



# GETTLER-RYAN INC.

OCT 11 2001

## TRANSMITTAL

September 24, 2001

G-R #180255

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

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

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

RE: **Tosco (76) Service Station #4625**  
**3070 Fruitvale Avenue**  
**Oakland, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	September 17, 2001	Groundwater Monitoring and Sampling Report Third Quarter - Event of August 10, 2001

### 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 8, 2001**, this report will be distributed to the following:

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

Enclosure

trans/4625-DBD



# GETTLER-RYAN Inc.

September 17, 2001  
G-R Job #180255

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

RE: **Third Quarter Event of August 10, 2001**  
Groundwater Monitoring & Sampling Report  
Tosco (76) Service Station #4625  
3070 Fruitvale Avenue  
Oakland, California

Dear Mr. De Witt:

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

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in 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 as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1, 2 and 3. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

*Deanna L. Harding*  
- For -

Deanna L. Harding  
Project Coordinator

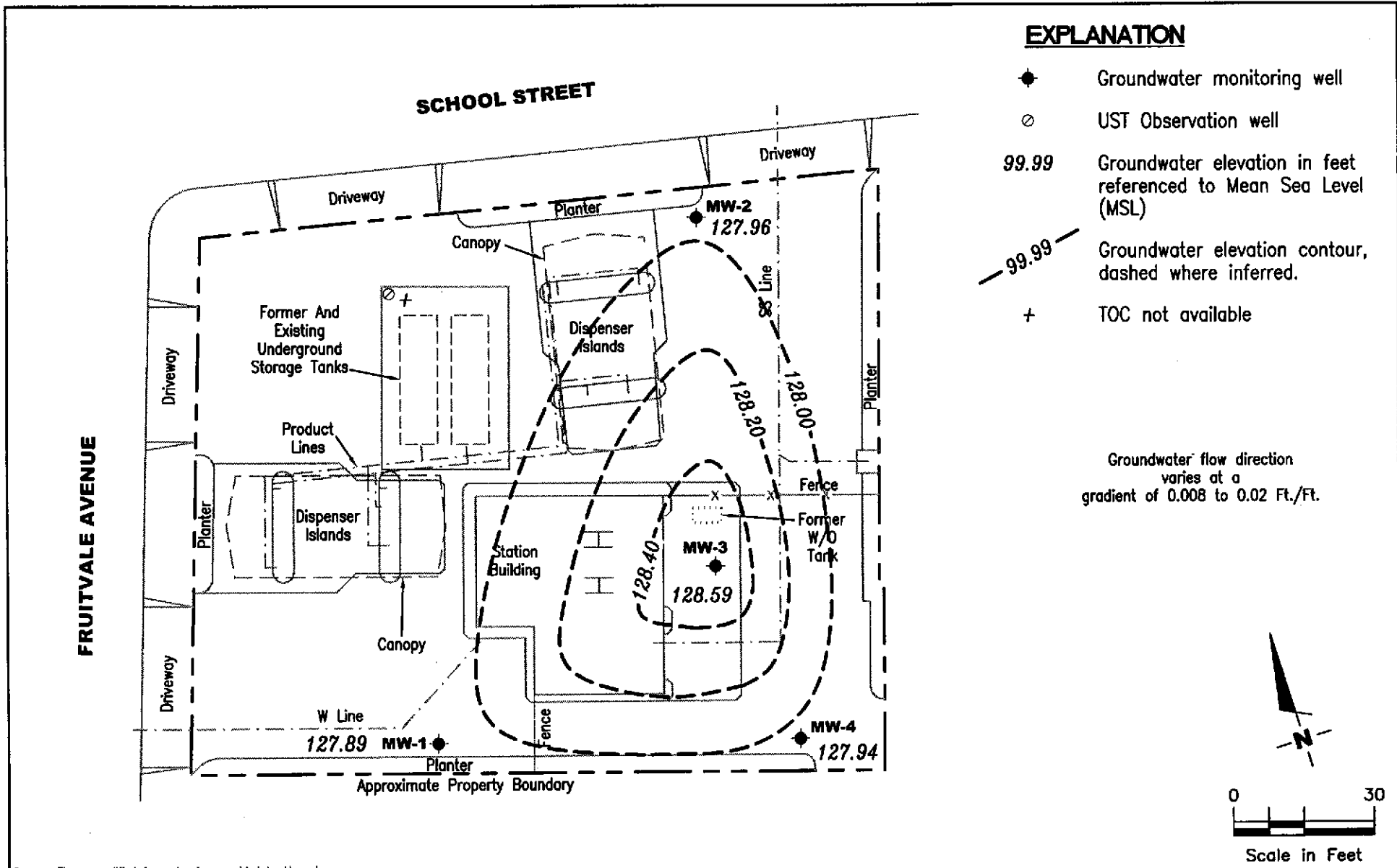
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Hagop Kevork  
P.E. No. C55734



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 - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

4625.qml



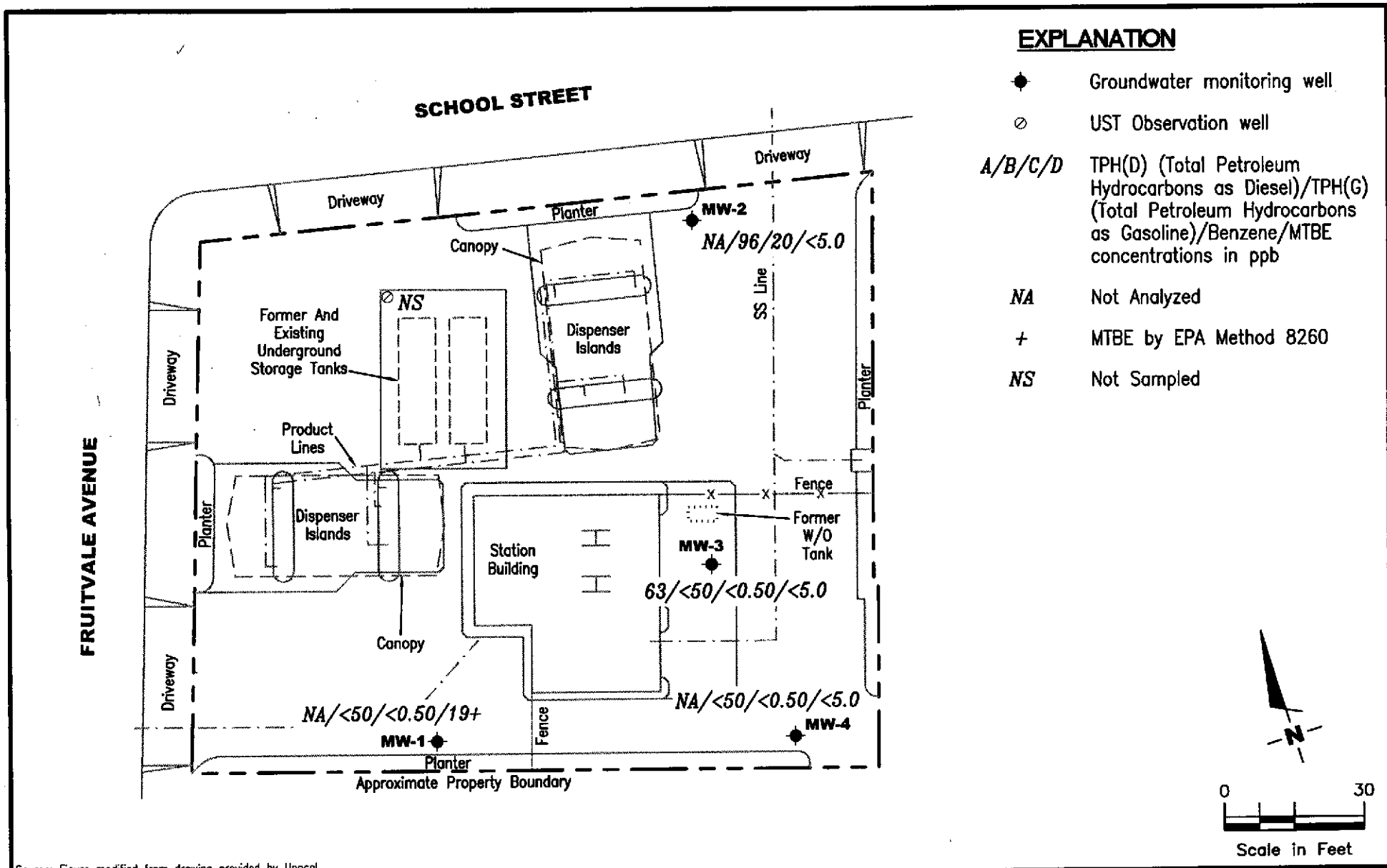
Source: Figure modified from drawing provided by Unocal.

