	09/28/99	8.31		170.13	0.00	--	1,860 <sup>6</sup>	174	95.4	71.8	135		443/288 <sup>3</sup>
	01/07/00	8.56		169.88	0.00	--	28,400 <sup>6</sup>	2,450	3,090	1,560	3,910		1,940
	03/31/00	8.42		170.02	0.00	--	26,000 <sup>6</sup>	1,300	2,900	2,600	3,500		2,800
	07/14/00	8.61		169.83	0.00	--	24,500 <sup>6</sup>	1,850	2,630	2,750	3,900		548
	10/03/00	9.14		169.30	0.00	--	22,000 <sup>6</sup>	1,910	2,020	2,400	2,680		965
	01/03/01	9.06		169.38	0.00	--	14,000 <sup>6</sup>	1,600	1,100	2,300	1,400		3,300
	04/04/01	8.98		169.46	0.00	--	19,600 <sup>6</sup>	1,150	1,470	2,100	1,820		1,050/450 <sup>3</sup>
	07/17/01	7.46		170.98	0.00	--	26,000 <sup>6</sup>	1,500	2,100	2,100	3,400		<sup>1</sup> ND/350 <sup>3</sup>
178.13	10/03/01	9.81		168.32	0.00	--	22,000 <sup>6</sup>	830	1,900	1,700	3,000		<1,000
	01/28/02	7.39		170.74	0.00	--	30,000 <sup>12</sup>	880	2,600	1,800	4,300		3,200/210 <sup>3</sup>
	04/25/02	7.86		170.27	0.00	--	18,000	500	2,000	1,300	3,800		500/260 <sup>3</sup>
	07/18/02	8.83		169.30	0.00	--	37,000	1,800	3,800	2,200	8,000		<250/270 <sup>3</sup>
	10/07/02	9.71		168.42	0.00	--	26,000	600	2,000	1,800	6,400		<120/<200 <sup>3</sup>
	01/06/03	7.40		170.73	0.00	--	27,000	800	2,100	2,000	6,400		440/110 <sup>3</sup>
	04/07/03	8.17		169.96	0.00	--	28,000	660	2,200	1,900	6,300		440/100 <sup>3</sup>

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product							
					Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-4</b>												
179.10	07/20/99	7.40	5.0-25.0	171.70	--	--	69	2.7	0.77	ND	7.1	100
	09/28/99	7.19		171.91	0.00	--	4,050 <sup>6</sup>	1,250	72.0	51.3	133	416/459 <sup>3</sup>
	01/07/00	8.98		170.12	0.00	--	7,010 <sup>6</sup>	2,260	167	271	276	764
	03/31/00	7.26		171.84	0.00	--	5,500 <sup>6</sup>	1,800	230	330	400	1,000
	07/14/00	7.67		171.43	0.00	--	7,940 <sup>6</sup>	2,810	332	450	247	1,530
	10/03/00	8.12		170.98	0.00	--	11,400 <sup>6</sup>	3,110	437	519	816	1,040
	01/03/01 <sup>7</sup>	9.10		170.00	0.00	--	8,600 <sup>6</sup>	2,500	340	480	960	850
	04/04/01	8.63		170.47	0.00	--	9,950 <sup>6</sup>	2,380	126	416	725	1,140/819 <sup>3</sup>
	07/17/01	6.49		172.61	0.00	--	10,000 <sup>6</sup>	2,300	110	410	800	1,200/900 <sup>3</sup>
178.96	10/03/01	7.01		171.95	0.00	--	7,800 <sup>6</sup>	2,100	85	380	390	580/820 <sup>3</sup>
	01/28/02	6.21		172.75	0.00	--	12,000 <sup>12</sup>	2,100	130	350	670	1,100/500 <sup>3</sup>
	04/25/02	5.49		173.47	0.00	--	3,300	1,300	42	270	250	680/600 <sup>3</sup>
	07/18/02	8.28		170.68	0.00	--	4,800	1,300	71	290	220	530/760 <sup>3</sup>
	10/07/02	7.49		171.47	0.00	--	5,100	1,400	110	330	380	650/540 <sup>3</sup>
	01/06/03	6.36		172.60	0.00	--	5,600	1,100	57	260	320	370/520 <sup>3</sup>
	04/07/03	6.24		172.72	0.00	--	5,100	1,100	55	190	370	550/420 <sup>3</sup>
<b>MW-5</b>												
169.18	10/03/01 <sup>10</sup>	2.81	--	166.37	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	1,800/2,100 <sup>3</sup>
	01/28/02	1.88		167.30	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	650/550 <sup>3</sup>
	04/25/02	1.99		167.19	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	2,200/2,400 <sup>3</sup>
	07/18/02	2.49		166.69	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	530/690 <sup>3</sup>
	10/07/02	2.80		166.38	0.00	--	140	<0.50	<0.50	<0.50	<0.50	300/330 <sup>3</sup>
	01/06/03	1.86		167.32	0.00	<50	120 <sup>13</sup>	<0.50	<0.50	<0.50	<0.50	410/350 <sup>3</sup>
	04/07/03	2.15		167.03	0.00	--	220 <sup>14</sup>	0.53	<0.50	<0.50	<0.50	450/420 <sup>3</sup>



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product		B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
					Thickness (ft.)	TPH-D (ppb)						TPH-G (ppb)
<b>MW-6</b>												
169.04	10/03/01 <sup>10</sup>	2.87	--	166.17	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	200/270 <sup>3</sup>
	01/28/02	1.82		167.22	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/25/02	2.01		167.03	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/18/02	2.44		166.60	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>3</sup>
	10/07/02	2.72		166.32	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>3</sup>
	01/06/03	1.90		167.14	0.00	--	<50	0.62	1.2	1.2	3.5	<2.0/<2.0 <sup>3</sup>
	04/07/03	2.02		167.02	0.00	--	<50	<0.50	<0.50	<0.50	<0.50	46/46 <sup>3</sup>
<b>MW-7</b>												
171.64	10/03/01 <sup>10</sup>	7.62	--	164.02	0.00	--	10,000 <sup>9</sup>	210	<50	<50	800	35,000/40,000 <sup>3</sup>
	01/28/02	7.21		164.43	0.00	--	<1,000	<10	<10	<10	<10	42,000/38,000 <sup>3</sup>
	04/25/02	7.25		164.39	0.00	--	<5,000	660	<50	<50	<50	42,000/45,000 <sup>3</sup>
	07/18/02	8.12		163.52	0.00	--	<5,000	130	<50	<50	<50	51,000/53,000 <sup>3</sup>
	10/07/02	7.71		163.93	0.00	--	18,000	<50	<50	<50	<50	33,000/38,000 <sup>3</sup>
	01/06/03	7.63		164.01	0.00	<50	410	0.61	1.0	0.89	2.9	3,900/3,100 <sup>3</sup>
	04/07/03	7.58		164.06	0.00	--	13,000 <sup>14</sup>	<20	<20	<20	<20	32,000/28,000 <sup>3</sup>
<b>Trip Blank</b>												
TB-LB	07/20/99	--	--	--	--	--	--	--	--	--	--	--
	09/28/99	--		--	--	--	ND	ND	ND	ND	ND	ND
	01/07/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	03/31/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	07/14/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	10/03/00	--		--	--	--	ND	ND	ND	ND	ND	ND
	01/03/01	--		--	--	--	ND	ND	ND	ND	ND	ND
	04/04/01	--		--	--	--	ND	ND	ND	ND	ND	ND

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product		B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
					Thickness (ft.)	TPH-D (ppb)						TPH-G (ppb)
TB-LB (cont)	07/17/01	--	--	--	--	--	ND	ND	ND	ND	ND	ND
	10/03/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	10/05/01	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	01/28/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	04/25/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/18/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	10/07/02	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	01/06/03	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.0
	04/07/03	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Tosco 76 Service Station #1156  
4276 MacArthur Boulevard  
Oakland, California

---

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc.

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

S.I. = Screen Interval

(ft. bgs) = Feet Below Ground Surface

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-D = Total Petroleum Hydrocarbons as Diesel

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

QA = Quality Assurance/Trip Blank

\* TOC elevations were resurveyed in September 2001, by Morrow Surveying. TOC elevations are based on City of Oakland Benchmark No. 3967, (Elevation = 174.40 feet, msl).

\*\* GWE has been corrected due to the presence of free product; correction factor:  $[(TOC - DTW) + (Product\ Thickness \times 0.77)]$ .

<sup>1</sup> Detection limit raised. Refer to analytical reports.

<sup>2</sup> Laboratory report indicates unidentified hydrocarbons C9-C24.

<sup>3</sup> MTBE by EPA Method 8260.

<sup>4</sup> Laboratory report indicates sample was analyzed past EPA recommended holding time.

<sup>5</sup> Total Recoverable Petroleum Oil was ND.

<sup>6</sup> Laboratory report indicates gasoline C6-C12.

<sup>7</sup> This sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

<sup>8</sup> Laboratory report indicates unidentified hydrocarbons <C16.

<sup>9</sup> Laboratory report indicates weathered gasoline C6-C12.

<sup>10</sup> Well development performed.

<sup>11</sup> Laboratory report indicates unidentified hydrocarbons C10-C28.

<sup>12</sup> Laboratory report indicates gasoline C6-C10.

<sup>13</sup> Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but it does not resemble the pattern of the requested fuel.

<sup>14</sup> Laboratory report indicates discrete peak @ MTBE.

