



# GETTLER-RYAN INC.

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## TRANSMITTAL

20-459

Alameda County

OCT 16 2002

Environmental Health  
September 10, 2002

G-R #180021

TO: Mr. David B. De Witt  
Phillips 66 Company  
2000 Crow Canyon Place, Suite 400  
San Ramon, California 94583

CC: Mr. Doug Lee  
Gettler-Ryan Inc.  
Dublin, California

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

RE: **Tosco (Unocal) Service Station  
#6419  
6401 Dublin Boulevard  
Dublin, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	September 9, 2002	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of July 30, 2002

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 **October 10, 2002**, this report will be distributed to the following:

cc: Ms. Eva Chu, Alameda County Health Care Services, 1131 Harbor Bay Pkwy., Alameda, CA 94502

Enclosure



# GETTLER - RYAN INC.

September 9, 2002  
G-R Job #180021

Mr. David B. De Witt  
Phillips 66 Company  
2000 Crow Canyon Place, Suite 400  
San Ramon, California 94583

**RE: Second Semi-Annual Event of July 30, 2002**  
Groundwater Monitoring & Sampling Report  
Tosco (Unocal) Service Station #6419  
6401 Dublin Boulevard  
Dublin, California

Dear Mr. De Witt:

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

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 3. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells 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 report are also attached.

Sincerely,

Deanna L. Harding  
Project Coordinator

Douglas J. Lee  
Senior Geologist, R.G. No. 6882

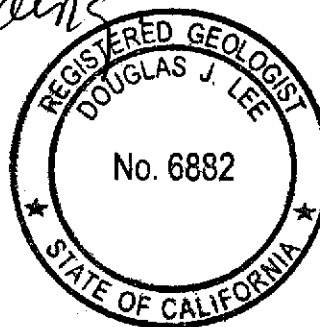
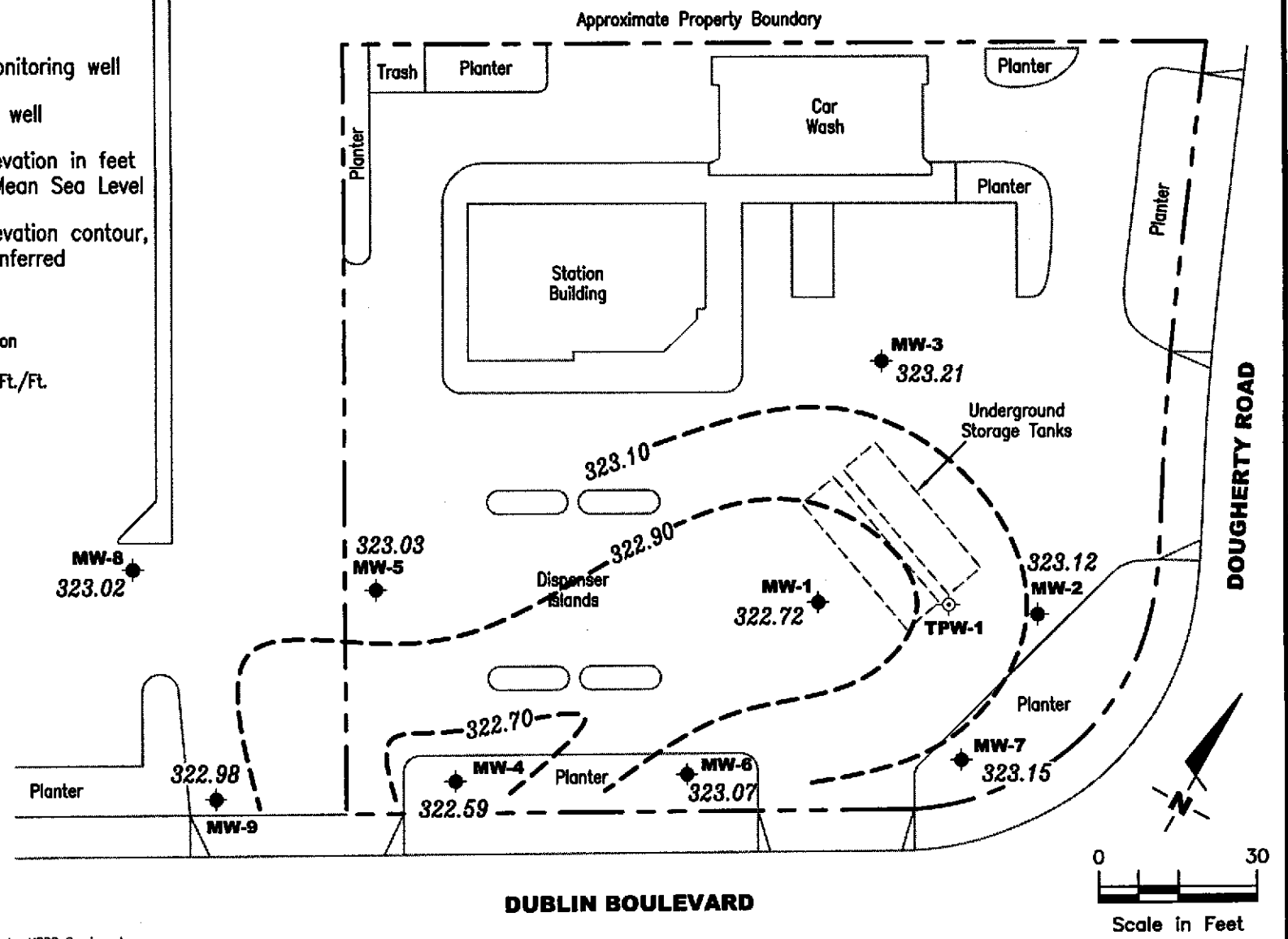


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Table 3: Dissolved Oxygen Concentrations  
Table 4: Groundwater Analytical Results - Metals  
Attachments: Standard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

6419.qml

**EXPLANATION**

- ◆ Groundwater monitoring well
- ⊕ UST Pit backfill well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 Groundwater elevation contour, dashed where inferred
- Groundwater flow direction varies at a gradient of 0.002 to 0.01 Ft./Ft.



Source: Figure modified from drawing provided by MPDS Services Inc..