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

**POTENTIOMETRIC MAP**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

FIGURE  
**1**

PROJECT NUMBER 180255	REVIEWED BY	DATE August 10, 2001	REVISED DATE
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Source: Figure modified from drawing provided by Unocal.

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

**CONCENTRATION MAP**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

FIGURE

2

PROJECT NUMBER  
 180255

REVIEWED BY

DATE  
 August 10, 2001

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

WELL ID/ TOC*	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-1</b>											
136.36	05/03/00	11.81	5.0-25.0	124.55	--	ND	ND	ND	ND	ND	11/14 <sup>2</sup>
	07/28/00	7.79		128.57	--	ND	ND	ND	ND	ND	21/19 <sup>2</sup>
	10/29/00	7.90		128.46	--	62 <sup>1</sup>	ND	ND	ND	ND	6.5/3.9 <sup>2</sup>
	02/09/01	7.95		128.41	--	ND	ND	ND	ND	ND	9.0/9.0 <sup>2</sup>
	05/11/01	7.22		129.14	--	ND	ND	ND	ND	ND	12.7/16.3 <sup>2</sup>
	<b>08/10/01</b>	<b>8.47</b>		<b>127.89</b>	--	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>17/19<sup>7</sup></b>
<b>MW-2</b>											
138.64	05/03/00	8.59	5.0-25.0	130.05	--	2,400 <sup>1</sup>	53	ND <sup>3</sup>	ND <sup>3</sup>	240	<sup>3</sup> ND/ND <sup>2</sup>
	07/28/00	9.95		128.69	--	2,200 <sup>1</sup>	680	4.1	57	270	24/ND <sup>2</sup>
	10/29/00	8.38		130.26	--	490 <sup>1</sup>	67	ND <sup>3</sup>	23	22	ND <sup>3</sup>
	02/09/01	8.41		130.23	--	ND	3.1	ND	0.52	1.1	ND
	05/11/01	8.93		129.71	--	ND	1.99	ND	ND	ND	ND
	<b>08/10/01</b>	<b>10.68</b>		<b>127.96</b>	--	<b>96<sup>1</sup></b>	<b>20</b>	<b>&lt;0.50</b>	<b>2.1</b>	<b>9.4</b>	<b>&lt;5.0</b>
<b>MW-3</b>											
137.68	05/03/00	7.60	5.0-25.0	130.08	93 <sup>5</sup>	ND	ND	ND	ND	ND	ND/ND <sup>4</sup>
	07/28/00	8.82		128.86	ND <sup>3</sup>	ND	ND	ND	ND	ND	ND/ND <sup>4</sup>
	10/29/00	7.33		130.35	ND	ND	ND	ND	ND	ND	ND
	02/09/01	7.40		130.28	72 <sup>6</sup>	ND	ND	ND	ND	ND	ND
	05/11/01	7.90		129.78	ND	ND	ND	ND	ND	ND	ND
	<b>08/10/01</b>	<b>9.09</b>		<b>128.59</b>	<b>63<sup>8</sup></b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>
<b>MW-4</b>											
136.60	05/03/00	6.48	5.0-25.0	130.12	--	ND	ND	ND	ND	ND	ND/ND <sup>2</sup>
	07/28/00	7.55		129.05	--	ND	ND	ND	ND	ND	ND
	10/29/00	6.12		130.48	--	ND	ND	ND	ND	ND	ND
	02/09/01	6.14		130.46	--	ND	ND	ND	ND	ND	ND
	05/11/01	7.51		129.09	--	ND	ND	ND	ND	ND	ND
	<b>08/10/01</b>	<b>8.66</b>		<b>127.94</b>	--	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft)	S.L. (ft. hgs)	GWE (msl)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>UST OBSERVATION WELL</b>											
	05/03/00	8.00	--	--	--	--	--	--	--	--	--
	07/28/00	9.28		--	--	--	--	--	--	--	--
	10/29/00	7.75		--	--	--	--	--	--	--	--
	02/09/01	6.14		--	--	--	--	--	--	--	--
	05/11/01	7.96		--	--	--	--	--	--	--	--
	<b>08/10/01</b>	<b>9.54</b>		--	--	--	--	--	--	--	--
<b>Trip Blank</b>											
TB-LB	05/03/00	--	--	--	--	ND	ND	ND	ND	ND	ND
	07/28/00	--		--	--	ND	ND	ND	ND	ND	ND
	10/29/00	--		--	--	ND	ND	ND	ND	ND	ND
	02/09/01	--		--	--	ND	ND	ND	ND	ND	ND
	05/11/01	--		--	--	ND	ND	ND	ND	ND	ND
	<b>08/10/01</b>	--		--	--	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;5.0</b>

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

**EXPLANATIONS:**

TOC = Top of Casing	TPH-D = Total Petroleum Hydrocarbons as Diesel	(ppb) = Parts per billion
DTW = Depth to Water	TPH-G = Total Petroleum Hydrocarbons as Gasoline	ND = Not Detected
(ft.) = Feet	B = Benzene	-- = Not Measured/Not Analyzed
S.I. = Screen Interval	T = Toluene	
(ft. bgs) = Feet Below Ground Surface	E = Ethylbenzene	
GWE = Groundwater Elevation	X = Xylenes	
(msl) = Mean sea level	MTBE = Methyl tertiary butyl ether	

\* TOC elevations were surveyed based on a cut square on School Street, City of Oakland Benchmark No. 3783, (Elevation = 136.99 feet msl).

1 Laboratory report indicates gasoline C6-C12.

2 MTBE by EPA Method 8260.

3 Detection limit raised. Refer to analytical reports.

4 MTBE by EPA Method 8240.

5 Laboratory report indicates unidentified hydrocarbons C9-C24.

6 Laboratory report indicates discrete peaks.

7 MTBE by EPA Method 8260 was analyzed beyond the EPA recommended holding time.

8 Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitaion range but does not resemble the pattern of the requested fuel.

**Table 2**  
**Groundwater Analytical Results**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

<b>WELL ID</b>	<b>DATE</b>	<b>VOCs by EPA 8240 (ppb)</b>	<b>VOCs by EPA 8021 (ppb)</b>	<b>SVOCs by EPA 8270 (ppb)</b>	<b>Chromium (ppm)</b>	<b>TOG (ppm)</b>
<b>MW-3</b>						
	05/03/00	ND	--	ND	ND	ND
	07/28/00	ND <sup>1</sup>	--	ND	1.8	ND
	10/29/00	ND	--	ND	ND	7.0
	02/09/01	ND	--	ND	0.038	ND
	05/11/01	ND	--	ND	ND	ND
	08/10/01	<2.0-<20	<0.50-<5.0	<5.0-<50	<0.010	<5.0

**EXPLANATIONS:**

VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

TOG = Total Oil and Grease

(ppb) = Parts per billion

(ppm) = Parts per million

ND = Not Detected

-- = Not Analyzed

<sup>1</sup> All VOCs by EPA Method 8240 were ND, except for Tetrachloroethene was detected at 2.7 ppb.

**ANALYTICAL METHODS:**

EPA Method 8240 for VOCs

EPA Method 8270 for SVOCs

EPA 200 Series Methods for Chromium

All EPA Method 8240 and 8270 constituents were ND, unless noted.



**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	02/09/01	ND	ND	9.0	ND	ND	ND	ND	ND
	05/11/01	ND	ND	16.3	ND	ND	ND	ND	ND
	08/10/01 <sup>1</sup>	<1,000	<100	19	<2.0	<2.0	<2.0	<2.0	<2.0
MW-3	07/28/00	--	ND	ND	ND	ND	ND	ND	ND

**EXPLANATIONS:**

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

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

<sup>1</sup> Laboratory report indicates sample was analyzed beyond the EPA recommended holding time.

## 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 Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility # 4625  
Address: 3070 Fruitvale Ave.  
City: Oakland, CA.

Job#: 180255  
Date: 8-10-01  
Sampler: JOE

Well ID MW-1

Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 25.06 ft.

Depth to Water 8.47 ft.

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

16.59 X VF 0.17 = 2.82 X 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

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

Starting Time: 12:00  
Sampling Time: 12:23 PM (12:23)  
Purging Flow Rate: 1 gpm  
Did well de-water? \_\_\_\_\_

Weather Conditions: Clear  
Water Color: clear Odor: none  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm X	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:08</u>	<u>3</u>	<u>7.10</u>	<u>6.97</u>	<u>74.2</u>	_____	_____	_____
<u>12:10</u>	<u>5.5</u>	<u>7.16</u>	<u>7.15</u>	<u>73.6</u>	_____	_____	_____
<u>12:13</u>	<u>8.5</u>	<u>7.21</u>	<u>7.18</u>	<u>73.9</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3VOL</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility # 4625  
Address: 3070 Fruitvale Ave.  
City: Oakland, CA.