**Table 2**  
**Groundwater Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)	HVOCs (ppb)	SVOCs (ppb)
MW-1	07/20/99	--	--	11,000 <sup>3</sup>	--	--	--	--	--	ND <sup>1</sup>	ND <sup>2</sup>
	09/28/99	--	ND <sup>6</sup>	333	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--	ND <sup>4</sup>	ND <sup>5</sup>
	01/07/00	--	--	--	--	--	--	--	--	ND <sup>7,8</sup>	ND <sup>9</sup>
	03/31/00	--	--	--	--	--	--	--	--	-- <sup>11</sup>	ND <sup>10</sup>
	07/14/00	--	--	--	--	--	--	--	--	ND <sup>12</sup>	ND <sup>13</sup>
	10/03/00	--	--	--	--	--	--	--	--	ND <sup>15</sup>	ND <sup>14</sup>
	01/03/01	--	--	--	--	--	--	--	--	ND <sup>15</sup>	ND <sup>16</sup>
	04/04/01	ND <sup>6</sup>	ND <sup>6</sup>	481	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>17</sup>	ND <sup>18</sup>
	07/17/01	ND <sup>6</sup>	ND <sup>6</sup>	230	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>20</sup>	ND <sup>19</sup>
	01/28/02	--	--	440	--	--	--	--	--	--	--
	04/25/02	--	--	670	--	--	--	--	--	--	--
	07/18/02	<2,500	<100	620	<10	<10	<10	<10	<10	<10	--
	10/07/02	<50,000	<10,000	760	<200	<200	<200	<200	<200	<200	--
	01/06/03 <sup>3</sup>	<100,000	<20,000	790	<400	<400	<400	<400	<400	<400	--
	04/07/03	<50,000	<10,000	800	<200	<200	<200	<200	<200	<200	--
MW-2	09/28/99	--	ND <sup>6</sup>	6,150	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--	--	--
	04/04/01	ND <sup>6</sup>	ND <sup>6</sup>	37,800	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--
	07/17/01	ND <sup>6</sup>	ND <sup>6</sup>	56,000	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--
	10/03/01	--	--	18,000	--	--	--	--	--	--	--
	01/28/02	--	--	10,000	--	--	--	--	--	--	--
	04/25/02	--	--	8,100	--	--	--	--	--	--	--
	07/18/02	<25,000	<1,000	8,800	<100	<100	<100	<100	<100	<100	--
	10/07/02	<100,000	<20,000	5,900	<400	<400	<400	<400	<400	<400	--
	01/06/03	<250,000	<50,000	35,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	--
	04/07/03	<10,000	<2,000	1,500	<40	<40	<40	<40	<40	<40	--

**Table 2**  
**Groundwater Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)	HVOCs (ppb)	SVOCs (ppb)
MW-3	09/28/99	--	ND <sup>6</sup>	288	ND <sup>6</sup>	ND <sup>6</sup>	8.80	--	--	--	--
	04/04/01	ND <sup>6</sup>	ND <sup>6</sup>	450	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--
	07/17/01	ND <sup>6</sup>	ND <sup>6</sup>	350	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--
	01/28/02	--	--	210	--	--	--	--	--	--	--
	04/25/02	--	--	260	--	--	--	--	--	--	--
	07/18/02	<1,200	<50	270	<5.0	<5.0	<5.0	<5.0	<5.0	--	--
	10/07/02	<50,000	<10,000	<200	<200	<200	<200	<200	<200	--	--
	01/06/03	23,000	<4,000	110	<80	<80	<80	<80	<80	--	--
	04/07/03	<20,000	<4,000	100	<80	<80	<80	<80	<80	--	--
MW-4	09/28/99	--	ND <sup>6</sup>	459	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--	--	--
	04/04/01	ND <sup>6</sup>	ND <sup>6</sup>	819	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--
	07/17/01	ND <sup>6</sup>	ND <sup>6</sup>	900	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	ND <sup>6</sup>	--	--
	10/03/01	--	--	820	--	--	--	--	--	--	--
	01/28/02	--	--	500	--	--	--	--	--	--	--
	04/25/02	--	--	600	--	--	--	--	--	--	--
	07/18/02	<2,500	<100	760	<10	<10	<10	49	<10	--	--
	10/07/02	<50,000	<10,000	540	<200	<200	<200	<200	<200	--	--
	01/06/03	<5,000	<1,000	520	<20	<20	<20	<20	<20	--	--
	04/07/03	<5,000	<1,000	420	<20	<20	<20	<20	<20	--	--
MW-5	10/03/01	--	--	2,100	--	--	--	--	--	--	--
	01/28/02	--	--	550	--	--	--	--	--	--	--
	04/25/02	--	--	2,400	--	--	--	--	--	--	--
	07/18/02	<500	<20	690	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
	10/07/02	<500	<100	330	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
	01/06/03	<500	<100	350	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
	04/07/03	<2,500	<500	420	<10	<10	<10	<10	<10	--	--

**Table 2**  
**Groundwater Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)	HVOCs (ppb)	SVOCs (ppb)
MW-6	10/03/01	--	--	270	--	--	--	--	--	--	--
	07/18/02	<500	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
	10/07/02	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
	01/06/03	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
	04/07/03	<500	<100	46	<2.0	<2.0	<2.0	<2.0	<2.0	--	--
MW-7	10/03/01	--	--	40,000	--	--	--	--	--	--	--
	01/28/02	--	--	38,000	--	--	--	--	--	--	--
	04/25/02	--	--	45,000	--	--	--	--	--	--	--
	07/18/02	<5,000	33,000	53,000	<20	<20	<20	<20	<20	--	--
	10/07/02	<100,000	26,000	38,000	<400	<400	<400	<400	<400	--	--
	01/06/03	<50,000	<10,000	3,100	<200	<200	<200	<200	<200	--	--
	04/07/03	<200,000	<40,000	28,000	<800	<800	<800	<800	<800	--	--

**Table 2**  
**Groundwater Analytical Results**  
Tosco 76 Service Station #1156  
4276 MacArthur Boulevard  
Oakland, California

**EXPLANATIONS:**

Groundwater laboratory analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc.

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

HVOCs = Halogenated Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

(ppb) = Parts per billion

ND = Not Detected

-- = Not Analyzed

- <sup>1</sup> All HVOCs were ND except for Chlorobenzene at 12 ppb; 1,2-Dichlorobenzene (1,2-DCB) at 3.9 ppb; 1,1-Dichloroethane (1,1-DCA) at 2.0 ppb; 1,2-Dichloroethane (1,2-DCA) at 20 ppb; cis-1,2-Dichloroethene (cis-1,2-DCE) at 3.6 ppb and 1,2-Dichloropropane (1,2-DCP) at 0.92 ppb.
- <sup>2</sup> All SVOCs were ND except for Benzyl alcohol at 37 ppb; 2,4-Dimethylphenol at 140 ppb; 2-Methylnaphthalene at 240 ppb; 4-Methylphenol at 27 ppb and Naphthalene at 600 ppb.
- <sup>3</sup> Laboratory report indicates sample was analyzed past EPA recommended holding time.
- <sup>4</sup> All HVOCs were ND except for Benzene at 6,130 ppb; Ethylbenzene at 1,590 ppb; Naphthalene at 534 ppb; Toluene at 11,900 ppb; 1,2,4-Trimethylbenzene at 1,240 ppb; 1,3,5-Trimethylbenzene at 318 ppb and Total Xylenes at 7,360 ppb.
- <sup>5</sup> All SVOCs were ND (with a raised detection limit) except for 2,4-Dimethylphenol at 13.6 ppb; 2-Methylnaphthalene at 87.4 ppb; 2-Methylphenol at 26.4; 4-Methylphenol at 35.6 and Naphthalene at 292 ppb.
- <sup>6</sup> Detection limit raised. Refer to analytical reports.
- <sup>7</sup> All HVOCs were ND (with a raised detection limit) except for Benzene at 8,380 ppb; Ethylbenzene at 2,380 ppb; Naphthalene at 1,050 ppb; n-Propylbenzene at 371 ppb; Toluene at 17,600 ppb; 1,2,4-Trimethylbenzene at 2,210 ppb; 1,3,5-Trimethylbenzene at 597 ppb and Total Xylenes at 10,800 ppb.
- <sup>8</sup> EPA Method 8260 for HVOCs.
- <sup>9</sup> All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 315 ppb and Naphthalene at 615 ppb.
- <sup>10</sup> All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 10 ppb; 1,2-DCB at 6.2 ppb; 2-Methylnaphthalene at 73 ppb; 2-Methylphenol at 31 ppb; 4-Methylphenol at 18 ppb and Naphthalene at 140 ppb. Laboratory report indicates all SVOCs were analyzed outside the EPA recommended holding time.
- <sup>11</sup> Laboratory did not analyze for HVOCs.
- <sup>12</sup> All HVOCs were ND (with a raised detection limit) except for Tetrachloroethene at 334 ppb.
- <sup>13</sup> All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 300 ppb and Naphthalene at 690 ppb.
- <sup>14</sup> All SVOCs were ND (with a raised detection limit) except for Benzoic acid at 362 ppb; Bis(2-ethylhexyl)phthalate at 51.6 ppb; 2-Methylnaphthalene at 98.1 ppb; 4-Methylphenol at 28.9 ppb and Naphthalene at 361 ppb.
- <sup>15</sup> All HVOCs were ND (with a raised detection limit).
- <sup>16</sup> All SVOCs were ND (with a raised detection limit) except for 2-Methylnaphthalene at 180 ppb and Naphthalene at 400 ppb.
- <sup>17</sup> All HVOCs were ND except for cis-1,2-DCA at 3.4 ppb; 1,2-DCA at 5.7 ppb; Chlorobenzene at 5.6 ppb and 1,2-DCB at 4.6 ppb.
- <sup>18</sup> All SVOCs were ND except for Benzoic acid at 28 ppb; Bis(2-ethylhexyl)phthalate at 55 ppb; 2-Methylnaphthalene at 78 ppb and Naphthalene at 490 ppb.

**Table 2**  
**Groundwater Analytical Results**  
Tosco 76 Service Station #1156  
4276 MacArthur Boulevard  
Oakland, California

---

**EXPLANATIONS:** (cont)

- <sup>19</sup> All SVOCs were ND except for Bis(2-ethylhexyl)phthalate at 400 ppb; 1,2-DCB at 18 ppb; 2,4-Dimethylphenol at 16 ppb; 2-Methylnaphthalene at 290 ppb; 2-Methylphenol at 47 ppb; 4-Methylphenol at 25 ppb; Naphthalene at 740 ppb and N-Nitrosodimethylamine at 7.7 ppb.
- <sup>20</sup> Volatile Organic Compounds (VOCs) by EPA Method 8021B were ND with a raised detection limit.

**ANALYTICAL METHODS:**

EPA Method 8260 for Oxygenate Compounds  
EPA Method 8010 for HVOCs  
EPA Method 8270 for SVOCs



**Table 3**  
**Groundwater Analytical Results**  
 Tosco 76 Service Station #1156  
 4276 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	cis-1,1-DCE (ppb)	1,1-DCA (ppb)	PCE (ppb)	Chloro- benzene (ppb)	HYOCs (ppb)	Bis(2- ethylhexyl)ph thalate (ppb)	2-Methylnaph- thalene (ppb)	2-Methyl- phenol (ppb)	4-Methyl- phenol (ppb)	Naphthalene (ppb)	SYOCs (ppb)
MW-1	07/18/02	1.3	<1.6	<0.60	5.9	<0.50-<10 <sup>1</sup>	120	420	13	25	910	<5.0-<20 <sup>2</sup>
MW-5	01/06/03	<0.50	1.4	<0.50	<0.50	<0.50-<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0-<20
MW-7	01/06/03	<50	<50	<50	<50	<50-<500	<5.0	<5.0	<5.0	<5.0	<10	<5.0-<20

**Table 3**  
**Groundwater Analytical Results**  
Tosco 76 Service Station #1156  
4276 MacArthur Boulevard  
Oakland, California

---

**EXPLANATIONS:**

Groundwater laboratory analytical results prior to September 28, 1999, were compiled from reports prepared by Environmental Resolutions, Inc. Historical Halogenated and Semi-Volatile Organic Compound data are presented in Table 2.

cis-1,2-DCE = cis-1,2-Dichloroethene

1,2-DCA = 1,2-Dichloroethane

PCE = Tetrachloroethene

HVOCs = Halogenated Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

(ppb) = Parts per billion

<sup>1</sup> All other HVOCs were less than the reporting limit except for Chloroethane was detected at 1.1 ppb, 1,4-Dichlorobenzene was detected at 1.3 ppb and 1,2-Dichlorobenzene was detected at 5.8 ppb.