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

**POTENTIOMETRIC MAP**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

FIGURE  
**1**

PROJECT NUMBER 180021	REVIEWED BY	DATE July 30, 2002	REVISED DATE
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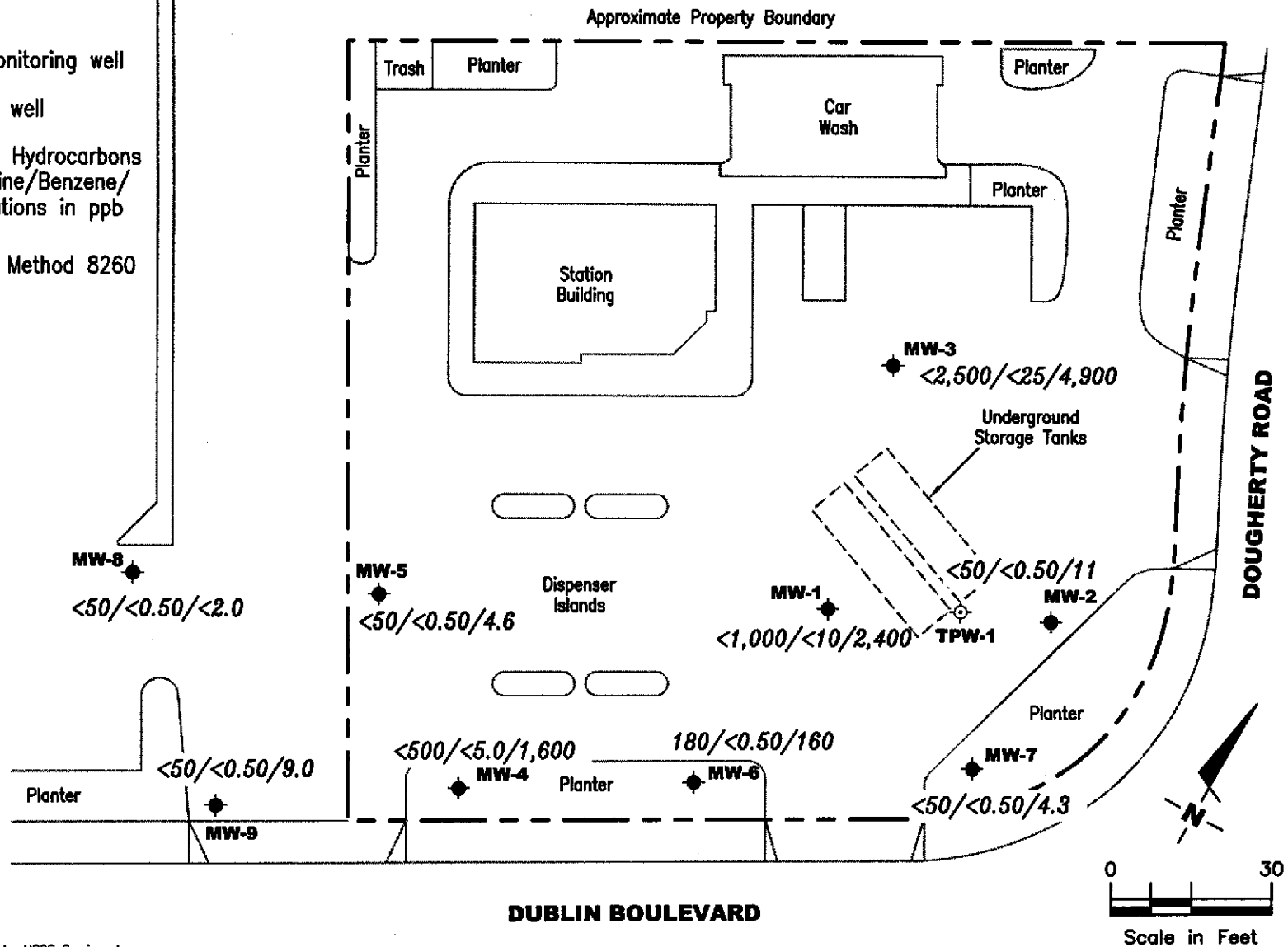
**EXPLANATION**

◆ Groundwater monitoring well

⊕ UST Pit backfill well

A/B/C Total Petroleum Hydrocarbons (TPH) as Gasoline/Benzene/MTBE concentrations in ppb

Note: All analyses by EPA Method 8260



Source: Figure modified from drawing provided by MPDS Services Inc..

**GETTLER - RYAN INC.**  
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**CONCENTRATION MAP**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

FIGURE  
**2**

PROJECT NUMBER  
 180021

REVIEWED BY

DATE  
 July 30, 2002

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1											
330.45	03/14/94	7.27	4.0-19.0	323.18	810 <sup>1</sup>	1,800 <sup>2</sup>	17	ND	ND	ND	--
	08/25/94	8.57		321.88	910 <sup>3</sup>	9,200 <sup>2</sup>	48	ND	540	ND	--
	09/30/94	8.78		321.67	--	--	--	--	--	--	--
	10/20/94	8.98		321.47	--	--	--	--	--	--	--
	11/18/94	7.69		322.76	910 <sup>3</sup>	5,100	33	ND	560	38	--
	12/20/94	7.58		322.87	--	--	--	--	--	--	--
	01/17/95	6.03		324.42	--	--	--	--	--	--	--
	02/15/95	6.29		324.16	660 <sup>1</sup>	3,300	13	ND	180	5.2	--
	03/13/95	5.64		324.81	--	--	--	--	--	--	--
	04/06/95	5.62		324.83	--	--	--	--	--	--	--
	05/17/95	6.26		324.19	200 <sup>3</sup>	130	0.75	ND	1.5	ND	--
	06/15/95	6.75		323.70	--	--	--	--	--	--	--
	08/25/95	7.91		322.54	--	490	9.1	ND	21	2.0	-- <sup>5</sup>
	11/28/95	9.03		321.42	--	1,400	18	3.0	98	3.6	-- <sup>5</sup>
	02/26/96	5.77		324.68	--	560	9.3	ND	22	ND	1,300
	08/23/96	7.78		322.67	--	ND	ND	ND	ND	ND	640
330.23	02/17/97	5.73		324.50	--	120 <sup>4</sup>	1.0	0.95	ND	ND	280
	08/18/97	7.38		322.85	--	ND	ND	ND	ND	ND	100
	02/02/98 <sup>6</sup>	5.10		325.13	--	ND <sup>7</sup>	130	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	32,000
	08/24/98	6.73		323.50	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	26,000/24,000 <sup>8</sup>
	02/10/99	5.46		324.77	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	84,000/100,000 <sup>8</sup>
	04/12/99	6.38		323.85	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	140,000/120,000 <sup>8</sup>
330.21	05/21/99	5.95		324.26	--	--	--	--	--	--	--
	08/02/99	6.75		323.46	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	91,000/140,000 <sup>10</sup>
	02/11/00	6.44		323.77	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	38,000/39,000 <sup>8</sup>
330.18	07/26/00 <sup>13</sup>	7.08		323.10	--	146 <sup>12</sup>	ND	ND	ND	ND	30,900/42,800 <sup>10</sup>
	02/02/01	6.99		323.19	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	5,380/6,430 <sup>8</sup>
	08/24/01	7.72		322.46	--	<50	8.3	<0.50	<0.50	<0.50	10,000/6,600 <sup>8</sup>
330.17	10/11/01	7.72		322.45	--	--	--	--	--	--	--
	02/06/02	6.43		323.74	--	<50	<0.50	<0.50	<0.50	<0.50	450/420 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.45		322.72	--	<1,000	<10	<10	<10	<20	2,400