Job#: 180255  
Date: 8-10-01  
Sampler: Joe

Well ID MW-2  
Well Diameter 2 in.  
Total Depth 24.28 ft  
Depth to Water 10.68 ft

Well Condition: OK  
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)  
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
6" = 1.50 12" = 5.80

13.6 X VF 0.17 = 2.31 X 3 (case volume) = Estimated Purge Volume: 7 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Suction  
Grundfos  
Other: \_\_\_\_\_

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

Starting Time: 12:34  
Sampling Time: 12:55 P.M. (12:55)  
Purging Flow Rate: \_\_\_\_\_ (gpm)  
Did well de-water? \_\_\_\_\_

Weather Conditions: Clear  
Water Color: clear Odor: none  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:42</u>	<u>2.5</u>	<u>7.61</u>	<u>9.65</u>	<u>74.1</u>	_____	_____	_____
<u>12:44</u>	<u>5</u>	<u>7.60</u>	<u>9.34</u>	<u>73.2</u>	_____	_____	_____
<u>12:46</u>	<u>7</u>	<u>7.56</u>	<u>9.31</u>	<u>73.3</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3Y04</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility # 4625  
Address: 3070 Fruitvale Ave.  
City: Oakland, CA.

Job#: 180255  
Date: 8-10-01  
Sampler: JOE

Well ID MW-3  
Well Diameter 2 in  
Total Depth 24.73 ft  
Depth to Water 9.09 ft

Well Condition: OK  
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 gal.  
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
6" = 1.50 12" = 5.80

15.64 x VF 0.17 = 2.66 x 3 (case volume) = Estimated Purge Volume: 8 gal.

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

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

Starting Time: 11:22  
Sampling Time: 11:50 AM (1150)  
Purging Flow Rate: 1 gpm.  
Did well de-water? \_\_\_\_\_

Weather Conditions: Clear  
Water Color: clear Odor: none  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:35</u>	<u>3</u>	<u>7.19</u>	<u>10.41</u>	<u>73.2</u>			
<u>11:37</u>	<u>5</u>	<u>7.22</u>	<u>10.46</u>	<u>73.5</u>			
<u>11:39</u>	<u>8</u>	<u>7.28</u>	<u>10.42</u>	<u>73.5</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3VOL</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>2VOL</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>VOCS by 8240</u>
	<u>1AMB</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>SVOCs by 8270</u>
	<u>1AMB</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>TPHD</u>

COMMENTS: 1 Amb plastic " HCL HNO3 " Oil & Grease Total Chromium

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility # 4625  
Address: 3070 Fruitvale Ave.  
City: Oakland, CA

Job#: 180255  
Date: 8-10-01  
Sampler: JOE

Well ID MW-4  
Well Diameter 2 in.  
Total Depth 24.65 ft.  
Depth to Water 8.66 ft.

Well Condition: OK  
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)  
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
6" = 1.50 12" = 5.80

15.99 X VF 0.17 = 2.72 X 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

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

Starting Time: 10:46  
Sampling Time: 11:08 A.M. (1108)  
Purging Flow Rate: 1 gpm.  
Did well de-water? \_\_\_\_\_

Weather Conditions: Clear  
Water Color: clear Odor: none  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:53</u>	<u>3</u>	<u>7.51</u>	<u>12.16</u>	<u>72.9</u>	_____	_____	_____
<u>10:55</u>	<u>5.5</u>	<u>7.58</u>	<u>11.51</u>	<u>73.0</u>	_____	_____	_____
<u>10:57</u>	<u>8.5</u>	<u>7.61</u>	<u>11.55</u>	<u>72.8</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility # 4625  
Address: 3070 Fruitvale Ave.  
City: Oakland, CA

Job#: 180255  
Date: 8-10-01  
Sampler: JOE

Well ID UST Observation well Well Condition: OK

Well Diameter 6 in Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 gal  
Total Depth 0 ft  
Depth to Water 9.54 ft

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

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

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

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

Starting Time: \_\_\_\_\_  
Sampling Time: \_\_\_\_\_  
Purging Flow Rate: \_\_\_\_\_ gpm  
Did well de-water? \_\_\_\_\_

Weather Conditions: Clear  
Water Color: clear Odor: \_\_\_\_\_  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

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

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	3YOA	Y	HCL	Seq.	TPHG, BTEX, MTBE

COMMENTS: M-only



TOSCO

Tosco Marketing Company  
3300 Civic Center Pl., Ste. 800  
San Ramon, California 94583

Facility Number TOSCO SS #4625

Facility Address 3070 FRUITVALE AVE., OAKLAND, CA

Consultant Project Number 180255

Consultant Name Gettler-Ryan Inc. (G-R Inc.)

Address 6747 Sierra Court, Suite J, Dublin, CA 94568

Project Contact (Name) Deanna L. Harding

(Phone) (925) 551-7555 (Fax Number) (925) 551-7888

Contact (Name) Mr. David De Witt

(Phone) (925) 277-2384

Laboratory Name Sequoia Analytical

Laboratory Release Number \_\_\_\_\_

Sample Collected by (Name) JOE AJEMIAN

Collection Date 8-10-01

Signature [Signature]

CUSTOMER OF CUSTODY RECORD

FROM : GETTLER RYAN INC

FAX NO. : 9255517899

AUG. 13 2001 01:02PM P2

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Chemical	A = Air C = Chemical	Type G = Grab C = Composites D = Diagnostics	Time	Sample Preservation	Lead (Yes or No)	Analysis To Be Performed												DO NOT BILL TB-LB ANALYSIS *confirm metals hits by running M to E Remarks						
									TPH Gas + BTEX w/MTBE (8010)	TPH Oil and Grease (8015)	Oil and Grease (8520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (8060 or AA)	VOC's by 8240	SVOC's by 8270	Total Chromium								
TB-LB	01	1 vial	W		G	-	HCL	Y	✓																	by 0260.	
MW-1	02	3 vials				1223			✓																		
MW-2	03	1 vial				1255			✓																		
MW-3	04	1 vial				1150			✓	✓	✓	✓															L108073
MW-4	05	3 vials				1108			✓																		

Amend COC to Run to Oxy's  
#1, 2, dec + red by 8260  
on all 8020 METALS HITS.  
8/13/01 [Signature]

Relinquished By (Signature) [Signature]	Organization G-R Inc.	Date/Time 8-10-01	Received By (Signature) [Signature]	Organization	Date/Time 8/10/01	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <b>As Contracted</b>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) [Signature]	Organization	Date/Time 8/14/01	

amended COC





**Sequoia  
Analytical**

1551 Industrial Road  
San Carlos, CA 94070  
(650) 232-9600  
FAX (650) 232-9612  
www.sequoialabs.com

4 September, 2001

Deanna Harding  
Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin, CA 94568

RECEIVED  
SEP 11 2001  
GETTLER-RYAN INC.  
GENERAL CONTRACTORS

RE: Tosco(1)  
Sequoia Report: L108073

Enclosed are the results of analyses for samples received by the laboratory on 08/10/01 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt  
Project Manager

CA ELAP Certificate #2360



Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: TOSCO SS#4625, OAKLAND, CA  
Project Manager: Deanna Harding

**Reported:**  
09/04/01 14:44

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L108073-01	Water	08/10/01 00:00	08/10/01 18:00
MW-1	L108073-02	Water	08/10/01 12:23	08/10/01 18:00
MW-2	L108073-03	Water	08/10/01 12:55	08/10/01 18:00
MW-3	L108073-04	Water	08/10/01 11:50	08/10/01 18:00
MW-4	L108073-05	Water	08/10/01 11:08	08/10/01 18:00

Sequoia Analytical - San Carlos

Latonya Pelt, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

### Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**TB-LB (L108073-01) Water**    **Sampled: 08/10/01 00:00**    **Received: 08/10/01 18:00**

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1080099	08/23/01	08/23/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	70-130		"	"	"	"	

**MW-1 (L108073-02) Water**    **Sampled: 08/10/01 12:23**    **Received: 08/10/01 18:00**

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1080099	08/23/01	08/23/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	17	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	70-130		"	"	"	"	

**MW-2 (L108073-03) Water**    **Sampled: 08/10/01 12:55**    **Received: 08/10/01 18:00**

Purgeable Hydrocarbons as Gasoline	96	50	ug/l	1	1080099	08/23/01	08/23/01	DHS LUFT	P-01
Benzene	20	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	2.1	0.50	"	"	"	"	"	"	
Xylenes (total)	9.4	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		116 %	70-130		"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water</b> Sampled: 08/10/01 11:50 Received: 08/10/01 18:00									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1080099	08/23/01	08/23/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