<sup>2</sup> All other SVOCs were less than the reporting limit except for Phenol was detected at 32 ppb.

**ANALYTICAL METHODS:**

EPA Method 8010/8021 for HVOCs

EPA Method 8270 for SVOCs

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-1	11/17/1993	410	21	11	7.9	47	NA	NA	175.79	8.59	NA	167.20	NA	NA	NA
MW-1	1/20/1994	1,200	180	19	48	47	NA	NA	175.79	8.22	NA	167.57	NA	NA	NA
MW-1	4/25/1994	3,100	610	<10	130	27	NA	NA	175.79	7.63	NA	168.16	NA	NA	NA
MW-1	7/7/1994	2,400	1,000	10	250	20	NA	NA	175.79	8.31	NA	167.48	NA	NA	NA
MW-1	10/27/1994	2,200	500	3.1	72	1.8	NA	NA	175.79	8.84	NA	166.95	NA	NA	NA
MW-1	11/17/1994	NA	NA	NA	NA	NA	NA	NA	175.79	7.60	NA	168.19	NA	NA	NA
MW-1	11/28/1994	NA	NA	NA	NA	NA	NA	NA	175.79	7.56	NA	168.23	NA	NA	NA
MW-1	1/13/1995	570	75	2.5	6.7	11	NA	NA	175.79	7.11	NA	168.68	NA	NA	NA
MW-1	4/12/1995	1,800	480	<5.0	79	<5.0	NA	NA	175.79	7.08	NA	168.71	NA	NA	NA
MW-1	7/25/1995	120	15	1.1	2.1	2.9	NA	NA	175.79	7.73	NA	168.06	NA	NA	NA
MW-1 (D)	7/25/1995	300	88	2.4	11	6.5	NA	NA	175.79	7.73	NA	168.06	NA	NA	NA
MW-1	10/18/1995	130	9.5	0.8	1.3	1.7	NA	NA	175.79	8.42	NA	167.37	NA	NA	NA
MW-1 (D)	10/18/1995	120	11	0.8	1.4	1.8	NA	NA	175.79	8.42	NA	167.37	NA	NA	NA
MW-1	1/17/1996	250	22	0.9	1.6	2.3	NA	NA	175.79	7.83	NA	167.96	NA	NA	NA
MW-1	4/25/1996	<50	4.6	<0.5	<0.5	0.6	500b	NA	175.79	7.35	NA	168.44	NA	NA	NA
MW-1	7/17/1996	<250	15	<2.5	<2.5	<2.5	540	NA	175.79	7.70	NA	168.09	NA	NA	NA
MW-1	10/1/1996	1,200	500	12	57	82	1,900	NA	175.79	8.07	NA	167.72	NA	NA	NA
MW-1	1/22/1997	640	170	4.3	33	33	1,200	NA	175.79	7.21	NA	168.58	NA	NA	NA
MW-1	4/8/1997	<200	34	<2.0	3.3	4.3	950	NA	175.79	7.75	NA	168.04	NA	NA	NA
MW-1 (D)	4/8/1997	<200	66	<2.0	6.4	8	740	NA	175.79	7.75	NA	168.04	NA	NA	NA
MW-1	7/8/1997	190	49	1.2	5.8	8.6	560	NA	175.79	8.01	NA	167.78	NA	NA	NA
MW-1	10/8/1997	<100	7	<1.0	<1.0	<1.0	620	NA	175.79	8.10	NA	167.69	NA	NA	NA
MW-1	1/9/1998	970	390	12	48	71	1,200	NA	175.79	7.14	NA	168.65	NA	NA	NA
MW-1	4/13/1998	<50	136	<0.50	1.5	1.8	170	NA	175.79	6.78	NA	169.01	NA	NA	NA
MW-1	7/17/1998	2,500	750	11	88	67	150	NA	175.79	7.28	NA	168.51	NA	NA	NA
MW-1	10/2/1998	8,000	970	36	270	440	35	NA	175.79	7.77	NA	168.02	NA	NA	NA
MW-1	2/3/1999	210	56	0.82	<0.50	3.2	220	NA	175.79	7.45	NA	168.34	NA	1.4	NA

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-1	4/29/1999	<50	4.5	<0.50	0.56	<0.50	140	196	175.79	7.58	NA	168.21	NA	1.2	140
MW-1	7/23/1999	<50.0	<0.500	<0.500	<0.500	<0.500	120	111*	175.79	8.51	NA	167.28	NA	1.0	NA
MW-1	11/1/1999	<50.0	<0.500	<0.500	<0.500	<0.500	2.90	NA	175.79	8.30	NA	167.49	NA	1.4	-71
MW-1	1/17/2000	<50	<0.50	<0.50	<0.50	<0.50	3.30	NA	175.79	8.04	NA	167.75	NA	16.9	64
MW-1	4/17/2000	<50.0	1.08	<0.500	<0.500	<0.500	<2.50	NA	175.79	8.00	NA	167.79	NA	1.8	112
MW-1	7/26/2000	125	54.3	2.16	5.45	9.86	33.1	NA	175.79	7.52	NA	168.27	NA	13.2	-140
MW-1	10/12/2000	101	40.7	2.68	3.00	5.18	25.0	NA	175.79	7.71	NA	168.08	NA	>20	534
MW-1	1/15/2001	<50.0	0.633	<0.500	0.505	1.74	<2.50	NA	175.79	7.33	NA	168.46	NA	16.9	-127
MW-1	4/9/2001	<50.0	<0.500	<0.500	<0.500	0.927	<2.50	NA	175.79	7.68	NA	168.11	NA	12.8	-117
MW-1	7/24/2001	<50	4.0	0.65	0.53	1.3	NA	<5.0	175.79	8.00	NA	167.79	NA	>20	43
MW-1	10/31/2001	<50	4.4	<0.50	<0.50	0.98	NA	<5.0	175.79	7.94	NA	167.85	NA	13.6	123
MW-1	1/10/2002	<50	2.2	<0.50	<0.50	1.2	NA	6.1	175.79	7.63	NA	168.16	NA	0.1	63
MW-1	4/25/2002	<50	2.0	<0.50	<0.50	<0.50	NA	<5.0	175.79	7.76	NA	168.03	NA	0.3	54
MW-1	7/18/2002	<50	6.1	<0.50	<0.50	0.98	NA	<5.0	175.79	8.29	NA	167.50	NA	1.1	32
MW-1	10/7/2002	500	17	14	11	60	NA	9.0	175.76	8.34	NA	167.42	NA	2.8	-26
MW-1	1/6/2003	<50	12	<0.50	0.73	0.58	NA	14	175.76	7.18	NA	168.58	NA	0.5	-22
MW-1	4/7/2003 <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/17/1993	31,000	9,400	4,600	1,000	3,900	NA	NA	170.91	12.31	NA	158.60	NA	NA	NA
MW-2	1/20/1994	40,000	6,900	5,600	780	4,100	NA	NA	170.91	11.48	NA	159.43	NA	NA	NA
MW-2 (D)	1/20/1994	41,000	7,200	6,200	900	4,800	NA	NA	170.91	11.48	NA	159.43	NA	NA	NA
MW-2	4/25/1994	60,000	9,300	6,100	1,400	6,200	NA	NA	170.91	10.84	NA	160.07	NA	NA	NA
MW-2	7/7/1994	280,000 <sup>a</sup>	40,000	26,000	8,100	32,000	NA	NA	170.91	11.89	NA	159.02	NA	NA	NA
MW-2 (D)	7/7/1994	53,000	13,000	6,600	2,000	8,400	NA	NA	170.91	11.89	NA	159.02	NA	NA	NA
MW-2	10/27/1994	130,000	14,000	12,000	2,400	13,000	NA	NA	170.91	12.89	NA	158.02	NA	NA	NA
MW-2 (D)	10/27/1994	390,000	8,800	7,000	1,700	11,000	NA	NA	170.91	12.89	NA	158.02	NA	NA	NA
MW-2	11/17/1994	NA	NA	NA	NA	NA	NA	NA	170.91	9.11	NA	161.80	NA	NA	NA
MW-2	11/28/1994	NA	NA	NA	NA	NA	NA	NA	170.91	9.22	NA	161.69	NA	NA	NA

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
Shell-branded Service Station  
4255 MacArthur Boulevard  
Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-2	1/13/1995	75,000	5,900	12,000	3,100	17,000	NA	NA	170.91	8.10	NA	162.81	NA	NA	NA
MW-2	4/12/1995	100,000	8,500	11,000	2,400	12,000	NA	NA	170.91	10.12	NA	160.79	NA	NA	NA
MW-2 (D)	4/12/1995	80,000	4,200	9,300	2,500	12,000	NA	NA	170.91	10.12	NA	160.79	NA	NA	NA
MW-2	7/25/1995	NA	NA	NA	NA	NA	NA	NA	170.91	11.53	NA	159.80	0.52	NA	NA
MW-2	10/18/1995	NA	NA	NA	NA	NA	NA	NA	170.91	14.02	NA	156.99	0.13	NA	NA
MW-2	1/17/1996	NA	NA	NA	NA	NA	NA	NA	170.91	10.27	NA	160.78	0.17	NA	NA
MW-2	4/25/1996	NA	NA	NA	NA	NA	NA	NA	170.91	11.68	NA	159.25	0.03	NA	NA
MW-2	7/17/1996	NA	NA	NA	NA	NA	NA	NA	170.91	12.78	NA	158.81	0.48	NA	NA
MW-2	10/1/1996	NA	NA	NA	NA	NA	NA	NA	170.91	14.21	NA	156.70	0.28	NA	NA
MW-2	1/22/1997	NA	NA	NA	NA	NA	NA	NA	170.91	10.92	NA	160.08	0.11	NA	NA
MW-2	4/8/1997	NA	NA	NA	NA	NA	NA	NA	170.91	14.12	NA	156.95	0.20	NA	NA
MW-2	7/8/1997	NA	NA	NA	NA	NA	NA	NA	170.91	14.98	NA	156.08	0.19	NA	NA
MW-2	10/8/1997	NA	NA	NA	NA	NA	NA	NA	170.91	12.97	NA	157.98	0.05	NA	NA
MW-2	1/8/1998	NA	NA	NA	NA	NA	NA	NA	170.91	12.54	NA	158.43	0.08	NA	NA
MW-2	4/13/1998	180,000	2,800	5,200	2,400	13,000	71,000	NA	170.91	10.05	NA	160.86	NA	NA	NA
MW-2	7/17/1998	NA	NA	NA	NA	NA	NA	NA	170.91	11.75	NA	159.24	0.10	NA	NA
MW-2	10/2/1998	NA	NA	NA	NA	NA	NA	NA	170.91	16.78	NA	154.22	0.11	NA	NA
MW-2	2/3/1999	NA	NA	NA	NA	NA	NA	NA	170.91	9.90	9.82	161.07	0.08	NA	NA
MW-2	4/29/1999	NA	NA	NA	NA	NA	NA	NA	170.91	9.86	9.81	161.09	0.05	NA	NA
MW-2	7/23/1999	65,800	6,500	4,480	1,960	8,960	46,600	58,500*	170.91	14.45	NA	156.46	NA	1.4	NA
MW-2	11/1/1999	NA	NA	NA	NA	NA	NA	NA	170.91	11.84	11.81	159.09	0.03	NA	NA
MW-2	1/17/2000	46,000	6,000	2,400	1,500	5,500	50,000	31,000	170.91	11.00	NA	159.91	NA	1.3	-54
MW-2	4/17/2000	96,300	8,150	10,200	2,820	14,900	112,000	108,000	170.91	11.06	NA	159.85	NA	2.6	125
MW-2	7/26/2000	72,400	8,680	5,620	2,810	13,400	66,200	46,300	170.91	12.82	NA	158.09	NA	2.2	113
MW-2	10/12/2000	63,200	5,840	4,180	2,310	11,100	61,200	66,600	170.91	11.32	NA	159.59	NA	0.4	55
MW-2	1/15/2001	59,700	2,630	4,800	2,050	11,500	44,400	5,080	170.91	10.19	NA	160.72	NA	1.1	-22
MW-2	4/9/2001	56,900	1,860	2,550	1,810	9,720	40,000	46,600	170.91	11.15	NA	159.76	NA	1.0	-55
MW-2	7/24/2001	84,000	3,000	4,600	2,500	13,000	NA	41,000	170.91	11.67	NA	159.24	NA	0.2	53