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	SL (ft.bgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-2</b>											
330.40	03/14/94	7.23	4.0-20.0	323.17	--	ND	ND	2.8	1.1	8.0	--
	08/25/94	8.41		321.99	--	ND	ND	ND	ND	ND	--
	09/30/94	8.73		321.67	--	--	--	--	--	--	--
	10/20/94	8.92		321.48	--	--	--	--	--	--	--
	11/18/94	7.67		322.73	--	ND	ND	ND	ND	ND	--
	12/20/94	7.48		322.92	--	--	--	--	--	--	--
	01/17/95	6.00		324.40	--	--	--	--	--	--	--
	02/15/95	6.16		324.24	--	ND	ND	ND	ND	ND	--
	03/13/95	5.59		324.81	--	--	--	--	--	--	--
	04/06/95	5.51		324.89	--	--	--	--	--	--	--
	05/17/95	6.15		324.25	--	ND	ND	ND	ND	ND	--
	06/15/95	6.61		323.79	--	--	--	--	--	--	--
	08/25/95	7.45		322.95	--	ND	ND	ND	ND	ND	--
	11/28/95	8.85		321.55	--	ND	ND	ND	ND	ND	--
	02/26/96	5.49		324.91	--	ND	ND	ND	ND	ND	--
	08/23/96	7.44		322.96	SAMPLED ANNUALLY		--	--	--	--	--
330.27	02/17/97	5.64		324.63	--	ND	ND	ND	ND	ND	ND
	08/18/97	7.40		322.87	--	--	--	--	--	--	--
	02/02/98	5.09		325.18	--	ND	ND	ND	ND	ND	62
	08/24/98	6.70		323.57	--	--	--	--	--	--	--
	02/10/99	5.56		324.71	--	ND	ND	ND	ND	ND	130
330.30	05/21/99	5.98		324.32	--	--	--	--	--	--	--
	08/02/99	6.72		323.58	--	ND	ND	ND	ND	ND	120
	02/11/00	6.43		323.87	--	ND	ND	ND	ND	ND	39
330.24	07/26/00 <sup>13</sup>	7.03		323.21	--	ND	ND	ND	ND	ND	89.9
	02/02/01	6.81		323.43	--	ND	ND	ND	ND	ND	20.1
	08/24/01	7.57		322.67	--	<50	<0.50	<0.50	<0.50	<0.50	36
330.24	10/11/01	7.62		322.62	--	--	--	--	--	--	--
	02/06/02	6.40		323.84	--	<50	<0.50	<0.50	<0.50	<0.50	23/21 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.12		323.12	--	<50	<0.50	<0.50	<0.50	<1.0	11

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6419  
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 Dublin, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-3</b>											
331.11	03/14/94	7.93	4.0-20.0	323.18	--	150 <sup>4</sup>	ND	ND	ND	ND	--
	08/25/94	9.20		321.91	--	130 <sup>4</sup>	ND	ND	ND	ND	--
	09/30/94	9.43		321.68	--	--	--	--	--	--	--
	10/20/94	9.64		321.47	--	--	--	--	--	--	--
	11/18/94	8.39		322.72	--	130 <sup>4</sup>	ND	ND	ND	ND	--
	12/20/94	8.20		322.91	--	--	--	--	--	--	--
	01/17/95	6.72		324.39	--	--	--	--	--	--	--
	02/15/95	6.93		324.18	--	130 <sup>4</sup>	ND	ND	ND	ND	--
	03/13/95	6.30		324.81	--	--	--	--	--	--	--
	04/06/95	8.20		322.91	--	--	--	--	--	--	--
	05/17/95	6.88		324.23	--	99 <sup>4</sup>	ND	ND	ND	ND	--
	06/15/95	7.35		323.76	--	--	--	--	--	--	--
	08/25/95	8.20		322.91	--	ND	ND	ND	ND	ND	-- <sup>5</sup>
	11/28/95	9.52		321.59	--	ND	ND	ND	ND	ND	--
	02/26/96	6.25		324.86	--	ND	ND	ND	ND	ND	-- <sup>5</sup>
	08/23/96	7.98		323.13	SAMPLED ANNUALLY		--	--	--	--	--
330.68	02/17/97	6.07		324.61	--	ND	ND	ND	ND	ND	68
	08/18/97	7.82		322.86	--	--	--	--	--	--	--
	02/02/98	5.50		325.18	--	ND	ND	ND	ND	ND	100
	08/24/98	7.12		323.56	--	--	--	--	--	--	--
	02/10/99	5.80		324.88	--	ND	ND	ND	ND	ND	92
330.49	05/21/99	6.16		324.33	--	--	--	--	--	--	--
	08/02/99	6.95		323.54	--	ND	ND	ND	ND	ND	140
	02/11/00	6.71		-- <sup>11</sup>	--	ND	ND	ND	ND	ND	46
330.60	07/26/00 <sup>13</sup>	7.35		323.25	--	ND	ND	ND	ND	ND	927
	02/02/01	7.17		323.43	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	2,240
	08/24/01	7.88		322.72	--	<50	<0.50	<0.50	<0.50	<0.50	2,500
330.59	10/11/01	7.83		322.76	--	--	--	--	--	--	--
	02/06/02	6.73		323.86	--	<1,000	<10	<10	<10	<10	4,300/3,300 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.38		323.21	--	<2,500	<25	<25	<25	<50	4,900

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-4</b>											
330.36	05/21/99 <sup>9</sup>	6.43	4.0-19.0	323.93	--	ND	ND	ND	ND	ND	960/910 <sup>8</sup>
	08/02/99	7.34		323.02	--	ND	10	ND	13	11	ND
	02/11/00	6.92		323.44	--	ND	ND	ND	ND	ND	2,700
330.35	07/26/00 <sup>13</sup>	7.68		322.67	--	ND	ND	ND	ND	ND	3,710
	02/02/01	7.40		322.95	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	5,340
	08/24/01	8.14		322.21	--	<50	<0.50	<0.50	<0.50	<0.50	7,800
330.35	10/11/01	8.29		322.06	--	--	--	--	--	--	--
	02/06/02	7.28		323.07	--	<100	<1.0	<1.0	<1.0	<1.0	2,300/3,100 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.76		322.59	--	<500	<5.0	<5.0	5.8	<10	1,600
<b>MW-5</b>											
330.20	05/21/99 <sup>9</sup>	5.99	4.0-19.0	324.21	--	ND	ND	ND	ND	ND	32/33 <sup>8</sup>
	08/02/99	6.83		323.37	--	ND	ND	ND	ND	ND	230
	02/11/00	6.34		323.86	--	ND	ND	ND	ND	ND	98
	07/26/00 <sup>13</sup>	7.06		323.14	--	ND	ND	ND	ND	ND	25.9
	02/02/01	6.81		323.39	--	ND	ND	ND	ND	ND	18.0
	08/24/01	7.60		322.60	--	<50	<0.50	<0.50	<0.50	<0.50	18
330.18	10/11/01	7.34		322.84	--	--	--	--	--	--	--
	02/06/02	6.55		323.63	--	<50	<0.50	<0.50	<0.50	<0.50	7.7/7.9 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.15		323.03	--	<50	<0.50	<0.50	<0.50	<1.0	4.6
<b>MW-6</b>											
330.49	05/21/99 <sup>9</sup>	6.24	4.0-19.0	324.25	--	ND	ND	ND	ND	ND	2,200/2,300 <sup>8</sup>
	08/02/99	7.10		323.39	--	ND	ND	ND	ND	ND	ND
	02/11/00	6.60		323.89	--	ND	ND	ND	ND	ND	2,500
	07/26/00 <sup>13</sup>	7.31		323.18	--	ND	ND	ND	ND	ND	4,280