*Surrogate: a,a,a-Trifluorotoluene* 106 % 70-130 " " " "

<b>MW-4 (L108073-05) Water</b> Sampled: 08/10/01 11:08 Received: 08/10/01 18:00									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1080099	08/23/01	08/23/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

*Surrogate: a,a,a-Trifluorotoluene* 104 % 70-130 " " " "

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND,CA  
 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

### Volatile Organic Compounds by EPA Method 8021B

#### Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (L108073-04) Water Sampled: 08/10/01 11:50 Received: 08/10/01 18:00									
Freon 113	ND	1.0	ug/l	1	1080065	08/15/01	08/15/01	EPA 8021B	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Surrogate: 1-Chloro-2-fluorobenzene		93.9 %		70-130	"	"	"	"	

Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin CA, 94568	Project: Tosco(1) Project Number: TOSCO SS#4625, OAKLAND, CA Project Manager: Deanna Harding	<b>Reported:</b> 09/04/01 14:44
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**Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (L108073-02) Water</b>									<b>HT-04</b>
Sampled: 08/10/01 12:23 Received: 08/10/01 18:00									
Ethanol	ND	1000	ug/l	1	1090007	09/04/01	09/04/01	EPA 8260B	
1,2-Dibromoethane	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>19</b>	2.0	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	100	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88.8 %		76-114	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		96.8 %		88-110	"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

### Volatile Organic Compounds by EPA Method 8240B

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water    Sampled: 08/10/01 11:50    Received: 08/10/01 18:00</b>									
Chloromethane	ND	2.0	ug/l	1	1H14015	08/21/01	08/21/01	EPA 8240B	
Vinyl chloride	ND	2.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	2.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	2.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	2.0	"	"	"	"	"	"	
Acetone	ND	20	"	"	"	"	"	"	
Carbon disulfide	ND	2.0	"	"	"	"	"	"	
Methylene chloride	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	2.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	2.0	"	"	"	"	"	"	
Vinyl acetate	ND	2.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	2.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	2.0	"	"	"	"	"	"	
2-Butanone (MEK)	ND	20	"	"	"	"	"	"	
Chloroform	ND	2.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	2.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	10	"	"	"	"	"	"	
Benzene	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Trichloroethene	ND	2.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	2.0	"	"	"	"	"	"	
Bromodichloromethane	ND	2.0	"	"	"	"	"	"	
2,2,5,5-Tetramethyltetrahydrofuran	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	2.0	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	10	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	2.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	2.0	"	"	"	"	"	"	
Tetrachloroethene	ND	2.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Dibromochloromethane	ND	2.0	"	"	"	"	"	"	
Chlorobenzene	ND	2.0	"	"	"	"	"	"	
Ethylbenzene	ND	2.0	"	"	"	"	"	"	
Total Xylenes	ND	2.0	"	"	"	"	"	"	
Styrene	ND	2.0	"	"	"	"	"	"	
Bromoform	ND	2.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	2.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: TOSCO SS#4625, OAKLAND, CA  
Project Manager: Deanna Harding

**Reported:**  
09/04/01 14:44

**Volatile Organic Compounds by EPA Method 8240B  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water</b> <b>Sampled: 08/10/01 11:50</b> <b>Received: 08/10/01 18:00</b>									
1,2-Dichlorobenzene	ND	2.0	ug/l	1	1H14015	08/21/01	08/21/01	EPA 8240B	
<i>Surrogate: Dibromofluoromethane</i>		120 %	50-150		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	50-150		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	50-150		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		104 %	50-150		"	"	"	"	



Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: TOSCO SS#4625, OAKLAND, CA  
Project Manager: Deanna Harding

**Reported:**  
09/04/01 14:44

**Diesel Hydrocarbons (C9-C24) by DHS LUFT  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water</b> <b>Sampled: 08/10/01 11:50</b> <b>Received: 08/10/01 18:00</b>									
<b>Diesel Range Hydrocarbons (C9-C24)</b>	<b>63</b>	<b>50</b>	<b>ug/l</b>	<b>1</b>	<b>1H20017</b>	<b>08/23/01</b>	<b>08/24/01</b>	<b>EPA 8015M</b>	<b>HC-12</b>
<i>Surrogate: n-Pentacosane</i>		<i>82.0 %</i>	<i>50-150</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	



Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: TOSCO SS#4625, OAKLAND, CA  
Project Manager: Deanna Harding

**Reported:**  
09/04/01 14:44

**Total Metals by EPA 200 Series Methods  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water</b> Sampled: 08/10/01 11:50 Received: 08/10/01 18:00									
Chromium	ND	0.010	mg/l	1	1H20016	08/20/01	08/31/01	EPA 200.7	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

### Semivolatile Organic Compounds by EPA Method 8270C

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (L108073-04) Water    Sampled: 08/10/01 11:50    Received: 08/10/01 18:00									
Acenaphthene	ND	5.0	ug/l	1	1H14006	08/15/01	08/15/01	EPA 8270C	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Aniline	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzoic acid	ND	10	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.0	"	"	"	"	"	"	
Benzo[a]pyrene	ND	5.0	"	"	"	"	"	"	
Benzyl alcohol	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	50	"	"	"	"	"	"	
4-Chloroaniline	ND	25	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	10	"	"	"	"	"	"	
Dibenzofuran	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	10	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	5.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	10	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	10	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	10	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	10	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND,CA  
 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

### Semivolatile Organic Compounds by EPA Method 8270C Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water    Sampled: 08/10/01 11:50    Received: 08/10/01 18:00</b>									
Fluorene	ND	5.0	ug/l	1	1H14006	08/15/01	08/15/01	EPA 8270C	
Hexachlorobenzene	ND	10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	10	"	"	"	"	"	"	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.0	"	"	"	"	"	"	
2-Methylphenol	ND	5.0	"	"	"	"	"	"	
4-Methylphenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
2-Nitroaniline	ND	10	"	"	"	"	"	"	
3-Nitroaniline	ND	10	"	"	"	"	"	"	
4-Nitroaniline	ND	20	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	5.0	"	"	"	"	"	"	
4-Nitrophenol	ND	10	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	10	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	10	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	10	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		47.7 %		21-110	"	"	"	"	
<i>Surrogate: Phenol-d6</i>		32.9 %		10-110	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		93.7 %		35-114	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		108 %		43-116	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		113 %		10-123	"	"	"	"	
<i>Surrogate: p-Terphenyl-d14</i>		114 %		33-141	"	"	"	"	



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Dublin CA, 94568

Project: Tosco(1)  
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Project Manager: Deanna Harding

**Reported:**  
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**Conventional Chemistry Parameters by APHA/EPA Methods  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (L108073-04) Water</b> <b>Sampled: 08/10/01 11:50</b> <b>Received: 08/10/01 18:00</b>									
TRPH	ND	5.0	mg/l	1	1H24004	08/24/01	08/27/01	SM 5520B/F	

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 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

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 09/04/01 14:44

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control  
 Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1080099 - EPA 5030B (P/T)</b>										
<b>Blank (1080099-BLK1)</b>										
Prepared & Analyzed: 08/23/01										
Purgeable Hydrocarbons as Gasoline	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	5.0	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.96		"	10.0		99.6	70-130			
<b>LCS (1080099-BS1)</b>										
Prepared & Analyzed: 08/23/01										
Benzene	9.94	0.50	ug/l	10.0		99.4	70-130			
Toluene	9.77	0.50	"	10.0		97.7	70-130			
Ethylbenzene	9.88	0.50	"	10.0		98.8	70-130			
Xylenes (total)	30.5	0.50	"	30.0		102	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.3		"	10.0		103	70-130			
<b>LCS (1080099-BS2)</b>										
Prepared & Analyzed: 08/23/01										
Purgeable Hydrocarbons as Gasoline	268	50	ug/l	250		107	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.3		"	10.0		113	70-130			
<b>Matrix Spike (1080099-MS1)</b>										
Source: L108064-05 Prepared & Analyzed: 08/23/01										
Purgeable Hydrocarbons as Gasoline	236	50	ug/l	250	ND	94.4	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.4		"	10.0		104	70-130			
<b>Matrix Spike Dup (1080099-MSD1)</b>										
Source: L108064-05 Prepared & Analyzed: 08/23/01										
Purgeable Hydrocarbons as Gasoline	280	50	ug/l	250	ND	112	60-140	17.1	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.4		"	10.0		114	70-130			

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 Project: Tosco(1)  
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 Project Manager: Deanna Harding

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### Volatile Organic Compounds by EPA Method 8021B - Quality Control

#### Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1080065 - EPA 5030B (P/T)**
**Blank (1080065-BLK1)**

Prepared &amp; Analyzed: 08/15/01

Freon 113	ND	1.0	ug/l							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	1.0	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Methylene chloride	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
Vinyl chloride	ND	1.0	"							
Benzene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Toluene	ND	0.50	"							
Total Xylenes	ND	0.50	"							

Surrogate: 1-Chloro-2-fluorobenzene

10.6

"

10.0

106

70-130

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 Project: Tosco(1)  
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 Project Manager: Deanna Harding

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### Volatile Organic Compounds by EPA Method 8021B - Quality Control Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1080065 - EPA 5030B (P/T)**

<b>LCS (1080065-BS1)</b>		Prepared & Analyzed: 08/15/01								
Chlorobenzene	9.74	0.50	ug/l	10.0		97.4	70-130			
1,1-Dichloroethene	9.56	0.50	"	10.0		95.6	70-130			
Trichloroethene	10.0	0.50	"	10.0		100	70-130			
Benzene	12.1	0.50	"	10.0		121	70-130			
Toluene	12.0	0.50	"	10.0		120	70-130			
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>11.0</i>		<i>"</i>	<i>10.0</i>		<i>110</i>	<i>70-130</i>			

<b>Matrix Spike (1080065-MS1)</b>		Source: L108073-04		Prepared & Analyzed: 08/15/01						
Chlorobenzene	9.50	0.50	ug/l	10.0	ND	95.0	60-140			
1,1-Dichloroethene	8.56	0.50	"	10.0	ND	85.6	60-140			
Trichloroethene	9.24	0.50	"	10.0	ND	92.4	60-140			
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>10.5</i>		<i>"</i>	<i>10.0</i>		<i>105</i>	<i>70-130</i>			

<b>Matrix Spike Dup (1080065-MSD1)</b>		Source: L108073-04		Prepared & Analyzed: 08/15/01						
Chlorobenzene	9.29	0.50	ug/l	10.0	ND	92.9	60-140	2.24	25	
1,1-Dichloroethene	8.41	0.50	"	10.0	ND	84.1	60-140	1.77	25	
Trichloroethene	9.30	0.50	"	10.0	ND	93.0	60-140	0.647	25	
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>10.4</i>		<i>"</i>	<i>10.0</i>		<i>104</i>	<i>70-130</i>			





Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: TOSCO SS#4625, OAKLAND, CA  
Project Manager: Deanna Harding

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**Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B - Quality Control  
Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1090007 - EPA 5030B [P/T]**

**Blank (1090007-BLK1)**

Prepared & Analyzed: 09/04/01

Ethanol	ND	1000	ug/l							
1,2-Dibromoethane	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
Methyl tert-butyl ether	ND	2.0	"							
Tert-amyl methyl ether	ND	2.0	"							
Tert-butyl alcohol	ND	100	"							

Surrogate: 1,2-Dichloroethane-d4

52.9

"

50.0

106

76-114

Surrogate: Toluene-d8

52.4

"

50.0

105

88-110

**LCS (1090007-BS1)**

Prepared & Analyzed: 09/04/01

Methyl tert-butyl ether	57.6	2.0	ug/l	50.0		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	55.2		"	50.0		110	76-114			
Surrogate: Toluene-d8	53.6		"	50.0		107	88-110			

**Matrix Spike (1090007-MS1)**

Source: L108183-04

Prepared & Analyzed: 09/04/01

Methyl tert-butyl ether	48.1	2.0	ug/l	50.0	ND	96.2	60-140			
Surrogate: 1,2-Dichloroethane-d4	46.4		"	50.0		92.8	76-114			
Surrogate: Toluene-d8	48.0		"	50.0		96.0	88-110			

**Matrix Spike Dup (1090007-MSD1)**

Source: L108183-04

Prepared & Analyzed: 09/04/01

Methyl tert-butyl ether	49.9	2.0	ug/l	50.0	ND	99.8	60-140	3.67	25	
Surrogate: 1,2-Dichloroethane-d4	47.6		"	50.0		95.2	76-114			
Surrogate: Toluene-d8	48.7		"	50.0		97.4	88-110			

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 6747 Sierra Court, Suite J  
 Dublin CA, 94568

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 Project Manager: Deanna Harding

 Reported:  
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### Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14015 - EPA 5030B (P/T)**
**Blank (1H14015-BLK1)**

Prepared: 08/14/01 Analyzed: 08/15/01

Chloromethane	ND	2.0	ug/l							
Vinyl chloride	ND	2.0	"							
Bromomethane	ND	5.0	"							
Chloroethane	ND	2.0	"							
Trichlorofluoromethane	ND	2.0	"							
1,1-Dichloroethene	ND	2.0	"							
Acetone	ND	20	"							
Carbon disulfide	ND	2.0	"							
Methylene chloride	ND	10	"							
Methyl tert-butyl ether (MTBE)	ND	2.0	"							
trans-1,2-Dichloroethene	ND	2.0	"							
Vinyl acetate	ND	2.0	"							
1,1-Dichloroethane	ND	2.0	"							
cis-1,2-Dichloroethene	ND	2.0	"							
2-Butanone (MEK)	ND	20	"							
Chloroform	ND	2.0	"							
1,1,1-Trichloroethane	ND	2.0	"							
Carbon tetrachloride	ND	10	"							
Benzene	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Trichloroethene	ND	2.0	"							
1,2-Dichloropropane	ND	2.0	"							
Bromodichloromethane	ND	2.0	"							
2,2,5,5-Tetramethyltetrahydrofuran	ND	5.0	"							
cis-1,3-Dichloropropene	ND	2.0	"							
4-Methyl-2-pentanone (MIBK)	ND	10	"							
Toluene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	2.0	"							
1,1,2-Trichloroethane	ND	2.0	"							
Tetrachloroethene	ND	2.0	"							
2-Hexanone	ND	10	"							
Dibromochloromethane	ND	2.0	"							
Chlorobenzene	ND	2.0	"							
Ethylbenzene	ND	2.0	"							
Total Xylenes	ND	2.0	"							
Styrene	ND	2.0	"							

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 Dublin CA, 94568

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 Project Manager: Deanna Harding

 Reported:  
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### Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14015 - EPA 5030B (P/T)**
**Blank (1H14015-BLK1)**

Prepared: 08/14/01 Analyzed: 08/15/01

Bromoform	ND	2.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	"							
1,3-Dichlorobenzene	ND	2.0	"							
1,4-Dichlorobenzene	ND	2.0	"							
1,2-Dichlorobenzene	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	26.3		"	25.0		105	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	24.7		"	25.0		98.8	50-150			
<i>Surrogate: Toluene-d8</i>	24.8		"	25.0		99.2	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	25.9		"	25.0		104	50-150			

**Blank (1H14015-BLK3)**

Prepared: 08/16/01 Analyzed: 08/17/01

Chloromethane	ND	2.0	ug/l							
Vinyl chloride	ND	2.0	"							
Bromomethane	ND	5.0	"							
Chloroethane	ND	2.0	"							
Trichlorofluoromethane	ND	2.0	"							
1,1-Dichloroethene	ND	2.0	"							
Acetone	ND	20	"							
Carbon disulfide	ND	2.0	"							
Methylene chloride	ND	10	"							
Methyl tert-butyl ether (MTBE)	ND	2.0	"							
trans-1,2-Dichloroethene	ND	2.0	"							
Vinyl acetate	ND	2.0	"							
1,1-Dichloroethane	ND	2.0	"							
cis-1,2-Dichloroethene	ND	2.0	"							
2-Butanone (MEK)	ND	20	"							
Chloroform	ND	2.0	"							
1,1,1-Trichloroethane	ND	2.0	"							
Carbon tetrachloride	ND	10	"							
Benzene	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Trichloroethene	ND	2.0	"							
1,2-Dichloropropane	ND	2.0	"							
Bromodichloromethane	ND	2.0	"							
2,2,5,5-Tetramethyltetrahydrofuran	ND	5.0	"							
cis-1,3-Dichloropropene	ND	2.0	"							
4-Methyl-2-pentanone (MIBK)	ND	10	"							

Sequoia Analytical - San Carlos

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND,CA  
 Project Manager: Deanna Harding

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 09/04/01 14:44

### Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14015 - EPA 5030B (P/T)**