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-2	10/31/2001	45,000	2,200	3,000	1,500	7,700	NA	29,000	170.91	11.04	NA	159.87	NA	1.2	-17
MW-2	1/10/2002	28,000	840	740	760	3,300	NA	32,000	170.91	9.58	NA	161.33	NA	2.1	-76
MW-2	4/25/2002	41,000	1,900	2,000	1,200	6,900	NA	17,000	170.91	11.40	NA	159.51	NA	0.8	-95
MW-2	7/18/2002	87,000	2,000	2,200	1,400	10,000	NA	19,000	170.91	12.68	NA	158.23	NA	0.7	-34
MW-2	10/7/2002	110,000	3,900	6,700	2,700	15,000	NA	20,000	170.88	11.58	NA	159.30	NA	1.4	-52
MW-2	1/6/2003	65,000	2,400	3,500	1,400	8,600	NA	26,000	170.88	9.09	NA	161.79	NA	0.4	40
MW-2	4/7/2003 <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/17/1993	18,000	5,400	660	720	2,200	NA	NA	174.61	15.40	NA	159.21	NA	NA	NA
MW-3	1/20/1994	55,000	13,000	2,600	2,200	6,500	NA	NA	174.61	14.61	NA	160.00	NA	NA	NA
MW-3	4/25/1994	96,000	11,000	1,600	3,100	9,900	NA	NA	174.61	13.12	NA	161.49	NA	NA	NA
MW-3 (D)	4/25/1994	78,000	12,000	1,900	2,600	7,300	NA	NA	174.61	13.12	NA	161.49	NA	NA	NA
MW-3	7/7/1994	NA	NA	NA	NA	NA	NA	NA	174.61	14.54	NA	160.07	0.02	NA	NA
MW-3	10/27/1994	NA	NA	NA	NA	NA	NA	NA	174.61	15.62	NA	159.03	0.05	NA	NA
MW-3	11/17/1994	NA	NA	NA	NA	NA	NA	NA	174.61	13.83	NA	160.78	NA	NA	NA
MW-3	11/28/1994	NA	NA	NA	NA	NA	NA	NA	174.61	14.02	NA	160.59	NA	NA	NA
MW-3	1/13/1995	180,000	3,200	2,700	1,700	5,200	NA	NA	174.61	12.13	NA	162.48	NA	NA	NA
MW-3 (D)	1/13/1995	23,000	4,000	690	960	3,000	NA	NA	174.61	12.13	NA	162.48	NA	NA	NA
MW-3	4/12/1995	56,000	8,700	1,500	2,100	6,300	NA	NA	174.61	12.96	NA	161.65	NA	NA	NA
MW-3	7/25/1995	NA	NA	NA	NA	NA	NA	NA	174.61	14.28	NA	160.38	0.06	NA	NA
MW-3	10/18/1995	NA	NA	NA	NA	NA	NA	NA	174.61	15.88	NA	158.77	0.05	NA	NA
MW-3	1/17/1996	NA	NA	NA	NA	NA	NA	NA	174.61	13.86	NA	160.94	0.24	NA	NA
MW-3	4/25/1996	NA	NA	NA	NA	NA	NA	NA	174.61	13.82	NA	160.81	0.02	NA	NA
MW-3	7/17/1996	NA	NA	NA	NA	NA	NA	NA	174.61	16.11	NA	158.52	0.03	NA	NA
MW-3	10/1/1996	46,000	7,300	530	1,700	3,900	3,200	NA	174.61	16.56	NA	158.05	NA	NA	NA
MW-3 (D)	10/1/1996	47,000	7,100	530	1,700	4,000	2,900	NA	174.61	16.56	NA	158.05	NA	NA	NA
MW-3	1/22/1997	82,000	5,200	1,300	2,800	8,900	1,100	NA	174.61	13.07	NA	161.54	NA	NA	NA
MW-3 (D)	1/22/1997	61,000	8,400	1,100	2,300	7,000	2,700	NA	174.61	13.07	NA	161.54	NA	NA	NA

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-3	4/8/1997	NA	NA	NA	NA	NA	NA	NA	174.61	17.09	NA	157.54	0.03	NA	NA
MW-3	7/8/1997	56,000	8,800	580	2,000	4,900	2,800	NA	174.61	15.85	NA	158.76	NA	NA	NA
MW-3	10/8/1997	48,000	8,000	590	1,700	3,400	5,100	NA	174.61	16.22	NA	158.39	NA	NA	NA
MW-3	1/8/1998	47,000	9,400	810	2,300	4,700	6,300	NA	174.61	13.80	NA	160.81	NA	NA	NA
MW-3 (D)	1/8/1998	48,000	8,100	750	2,000	4,100	5,800	NA	174.61	13.80	NA	160.81	NA	NA	NA
MW-3	4/13/1998	32,000	6,800	540	1,400	3,400	4,000	NA	174.61	12.97	NA	161.64	NA	NA	NA
MW-3 (D)	4/13/1998	36,000	7,300	660	1,600	3,700	4,000	NA	174.61	12.97	NA	161.64	NA	NA	NA
MW-3	7/17/1998	71,000	11,000	590	2,200	6,900	3,900	NA	174.61	11.51	NA	163.10	NA	NA	NA
MW-3 (D)	7/17/1998	76,000	12,000	700	2,600	8,000	3,000	NA	174.61	11.51	NA	163.10	NA	NA	NA
MW-3	10/2/1998	66,000	8,900	510	2,000	4,900	4,600	NA	174.61	16.50	NA	158.11	NA	NA	NA
MW-3 (D)	10/2/1998	59,000	9,400	460	2,000	4,900	4,700	NA	174.61	16.50	NA	158.11	NA	NA	NA
MW-3	2/3/1999	36,000	6,800	300	1,600	2,900	18,000	NA	174.61	15.21	NA	159.40	NA	1.3	NA
MW-3	4/29/1999	45,000	8,100	580	2,200	5,800	4,700	5,150	174.61	15.43	NA	159.18	NA	1.5	-68
MW-3	7/23/1999	29,400	3,540	215	810	3,800	4,720	6,950*	174.61	14.95	NA	159.66	NA	1.3	NA
MW-3	11/1/1999	20,000	4,190	294	1,060	1,740	5,540	8,590	174.61	14.66	NA	159.95	NA	0.6	-110
MW-3	1/17/2000	17,000	3,900	89	1,100	1,200	7,900	NA	174.61	13.94	NA	160.67	NA	1.3	-40
MW-3	4/17/2000	28,100	5,240	247	1,540	2,750	16,600	NA	174.61	14.00	NA	160.61	NA	1.1	-86
MW-3	7/26/2000	24,300	6,680	159	1,610	1,640	17,100	NA	174.61	13.72	NA	160.89	NA	0.9	-70
MW-3	10/12/2000	14,300	2,630	86.7	241	1,360	16,300	NA	174.61	14.15	NA	160.46	NA	0.9	50
MW-3	1/15/2001	22,100	4,400	266	977	2,990	13,200	NA	174.61	13.05	NA	161.56	NA	1.3	-40
MW-3	4/9/2001	33,800	7,100	147	1,700	2,660	13,000	NA	174.61	13.59	NA	161.02	NA	0.6	-58
MW-3	7/24/2001	220,000	5,600	1,900	4,400	19,000	NA	12,000	174.61	14.43	NA	160.18	NA	0.4	29
MW-3	10/31/2001	65,000	2,700	510	1,800	7,200	NA	9,800	174.61	14.59	NA	160.02	NA	0.9	-27
MW-3	1/10/2002	66,000	2,400	490	1,700	6,600	NA	5,500	174.61	12.65	NA	161.96	NA	1.7	-76
MW-3	4/25/2002	55,000	4,600	460	2,400	6,900	NA	8,100	174.61	14.13	NA	160.48	NA	1.2	-96
MW-3	7/18/2002	56,000	3,300	270	1,700	5,000	NA	8,400	174.61	15.48	15.45	159.15	0.03	0.8	-41