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Tosco (Unocal) Service Station #6419  
6401 Dublin Boulevard  
Dublin, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	02/02/01	7.02	4.0-19.0	323.47	--	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	1,990
(cont)	08/24/01	7.84		322.65	--	<200	<2.0	<2.0	<2.0	<2.0	1,100
330.47	10/11/01	8.03		322.44	--	--	--	--	--	--	--
	02/06/02	6.78		323.69	--	<50	<0.50	<0.50	<0.50	<0.50	610/680 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.40		323.07	--	180 <sup>15</sup>	<0.50	<0.50	<0.50	<1.0	160
<b>MW-7</b>											
330.43	05/21/99 <sup>9</sup>	6.13	4.0-19.0	324.30	--	ND	ND	ND	ND	ND	22/22 <sup>8</sup>
	08/02/99	6.92		323.51	--	ND	ND	ND	ND	ND	31
	02/11/00	6.50		323.93	--	ND	ND	ND	ND	ND	20
	07/26/00 <sup>13</sup>	7.18		323.25	--	ND	ND	ND	ND	ND	17.9
	02/02/01	6.95		323.48	--	ND	ND	ND	ND	ND	ND
	08/24/01	7.72		322.71	--	<50	<0.50	<0.50	<0.50	<0.50	4.4
330.41	10/11/01	7.87		322.54	--	--	--	--	--	--	--
	02/06/02	6.62		323.79	--	<50	<0.50	<0.50	<0.50	<0.50	3.9/3.2 <sup>8</sup>
	07/30/02 <sup>14</sup>	7.26		323.15	--	<50	<0.50	<0.50	<0.50	<1.0	4.3
<b>MW-8</b>											
329.97	10/11/01	7.57	--	322.40	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>8</sup>
	02/06/02	6.35		323.62	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<1.0 <sup>8</sup>
	07/30/02 <sup>14</sup>	6.95		323.02	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
<b>MW-9</b>											
329.51	10/11/01	7.12	--	322.39	--	<50	<0.50	<0.50	<0.50	<0.50	22/15 <sup>8</sup>
	02/06/02	5.94		323.57	--	<50	<0.50	<0.50	<0.50	<0.50	19/14 <sup>8</sup>
	07/30/02 <sup>14</sup>	6.53		322.98	--	<50	<0.50	<0.50	<0.50	<1.0	9.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>Trip Blank</b>											
TB-LB	02/02/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	08/24/98	--	--	--	--	ND	ND	ND	ND	ND	ND
	02/10/99	--	--	--	--	ND	ND	ND	ND	ND	ND
	04/12/99	--	--	--	--	ND	ND	ND	ND	ND	ND
	05/21/99	--	--	--	--	ND	ND	ND	ND	ND	ND
	08/02/99	--	--	--	--	ND	ND	ND	ND	ND	ND
	02/11/00	--	--	--	--	ND	ND	ND	ND	ND	ND
	07/26/00 <sup>13</sup>	--	--	--	--	ND	ND	ND	ND	ND	ND
	02/02/01	--	--	--	--	ND	ND	ND	ND	ND	ND
	08/24/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	02/06/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	07/30/02 <sup>14</sup>	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory results prior to February 2, 1998, were compiled from reports prepared by MPDS Services, 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

\* TOC elevations were resurveyed on November 1, 2001, by Virgil Chavez Land Surveying. The benchmark for the survey was a chiseled square on top center of the concrete curb at the north curb return at the northwest corner of the intersection of Dougherty Road and Dublin Boulevard, (Benchmark Elevation = 330.60 ft., NGVD 1929).

TOC elevations have been surveyed relative to msl, per the benchmark on the northwest corner of Dougherty Road and Sierra Way, (Elevation = 331.728 feet, msl). These TOC elevations have been used prior to the February 17, 1997 monitoring event. TOC elevations have been resurveyed (after station rebuilding) relative to msl, per the Benchmark on the northwest corner of Dougherty Road and Sierra Way, (Elevation = 331.728 feet, msl). TOC elevations were surveyed on August 18, 2000.

<sup>1</sup> Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

<sup>2</sup> Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

<sup>3</sup> Laboratory report indicates the hydrocarbons detected did not appear to be diesel.

<sup>4</sup> Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

<sup>5</sup> Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.

<sup>6</sup> Well appears to be obstructed at approximately 9 feet.

<sup>7</sup> Detection limit raised. Refer to analytical reports.

<sup>8</sup> MTBE by EPA Method 8260.

<sup>9</sup> Ethanol, t-butanol (TBA), di-isopropyl ether (DIPE), ethyl t-butyl ether (ETBE), and t-amyl methyl ether (TAME) by EPA Method 8260 were all ND.

<sup>10</sup> MTBE by EPA Method 8260, was analyzed past EPA recommended hold time.

<sup>11</sup> TOC has been damaged. Cannot accurately calculate GWE.

<sup>12</sup> Laboratory report indicates unidentified hydrocarbons C6-C12.

<sup>13</sup> Laboratory report indicates insufficient preservative to reduce sample pH to less than 2. Sample was analyzed within 14 days, but beyond the seventh day recommended for Benzene, Toluene, Xylene and Ethylbenzene.

<sup>14</sup> TPH-G, BTEX and MTBE by EPA Method 8260.

<sup>15</sup> Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	07/26/00	--	ND <sup>1</sup>	42,800	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	02/02/01	--	--	6,430	--	--	--	--	--
	08/24/01	<25,000	<1,000	6,600	<100	<100	<100	<100	<100
	02/06/02	<2,500	<100	420	<5.0	<5.0	<5.0	<5.0	<5.0
	07/30/02	<10,000	<2,000	2,400	<40	<40	<40	<40	<40
MW-2	02/06/02	<500	<20	21	<1.0	<1.0	<1.0	<1.0	<1.0
	07/30/02	--	--	11	--	--	--	--	--
MW-3	02/06/02	<17,000	<670	3,300	<33	<33	<33	<33	<33
	07/30/02	--	--	4,900	--	--	--	--	--
MW-4	02/06/02	<12,000	<500	3,100	<25	<25	<25	<25	<25
	07/30/02	--	--	1,600	--	--	--	--	--
MW-5	02/06/02	<500	<20	7.9	<1.0	<1.0	<1.0	<1.0	<1.0
	07/30/02	--	--	4.6	--	--	--	--	--
MW-6	02/06/02	<4,200	<170	680	<8.3	<8.3	<8.3	<8.3	<8.3
	07/30/02	--	--	160	--	--	--	--	--
MW-7	02/06/02	<500	<20	3.2	1.4	<1.0	<1.0	<1.0	<1.0
	07/30/02	--	--	4.3	--	--	--	--	--

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-8	10/11/01	<500	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	02/06/02	<500	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/30/02	--	--	<2.0	--	--	--	--	--
MW-9	10/11/01	<500	<20	15	<2.0	<2.0	<2.0	<2.0	<2.0
	02/06/02	<500	<20	14	<1.0	<1.0	<1.0	<1.0	<1.0
	07/30/02	--	--	9.0	--	--	--	--	--

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Tosco (Unocal) Service Station #6419  
6401 Dublin Boulevard  
Dublin, California