				Prepared: 08/16/01 Analyzed: 08/17/01						
<b>Blank (1H14015-BLK3)</b>										
Toluene	ND	5.0	ug/l							
trans-1,3-Dichloropropene	ND	2.0	"							
1,1,2-Trichloroethane	ND	2.0	"							
Tetrachloroethene	ND	2.0	"							
2-Hexanone	ND	10	"							
Dibromochloromethane	ND	2.0	"							
Chlorobenzene	ND	2.0	"							
Ethylbenzene	ND	2.0	"							
Total Xylenes	ND	2.0	"							
Styrene	ND	2.0	"							
Bromoform	ND	2.0	"							
1,1,2,2-Tetrachloroethane	ND	2.0	"							
1,3-Dichlorobenzene	ND	2.0	"							
1,4-Dichlorobenzene	ND	2.0	"							
1,2-Dichlorobenzene	ND	2.0	"							
<i>Surrogate: Dibromofluoromethane</i>	31.0		"	25.0		124	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	21.2		"	25.0		84.8	50-150			
<i>Surrogate: Toluene-d8</i>	26.4		"	25.0		106	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	28.4		"	25.0		114	50-150			

				Prepared & Analyzed: 08/21/01						
<b>Blank (1H14015-BLK5)</b>										
Chloromethane	ND	2.0	ug/l							
Vinyl chloride	ND	2.0	"							
Bromomethane	ND	5.0	"							
Chloroethane	ND	2.0	"							
Trichlorofluoromethane	ND	2.0	"							
1,1-Dichloroethene	ND	2.0	"							
Acetone	ND	20	"							
Carbon disulfide	ND	2.0	"							
Methylene chloride	ND	10	"							
Methyl tert-butyl ether (MTBE)	ND	2.0	"							
trans-1,2-Dichloroethene	ND	2.0	"							
Vinyl acetate	ND	2.0	"							
1,1-Dichloroethane	ND	2.0	"							
cis-1,2-Dichloroethene	ND	2.0	"							
2-Butanone (MEK)	ND	20	"							
Chloroform	ND	2.0	"							

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 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

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 09/04/01 14:44

### Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14015 - EPA 5030B (P/T)**
**Blank (1H14015-BLK5)**

Prepared &amp; Analyzed: 08/21/01

1,1,1-Trichloroethane	ND	2.0	ug/l							
Carbon tetrachloride	ND	10	"							
Benzene	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Trichloroethene	ND	2.0	"							
1,2-Dichloropropane	ND	2.0	"							
Bromodichloromethane	ND	2.0	"							
2,2,5,5-Tetramethyltetrahydrofuran	ND	5.0	"							
cis-1,3-Dichloropropene	ND	2.0	"							
4-Methyl-2-pentanone (MIBK)	ND	10	"							
Toluene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	2.0	"							
1,1,2-Trichloroethane	ND	2.0	"							
Tetrachloroethene	ND	2.0	"							
2-Hexanone	ND	10	"							
Dibromochloromethane	ND	2.0	"							
Chlorobenzene	ND	2.0	"							
Ethylbenzene	ND	2.0	"							
Total Xylenes	ND	2.0	"							
Styrene	ND	2.0	"							
Bromoform	ND	2.0	"							
1,1,2,2-Tetrachloroethane	ND	2.0	"							
1,3-Dichlorobenzene	ND	2.0	"							
1,4-Dichlorobenzene	ND	2.0	"							
1,2-Dichlorobenzene	ND	2.0	"							
Surrogate: Dibromofluoromethane	28.0		"	25.0		112	50-150			
Surrogate: 1,2-Dichloroethane-d4	25.0		"	25.0		100	50-150			
Surrogate: Toluene-d8	26.0		"	25.0		104	50-150			
Surrogate: 4-Bromofluorobenzene	27.0		"	25.0		108	50-150			

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 Project Manager: Deanna Harding

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### Volatile Organic Compounds by EPA Method 8240B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1H14015 - EPA 5030B (P/T)</b>										
<b>LCS (1H14015-BS1)</b>					Prepared & Analyzed: 08/14/01					
1,1-Dichloroethene	20.6	2.0	ug/l	25.0		82.4	65-135			
Methyl tert-butyl ether (MTBE)	22.9	2.0	"	25.0		91.6	70-130			
Benzene	24.4	2.0	"	25.0		97.6	70-130			
Trichloroethene	24.2	2.0	"	25.0		96.8	70-130			
Toluene	26.6	5.0	"	25.0		106	70-130			
Chlorobenzene	25.3	2.0	"	25.0		101	70-130			
<i>Surrogate: Dibromofluoromethane</i>	26.1		"	25.0		104	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	25.1		"	25.0		100	50-150			
<i>Surrogate: Toluene-d8</i>	24.6		"	25.0		98.4	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	24.9		"	25.0		99.6	50-150			
<b>LCS (1H14015-BS3)</b>					Prepared: 08/16/01 Analyzed: 08/17/01					
1,1-Dichloroethene	19.8	2.0	ug/l	25.0		79.2	65-135			
Methyl tert-butyl ether (MTBE)	22.0	2.0	"	25.0		88.0	70-130			
Benzene	22.7	2.0	"	25.0		90.8	70-130			
Trichloroethene	20.8	2.0	"	25.0		83.2	70-130			
Toluene	22.3	5.0	"	25.0		89.2	70-130			
Chlorobenzene	21.9	2.0	"	25.0		87.6	70-130			
<i>Surrogate: Dibromofluoromethane</i>	31.6		"	25.0		126	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	21.0		"	25.0		84.0	50-150			
<i>Surrogate: Toluene-d8</i>	26.9		"	25.0		108	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	27.5		"	25.0		110	50-150			
<b>LCS (1H14015-BS5)</b>					Prepared & Analyzed: 08/21/01					
1,1-Dichloroethene	21.5	2.0	ug/l	25.0		86.0	65-135			
Methyl tert-butyl ether (MTBE)	23.3	2.0	"	25.0		93.2	70-130			
Benzene	25.5	2.0	"	25.0		102	70-130			
Trichloroethene	21.1	2.0	"	25.0		84.4	70-130			
Toluene	23.0	5.0	"	25.0		92.0	70-130			
Chlorobenzene	21.7	2.0	"	25.0		86.8	70-130			
<i>Surrogate: Dibromofluoromethane</i>	29.0		"	25.0		116	50-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	24.0		"	25.0		96.0	50-150			
<i>Surrogate: Toluene-d8</i>	26.0		"	25.0		104	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	27.0		"	25.0		108	50-150			



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6747 Sierra Court, Suite J  
Dublin CA, 94568

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Project Manager: Deanna Harding

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**Volatile Organic Compounds by EPA Method 8240B - Quality Control**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14015 - EPA 5030B (P/T)**

Matrix Spike (1H14015-MS2)	Source: W108203-01			Prepared: 08/16/01	Analyzed: 08/17/01					
1,1-Dichloroethene	19.9	2.0	ug/l	25.0	ND	79.6	60-140			
Methyl tert-butyl ether (MTBE)	23.4	2.0	"	25.0	ND	93.6	60-140			
Benzene	22.3	2.0	"	25.0	ND	89.2	60-140			
Trichloroethene	25.7	2.0	"	25.0	3.8	87.6	60-140			
Toluene	22.5	5.0	"	25.0	ND	90.0	60-140			
Chlorobenzene	21.7	2.0	"	25.0	ND	86.8	60-140			
Surrogate: Dibromofluoromethane	27.6		"	25.0		110	50-150			
Surrogate: 1,2-Dichloroethane-d4	25.7		"	25.0		103	50-150			
Surrogate: Toluene-d8	25.2		"	25.0		101	50-150			
Surrogate: 4-Bromofluorobenzene	25.2		"	25.0		101	50-150			

Matrix Spike Dup (1H14015-MSD2)	Source: W108203-01			Prepared: 08/16/01	Analyzed: 08/17/01					
1,1-Dichloroethene	22.6	2.0	ug/l	25.0	ND	90.4	60-140	12.7	25	
Methyl tert-butyl ether (MTBE)	27.1	2.0	"	25.0	ND	108	60-140	14.7	25	
Benzene	25.4	2.0	"	25.0	ND	102	60-140	13.0	25	
Trichloroethene	28.2	2.0	"	25.0	3.8	97.6	60-140	9.28	25	
Toluene	25.7	5.0	"	25.0	ND	103	60-140	13.3	25	
Chlorobenzene	24.8	2.0	"	25.0	ND	99.2	60-140	13.3	25	
Surrogate: Dibromofluoromethane	27.5		"	25.0		110	50-150			
Surrogate: 1,2-Dichloroethane-d4	25.5		"	25.0		102	50-150			
Surrogate: Toluene-d8	25.2		"	25.0		101	50-150			
Surrogate: 4-Bromofluorobenzene	25.3		"	25.0		101	50-150			

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 Project Manager: Deanna Harding