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
MW-3	10/7/2002	NA	NA	NA	NA	NA	NA	NA	174.59	14.60	14.40	160.15	0.20	NA	NA
MW-3	1/6/2003	57,000	3,200	330	1,800	5,400	NA	5,100	174.59	11.62	11.60	162.99	0.02	0.4	33
MW-3	4/7/2003 <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	11/17/1994	NA	NA	NA	NA	NA	NA	NA	164.06	6.62	NA	157.44	NA	NA	NA
MW-4	11/28/1994	2,900	200	17	76	260	NA	NA	164.06	6.11	NA	157.95	NA	NA	NA
MW-4	1/13/1995	1,900	130	5.6	13	40	NA	NA	164.06	6.05	NA	158.01	NA	NA	NA
MW-4	4/12/1995	680	150	<2.0	10	13	NA	NA	164.06	6.31	NA	157.75	NA	NA	NA
MW-4	7/25/1995	340	100	0.8	8.8	3	NA	NA	164.06	7.36	NA	156.70	NA	NA	NA
MW-4	10/18/1995	150	31	<0.5	3.5	0.8	NA	NA	164.06	8.54	NA	155.52	NA	NA	NA
MW-4	1/17/1996	290	14	<0.5	1.8	0.8	NA	NA	164.06	8.48	NA	155.58	NA	NA	NA
MW-4	4/25/1996	<500	65	<5	<5	<5	1,700	NA	164.06	7.40	NA	156.66	NA	NA	NA
MW-4 (D)	4/25/1996	<500	66	<5	8.7	<5	1,500	NA	164.06	7.40	NA	156.66	NA	NA	NA
MW-4	7/17/1996	<500	84	<5.0	6.5	<5.0	1,500	NA	164.06	7.75	NA	156.31	NA	NA	NA
MW-4 (D)	7/17/1996	<500	54	<5.0	<5.0	<5.0	1,700	2,100	164.06	7.75	NA	156.31	NA	NA	NA
MW-4	10/1/1996	<500	1.9	<5.0	<5.0	<5.0	3,000	NA	164.06	8.82	NA	155.24	NA	NA	NA
MW-4	1/22/1997	580	130	<2.5	18	5.2	1,200	NA	164.06	7.51	NA	156.55	NA	NA	NA
MW-4	4/8/1997	770	200	7	26	55	1,500	8	164.06	7.18	NA	156.88	NA	NA	NA
MW-4	7/8/1997	570	78	<5.0	14	11	1,200	NA	164.06	9.00	NA	155.06	NA	NA	NA
MW-4 (D)	7/8/1997	640	81	<5.0	16	19	1,600	NA	164.06	9.00	NA	155.06	NA	NA	NA
MW-4	10/8/1997	<500	40	<5.0	7.4	5.4	1,400	NA	164.06	8.97	NA	155.09	NA	NA	NA
MW-4 (D)	10/8/1997	<500	36	<5.0	5.9	<5.0	1,400	NA	164.06	8.97	NA	155.09	NA	NA	NA
MW-4	1/8/1998	<1,000	55	<10	13	<10	2,000	NA	164.06	7.90	NA	156.16	NA	NA	NA
MW-4	4/13/1998	350	110	2.4	20	26	<2.5	NA	164.06	7.35	NA	156.71	NA	NA	NA
MW-4	7/17/1998	210	66	0.78	5.4	9.8	1,700	NA	164.06	6.95	NA	157.11	NA	NA	NA
MW-4	10/2/1998	<50	0.69	<0.50	<0.50	<0.50	2,900	NA	164.06	7.35	NA	156.71	NA	NA	NA
MW-4	2/3/1999	560	120	2.5	29	34	6,800	NA	164.06	7.71	NA	156.35	NA	0.9	NA
MW-4	4/29/1999	390	80	1.9	13	19	7,000	8,360	164.06	7.83	NA	156.23	NA	1.1	-125



**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
Shell-branded Service Station  
4255 MacArthur Boulevard  
Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
---------	------	-----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	--------------	----------------------------	--------------------------	--------------------------	---------------------------	------------------------	------------------------

MW-4	7/23/1999	460	93.6	8.40	25.2	28.8	3,760	6,000*	164.06	11.33	NA	152.73	NA	0.9	NA
MW-4	11/1/1999	77.3	0.520	<0.500	<0.500	<0.500	539	NA	164.06	10.66	NA	153.40	NA	2.8	3
MW-4	1/17/2000	160	27	<0.50	12	6.3	12,000	NA	164.06	10.15	NA	153.91	NA	3.9	-17
MW-4	4/17/2000	<500	26	6.38	9.35	10.4	9,070	NA	164.06	10.10	NA	153.96	NA	1.7	-129
MW-4	7/26/2000	<500	22.7	<5.00	7.59	6.96	7,660	NA	164.06	10.09	NA	153.97	NA	1.4	-137
MW-4	10/12/2000	172	19.8	<0.500	7.47	4.50	8,290	NA	164.06	9.35	NA	154.71	NA	3.5	529
MW-4	1/15/2001	53.6	1.50	<0.500	2.45	1.80	9,260	NA	164.06	8.77	NA	155.29	NA	2.3	53
MW-4	4/9/2001	<500	<5.00	<5.00	<5.00	5.52	10,300	NA	164.06	7.75	NA	156.31	NA	1.0	-133
MW-4	7/24/2001	58	3.8	<0.50	3.2	2.9	NA	1,700	164.06	10.07	NA	153.99	NA	0.5	106
MW-4	10/31/2001	<1,000	<10	<10	<10	<10	NA	7,400	164.06	9.97	NA	154.09	NA	0.8	22
MW-4	1/10/2002	<2,000	<20	<20	<20	<20	NA	12,000	164.06	8.53	NA	155.53	NA	8.9	224
MW-4	4/25/2002	<2,000	<20	<20	<20	<20	NA	7,900	164.06	7.33	NA	156.73	NA	3.6	-84
MW-4	7/18/2002	<2,000	<20	<20	<20	<20	NA	7,200	164.06	9.05	NA	155.01	NA	1.7	120
MW-4	10/7/2002	<1,000	<10	<10	<10	<10	NA	3,300	164.03	9.06	NA	154.97	NA	2.5	33
MW-4	1/6/2003	<500	21	<5.0	<5.0	<5.0	NA	2,500	164.03	7.09	NA	156.94	NA	0.5	55
MW-4	4/7/2003 <sup>1</sup>	-	--	--	--	--	--	--	--	--	--	--	--	--	--

MW-5	1/4/2002	NA	NA	NA	NA	NA	NA	NA	NA	5.62	NA	NA	NA	NA	NA
MW-5	1/10/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	110	164.06	5.88	NA	158.18	NA	3.3	172
MW-5	4/25/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	73	164.06	6.81	NA	157.25	NA	0.3	-44
MW-5	7/18/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	75	164.06	7.38	NA	156.68	NA	0.4	170
MW-5	10/7/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	41	164.14	6.75	NA	157.39	NA	1.5	16
MW-5	1/6/2003	<50	<0.50	<0.50	<0.50	<0.50	NA	81	164.14	5.96	NA	158.18	NA	0.6	166
MW-5	4/7/2003 <sup>1</sup>	-	--	--	--	--	--	--	--	--	--	--	--	--	--

TB-1	4/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	6.00	NA	NA	NA	3.8	-132
TB-1	11/1/1999	NA	NA	NA	NA	NA	NA	NA	NA	12.65	NA	NA	NA	0.2	-165
TB-1	1/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	7.72	NA	NA	NA	0.8	-178

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
TB-1	4/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	7.65	NA	NA	NA	0.5	-152
TB-1	7/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	5.13	NA	NA	NA	1.0	-124
TB-1	10/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	5.20	NA	NA	NA	0.7	-73
TB-1	1/15/2001	NA	NA	NA	NA	NA	NA	NA	NA	5.09	NA	NA	NA	1.2	-118
TB-1	4/9/2001	NA	NA	NA	NA	NA	NA	NA	NA	4.96	NA	NA	NA	1.0	-72
TB-1	7/24/2001	NA	NA	NA	NA	NA	NA	NA	NA	6.03	NA	NA	NA	1.4	31
TB-1	10/31/2001	1,000	85	<10	<10	42	NA	4,100	NA	5.89	NA	NA	NA	1.8	88
TB-1	1/10/2002	5,000	410	390	65	620	NA	9,000	NA	7.47	NA	NA	NA	2.0	95
TB-1	4/25/2002	5,000	780	60	49	91	NA	6,000	NA	11.71	NA	NA	NA	1.7	-136
TB-1	7/18/2002	Insufficient water		NA	NA	NA	NA	NA	NA	13.50	NA	NA	NA	NA	NA
TB-1	10/7/2002	4,600	480	36	98	200	NA	4,000	NA	12.95	NA	NA	NA	1.6	-48
TB-1	1/6/2003	130	30	<0.50	<0.50	0.78	NA	330	NA	5.56	NA	NA	NA	0.4	-20
TB-1	4/7/2003 <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TB-2	4/29/1999	NA	NA	NA	NA	NA	NA	NA	NA	4.76	NA	NA	NA	4.2	-108
TB-2	11/1/1999	NA	NA	NA	NA	NA	NA	NA	NA	11.33	NA	NA	NA	0.5	-148
TB-2	1/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	9.79	NA	NA	NA	0.7	-162
TB-2	4/17/2000	NA	NA	NA	NA	NA	NA	NA	NA	9.75	NA	NA	NA	0.9	-121
TB-2	7/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	4.73	NA	NA	NA	0.9	-85
TB-2	10/12/2000	NA	NA	NA	NA	NA	NA	NA	NA	4.05	NA	NA	NA	0.6	-47
TB-2	1/15/2001	NA	NA	NA	NA	NA	NA	NA	NA	3.87	NA	NA	NA	0.7	-91
TB-2	4/9/2001	46,600	1,240	1,310	1,110	12,100	31,300	NA	NA	3.76	NA	NA	NA	0.8	-24
TB-2	7/24/2001	11,000	630	<25	310	200	NA	11,000	NA	4.75	NA	NA	NA	0.4	-51
TB-2	10/31/2001	7,500	530	1,500	100	500	NA	2,500	NA	4.24	NA	NA	NA	0.6	-7
TB-2	1/10/2002	<5,000	480	47	34	110	NA	12,000	NA	6.26	NA	NA	NA	1.3	-81
TB-2	4/25/2002	4,700	470	140	<20	80	NA	7,400	NA	11.78	NA	NA	NA	0.9	-107
TB-2	7/18/2002	7,500	630	650	<25	390	NA	44,000	NA	12.34	NA	NA	NA	0.9	-67

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
TB-2	10/7/2002	<10,000	580	<100	<100	180	NA	30,000	NA	11.62	NA	NA	NA	1.0	-41
TB-2	1/6/2003	120	4.8	<0.50	<0.50	2.0	NA	220	NA	4.35	NA	NA	NA	0.5	-515
TB-2	4/7/2003 <sup>1</sup>	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 24, 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to July 24, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

Abbreviations: (cont)

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

µg/L = Parts per billion

Abbreviations: (cont)

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not applicable

DO = Dissolved Oxygens

ppm = Parts per million

ORP = Oxidation Reduction Potential

mV = Millivolts

**TABLE 4**  
**Joint Groundwater Monitoring Data and Analytical Results**  
 Shell-branded Service Station  
 4255 MacArthur Boulevard  
 Oakland, CA

Well ID	Date	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)	ORP Reading (mV)
---------	------	-----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	--------------	----------------------------	--------------------------	--------------------------	---------------------------	------------------------	------------------------

**Notes:**

Joint Monitoring data and laboratory analytical results provided by Blaine Tech Services, Inc.

\* = Sample analyzed outside the EPA recommended holding time.

a = Ground water surface had a sheen when sampled.

b = MTBE value is estimated by Sequoia Analytical of Redwood City, California.