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**EXPLANATIONS:**

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

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

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

**Table 3**  
**Dissolved Oxygen Concentrations**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-1	02/15/95	--	4.30
	05/17/95	--	1.20
	08/25/95	--	2.71
	11/28/95	--	3.25
	02/26/96	5.23	1.41
	08/23/96	3.83	N/A
	02/17/97	0.82	0.78
	08/18/97	1.28	2.35
	05/16/01	1.54	--
	08/24/01	--	3.10
MW-2	02/15/95	--	1.90
	02/26/96	0.62	0.43
	08/23/96	2.04	N/A
	02/17/97	0.90	0.82
	08/18/97	1.16	--
	05/16/01	1.47	--
	08/24/01	--	2.60
MW-3	02/15/95	--	2.60
	05/17/95	--	1.13
	08/25/95	--	1.86
	11/28/95	--	6.81
	02/26/96	16.83	1.11
	08/23/96	3.29	N/A
	02/17/97	0.80	0.80
	08/18/97	1.43	--
	05/16/01	1.65	--
	08/24/01	--	2.60
MW-4	08/24/01	--	2.30
MW-5	08/24/01	--	2.10
MW-6	08/24/01	--	2.70

**Table 3**  
**Dissolved Oxygen Concentrations**  
Tosco (Unocal) Service Station #6419  
6401 Dublin Boulevard  
Dublin, California

<b>WELL ID</b>	<b>DATE</b>	<b>Before Purging (mg/L)</b>	<b>After Purging (mg/L)</b>
MW-7	08/24/01	--	2.70

**EXPLANATIONS:**

Dissolved oxygen concentrations were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = Milligrams per liter

-- = Not Measured

N/A = Not Applicable



**Table 4**  
**Groundwater Analytical Data - Metals**  
 Tosco (Unocal) Service Station #6419  
 6401 Dublin Boulevard  
 Dublin, California

<b>WELL ID</b>	<b>DATE</b>	<b>Cadmium (ppm)</b>	<b>Chromium (ppm)</b>	<b>Lead (ppm)</b>	<b>Nickel (ppm)</b>	<b>Zinc (ppm)</b>
MW-1	03/14/94	ND	0.012	ND	0.030	0.039
	08/25/94	ND	ND	0.024	ND	ND
	11/18/94	ND	0.076	ND	0.067	ND
	02/15/95	ND	ND	ND	ND	ND
	05/17/95	ND	ND	ND	0.021	ND

**EXPLANATIONS:**

Groundwater laboratory analytical results were compiled from reports prepared by MPDS Services, Inc.

(ppm) = Parts per million

ND = Not Detected

## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Phillips 66 Company, the purge water and decontamination water generated during sampling activities is transported to Phillips 66 - San Francisco Refinery, located in Rodeo, California.



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-1 Well Condition: o.k  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 9.25 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 7.45 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

1.80 xVF 0.17 = 0.30 x3 (case volume) = Estimated Purge Volume: 1 gal.

Purge Equipment: Disposable Bailer  Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 1140 Weather Conditions: clear  
 Sample Time/Date: 1205 17-30-02 Water Color: clear Odor: none  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 1000	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1145</u>	<u>0.25</u>	<u>7.06</u>	<u>1.81</u>	<u>70.1</u>		
<u>1147</u>	<u>0.5</u>	<u>6.95</u>	<u>1.91</u>	<u>69.9</u>		
<u>1148</u>	<u>1</u>	<u>6.97</u>	<u>1.93</u>	<u>69.7</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-2 Well Condition: o.k.  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 17.60 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 7.12 ft.

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

10.48 xVF 0.17 = 1.78 x3 (case volume) = Estimated Purge Volume: 5.5 gal.

Purge Equipment: Disposable Bailer  Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 11/22 Weather Conditions: clear  
 Sample Time/Date: 11/25 17-30-02 Water Color: clear Odor: None  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm) x 1000	Temperature (CF)	D.O. (mg/L)	ORP (mV)
<u>1130</u>	<u>1.5</u>	<u>7.11</u>	<u>3.61</u>	<u>69.1</u>	_____	_____
<u>1133</u>	<u>3</u>	<u>7.14</u>	<u>3.67</u>	<u>69.2</u>	_____	_____
<u>1137</u>	<u>5.2</u>	<u>7.09</u>	<u>3.72</u>	<u>69.4</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-3 Well Condition: o.k.  
 Well Diameter: 2 in. Hydrocarbon Thickness: 0 ft. Amount Bailed (product/water): 0 gal.  
 Total Depth: 18.50 ft.  
 Depth to Water: 7.38 ft.

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

11.12 xVF 0.17 = 1.89 x3 (case volume) = Estimated Purge Volume: 5.5 gal.

Purge Equipment: Disposable Bailer  Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 1307 Weather Conditions: clear  
 Sample Time/Date: 1335 17-30-02 Water Color: clear Odor: yes  
 Purging Flow Rate: 2.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) <sup>x1000</sup>	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1317</u>	<u>1.5</u>	<u>6.90</u>	<u>2.34</u>	<u>70.1</u>		
<u>1321</u>	<u>3</u>	<u>6.86</u>	<u>2.30</u>	<u>69.7</u>		
<u>1325</u>	<u>5.5</u>	<u>6.84</u>	<u>2.36</u>	<u>70.2</u>		

### LABORATORY INFORMATION

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

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419  
 Site Address: 6401 Dublin Blvd.  
 City: Dublin, CA

Job Number: 180021  
 Event Date: 7-30-02  
 Sampler: Joe

Well ID: MW-4  
 Well Diameter: 2 in.  
 Total Depth: 19.10 ft.  
 Depth to Water: 7.76 ft.

Well Condition: OK  
 Hydrocarbon Thickness: 0 ft. Amount Bailed (product/water): 0 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

11.34 xVF 0.17 = 1.92 x3 (case volume) = Estimated Purge Volume: 5.5 gal.

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

Sampling Equipment: Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 1235 Weather Conditions: clear  
 Sample Time/Date: 1302 17-30-02 Water Color: clear Odor: yes  
 Purging Flow Rate: 0.1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 1000	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1246</u>	<u>1.5</u>	<u>6.96</u>	<u>2.87</u>	<u>68.8</u>	_____	_____
<u>1250</u>	<u>3</u>	<u>6.91</u>	<u>2.88</u>	<u>69.0</u>	_____	_____
<u>1253</u>	<u>5.5</u>	<u>6.89</u>	<u>2.89</u>	<u>69.2</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

Add/Replaced Lock:

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-5 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 19.40 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 7.15 ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.36
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

12.25 xVF 0.17 = 2.08 x3 (case volume) = Estimated Purge Volume: 6.5 gal.

Purge Equipment: Disposable Bailer \_\_\_\_\_ Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 0945 Weather Conditions: clear  
 Sample Time/Date: 1016 17-30-02 Water Color: clear Odor: none  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 100	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0955</u>	<u>2</u>	<u>6.95</u>	<u>2.66</u>	<u>68.4</u>		
<u>0958</u>	<u>4</u>	<u>6.98</u>	<u>2.70</u>	<u>68.5</u>		
<u>1003</u>	<u>6.5</u>	<u>6.97</u>	<u>2.82</u>	<u>68.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>

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

Add/Replaced Lock:

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-6 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 19.35 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 7.40 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

11.95 xVF 0.17 = 2.03 x3 (case volume) = Estimated Purge Volume: 6.5 gal.