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### Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1H20017 - EPA 3510B</b>										
<b>Blank (1H20017-BLK1)</b> Prepared: 08/20/01 Analyzed: 08/21/01										
Diesel Range Hydrocarbons (C9-C24)	ND	50	ug/l							
<i>Surrogate: n-Pentacosane</i>	30.7		"	33.3		92.2	50-150			
<b>Blank (1H20017-BLK2)</b> Prepared: 08/23/01 Analyzed: 08/24/01										
Diesel Range Hydrocarbons (C9-C24)	ND	50	ug/l							
<i>Surrogate: n-Pentacosane</i>	25.7		"	33.3		77.2	50-150			
<b>LCS (1H20017-BS1)</b> Prepared: 08/20/01 Analyzed: 08/21/01										
Diesel Range Hydrocarbons (C9-C24)	445	50	ug/l	500		89.0	60-140			
<i>Surrogate: n-Pentacosane</i>	30.0		"	33.3		90.1	50-150			
<b>LCS (1H20017-BS2)</b> Prepared: 08/23/01 Analyzed: 08/24/01										
Diesel Range Hydrocarbons (C9-C24)	437	50	ug/l	500		87.4	60-140			
<i>Surrogate: n-Pentacosane</i>	31.3		"	33.3		94.0	50-150			
<b>LCS Dup (1H20017-BSD1)</b> Prepared: 08/20/01 Analyzed: 08/21/01										
Diesel Range Hydrocarbons (C9-C24)	467	50	ug/l	500		93.4	60-140	4.82	50	
<i>Surrogate: n-Pentacosane</i>	30.7		"	33.3		92.2	50-150			



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 Project Manager: Deanna Harding

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**Total Metals by EPA 200 Series Methods - Quality Control  
 Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1H20016 - 200.7</b>										
<b>Blank (1H20016-BLK1)</b>										
				Prepared: 08/20/01 Analyzed: 08/31/01						
Chromium	ND	0.010	mg/l							
<b>LCS (1H20016-BS1)</b>										
				Prepared: 08/20/01 Analyzed: 08/31/01						
Chromium	1.01	0.010	mg/l	1.00		101	80-120			
<b>LCS Dup (1H20016-BSD1)</b>										
				Prepared: 08/20/01 Analyzed: 08/31/01						
Chromium	1.04	0.010	mg/l	1.00		104	80-120	2.93	20	
<b>Matrix Spike (1H20016-MS1)</b>										
		Source: L108073-04		Prepared: 08/20/01 Analyzed: 08/31/01						
Chromium	1.02	0.010	mg/l	1.00	ND	102	80-120			
<b>Matrix Spike Dup (1H20016-MSD1)</b>										
		Source: L108073-04		Prepared: 08/20/01 Analyzed: 08/31/01						
Chromium	1.02	0.010	mg/l	1.00	ND	102	80-120	0.00	20	

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 Project: Tosco(1)  
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 Project Manager: Deanna Harding

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### Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14006 - EPA 3510B Sep Funnel**
**Blank (1H14006-BLK1)**

Prepared: 08/14/01 Analyzed: 08/15/01

Acenaphthene	ND	5.0	ug/l							
Acenaphthylene	ND	5.0	"							
Aniline	ND	5.0	"							
Anthracene	ND	5.0	"							
Benzoic acid	ND	10	"							
Benzo (a) anthracene	ND	5.0	"							
Benzo (b) fluoranthene	ND	5.0	"							
Benzo (k) fluoranthene	ND	5.0	"							
Benzo (ghi) perylene	ND	5.0	"							
Benzo[a]pyrene	ND	5.0	"							
Benzyl alcohol	ND	5.0	"							
Bis(2-chloroethoxy)methane	ND	5.0	"							
Bis(2-chloroethyl)ether	ND	5.0	"							
Bis(2-chloroisopropyl)ether	ND	5.0	"							
Bis(2-ethylhexyl)phthalate	ND	10	"							
4-Bromophenyl phenyl ether	ND	5.0	"							
Butyl benzyl phthalate	ND	50	"							
4-Chloroaniline	ND	25	"							
2-Chloronaphthalene	ND	5.0	"							
4-Chloro-3-methylphenol	ND	5.0	"							
2-Chlorophenol	ND	5.0	"							
4-Chlorophenyl phenyl ether	ND	5.0	"							
Chrysene	ND	5.0	"							
Dibenz (a,h) anthracene	ND	10	"							
Dibenzofuran	ND	5.0	"							
Di-n-butyl phthalate	ND	10	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	10	"							
3,3'-Dichlorobenzidine	ND	10	"							
2,4-Dichlorophenol	ND	5.0	"							
Diethyl phthalate	ND	5.0	"							
2,4-Dimethylphenol	ND	5.0	"							
Dimethyl phthalate	ND	5.0	"							
4,6-Dinitro-2-methylphenol	ND	10	"							
2,4-Dinitrophenol	ND	10	"							

Sequoia Analytical - San Carlos

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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 6747 Sierra Court, Suite J  
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 Project: Tosco(1)  
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 Project Manager: Deanna Harding

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### Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14006 - EPA 3510B Sep Funnel**
**Blank (1H14006-BLK1)**

Prepared: 08/14/01 Analyzed: 08/15/01

2,4-Dinitrotoluene	ND	10	ug/l							
2,6-Dinitrotoluene	ND	10	"							
Di-n-octyl phthalate	ND	10	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	5.0	"							
Hexachlorobenzene	ND	10	"							
Hexachlorobutadiene	ND	10	"							
Hexachlorocyclopentadiene	ND	10	"							
Hexachloroethane	ND	5.0	"							
Indeno (1,2,3-cd) pyrene	ND	10	"							
Isophorone	ND	5.0	"							
2-Methylnaphthalene	ND	5.0	"							
2-Methylphenol	ND	5.0	"							
4-Methylphenol	ND	5.0	"							
Naphthalene	ND	5.0	"							
2-Nitroaniline	ND	10	"							
3-Nitroaniline	ND	10	"							
4-Nitroaniline	ND	20	"							
Nitrobenzene	ND	5.0	"							
2-Nitrophenol	ND	5.0	"							
4-Nitrophenol	ND	10	"							
N-Nitrosodimethylamine	ND	5.0	"							
N-Nitrosodiphenylamine	ND	5.0	"							
N-Nitrosodi-n-propylamine	ND	5.0	"							
Pentachlorophenol	ND	10	"							
Phenanthrene	ND	5.0	"							
Phenol	ND	5.0	"							
Pyrene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
2,4,5-Trichlorophenol	ND	10	"							
2,4,6-Trichlorophenol	ND	10	"							
<i>Surrogate: 2-Fluorophenol</i>	65.1		"	150		43.4	21-110			
<i>Surrogate: Phenol-d6</i>	45.5		"	150		30.3	10-110			
<i>Surrogate: Nitrobenzene-d5</i>	77.2		"	100		77.2	35-114			
<i>Surrogate: 2-Fluorobiphenyl</i>	87.1		"	100		87.1	43-116			
<i>Surrogate: 2,4,6-Tribromophenol</i>	126		"	150		84.0	10-123			

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 Dublin CA, 94568

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 Project Manager: Deanna Harding

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### Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14006 - EPA 3510B Sep Funnel**
**Blank (1H14006-BLK1)**

Prepared: 08/14/01 Analyzed: 08/15/01

Surrogate: <i>p</i> -Terphenyl-d14	90.2		ug/l	100	90.2	33-141
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**Blank (1H14006-BLK2)**

Prepared &amp; Analyzed: 08/15/01

Acenaphthene	ND	5.0	ug/l
Acenaphthylene	ND	5.0	"
Aniline	ND	5.0	"
Anthracene	ND	5.0	"
Benzoic acid	ND	10	"
Benzo (a) anthracene	ND	5.0	"
Benzo (b) fluoranthene	ND	5.0	"
Benzo (k) fluoranthene	ND	5.0	"
Benzo (ghi) perylene	ND	5.0	"
Benzo[a]pyrene	ND	5.0	"
Benzyl alcohol	ND	5.0	"
Bis(2-chloroethoxy)methane	ND	5.0	"
Bis(2-chloroethyl)ether	ND	5.0	"
Bis(2-chloroisopropyl)ether	ND	5.0	"
Bis(2-ethylhexyl)phthalate	ND	10	"
4-Bromophenyl phenyl ether	ND	5.0	"
Butyl benzyl phthalate	ND	50	"
4-Chloroaniline	ND	25	"
2-Chloronaphthalene	ND	5.0	"
4-Chloro-3-methylphenol	ND	5.0	"
2-Chlorophenol	ND	5.0	"
4-Chlorophenyl phenyl ether	ND	5.0	"
Chrysene	ND	5.0	"
Dibenz (a,h) anthracene	ND	10	"
Dibenzofuran	ND	5.0	"
Di-n-butyl phthalate	ND	10	"
1,2-Dichlorobenzene	ND	5.0	"
1,3-Dichlorobenzene	ND	5.0	"
1,4-Dichlorobenzene	ND	10	"
3,3'-Dichlorobenzidine	ND	10	"
2,4-Dichlorophenol	ND	5.0	"
Diethyl phthalate	ND	5.0	"
2,4-Dimethylphenol	ND	5.0	"

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 Project Manager: Deanna Harding

 Reported:  
 09/04/01 14:44

### Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14006 - EPA 3510B Sep Funnel**

Prepared &amp; Analyzed: 08/15/01

**Blank (1H14006-BLK2)**

Dimethyl phthalate	ND	5.0	ug/l							
4,6-Dinitro-2-methylphenol	ND	10	"							
2,4-Dinitrophenol	ND	10	"							
2,4-Dinitrotoluene	ND	10	"							
2,6-Dinitrotoluene	ND	10	"							
Di-n-octyl phthalate	ND	10	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	5.0	"							
Hexachlorobenzene	ND	10	"							
Hexachlorobutadiene	ND	10	"							
Hexachlorocyclopentadiene	ND	10	"							
Hexachloroethane	ND	5.0	"							
Indeno (1,2,3-cd) pyrene	ND	10	"							
Isophorone	ND	5.0	"							
2-Methylnaphthalene	ND	5.0	"							
2-Methylphenol	ND	5.0	"							
4-Methylphenol	ND	5.0	"							
Naphthalene	ND	5.0	"							
2-Nitroaniline	ND	10	"							
3-Nitroaniline	ND	10	"							
4-Nitroaniline	ND	20	"							
Nitrobenzene	ND	5.0	"							
2-Nitrophenol	ND	5.0	"							
4-Nitrophenol	ND	10	"							
N-Nitrosodimethylamine	ND	5.0	"							
N-Nitrosodiphenylamine	ND	5.0	"							
N-Nitrosodi-n-propylamine	ND	5.0	"							
Pentachlorophenol	ND	10	"							
Phenanthrene	ND	5.0	"							
Phenol	ND	5.0	"							
Pyrene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
2,4,5-Trichlorophenol	ND	10	"							
2,4,6-Trichlorophenol	ND	10	"							
<i>Surrogate: 2-Fluorophenol</i>	45.1		"	150		30.1	21-110			
<i>Surrogate: Phenol-d6</i>	40.7		"	150		27.1	10-110			

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: TOSCO SS#4625, OAKLAND, CA  
 Project Manager: Deanna Harding

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### Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1H14006 - EPA 3510B Sep Funnel</b>										
<b>Blank (1H14006-BLK2)</b>										
Prepared & Analyzed: 08/15/01										
Surrogate: Nitrobenzene-d5	77.2		ug/l	100		77.2	35-114			
Surrogate: 2-Fluorobiphenyl	85.7		"	100		85.7	43-116			
Surrogate: 2,4,6-Tribromophenol	124		"	150		82.7	10-123			
Surrogate: p-Terphenyl-d14	89.9		"	100		89.9	33-141			
<b>LCS (1H14006-BS1)</b>										
Prepared: 08/14/01 Analyzed: 08/15/01										
Acenaphthene	77.3	5.0	ug/l	100		77.3	46-118			
4-Chloro-3-methylphenol	115	5.0	"	150		76.7	23-97			
2-Chlorophenol	98.7	5.0	"	150		65.8	27-123			
1,4-Dichlorobenzene	66.1	10	"	100		66.1	36-97			
2,4-Dinitrotoluene	74.6	10	"	100		74.6	24-96			
4-Nitrophenol	40.7	10	"	150		27.1	10-80			
N-Nitrosodi-n-propylamine	95.6	5.0	"	100		95.6	41-116			
Pentachlorophenol	106	10	"	150		70.7	9-103			
Phenol	48.2	5.0	"	150		32.1	12-110			
Pyrene	68.6	5.0	"	100		68.6	26-127			
1,2,4-Trichlorobenzene	74.1	5.0	"	100		74.1	39-98			
Surrogate: 2-Fluorophenol	66.0		"	150		44.0	21-110			
Surrogate: Phenol-d6	45.2		"	150		30.1	10-110			
Surrogate: Nitrobenzene-d5	76.8		"	100		76.8	35-114			
Surrogate: 2-Fluorobiphenyl	79.7		"	100		79.7	43-116			
Surrogate: 2,4,6-Tribromophenol	132		"	150		88.0	10-123			
Surrogate: p-Terphenyl-d14	78.9		"	100		78.9	33-141			
<b>LCS (1H14006-BS2)</b>										
Prepared & Analyzed: 08/15/01										
Acenaphthene	71.5	5.0	ug/l	100		71.5	46-118			
4-Chloro-3-methylphenol	106	5.0	"	150		70.7	23-97			
2-Chlorophenol	96.1	5.0	"	150		64.1	27-123			
1,4-Dichlorobenzene	62.1	10	"	100		62.1	36-97			
2,4-Dinitrotoluene	69.7	10	"	100		69.7	24-96			
4-Nitrophenol	26.2	10	"	150		17.5	10-80			
N-Nitrosodi-n-propylamine	100	5.0	"	100		100	41-116			
Pentachlorophenol	80.2	10	"	150		53.5	9-103			
Phenol	44.8	5.0	"	150		29.9	12-110			
Pyrene	73.3	5.0	"	100		73.3	26-127			
1,2,4-Trichlorobenzene	67.2	5.0	"	100		67.2	39-98			
Surrogate: 2-Fluorophenol	61.5		"	150		41.0	21-110			



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Project Manager: Deanna Harding

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**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 1H14006 - EPA 3510B Sep Funnel**

**LCS (1H14006-BS2)**

Prepared & Analyzed: 08/15/01

Surrogate: Phenol-d6	41.4		ug/l	150		27.6	10-110			
Surrogate: Nitrobenzene-d5	73.4		"	100		73.4	35-114			
Surrogate: 2-Fluorobiphenyl	74.7		"	100		74.7	43-116			
Surrogate: 2,4,6-Tribromophenol	120		"	150		80.0	10-123			
Surrogate: p-Terphenyl-d14	84.6		"	100		84.6	33-141			

**LCS Dup (1H14006-BSD1)**

Prepared: 08/14/01 Analyzed: 08/15/01

Acenaphthene	81.1	5.0	ug/l	100		81.1	46-118	4.80	30	
4-Chloro-3-methylphenol	121	5.0	"	150		80.7	23-97	5.08	30	
2-Chlorophenol	102	5.0	"	150		68.0	27-123	3.29	30	
1,4-Dichlorobenzene	67.8	10	"	100		67.8	36-97	2.54	30	
2,4-Dinitrotoluene	81.0	10	"	100		81.0	24-96	8.23	30	
4-Nitrophenol	42.0	10	"	150		28.0	10-80	3.14	30	
N-Nitrosodi-n-propylamine	95.0	5.0	"	100		95.0	41-116	0.630	30	
Pentachlorophenol	124	10	"	150		82.7	9-103	15.7	30	
Phenol	45.3	5.0	"	150		30.2	12-110	6.20	30	
Pyrene	70.7	5.0	"	100		70.7	26-127	3.02	30	
1,2,4-Trichlorobenzene	76.2	5.0	"	100		76.2	39-98	2.79	30	
Surrogate: 2-Fluorophenol	65.0		"	150		43.3	21-110			
Surrogate: Phenol-d6	41.8		"	150		27.9	10-110			
Surrogate: Nitrobenzene-d5	78.0		"	100		78.0	35-114			
Surrogate: 2-Fluorobiphenyl	80.9		"	100		80.9	43-116			
Surrogate: 2,4,6-Tribromophenol	139		"	150		92.7	10-123			
Surrogate: p-Terphenyl-d14	78.1		"	100		78.1	33-141			

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 Project Manager: Deanna Harding

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**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1H24004 - EPA 3510B SepFunnel</b>									
<b>Blank (1H24004-BLK1)</b>					Prepared: 08/24/01 Analyzed: 08/27/01				
TRPH	ND	5.0	mg/l						
<b>LCS (1H24004-BS1)</b>					Prepared: 08/24/01 Analyzed: 08/27/01				
TRPH	93.2	5.0	mg/l	100		93.2 70-130			
<b>LCS Dup (1H24004-BSD1)</b>					Prepared: 08/24/01 Analyzed: 08/27/01				
TRPH	91.1	5.0	mg/l	100		91.1 70-130	2.28	30	



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### 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.

HT-04 This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.

P-01 Chromatogram Pattern: Gasoline C6-C12

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