Site surveyed March 14, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

When separate-phase hydrocarbons are present, ground water elevation is adjusted using the relation:

$$\text{Corrected ground water elevation} = \text{Top-of-casing elevation} - \text{depth to water} + (0.8 \times \text{hydrocarbon thickness}).$$

1 Joint monitoring data was not provided.

## 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 #: ConocoPhillips #1156  
 Site Address: 4276 Macarthur  
 City: Oakland, CA

Job Number: 180225  
 Event Date: 4-7-03 (inclusive)  
 Sampler: Joc

Well ID: MW-1  
 Well Diameter: 2 in.  
 Total Depth: 25.10 ft.  
 Depth to Water: 6.30 ft.  
19.80 xVF 0.17 = 3.20 x3 (case volume) = Estimated Purge Volume: 10 gal.

Date Monitored: 4-7-03 Well Condition: 0.1c

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): 0945 Weather Conditions: clear  
 Sample Time/Date: 1015 14-7-03 Water Color: clear Odor: yes  
 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)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0956</u>	<u>3.5</u>	<u>6.47</u>	<u>1.36</u>	<u>69.1</u>	_____	_____
<u>0959</u>	<u>7</u>	<u>6.42</u>	<u>1.35</u>	<u>71.6</u>	_____	_____
<u>1002</u>	<u>10</u>	<u>6.41</u>	<u>1.38</u>	<u>71.7</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>5 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTEX/MTBE(8021)/ 8 OXYS(8260)</u>
_____	<u>1 AMS</u>	<u>"</u>	<u>---</u>	<u>"</u>	<u>TPHD(8015)</u>
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1156 Job Number: 180225  
 Site Address: 4276 Macarthur Event Date: 4-7-03 (inclusive)  
 City: Oakland, CA Sampler: SoC

Well ID: MW-2 Date Monitored: 4-7-03 Well Condition: O.K.  
 Well Diameter: 2 in.  
 Total Depth: 24.15 ft.  
 Depth to Water: 6.49 ft.  
17.66 xVF 0.17 = 3.00 x3 (case volume) = Estimated Purge Volume: 9 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:	<u>0</u> 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): 0907 Weather Conditions: clear  
 Sample Time/Date: 0935 14-7-03 Water Color: clear Odor: some  
 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)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0920</u>	<u>3</u>	<u>7.27</u>	<u>4.18</u>	<u>72.2</u>	_____	_____
<u>0922</u>	<u>6</u>	<u>7.31</u>	<u>4.29</u>	<u>72.1</u>	_____	_____
<u>0924</u>	<u>9</u>	<u>7.42</u>	<u>4.37</u>	<u>72.5</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>5 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTEX/MTBE(8021)/ 8 OXYS(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### COMMENTS:

\_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1156 Job Number: 180225  
 Site Address: 4276 Macarthur Event Date: 4-7-03 (inclusive)  
 City: Oakland, CA Sampler: Joc

Well ID: MW-3 Date Monitored: 4-7-03 Well Condition: OK  
 Well Diameter: 2 in.  
 Total Depth: 25.06 ft.  
 Depth to Water: 8.17 ft.  
16.89 xVF 0.17 = 2.87 x3 (case volume) = Estimated Purge Volume: 9 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): 0830 Weather Conditions: clear  
 Sample Time/Date: 0855 14-7-03 Water Color: clear Odor: yes  
 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) x 10 <sup>2</sup>	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0839</u>	<u>3</u>	<u>6.80</u>	<u>2.21</u>	<u>71.7</u>	_____	_____
<u>0841</u>	<u>6</u>	<u>6.77</u>	<u>2.18</u>	<u>72.1</u>	_____	_____
<u>0843</u>	<u>9</u>	<u>6.78</u>	<u>2.21</u>	<u>72.5</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>5</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTEX/MTBE(8021)/ 8 OXY'S(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_





# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1156  
 Site Address: 4276 Macarthur  
 City: Oakland, CA

Job Number: 180225  
 Event Date: 4-7-03 (inclusive)  
 Sampler: Joc

Well ID: MW-4 Date Monitored: 4-7-03 Well Condition: 0-1a  
 Well Diameter: 2 in.  
 Total Depth: 25.30 ft.  
 Depth to Water: 6.24 ft.  
 $19.06 \times VF \ 0.17 = 3.24 \times 3$  (case volume) = Estimated Purge Volume: 10 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): 0750 Weather Conditions: clear  
 Sample Time/Date: 0815 14-7-03 Water Color: clear Odor: yes  
 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) <sup>10</sup>	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0758</u>	<u>3.5</u>	<u>6.75</u>	<u>2.48</u>	<u>73.1</u>	_____	_____
<u>0801</u>	<u>7.5</u>	<u>6.92</u>	<u>2.54</u>	<u>72.8</u>	_____	_____
<u>0804</u>	<u>10</u>	<u>6.89</u>	<u>2.56</u>	<u>72.7</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>5 x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTEX/MTBE(8021)/ 8 OXY'S(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1156  
 Site Address: 4276 Macarthur  
 City: Oakland, CA

Job Number: 180225  
 Event Date: 4-7-03 (inclusive)  
 Sampler: Joe

Well ID: MW-5 Date Monitored: 4-7-03 Well Condition: Joe  
 Well Diameter: 2 in.  
 Total Depth: 25.37 ft.  
 Depth to Water: 2.15 ft.  
23.22 xVF 0.17 = 3.95 x3 (case volume) = Estimated Purge Volume: 12 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: 10 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): 06:00 Weather Conditions: clear  
 Sample Time/Date: 06:24 4-7-03 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)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0608</u>	<u>4</u>	<u>7.81</u>	<u>6.92</u>	<u>72.1</u>		
<u>0610</u>	<u>8</u>	<u>7.60</u>	<u>6.76</u>	<u>71.1</u>		
<u>0613</u>	<u>12</u>	<u>7.58</u>	<u>6.71</u>	<u>70.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>5</u> x vva vial	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTX/MTBE(8021)/ 8 OXY'S(8260)</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1156 Job Number: 180225  
 Site Address: 4276 Macarthur Event Date: 4-7-03 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: MW-6 Date Monitored: 4-7-03 Well Condition: O.K.

Well Diameter: 2 in.

Total Depth: 24.90 ft.

Depth to Water: 2.02 ft.

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

22.88 xVF 0.17 = 3.89 x3 (case volume) = Estimated Purge Volume: 12 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): 0640 Weather Conditions: Clear

Sample Time/Date: 0707 4-7-03 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)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0649</u>	<u>4</u>	<u>7.60</u>	<u>5.52</u>	<u>69.3</u>	_____	_____
<u>0651</u>	<u>8</u>	<u>7.57</u>	<u>5.38</u>	<u>71.5</u>	_____	_____
<u>0654</u>	<u>12</u>	<u>7.57</u>	<u>5.41</u>	<u>71.8</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>5</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTEX/MTBE(8021)/ 8 OXY'S(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### COMMENTS:

\_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1156 Job Number: 180225  
 Site Address: 4276 Macarthur Event Date: 4-7-03 (inclusive)  
 City: Oakland, CA Sampler: 50c

Well ID: MW-7 Date Monitored: 4-7-03 Well Condition: 0.1a  
 Well Diameter: 2 in.  
 Total Depth: 25.52 ft.  
 Depth to Water: 7.58 ft.  
17.94 xVF 0.17 = 305 x3 (case volume) = Estimated Purge Volume: 9.5 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 \_\_\_\_\_  
 Slack 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): 0715 Weather Conditions: clear  
 Sample Time/Date: 0735 4-7-03 Water Color: clear Odor: yes  
 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)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0722</u>	<u>5</u>	<u>7.18</u>	<u>1.95</u>	<u>69.6</u>	_____	_____
<u>0724</u>	<u>6</u>	<u>7.24</u>	<u>2.07</u>	<u>72.2</u>	_____	_____
<u>0726</u>	<u>9</u>	<u>7.27</u>	<u>2.06</u>	<u>73.0</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>5</u> x vov vial	<u>YES</u>	<u>HCL</u>	<u>SEQUIOIA</u>	<u>TPH-G(8015)/BTX/MTBE(8021)/ 8 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 #1156  
 Facility Address 4276 MACARTHUR, OAKLAND, CA  
 Global ID T0600102279 Project 180225.80  
 Client Contact MR. DAVID B. DEWITT  
 Phone (925) 277-2384

Laboratory Name SECONDA ANALYTICAL  
 Consultant GETTLER-RYAN, INC. DEANNA L. HARDING  
 Address 8747 SIERRA CT., SUITE J, DUBLIN CA 94569  
 Phone (925) 551-7555 Fax (925) 551-7889  
 Samples Collected by JOE AJEMIAN

SAMPLE ID	Number of Containers Matrix	S = Soil A = Air W = Water C = Charcoal	Sample Preservation	Date/Time (2400 Hrs)	TPH-GAS/ETEX/MTBE EPA 8015/8021B	TPH-DIESEL EPA 8015	TPH-DIESEL w/Silica gel EPA 8015	TPH-GAS EPA 8015	TPH-GAS/ETEX/MTBE EPA 8260	OXYGENATES EPA 8260	METHANOL EPA 8015	TOTAL OIL & GREASE EPA 8320	METALS Cd, Cr, Pb, Zn, Ni	NITRATE/SULFATE/ALKALINITY EPA 3000 SERIES	HYDROCS (8010) EPA 8121B	HYDROCS (8240) EPA 8120	HYDROCS EPA 8120	Remarks	
					<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
QA	1	W	HCC	4-7-03	<input checked="" type="checkbox"/>													Run MTOE by 8260 on all 8021 MTOE hits when not running oxys	
MW-1	5			1015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>									
MW-2	5			0935	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>									
MW-3				0855	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>									
MW-4				0815	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>									
MW-5				0624	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>									
MW-6				0707	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>									
MW-7				0735	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>									

SDX 622601

-02  
 -03  
 -04  
 -05  
 -06  
 -07  
 -08

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

Relinquished By (Signature) <i>Joe Gen</i>	Organization	Date/Time 4-7-03	Received By (Signature) <i>SC Pimental</i>	Organization <i>Source 1</i>	Date/Time 4/9/03	Load <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) <i>Deanna L. Harding</i>	Organization <i>SI</i>	Date/Time 4/7/03	Received By (Signature) <i>Carlo SIOA</i>	Organization	Date/Time	Load Y/N	
Relinquished By (Signature) <i>Carlo SIOA</i>	Organization	Date/Time 4/7/03	Received For Laboratory By (Signature) <i>[Signature]</i>		Date/Time 4/7/03	Load <input checked="" type="checkbox"/> Y/N	

pad 69

*[Signature]* 4/8/03 Monica Green Sep SAC 4/9/03 915



28 April, 2003

Deanna L. Harding  
Gettler-Ryan - Dublin  
6747 Sierra Court, Ste. J  
Dublin, CA 94568