Purge Equipment: Disposable Bailer  Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 1215 Weather Conditions: clear  
 Sample Time/Date: 1230 7-30-02 Water Color: clear Odor: mild  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 1000	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1218</u>	<u>2</u>	<u>7.07</u>	<u>3.24</u>	<u>68.0</u>		
<u>1221</u>	<u>4</u>	<u>7.12</u>	<u>3.26</u>	<u>67.9</u>		
<u>1225</u>	<u>6.5</u>	<u>7.10</u>	<u>3.30</u>	<u>68.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>

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

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





# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-7 Well Condition: o.k.  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 19.35 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 7.26 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

1200 xVF 0.17 = 2.06 x3 (case volume) = Estimated Purge Volume: 6.5 gal.

Purge Equipment: Disposable Bailer  Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 1100 Weather Conditions: clear  
 Sample Time/Date: 1120 7-30-02 Water Color: clear Odor: none  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 1000	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1108</u>	<u>2</u>	<u>7.13</u>	<u>2.31</u>	<u>68.4</u>		
<u>1112</u>	<u>4</u>	<u>7.14</u>	<u>2.37</u>	<u>68.3</u>		
<u>1115</u>	<u>6.5</u>	<u>7.19</u>	<u>2.41</u>	<u>68.1</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-8 Well Condition: o.k.  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 20.10 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 6.95 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

13.15 xVF 0.17 = 2.24 x3 (case volume) = Estimated Purge Volume: 1 gal.

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

Sampling Equipment: Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 0900 Weather Conditions: clear  
 Sample Time/Date: 0935 17-30-02 Water Color: clear Odor: none  
 Purging Flow Rate: 1.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 1000	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>0912</u>	<u>2.5</u>	<u>7.45</u>	<u>2.85</u>	<u>69.6</u>		
<u>0915</u>	<u>5</u>	<u>7.40</u>	<u>3.19</u>	<u>69.4</u>		
<u>0919</u>	<u>7</u>	<u>7.41</u>	<u>3.21</u>	<u>69.3</u>		

### LABORATORY INFORMATION

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

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

Add/Replaced Lock:

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: Tosco #6419 Job Number: 180021  
 Site Address: 6401 Dublin Blvd. Event Date: 7-30-02  
 City: Dublin, CA Sampler: Joe

Well ID: MW-01 Well Condition: O.K.  
 Well Diameter: 2 in. Hydrocarbon Amount Bailed  
 Total Depth: 20.15 ft. Thickness: 0 ft. (product/water): 0 gal.  
 Depth to Water: 6.53 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

13.62 xVF 0.17 = 2.32 x3 (case volume) = Estimated Purge Volume: 7 gal.

Purge Equipment: Disposable Bailer \_\_\_\_\_ Sampling Equipment: Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_ Pressure Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_ Discrete Bailer \_\_\_\_\_  
 Suction Pump \_\_\_\_\_ Other: \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

Start Time (purge): 1015 Weather Conditions: clear  
 Sample Time/Date: 105217-30-02 Water Color: clear Odor: none  
 Purging Flow Rate: 0.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm) x 100	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
<u>1030</u>	<u>2.5</u>	<u>7.08</u>	<u>2.09</u>	<u>69.4</u>		
<u>1034</u>	<u>5</u>	<u>7.15</u>	<u>2.15</u>	<u>69.6</u>		
<u>1039</u>	<u>7</u>	<u>7.17</u>	<u>2.22</u>	<u>69.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-01</u>	<u>7 x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G, BTEX, MTBE by 8260</u>

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

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

# 2002-08-0059

67881  
Gettler-Ryan Inc., Chain-of-Custody

Tosco Corp./  
Phillips 66 Co.  
2000 Crow Canyon Place  
Suite 400  
San Ramon, CA 94583

Facility Number #6419  
Facility Address 6401 DUBLIN BLVD., DUBLIN, CA  
Global ID T0600101443 Project 180021.80  
Client Contact MR. DAVID B. DEWITT  
Phone (925) 277-2384

Laboratory Name STL - PLEASANTON, CA  
Consultant GETTLER-RYAN, INC. DEANNA L. HARDING  
Address 6747 SIERRA CT., SUITE J, DUBLIN CA 94568  
Phone (925) 551-7555 Fax (925) 551-7899  
Sample Collected by JOE ATEMIAN

SAMPLE ID	Number of Containers Matrix	S = Soil W = Water A = Air C = Charcoal	Sample Preservation	Date/Time (2400 Hrs)	TPH-GAS/BTEX/MTBE	TPH-DIESEL	TPH-DIESEL w/SILICO gel	TPH-GAS	TPH-GAS/BTEX/MTBE	OXYGENATES	METHANOL	TOTAL OIL & GREASE	METALS	NITRATE/SULFATE/ALKALINITY	HYDROCARBONS	VOC'S	SVOC'S	Remarks
					EPA 8015/8021B	EPA 8015	EPA 8015	EPA 8015	EPA 8260	EPA 8015	EPA 8260	EPA 8260	EPA 8260	EPA 8260	EPA 8260	EPA 8260	EPA 8260	
QA	1	W	HCL	7-30-02					✓									Run 8 Qxy's by 8260 on 8260 bit of MTBE on MW-1 only.  5.1°C
MW-1	3			8205					✓									
MW-2				1145					✓									
MW-3				1335					✓									
MW-4				1302					✓									
MW-5				1016					✓									
MW-6				1230					✓									
MW-7				1120					✓									
MW-8				0935					✓									
MW-9				1052					✓									

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

Released By (Signature) 	Organization	Date/Time 7-30-02	Received By (Signature)	Organization	Date/Time	Iced <input checked="" type="checkbox"/> Y/N	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 72 Hrs. 5 Days 10 Days <input checked="" type="radio"/> As Contracted
Released By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N	
Released By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	Iced <input checked="" type="checkbox"/> Y/N	

Aug 15 02 03:50P  
 ST10nsite  
 9256003002  
 P.5

Submission#: 2002-08-0059

August 15, 2002

SEVERN

TRENT

LABORATORY

**Gettler Ryan**

6747 Sierra Court Suite J

Dublin, CA 94568

Attn.: Deanna Harding

Project#: 180021.80

Project: Tosco #6419

Site: 6401 Dublin Blvd  
Dublin, CA

RECEIVED

5

GETTLER-RYAN INC.  
GENERAL CONTRACTOR

STL San Francisco  
1220 Quarry Ln  
Pleasanton CA 94566

Tel.: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP#:2496

Dear Ms. Harding,

Attached is our report for your samples received on 08/01/2002 14:30

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

Please note that any unused portion of the samples will be discarded after 09/15/2002 unless you have requested otherwise.

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

You can also contact me via email. My email address is: [tgranicher@chromalab.com](mailto:tgranicher@chromalab.com)

Sincerely,



Tod Granicher  
Project Manager

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding  
6747 Sierra Court Suite J  
Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180021.80  
Tosco #6419

Received: 08/01/2002 14:30

Site: 6401 Dublin Blvd.  
Dublin, CA

SEVERN

TRENT

LABORATORY

STL San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566

Tel: (925) 484-1919  
Fax: (925) 484-1096  
www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

### Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
QA	07/30/2002	Water	1
MW-1	07/30/2002 12:05	Water	2
MW-2	07/30/2002 11:45	Water	3
MW-3	07/30/2002 13:35	Water	4
MW-4	07/30/2002 13:02	Water	5
MW-5	07/30/2002 10:16	Water	6
MW-6	07/30/2002 12:30	Water	7
MW-7	07/30/2002 11:20	Water	8
MW-8	07/30/2002 09:35	Water	9
MW-9	07/30/2002 10:52	Water	10

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding  
6747 Sierra Court Suite J  
Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180021.80  
Tosco #6419

Received: 08/01/2002 14:30

Site: 6401 Dublin Blvd.  
Dublin, CA

**SEVERN**  
**TRENT**  
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www.stl-inc.com  
www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	QA	Lab ID:	2002-08-0059 - 1
Sampled:	07/30/2002	Extracted:	8/12/2002 15:59
Matrix:	Water	QC Batch#:	2002/08/12-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/12/2002 15:59	
Benzene	ND	0.50	ug/L	1.00	08/12/2002 15:59	
Toluene	ND	0.50	ug/L	1.00	08/12/2002 15:59	
Ethylbenzene	ND	0.50	ug/L	1.00	08/12/2002 15:59	
Total xylenes	ND	1.0	ug/L	1.00	08/12/2002 15:59	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	08/12/2002 15:59	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	113.5	76-114	%	1.00	08/12/2002 15:59	
Toluene-d8	100.8	88-110	%	1.00	08/12/2002 15:59	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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Dublin, CA 94568

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

Project: 180021.80  
Tosco #6419

Received: 08/01/2002 14:30

Site: 6401 Dublin Blvd.  
Dublin, CA

SEVERN

TRENT

LABORATORY

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www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-1	Lab ID:	2002-08-0059 - 2
Sampled:	07/30/2002 12:05	Extracted:	8/12/2002 14:29
Matrix:	Water	QC Batch#:	2002/08/12-01 27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1000	ug/L	20.00	08/12/2002 14:29	
Benzene	ND	10	ug/L	20.00	08/12/2002 14:29	
Toluene	ND	10	ug/L	20.00	08/12/2002 14:29	
Ethylbenzene	ND	10	ug/L	20.00	08/12/2002 14:29	
Total xylenes	ND	20	ug/L	20.00	08/12/2002 14:29	
tert-Butyl alcohol (TBA)	ND	2000	ug/L	20.00	08/12/2002 14:29	
Methyl tert-butyl ether (MTBE)	2400	40	ug/L	20.00	08/12/2002 14:29	
Di-isopropyl Ether (DIPE)	ND	40	ug/L	20.00	08/12/2002 14:29	
Ethyl tert-butyl ether (ETBE)	ND	40	ug/L	20.00	08/12/2002 14:29	
tert-Amyl methyl ether (TAME)	ND	40	ug/L	20.00	08/12/2002 14:29	
1,2-DCA	ND	40	ug/L	20.00	08/12/2002 14:29	
EDB	ND	40	ug/L	20.00	08/12/2002 14:29	
Ethanol	ND	10000	ug/L	20.00	08/12/2002 14:29	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	111.6	76-114	%	20.00	08/12/2002 14:29	
Toluene-d8	98.9	88-110	%	20.00	08/12/2002 14:29	



Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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www.chromalab.com

Project: 180021.80  
Tosco #6419

Received: 08/01/2002 14:30

Site: 6401 Dublin Blvd.  
Dublin, CA

CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-2	Lab ID:	2002-08-0059 - 3
Sampled:	07/30/2002 11:45	Extracted:	8/12/2002 16:52
Matrix:	Water	QC Batch#:	2002/08/12-01/27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/12/2002 16:52	
Benzene	ND	0.50	ug/L	1.00	08/12/2002 16:52	
Toluene	ND	0.50	ug/L	1.00	08/12/2002 16:52	
Ethylbenzene	ND	0.50	ug/L	1.00	08/12/2002 16:52	
Total xylenes	ND	1.0	ug/L	1.00	08/12/2002 16:52	
Methyl tert-butyl ether (MTBE)	11	2.0	ug/L	1.00	08/12/2002 16:52	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	113.0	76-114	%	1.00	08/12/2002 16:52	
Toluene-d8	100.9	88-110	%	1.00	08/12/2002 16:52	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding  
6747 Sierra Court Suite J  
Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180021.80  
Tosco #6419

Received: 08/01/2002 14:30

Site: 6401 Dublin Blvd.  
Dublin, CA

**SEVERN**  
**TRENT**  
**LABORATORY**

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Pleasanton, CA 94566

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Fax: (925) 484-1096  
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www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-3	Lab ID:	2002-08-0059 - 4
Sampled:	07/30/2002 13:35	Extracted:	8/12/2002 19:52
Matrix:	Water	QC Batch#:	2002/08/12-01:27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	2500	ug/L	50.00	08/12/2002 19:52	
Benzene	ND	25	ug/L	50.00	08/12/2002 19:52	
Toluene	ND	25	ug/L	50.00	08/12/2002 19:52	
Ethylbenzene	ND	25	ug/L	50.00	08/12/2002 19:52	
Total xylenes	ND	50	ug/L	50.00	08/12/2002 19:52	
Methyl tert-butyl ether (MTBE)	4900	100	ug/L	50.00	08/12/2002 19:52	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	115.2	76-114	%	50.00	08/12/2002 19:52	sh
Toluene-d8	99.6	88-110	%	50.00	08/12/2002 19:52	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

Attn.: Deanna Harding  
6747 Sierra Court Suite J  
Dublin, CA 94568

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

Project: 180021.80  
Tosco #6419

Received: 08/01/2002 14:30

Site: 6401 Dublin Blvd.  
Dublin, CA

**SEVERN**  
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www.chromalab.com

CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-4	Lab ID:	2002-08-0059 - 5
Sampled:	07/30/2002 13:02	Extracted:	8/12/2002 17:15
Matrix:	Water	QC Batch#:	2002/08/12-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	500	ug/L	10.00	08/12/2002 17:15	
Benzene	ND	5.0	ug/L	10.00	08/12/2002 17:15	
Toluene	ND	5.0	ug/L	10.00	08/12/2002 17:15	
Ethylbenzene	5.8	5.0	ug/L	10.00	08/12/2002 17:15	
Total xylenes	ND	10	ug/L	10.00	08/12/2002 17:15	
Methyl tert-butyl ether (MTBE)	1600	20	ug/L	10.00	08/12/2002 17:15	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	108.7	76-114	%	10.00	08/12/2002 17:15	
Toluene-d8	100.1	88-110	%	10.00	08/12/2002 17:15	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

Gettler Ryan

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Project: 180021.80  
Tosco #6419

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CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-5	Lab ID:	2002-08-0059 - 6
Sampled:	07/30/2002 10:16	Extracted:	8/9/2002 14:33
Matrix:	Water	QC Batch#:	2002/08/09-01-62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/09/2002 14:33	
Benzene	ND	0.50	ug/L	1.00	08/09/2002 14:33	
Toluene	ND	0.50	ug/L	1.00	08/09/2002 14:33	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2002 14:33	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2002 14:33	
Methyl tert-butyl ether (MTBE)	4.6	2.0	ug/L	1.00	08/09/2002 14:33	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	81.4	76-114	%	1.00	08/09/2002 14:33	
Toluene-d8	100.3	88-110	%	1.00	08/09/2002 14:33	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

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CA DHS ELAP# 2496

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-6	Lab ID: 2002-08-0059-7
Sampled: 07/30/2002 12:30	Extracted: 8/9/2002 14:56
Matrix: Water	QC Batch#: 2002/08/09-01:62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	180	50	ug/L	1.00	08/09/2002 14:56	g
Benzene	ND	0.50	ug/L	1.00	08/09/2002 14:56	
Toluene	ND	0.50	ug/L	1.00	08/09/2002 14:56	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2002 14:56	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2002 14:56	
Methyl tert-butyl ether (MTBE)	160	2.0	ug/L	1.00	08/09/2002 14:56	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	77.4	76-114	%	1.00	08/09/2002 14:56	
Toluene-d8	100.7	88-110	%	1.00	08/09/2002 14:56	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

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CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-7	Lab ID:	2002-08-0059 - 8
Sampled:	07/30/2002 11:20	Extracted:	8/9/2002 15:18
Matrix:	Water	QC Batch#:	2002/08/09-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/09/2002 15:18	
Benzene	ND	0.50	ug/L	1.00	08/09/2002 15:18	
Toluene	ND	0.50	ug/L	1.00	08/09/2002 15:18	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2002 15:18	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2002 15:18	
Methyl tert-butyl ether (MTBE)	4.3	2.0	ug/L	1.00	08/09/2002 15:18	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	81.8	76-114	%	1.00	08/09/2002 15:18	
Toluene-d8	96.2	88-110	%	1.00	08/09/2002 15:18	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

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CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-8	Lab ID:	2002-08-0059-9
Sampled:	07/30/2002 09:35	Extracted:	8/9/2002 15:40
Matrix:	Water	QC Batch#:	2002/08/09-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/09/2002 15:40	
Benzene	ND	0.50	ug/L	1.00	08/09/2002 15:40	
Toluene	ND	0.50	ug/L	1.00	08/09/2002 15:40	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2002 15:40	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2002 15:40	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	08/09/2002 15:40	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	81.0	76-114	%	1.00	08/09/2002 15:40	
Toluene-d8	96.5	88-110	%	1.00	08/09/2002 15:40	

Submission #: 2002-08-0059

Gas/BTEX Fuel Oxygenates by 8260B

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CA DHS ELAP# 2496

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-9	Lab ID:	2002-08-0059 - 10
Sampled:	07/30/2002 10:52	Extracted:	8/9/2002 16:25
Matrix:	Water	QC Batch#:	2002/08/09-01.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/09/2002 16:25	
Benzene	ND	0.50	ug/L	1.00	08/09/2002 16:25	
Toluene	ND	0.50	ug/L	1.00	08/09/2002 16:25	
Ethylbenzene	ND	0.50	ug/L	1.00	08/09/2002 16:25	
Total xylenes	ND	1.0	ug/L	1.00	08/09/2002 16:25	
Methyl tert-butyl ether (MTBE)	9.0	2.0	ug/L	1.00	08/09/2002 16:25	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	81.4	76-114	%	1.00	08/09/2002 16:25	
Toluene-d8	97.8	88-110	%	1.00	08/09/2002 16:25	



## Gas/BTEX Fuel Oxygenates by 8260B

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CA DHS ELAP# 2496

## Batch QC Report

Prep(s): 50308

Method Blank

MB: 2002/08/09-01.62-007

Water

Test(s): 8260FAB

QC Batch # 2002/08/09-01.62

Date Extracted: 08/09/2002 14:07

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/09/2002 14:07	
Benzene	ND	0.5	ug/L	08/09/2002 14:07	
Toluene	ND	0.5	ug/L	08/09/2002 14:07	
Ethylbenzene	ND	0.5	ug/L	08/09/2002 14:07	
Total xylenes	ND	1.0	ug/L	08/09/2002 14:07	
tert-Butyl alcohol (TBA)	ND	100	ug/L	08/09/2002 14:07	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	08/09/2002 14:07	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	08/09/2002 14:07	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	08/09/2002 14:07	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	08/09/2002 14:07	
1,2-DCA	ND	2.0	ug/L	08/09/2002 14:07	
EDB	ND	2.0	ug/L	08/09/2002 14:07	
Ethanol	ND	500	ug/L	08/09/2002 14:07	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	80.9	76-114	%	08/09/2002 14:07	
Toluene-d8	102.6	88-110	%	08/09/2002 14:07	

Submission #: 2002-08-0059

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Gas/BTEX Fuel Oxygenates by 8260B

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Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2002/08/12-01.27-010

Water

Test(s): 8260FAB

QC Batch # 2002/08/12-01.27

Date Extracted: 08/12/2002 11:00

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/12/2002 11:00	
Benzene	ND	0.5	ug/L	08/12/2002 11:00	
Toluene	ND	0.5	ug/L	08/12/2002 11:00	
Ethylbenzene	ND	0.5	ug/L	08/12/2002 11:00	
Total xylenes	ND	1.0	ug/L	08/12/2002 11:00	
tert-Butyl alcohol (TBA)	ND	100	ug/L	08/12/2002 11:00	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	08/12/2002 11:00	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	08/12/2002 11:00	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	08/12/2002 11:00	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	08/12/2002 11:00	
1,2-DCA	ND	2.0	ug/L	08/12/2002 11:00	
EDB	ND	2.0	ug/L	08/12/2002 11:00	
Ethanol	ND	500	ug/L	08/12/2002 11:00	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	108.8	76-114	%	08/12/2002 11:00	
Toluene-d8	102.8	88-110	%	08/12/2002 11:00	

Gas/BTEX Fuel Oxygenates by 8260B

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CA DHS ELAP# 2496

Batch QC Report			
Prep(s): 5030B		Test(s): 8260FAB	
Laboratory Control Spike		Water	QC Batch # 2002/08/09-01.62
LCS	2002/08/09-01.62-022	Extracted: 08/09/2002	Analyzed: 08/09/2002 13:22
LCSD	2002/08/09-01.62-003	Extracted: 08/09/2002	Analyzed: 08/09/2002 16:03

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	23.5	22.4	25.0	94.0	89.6	4.8	69-129	20		
Toluene	24.4	27.1	25.0	97.6	108.4	10.5	70-130	20		
Methyl tert-butyl ether (MTBE)	25.1	26.9	25.0	100.4	107.6	6.9	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	438	428	500	87.6	85.6		76-114			
Toluene-d8	492	539	500	98.4	107.8		88-110			

Submission #: 2002-08-0059

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CA DHS ELAP# 2496

Batch QC Report

Prep(s): 5030B

Test(s): 8260FAB

Laboratory Control Spike

Water

QC Batch # 2002/08/12-01.27

LCS 2002/08/12-01.27-003

Extracted: 08/12/2002

Analyzed: 08/12/2002 10:08

LCSD 2002/08/12-01.27-004

Extracted: 08/12/2002

Analyzed: 08/12/2002 10:38

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	23.0	22.5	25.0	92.0	90.0	2.2	69-129	20		
Toluene	25.5	25.2	25.0	102.0	100.8	1.2	70-130	20		
Methyl tert-butyl ether (MTBE)	26.1	24.0	25.0	104.4	96.0	8.4	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	561	545	500	112.2	109.0		76-114			
Toluene-d8	504	503	500	100.8	100.6		88-110			

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CA DHS ELAP# 2496

### Legend and Notes

#### Result Flag

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

sh

Surrogate recovery was higher than QC limit due to matrix interference.