RECEIVED

RE: TOSCO 1156, Oakland, CA  
Sequoia Work Order: S304226

GETTLER RYAN INC  
GENERAL CONTRACTORS

Enclosed are the results of analyses for samples received by the laboratory on 04/07/03 19:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew  
Client Services Representative

CA ELAP Certificate #1624



Gettler-Ryan - Dublin  
6747 Sierra Court, Ste. J  
Dublin CA, 94568

Project: TOSCO 1156, Oakland, CA  
Project Number: N/A  
Project Manager: Deanna L. Harding

S304226  
Reported:  
04/28/03 17:33

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
QA	S304226-01	Water	04/07/03 00:00	04/07/03 19:00
MW-1	S304226-02	Water	04/07/03 10:15	04/07/03 19:00
MW-2	S304226-03	Water	04/07/03 09:35	04/07/03 19:00
MW-3	S304226-04	Water	04/07/03 08:55	04/07/03 19:00
MW-4	S304226-05	Water	04/07/03 08:15	04/07/03 19:00
MW-5	S304226-06	Water	04/07/03 06:24	04/07/03 19:00
MW-6	S304226-07	Water	04/07/03 07:07	04/07/03 19:00
MW-7	S304226-08	Water	04/07/03 07:35	04/07/03 19:00



Gettler-Ryan - Dublin  
6747 Sierra Court, Ste. J  
Dublin CA, 94568

Project: TOSCO 1156, Oakland, CA  
Project Number: N/A  
Project Manager: Deanna L. Harding

S304226  
Reported:  
04/28/03 17:33

**Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B**

**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>QA (S304226-01) Water</b> Sampled: 04/07/03 00:00 Received: 04/07/03 19:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	3040175	04/10/03	04/10/03	EPA 8015/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		81 %	60-140		"	"	"	"	
<b>MW-1 (S304226-02) Water</b> Sampled: 04/07/03 10:15 Received: 04/07/03 19:00									
Purgeable Hydrocarbons	74000	20000	ug/l	400	3040175	04/11/03	04/11/03	EPA 8015/8021	
Benzene	7000	200	"	"	"	"	"	"	
Toluene	15000	200	"	"	"	"	"	"	
Ethylbenzene	2400	200	"	"	"	"	"	"	
Xylenes (total)	11000	200	"	"	"	"	"	"	
Methyl tert-butyl ether	1000	800	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		94 %	60-140		"	"	"	"	
<b>MW-2 (S304226-03) Water</b> Sampled: 04/07/03 09:35 Received: 04/07/03 19:00									
Purgeable Hydrocarbons	1500	1000	ug/l	20	3040175	04/11/03	04/11/03	EPA 8015/8021	
Benzene	ND	10	"	"	"	"	"	"	
Toluene	14	10	"	"	"	"	"	"	
Ethylbenzene	11	10	"	"	"	"	"	"	
Xylenes (total)	38	10	"	"	"	"	"	"	
Methyl tert-butyl ether	2000	40	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		94 %	60-140		"	"	"	"	



Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

**Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (S304226-04) Water</b> Sampled: 04/07/03 08:55    Received: 04/07/03 19:00									
Purgeable Hydrocarbons	28000	5000	ug/l	100	3040175	04/11/03	04/11/03	EPA 8015/8021	
Benzene	660	50	"	"	"	"	"	"	
Toluene	2200	50	"	"	"	"	"	"	
Ethylbenzene	1900	50	"	"	"	"	"	"	
Xylenes (total)	6300	50	"	"	"	"	"	"	
Methyl tert-butyl ether	440	200	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95 %	60-140		"	"	"	"	
<b>MW-4 (S304226-05) Water</b> Sampled: 04/07/03 08:15    Received: 04/07/03 19:00									
Purgeable Hydrocarbons	5100	1000	ug/l	20	3040175	04/11/03	04/11/03	EPA 8015/8021	
Benzene	1100	10	"	"	"	"	"	"	
Toluene	55	10	"	"	"	"	"	"	
Ethylbenzene	190	10	"	"	"	"	"	"	
Xylenes (total)	370	10	"	"	"	"	"	"	
Methyl tert-butyl ether	550	40	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95 %	60-140		"	"	"	"	
<b>MW-5 (S304226-06) Water</b> Sampled: 04/07/03 06:24    Received: 04/07/03 19:00									
Purgeable Hydrocarbons	220	50	ug/l	1	3040175	04/10/03	04/10/03	EPA 8015/8021	HC-19
Benzene	0.53	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	450	40	"	20	"	"	04/11/03	"	
Surrogate: a,a,a-Trifluorotoluene		94 %	60-140		"	"	04/10/03	"	

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

**Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-6 (S304226-07) Water</b> Sampled: 04/07/03 07:07    Received: 04/07/03 19:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	3040175	04/10/03	04/10/03	EPA 8015/8021	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	46	2.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99 %	60-140		"	"	"	"	
<b>MW-7 (S304226-08) Water</b> Sampled: 04/07/03 07:35    Received: 04/07/03 19:00									
Purgeable Hydrocarbons	13000	2000	ug/l	40	3040175	04/10/03	04/10/03	EPA 8015/8021	HC-19
Benzene	ND	20	"	"	"	"	"	"	
Toluene	ND	20	"	"	"	"	"	"	
Ethylbenzene	ND	20	"	"	"	"	"	"	
Xylenes (total)	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	32000	2000	"	1000	"	"	04/11/03	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96 %	60-140		"	"	04/10/03	"	

Gettler-Ryan - Dublin  
6747 Sierra Court, Ste. J  
Dublin CA, 94568

Project: TOSCO 1156, Oakland, CA  
Project Number: N/A  
Project Manager: Deanna L. Harding

S304226  
Reported:  
04/28/03 17:33

**Diesel Hydrocarbons by DHS LUFT**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (S304226-02) Water</b> Sampled: 04/07/03 10:15 Received: 04/07/03 19:00									
<b>Diesel Range Organics (C10-C28)</b>	2800	200	ug/l	4	3040282	04/17/03	04/23/03	DHS LUFT	HC-12
<i>Surrogate: Octacosane</i>		181 %	50-150		"	"	"	"	S-02

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

### Volatile Organic Compounds by EPA Method 8260B

#### Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (S304226-02) Water</b> Sampled: 04/07/03 10:15    Received: 04/07/03 19:00									
Tert-butyl alcohol	ND	10000	ug/l	100	3040291	04/17/03	04/18/03	EPA 8260B	
Methyl tert-butyl ether	800	200	"	"	"	"	"	"	
Di-isopropyl ether	ND	200	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	200	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	200	"	"	"	"	"	"	
Ethanol	ND	50000	"	"	"	"	"	"	
1,2-Dichloroethane	ND	200	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	200	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		117 %	60-140	"	"	"	"	"	
<b>MW-2 (S304226-03) Water</b> Sampled: 04/07/03 09:35    Received: 04/07/03 19:00									
Tert-butyl alcohol	ND	2000	ug/l	20	3040291	04/18/03	04/18/03	EPA 8260B	
Methyl tert-butyl ether	1500	40	"	"	"	"	"	"	
Di-isopropyl ether	ND	40	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	40	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	40	"	"	"	"	"	"	
Ethanol	ND	10000	"	"	"	"	"	"	
1,2-Dichloroethane	ND	40	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	40	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		101 %	60-140	"	"	"	"	"	
<b>MW-3 (S304226-04) Water</b> Sampled: 04/07/03 08:55    Received: 04/07/03 19:00									
Tert-butyl alcohol	ND	4000	ug/l	40	3040291	04/18/03	04/18/03	EPA 8260B	R-05
Methyl tert-butyl ether	100	80	"	"	"	"	"	"	
Di-isopropyl ether	ND	80	"	"	"	"	"	"	R-05
Ethyl tert-butyl ether	ND	80	"	"	"	"	"	"	R-05
Tert-amyl methyl ether	ND	80	"	"	"	"	"	"	R-05
Ethanol	ND	20000	"	"	"	"	"	"	R-05
1,2-Dichloroethane	ND	80	"	"	"	"	"	"	R-05
1,2-Dibromoethane (EDB)	ND	80	"	"	"	"	"	"	R-05
<i>Surrogate: 1,2-DCA-d4</i>		96 %	60-140	"	"	"	"	"	

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (S304226-05) Water</b> Sampled: 04/07/03 08:15 Received: 04/07/03 19:00									
Tert-butyl alcohol	ND	1000	ug/l	10	3040319	04/18/03	04/18/03	EPA 8260B	
Methyl tert-butyl ether	420	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	20	"	"	"	"	"	"	
Ethanol	ND	5000	"	"	"	"	"	"	
1,2-Dichloroethane	ND	20	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	20	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		105 %	60-140		"	"	"	"	
<b>MW-5 (S304226-06) Water</b> Sampled: 04/07/03 06:24 Received: 04/07/03 19:00									
Tert-butyl alcohol	ND	500	ug/l	5	3040319	04/18/03	04/18/03	EPA 8260B	
Methyl tert-butyl ether	420	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	10	"	"	"	"	"	"	
Ethanol	ND	2500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		126 %	60-140		"	"	"	"	
<b>MW-6 (S304226-07) Water</b> Sampled: 04/07/03 07:07 Received: 04/07/03 19:00									
Tert-butyl alcohol	ND	100	ug/l	1	3040319	04/18/03	04/18/03	EPA 8260B	
Methyl tert-butyl ether	46	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Ethanol	ND	500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	"	"	
<i>Surrogate: 1,2-DCA-d4</i>		120 %	60-140		"	"	"	"	



Gettler-Ryan - Dublin  
6747 Sierra Court, Ste. J  
Dublin CA, 94568

Project: TOSCO 1156, Oakland, CA  
Project Number: N/A  
Project Manager: Deanna L. Harding

S304226  
Reported:  
04/28/03 17:33

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (S304226-08) Water</b> <b>Sampled: 04/07/03 07:35</b> <b>Received: 04/07/03 19:00</b>									
Tert-butyl alcohol	ND	40000	ug/l	400	3040319	04/18/03	04/18/03	EPA 8260B	
Methyl tert-butyl ether	28000	800	"	"	"	"	"	"	
Di-isopropyl ether	ND	800	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	800	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	800	"	"	"	"	"	"	
Ethanol	ND	200000	"	"	"	"	"	"	
1,2-Dichloroethane	ND	800	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	800	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4		122 %		60-140	"	"	"	"	

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

**Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B - Quality Contr**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 3040175 - EPA 5030B (P/T)**
**Blank (3040175-BLK1)**

Prepared &amp; Analyzed: 04/10/03

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.0	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.35		"	10.0		94	60-140			

**Blank (3040175-BLK2)**

Prepared &amp; Analyzed: 04/11/03

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.0	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.30		"	10.0		93	60-140			

**Blank (3040175-BLK3)**

Prepared &amp; Analyzed: 04/14/03

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.0	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.75		"	10.0		88	60-140			

**Blank (3040175-BLK4)**

Prepared &amp; Analyzed: 04/15/03

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							

Sequoia Analytical - Sacramento

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

## Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B - Quality Contr

### Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 3040175 - EPA 5030B (P/T)**
**Blank (3040175-BLK4)**

Prepared &amp; Analyzed: 04/15/03

Methyl tert-butyl ether	ND	2.0	ug/l							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.68		"	10.0		87	60-140			

**Laboratory Control Sample (3040175-BS1)**

Prepared &amp; Analyzed: 04/10/03

Benzene	9.50	0.50	ug/l	10.0		95	70-130			
Toluene	9.32	0.50	"	10.0		93	70-130			
Ethylbenzene	9.18	0.50	"	10.0		92	70-130			
Xylenes (total)	28.1	0.50	"	30.0		94	70-130			
Methyl tert-butyl ether	11.1	2.0	"	10.0		111	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.50		"	10.0		95	60-140			

**Laboratory Control Sample (3040175-BS2)**

Prepared &amp; Analyzed: 04/11/03

Benzene	9.19	0.50	ug/l	10.0		92	70-130			
Toluene	9.36	0.50	"	10.0		94	70-130			
Ethylbenzene	8.92	0.50	"	10.0		89	70-130			
Xylenes (total)	27.4	0.50	"	30.0		91	70-130			
Methyl tert-butyl ether	10.7	2.0	"	10.0		107	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.14		"	10.0		91	60-140			

**Laboratory Control Sample (3040175-BS3)**

Prepared &amp; Analyzed: 04/14/03

Benzene	9.19	0.50	ug/l	10.0		92	70-130			
Toluene	9.11	0.50	"	10.0		91	70-130			
Ethylbenzene	8.99	0.50	"	10.0		90	70-130			
Xylenes (total)	27.5	0.50	"	30.0		92	70-130			
Methyl tert-butyl ether	9.37	2.0	"	10.0		94	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.30		"	10.0		93	60-140			

**Laboratory Control Sample (3040175-BS4)**

Prepared &amp; Analyzed: 04/15/03

Benzene	9.57	0.50	ug/l	10.0		96	70-130			
Toluene	9.53	0.50	"	10.0		95	70-130			

Sequoia Analytical - Sacramento

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.*



Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

**Gasoline (2-Methylpentane to 1,2,4-Trimethylbenzene) and BTEX by EPA 8015M and 8021B - Quality Contr**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 3040175 - EPA 5030B (P/T)**
**Laboratory Control Sample (3040175-BS4)**

Prepared &amp; Analyzed: 04/15/03

Ethylbenzene	9.34	0.50	ug/l	10.0		93	70-130			
Xylenes (total)	28.5	0.50	"	30.0		95	70-130			
Methyl tert-butyl ether	8.66	2.0	"	10.0		87	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.90		"	10.0		89	60-140			

**Matrix Spike (3040175-MS1)**

Source: S304272-01

Prepared &amp; Analyzed: 04/15/03

Benzene	7.60	0.50	ug/l	10.0	0.35	72	60-140			
Toluene	8.08	0.50	"	10.0	0.98	71	60-140			
Ethylbenzene	7.56	0.50	"	10.0	0.85	67	60-140			
Xylenes (total)	25.7	0.50	"	30.0	4.7	70	60-140			
Methyl tert-butyl ether	10.2	2.0	"	10.0	1.2	90	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.31		"	10.0		73	60-140			

**Matrix Spike Dup (3040175-MSD1)**

Source: S304272-01

Prepared &amp; Analyzed: 04/15/03

Benzene	9.41	0.50	ug/l	10.0	0.35	91	60-140	21	25	
Toluene	10.1	0.50	"	10.0	0.98	91	60-140	22	25	
Ethylbenzene	9.38	0.50	"	10.0	0.85	85	60-140	21	25	
Xylenes (total)	31.5	0.50	"	30.0	4.7	89	60-140	20	25	
Methyl tert-butyl ether	11.2	2.0	"	10.0	1.2	100	60-140	9	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.05		"	10.0		90	60-140			



Gettler-Ryan - Dublin 6747 Sierra Court, Ste. J Dublin CA, 94568	Project: TOSCO 1156, Oakland, CA Project Number: N/A Project Manager: Deanna L. Harding	S304226 Reported: 04/28/03 17:33
--	---	--

**Diesel Hydrocarbons by DHS LUFT - Quality Control  
 Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3040282 - EPA 3510C</b>										
<b>Blank (3040282-BLK1)</b> <span style="float:right">Prepared &amp; Analyzed: 04/17/03</span>										
Diesel Range Organics (C10-C28)	ND	50	ug/l							
<i>Surrogate: Octacosane</i>	15.2		"	20.0		76	50-150			
<b>Laboratory Control Sample (3040282-BS1)</b> <span style="float:right">Prepared &amp; Analyzed: 04/17/03</span>										
Diesel Range Organics (C10-C28)	408	50	ug/l	500		82	60-140			
<i>Surrogate: Octacosane</i>	17.5		"	20.0		88	50-150			
<b>Laboratory Control Sample Dup (3040282-BSD1)</b> <span style="float:right">Prepared &amp; Analyzed: 04/17/03</span>										
Diesel Range Organics (C10-C28)	405	50	ug/l	500		81	60-140	0.7	50	
<i>Surrogate: Octacosane</i>	16.7		"	20.0		84	50-150			

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3040291 - EPA 5030B [P/T]</b>										
<b>Blank (3040291-BLK1)</b> <span style="float:right">Prepared &amp; Analyzed: 04/17/03</span>										
Tert-butyl alcohol	ND	100	ug/l							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
Tert-amyl methyl ether	ND	2.0	"							
Ethanol	ND	500	"							
1,2-Dichloroethane	ND	2.0	"							
1,2-Dibromoethane (EDB)	ND	2.0	"							
<i>Surrogate: 1,2-DCA-d4</i>	24.1		"	25.0		96	60-140			
<b>Blank (3040291-BLK2)</b> <span style="float:right">Prepared &amp; Analyzed: 04/18/03</span>										
Tert-butyl alcohol	ND	100	ug/l							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
Tert-amyl methyl ether	ND	2.0	"							
Ethanol	ND	500	"							
1,2-Dichloroethane	ND	2.0	"							
1,2-Dibromoethane (EDB)	ND	2.0	"							
<i>Surrogate: 1,2-DCA-d4</i>	26.0		"	25.0		104	60-140			
<b>Laboratory Control Sample (3040291-BS1)</b> <span style="float:right">Prepared &amp; Analyzed: 04/17/03</span>										
Methyl tert-butyl ether	19.7	2.0	ug/l	22.4		88	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	28.7		"	25.0		115	60-140			
<b>Laboratory Control Sample (3040291-BS2)</b> <span style="float:right">Prepared &amp; Analyzed: 04/18/03</span>										
Methyl tert-butyl ether	18.2	2.0	ug/l	22.4		81	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	28.9		"	25.0		116	60-140			

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

### Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 3040291 - EPA 5030B [P/T]**
**Matrix Spike (3040291-MS1)**                      **Source: S304225-05**                      **Prepared: 04/17/03**                      **Analyzed: 04/18/03**

Methyl tert-butyl ether                      23.3                      2.0                      ug/l                      22.4                      ND                      104                      60-140

*Surrogate: 1,2-DCA-d4*                      30.8                      "                      25.0                      123                      60-140

**Matrix Spike Dup (3040291-MSD1)**                      **Source: S304225-05**                      **Prepared: 04/17/03**                      **Analyzed: 04/18/03**

Methyl tert-butyl ether                      23.7                      2.0                      ug/l                      22.4                      ND                      106                      60-140                      2                      25

*Surrogate: 1,2-DCA-d4*                      29.2                      "                      25.0                      117                      60-140

**Batch 3040319 - EPA 5030B [P/T]**
**Blank (3040319-BLK1)**
**Prepared & Analyzed: 04/18/03**

Tert-butyl alcohol	ND	100	ug/l
Methyl tert-butyl ether	ND	2.0	"
Di-isopropyl ether	ND	2.0	"
Ethyl tert-butyl ether	ND	2.0	"
Tert-amyl methyl ether	ND	2.0	"
Ethanol	ND	500	"
1,2-Dichloroethane	ND	2.0	"
1,2-Dibromoethane (EDB)	ND	2.0	"

*Surrogate: 1,2-DCA-d4*                      26.0                      "                      25.0                      104                      60-140

**Blank (3040319-BLK2)**
**Prepared & Analyzed: 04/19/03**

Tert-butyl alcohol	ND	100	ug/l
Methyl tert-butyl ether	ND	2.0	"
Di-isopropyl ether	ND	2.0	"
Ethyl tert-butyl ether	ND	2.0	"
Tert-amyl methyl ether	ND	2.0	"
Ethanol	ND	500	"
1,2-Dichloroethane	ND	2.0	"
1,2-Dibromoethane (EDB)	ND	2.0	"

*Surrogate: 1,2-DCA-d4*                      32.0                      "                      25.0                      128                      60-140

Gettler-Ryan - Dublin  
 6747 Sierra Court, Ste. J  
 Dublin CA, 94568

 Project: TOSCO 1156, Oakland, CA  
 Project Number: N/A  
 Project Manager: Deanna L. Harding

 S304226  
 Reported:  
 04/28/03 17:33

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 3040319 - EPA 5030B [P/T]</b>										
<b>Laboratory Control Sample (3040319-BS1)</b>					<b>Prepared &amp; Analyzed: 04/18/03</b>					
Methyl tert-butyl ether	18.2	2.0	ug/l	22.4		81	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	28.9		"	25.0		116	60-140			
<b>Laboratory Control Sample (3040319-BS2)</b>					<b>Prepared: 04/19/03 Analyzed: 04/20/03</b>					
Methyl tert-butyl ether	27.0	2.0	ug/l	22.4		121	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	33.7		"	25.0		135	60-140			
<b>Matrix Spike (3040319-MS1)</b>					<b>Source: S304255-10 Prepared &amp; Analyzed: 04/19/03</b>					
Methyl tert-butyl ether	23.1	2.0	ug/l	22.4	0.77	100	60-140			
<i>Surrogate: 1,2-DCA-d4</i>	29.7		"	25.0		119	60-140			
<b>Matrix Spike Dup (3040319-MSD1)</b>					<b>Source: S304255-10 Prepared &amp; Analyzed: 04/19/03</b>					
Methyl tert-butyl ether	24.6	2.0	ug/l	22.4	0.77	106	60-140	6	25	
<i>Surrogate: 1,2-DCA-d4</i>	30.2		"	25.0		121	60-140			



Gettler-Ryan - Dublin  
6747 Sierra Court, Ste. J  
Dublin CA, 94568

Project: TOSCO 1156, Oakland, CA  
Project Number: N/A  
Project Manager: Deanna L. Harding

S304226  
Reported:  
04/28/03 17:33

### Notes and Definitions

- HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- HC-19 Discrete peak @ MTBE.
- R-05 The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference