



# GETTLER-RYAN INC.

## TRANSMITTAL

October 23, 2000

G-R #180203

00 03 16 PM 5:15

TRANSMITTAL  
RECEIVED

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

CC: Mr. Glen Matteucci  
ERI, Inc.  
73 Digital Drive, Suite 100  
Novato, California 94949

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

RE: Former Tosco 76 SS #0843  
1629 Webster Street  
Alameda, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 10, 2000	Groundwater Monitoring and Sampling Report Third Quarter 2000 - Event of August 29, 2000

### 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 **November 3, 2000**, this report will be distributed to the following:

Enclosure

cc: Ms. Eva Chu, Alameda County Dept., of Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502

*decrease in nitrate in MW-6  
evidence of TBA in MW-2  
Not run for in MW-6*

trans/0843.dbd

*Run 8260 for other ether organics in  
MW-6 to see if TBA is present*

# QUARTERLY SUMMARY REPORT

Third Quarter 2000

(July - September)

## TOSCO SERVICE STATION 0843

1629 Webster Street  
Alameda, California

City/County ID: City of Alameda/Alameda County

Lead Agency: Alameda County Department of Environmental Health Services

### BACKGROUND

In 1998, Tosco Marketing Company (Tosco) removed two 10,000-gallon gasoline underground storage tanks (USTs), one 550-gallon used-oil UST, associated piping and dispensers, and excavated approximately 338 tons of soil and backfill. Laboratory analyses of samples collected during the work detected petroleum hydrocarbons and related constituents in soil and groundwater beneath the site.

During first quarter 1999, at the request of Tosco, ERI performed a soil and groundwater investigation including the installation of four groundwater monitoring wells. Concentrations of residual benzene (0.0295 ppm) and MTBE (0.561 ppm) were detected in the soil samples collected from boring MW2. Concentrations of dissolved TPHg (up to 34,400 ppb), benzene (at 2,070 ppb), and MTBE (up to 8,460 ppb) were detected in groundwater samples collected in well MW1 through MW4.

During fourth quarter 1999, ERI installed two off-site groundwater monitoring wells downgradient of the site. Concentrations of dissolved MTBE were detected the newly installed off-site wells MW5 and MW6 at 3.8 ppb and 18,000 ppb, respectively.

### RECENT QUARTER ACTIVITIES

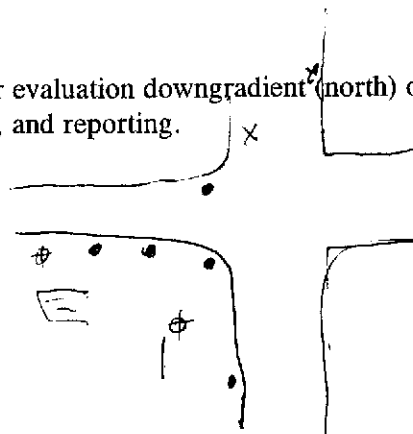
Performed quarterly groundwater monitoring, sampling, and reporting.

### NEXT QUARTER ACTIVITIES

Submit a work plan to perform an off-site groundwater evaluation downgradient (north) of the site. Continue quarterly groundwater monitoring, sampling, and reporting.

### CHARACTERIZATION/REMEDIAL STATUS

- Soil contamination delineated?
- Dissolved groundwater delineated?
- Free Product delineated?
- Amount of gw contaminant recovered?
- Amount of soil contamination recovered?
- Soil remediation in progress?
- Dissolved/free product remediation in progress?



Yes  
No  
NA  
NA  
338 tons  
No  
No

*weird both on + off site  
• NP's going to be proposed*



# GETTLER-RYAN INC.

October 10, 2000  
G-R Job #180203

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

RE: Third Quarter 2000 Groundwater Monitoring & Sampling Report  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On August 29, 2000, field personnel monitored and sampled six wells (MW-1 through MW-6) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map are 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 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding  
Project Coordinator

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

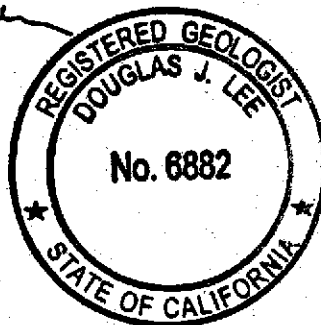
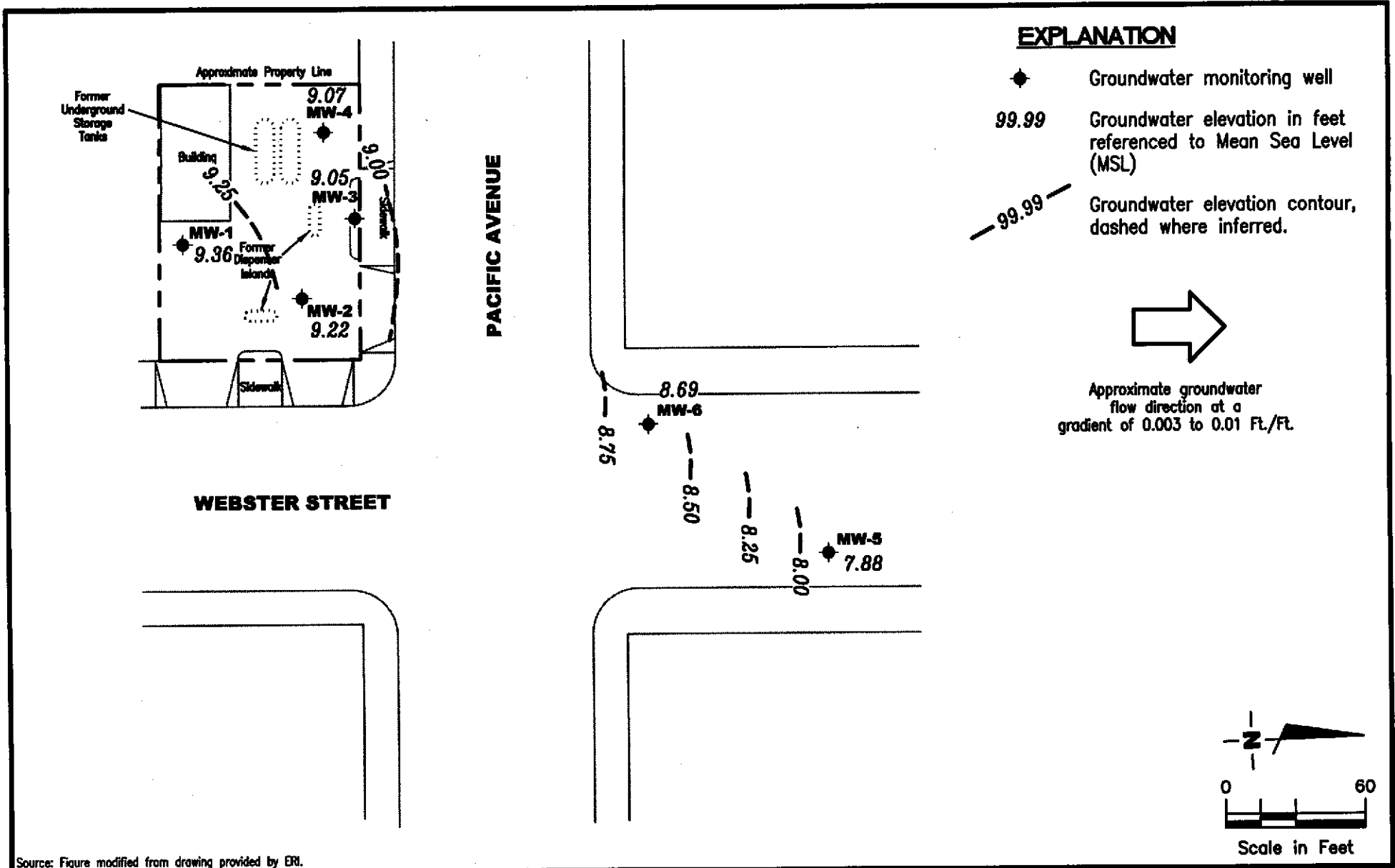


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and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

0843.qml



Source: Figure modified from drawing provided by ERI.



**Gettler - Ryan Inc.**

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

**POTENTIOMETRIC MAP**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

FIGURE

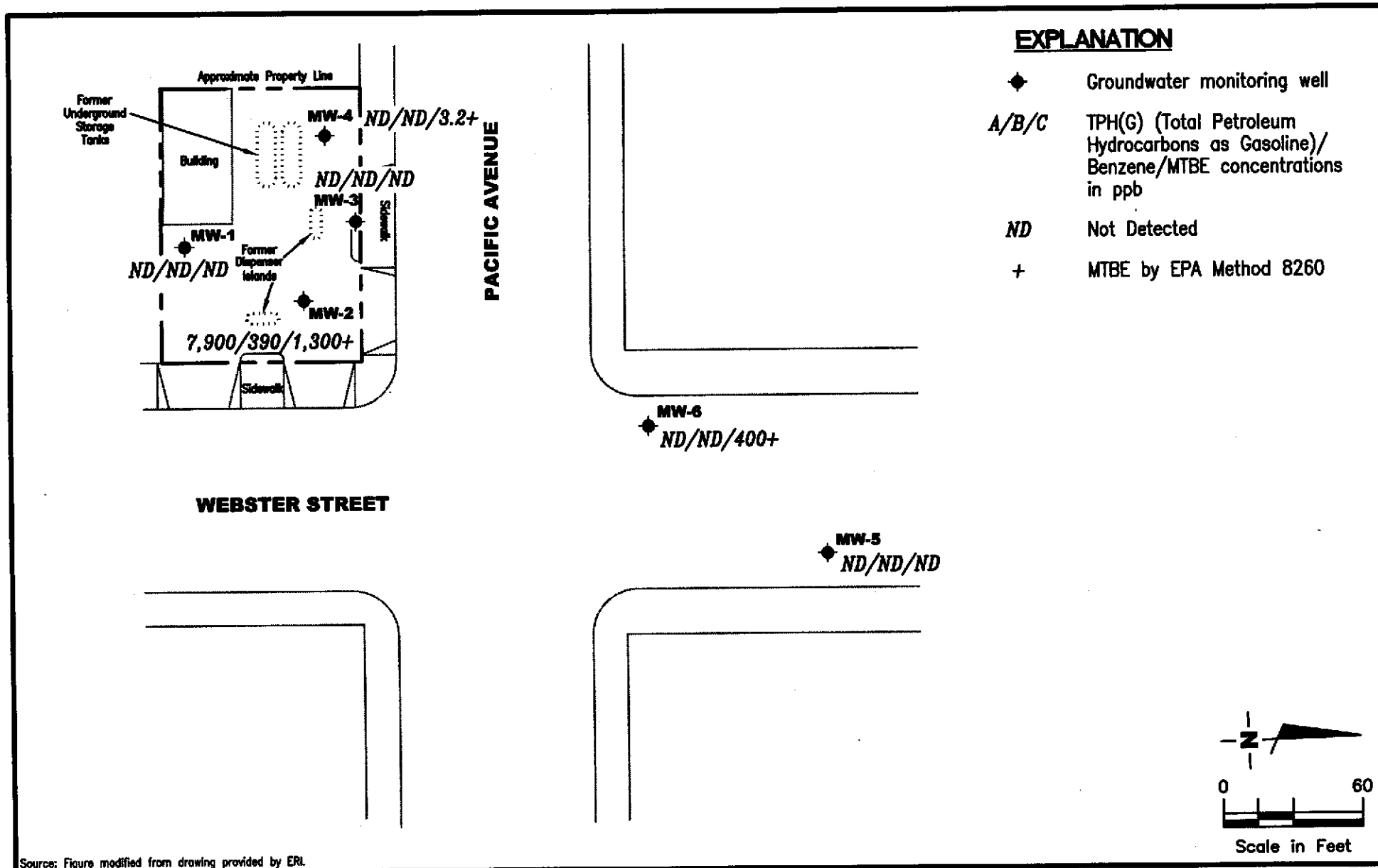
1

PROJECT NUMBER  
180203

REVIEWED BY

DATE  
August 29, 2000

REVISED DATE



Source: Figure modified from drawing provided by ERL



**Gettler - Ryan Inc.**

8747 Sierra Ct., Suite J  
Dublin, CA 94568 (925) 551-7555

**CONCENTRATION MAP**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

FIGURE

2

PROJECT NUMBER  
180203

REVIEWED BY

DATE  
August 29, 2000

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (mst)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-1</b>									
16.18	03/05/99 <sup>1</sup>	--	--	86.6 <sup>3</sup>	ND	2.04	ND	4.06	23.9 <sup>2</sup>
	06/03/99	6.24	9.94	ND	ND	ND	ND	ND	ND/ND <sup>2</sup>
	09/02/99	7.19	8.99	ND	ND	ND	ND	ND	ND/ND <sup>2</sup>
	12/14/99	8.07	8.11	ND	ND	ND	ND	ND	ND
	03/14/00	5.47	10.71	ND	ND	ND	ND	ND	ND
	05/31/00	6.22	9.96	ND	ND	ND	ND	ND	ND
	08/29/00	6.82	9.36	ND	ND	ND	ND	ND	ND
<b>MW-2</b>									
15.57	03/05/99 <sup>1</sup>	--	--	34,400	2,070	7,710	2,340	8,240	8,460 <sup>2</sup>
	06/03/99	5.96	9.61	51,200 <sup>4</sup>	1,820	7,570	2,510	7,320	6,460/8,800 <sup>2</sup>
	09/02/99	6.85	8.72	17,000 <sup>5</sup>	1,000	3,100	1,400	3,700	4,000/3,720 <sup>2</sup>
	12/14/99	7.65	7.92	83,000 <sup>5</sup>	3,000	22,000	4,500	17,000	9,100/11,000 <sup>2</sup>
	03/14/00	5.26	10.31	31,000 <sup>5</sup>	1,600	4,600	2,300	7,300	5,700/8,700 <sup>2</sup>
	05/31/00	5.60	9.97	9,970 <sup>5</sup>	598	1,030	487	2,060	2,500/1,670 <sup>2</sup>
	08/29/00	6.35	9.22	7,900 <sup>5</sup>	390	1,500	280	1,900	1,800/1,300 <sup>2</sup>
<b>MW-3</b>									
15.11	03/05/99 <sup>1</sup>	--	--	135 <sup>3</sup>	ND	ND	ND	4.84	2.46 <sup>2</sup>
	06/03/99	5.57	9.54	ND	ND	ND	ND	ND	5.23/12.7 <sup>2</sup>
	09/02/99	6.50	8.61	ND	ND	ND	ND	ND	13/11.0 <sup>2</sup>
	12/14/99	7.28	7.83	ND	ND	ND	ND	ND	ND
	03/14/00	4.87	10.24	ND	ND	ND	ND	ND	7.2/6.3 <sup>2</sup>
	05/31/00	5.58	9.53	ND	ND	ND	ND	ND	ND
	08/29/00	6.06	9.05	ND	ND	ND	ND	ND	ND

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>MW-4</b>									
15.17	03/05/99 <sup>1</sup>	--	--	ND	ND	ND	ND	2.44	25.2 <sup>2</sup>
	06/03/99	5.45	9.72	ND	ND	ND	ND	ND	ND/3.96 <sup>2</sup>
	09/02/99	6.48	8.69	ND	ND	ND	ND	ND	23/27.0 <sup>2</sup>
	12/14/99	7.27	7.90	ND	ND	ND	ND	ND	200/270 <sup>2</sup>
	03/14/00	4.67	10.50	ND	ND	ND	ND	ND	46/49 <sup>2</sup>
	05/31/00	5.48	9.69	ND	ND	ND	ND	ND	ND
	08/29/00	6.10	9.07	ND	ND	ND	ND	ND	6.1/3.2 <sup>2</sup>
<b>MW-5</b>									
13.34	12/14/99	6.45	6.89	ND	ND	ND	ND	ND	3.5/3.8 <sup>2</sup>
	03/14/00	4.46	8.88	ND	ND	ND	ND	ND	ND
	05/31/00	5.18	8.16	ND	ND	ND	ND	ND	ND
	08/29/00	5.46	7.88	ND	ND	ND	ND	ND	ND
<b>MW-6</b>									
14.08	12/14/99	6.64	7.44	ND	ND	ND	ND	ND	11,000/18,000 <sup>2</sup>
	03/14/00	4.72	9.36	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	19,000/21,000 <sup>2,6</sup>
	05/31/00	5.28	8.80	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	ND <sup>7</sup>	13,200
	08/29/00	5.39	8.69	ND	ND	ND	ND	ND	270/400 <sup>2</sup>

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Former Tosco 76 Service Station #0843  
 1629 Webster Street  
 Alameda, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
<b>Trip Blank</b>									
TB-LB	03/05/99 <sup>1</sup>	--	--	ND	ND	ND	ND	ND	ND <sup>2</sup>
	06/03/99	--	--	ND	ND	ND	ND	ND	ND
	09/02/99	--	--	ND	ND	ND	ND	ND	ND
	12/14/99	--	--	ND	ND	ND	ND	ND	ND
	03/14/00	--	--	ND	ND	ND	ND	ND	ND
	05/31/00	--	--	ND	ND	ND	ND	ND	ND
	08/29/00	--	--	ND	ND	ND	ND	ND	ND



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to June 3, 1999, were compiled from reports prepared by ERI, Inc.

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

msl = Mean sea level

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

ppb = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

\* TOC elevations are based on USC&GS Benchmark WEB PAC - 1947 - R 1951; (Elevation = 14.054 feet).

<sup>1</sup> Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8260A.

<sup>2</sup> MTBE by EPA Method 8260.

<sup>3</sup> Laboratory report indicates weathered gasoline C6-C12.

<sup>4</sup> Laboratory report indicates chromatogram pattern C6-C12.

<sup>5</sup> Laboratory report indicates gasoline C6-C12.

<sup>6</sup> Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of the EPA recommended holding time.

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

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	09/02/99	ND	ND	ND	ND	ND	ND	--	--
MW-2	09/02/99	ND <sup>1</sup>	ND <sup>1</sup>	3,720	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	--	--
	12/14/99	ND <sup>1</sup>	ND <sup>1</sup>	11,000	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	03/14/00	ND <sup>1</sup>	1,300	8,700	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	05/31/00	ND <sup>1</sup>	ND <sup>1</sup>	1,670	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	08/29/00	ND	250	1,300	ND	ND	ND	ND	ND
MW-3	09/02/99	ND	ND	11.0	ND	ND	ND	--	--
	03/14/00	--	--	6.3	--	--	--	--	--
MW-4	09/02/99	ND	ND	27.0	ND	ND	ND	--	--
	12/14/99	--	--	270	--	--	--	--	--
	03/14/00	--	--	49	--	--	--	--	--
	08/29/00	--	--	3.2	--	--	--	--	--
MW-5	12/14/99	--	--	3.8	--	--	--	--	--
MW-6	12/14/99	--	--	18,000	--	--	--	--	--
	03/14/00	--	--	21,000 <sup>2</sup>	--	--	--	--	--
	08/29/00	--	--	400	--	--	--	--	--

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Tosco 76 Service Station #0843  
1629 Webster Street  
Alameda, 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  
ppb = Parts per billion  
-- = Not Analyzed  
ND = Not Detected

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

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

<sup>2</sup> Laboratory report indicates sample was analyzed 03/28/00 but required reanalysis at a dilution. The dilution was analyzed outside of 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 Former Tosco #0843 Job#: 180203  
 Address: 1629 Webster St. Date: 8/29/00  
 City: Alameda, CA Sampler: H. KEVORK

Well ID MW- 1 Well Condition: OK  
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)  
 Total Depth 20.05 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water 6.82 ft. Factor (VF) 6" = 1.50 12" = 5.80

13.23 x VF 0.17 = 2.25 x 3 (case volume) = Estimated Purge Volume: 6.75 (gal.)

Purge Equipment: Bailer  Disposable Bailer  Stack  Suction  Grundfos  Other: \_\_\_\_\_  
 Sampling Equipment:  Disposable Bailer  Bailer  Pressure Bailer  Grab Sample  Other: \_\_\_\_\_

Starting Time: 12:55 Weather Conditions: Cloudy  
 Sampling Time: 13:15 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: 3/4 - 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:58</u>	<u>2.5</u>	<u>7.45</u>	<u>426</u>	<u>70.02</u>			
	<u>5</u>	<u>7.41</u>	<u>390</u>	<u>69.5</u>			
<u>13:04</u>	<u>7</u>	<u>7.39</u>	<u>372</u>	<u>69.8</u>			

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 1</u>	<u>3 UOP</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHGas/Btex/Mtbe</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility Former Tosco #0843 Job#: 180203  
 Address: 1629 Webster St. Date: 8/29/00  
 City: Alameda, CA Sampler: H. KEYORK

Well ID MW-2 Well Condition: OK.  
 Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed 0 (Gallons)  
 Total Depth 20.25 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water 6.35 ft. Factor (VF) 6" = 1.50 12" = 5.80

13.90 x VF 0.17 = 2.36 x 3 (case volume) = Estimated Purge Volume: 7.08 (gal.)

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

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

Starting Time: 14:42 Weather Conditions: cloudy  
 Sampling Time: 15:00 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: 3/4-1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:45</u>	<u>2.5</u>	<u>7.18</u>	<u>679</u>	<u>72.5</u>	_____	_____	_____
	<u>5</u>	<u>7.13</u>	<u>634</u>	<u>72.1</u>	_____	_____	_____
<u>14:51</u>	<u>7</u>	<u>7.10</u>	<u>630</u>	<u>71.9</u>	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>SQVA</u>	<u>Y</u>	<u>HL</u>	<u>SEQUOIA</u>	<u>TPH Gas/Btex/Mtbe</u> <u>6 OXYS/EOB/1,2 DCA</u>

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

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility Former Tosco #0843 Job#: 180203  
 Address: 1629 Webster St. Date: 8/29/00  
 City: Alameda, CA Sampler: H. KEVORK

Well ID MW-3 Well Condition: OK

Well Diameter 2 in.

Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 19.90 ft.

Depth to Water 6.06 ft.

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

13.84 x VF 0.17 = 2.35 x 3 (case volume) = Estimated Purge Volume: 7.0 (gal.)

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

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

Starting Time: 13:27  
 Sampling Time: 13:50  
 Purging Flow Rate: 3/4-1 gpm.  
 Did well de-water? NO

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

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>13:30</u>	<u>2.5</u>	<u>7.68</u>	<u>499</u>	<u>71.8</u>	_____	_____	_____
<u>13:37</u>	<u>5</u>	<u>7.56</u>	<u>453</u>	<u>71.5</u>	_____	_____	_____
	<u>7</u>	<u>7.60</u>	<u>468</u>	<u>71.7</u>	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>300A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHGas/Btex/Mtbe</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/ Facility Former Tosco #0843 Job#: 180203  
 Address: 1629 Webster St. Date: 8/29/00  
 City: Alameda, CA Sampler: H. KEVORK

Well ID MW- 4 Well Condition: OK  
 Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)  
 Total Depth 19.80 ft. 

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

  
 Depth to Water 6.10 ft.

13.70 X VF 0.17 = 2.33 X 3 (case volume) = Estimated Purge Volume: 70 (gal.)

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

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

Starting Time: 14:02 Weather Conditions: Cloudy  
 Sampling Time: 14:25 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: 3/4 - 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>14:05</u>	<u>2.5</u>	<u>7.63</u>	<u>1390</u>	<u>72.6</u>			
	<u>5</u>	<u>7.59</u>	<u>1350</u>	<u>72.1</u>			
<u>14:12</u>	<u>7</u>	<u>7.59</u>	<u>1340</u>	<u>72.3</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 4</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHGas/Btex/Mtbe</u>

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



## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility Former Tosco #0843 Job#: 180203  
 Address: 1629 Webster St. Date: 8/29/2000  
 City: Alameda, CA Sampler: H. KEVORK

Well ID MW-5 Well Condition: OK  
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed: Ø (Gallons)  
 Total Depth 20.22 ft. 

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

  
 Depth to Water 5.46 ft.

$14.76 \times VF_{0.17} = 2.5 \times 3$  (case volume) = Estimated Purge Volume: 7.5 (gal.)

Purge Equipment: Bailer Disposable Bailer  
 Stack  
 Suction  
 Grundfos  
 Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 11:25 Weather Conditions: CLOUDY  
 Sampling Time: 11:45 Water Color: CLOUDY Odor: NO  
 Purging Flow Rate: ≈ 3/4 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:28</u>	<u>2.5</u>	<u>7.88</u>	<u>618</u>	<u>68.2</u>	_____	_____	_____
	<u>5</u>	<u>7.82</u>	<u>588</u>	<u>67.6</u>	_____	_____	_____
<u>11:35</u>	<u>7.5</u>	<u>7.80</u>	<u>595</u>	<u>67.7</u>	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHGas/Btex/Mtbs</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/ Facility Former Tosco #0843 Job#: 180203  
 Address: 1629 Webster St. Date: 8/29/00  
 City: Alameda, CA Sampler: H-KEVORK

Well ID MW-6 Well Condition: OK  
 Well Diameter 2 in. Hydrocarbon Thickness: Ø (feet) Amount Bailed: Ø (Gallons)  
 Total Depth 20.15 ft. Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water 5.39 ft. 6" = 1.50 12" = 5.80

14.76 x VF 0.17 = 2.5 x 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

Purge Equipment: Bailer Disposable Bailer Stack Suction Grundfos Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: \_\_\_\_\_

Starting Time: 11:58 Weather Conditions: CLOUDY  
 Sampling Time: 12:25 Water Color: CLOUDY Odor: NO  
 Purging Flow Rate: 3/4-1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? NO If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:01</u>	<u>2.5</u>	<u>7.42</u>	<u>584</u>	<u>67.5</u>	_____	_____	_____
	<u>5</u>	<u>7.38</u>	<u>556</u>	<u>67.2</u>	_____	_____	_____
<u>12:08</u>	<u>7.5</u>	<u>7.35</u>	<u>560</u>	<u>67.1</u>	_____	_____	_____

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHGas/Btex/Mtbe</u>

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



TOSCO

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

Facility Number TOSCO (Former 76) SS #0843

Facility Address 1629 Webster Street, ALAMEDA CA

Consultant Project Number 180023.85

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

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

Project Contact (Name) Deanna L. Harding

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

Contact (Name) Mr. ~~Ed Robinson~~ DAVID DEWITT

(Phone) ~~925-551-7555~~ 277-2384

Laboratory Name Sequoia Analytical W008618

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

Samples Collected by (Name) HAIG KEVORK

Collection Date 8/29/2000

Signature Deanna L. Harding

Analyses To Be Performed

DO NOT BILL  
TB-LB ANALYSIS

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed													Remarks			
								TPH Gas + STEK w/MTBE (8020)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (MCP or AA)	OXYGENATE COMPOUNDS	1,2-DCA & EDBY 8260							
TB-LB	OIA	1	W	G		HCL	YES	✓																PLEASE RUN MTBE 8260 ON ANY HITS OF MTBE 8020
MW-1	02A-C	3	W	G	13:15			✓																
MW-2	03A-E	5	W	G	15:00			✓										✓	✓					
MW-3	04A-C	3	W	G	13:50			✓																
MW-4	05	3	W	G	14:25			✓																
MW-5	06	3	W	G	11:45			✓																
MW-6	07 ↓	3	W	G	12:25	↓	↓	✓																

Relinquished By (Signature) <u>Deanna L. Harding</u>	Organization <u>G-R Inc.</u>	Date/Time <u>8/29/00</u>	Received By (Signature) _____	Organization _____	Date/Time _____	Turn Around Time (Circle Choice)  24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____	
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>WC</u>	Organization <u>WC</u>	Date/Time <u>8/29/00</u> <u>16:40</u>	



# Sequoia Analytical

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404 N. Wiget Lane  
Walnut Creek, CA 94598  
(925) 988-9600  
FAX (925) 988-9673  
www.sequoialabs.com

15 September, 2000

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

RE: Tosco  
Sequoia Report: W008618

Enclosed are the results of analyses for samples received by the laboratory on 29-Aug-00 16:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater  
Project Manager

CA ELAP Certificate #1271





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W008618-01	Water	29-Aug-00 00:00	29-Aug-00 16:40
MW-1	W008618-02	Water	29-Aug-00 13:15	29-Aug-00 16:40
MW-2	W008618-03	Water	29-Aug-00 15:00	29-Aug-00 16:40
MW-3	W008618-04	Water	29-Aug-00 13:50	29-Aug-00 16:40
MW-4	W008618-05	Water	29-Aug-00 14:25	29-Aug-00 16:40
MW-5	W008618-06	Water	29-Aug-00 11:45	29-Aug-00 16:40
MW-6	W008618-07	Water	29-Aug-00 12:25	29-Aug-00 16:40

Sequoia Analytical - Walnut Creek

*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.*

  
Charlie Westwater, Project Manager





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB-LB (W008618-01) Water</b> Sampled: 29-Aug-00 00:00 Received: 29-Aug-00 16:40									
Purgeable Hydrocarbons	ND	50	ug/l	1	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.7 %	70-130	"	"	"	"	"	
<b>MW-1 (W008618-02) Water</b> Sampled: 29-Aug-00 13:15 Received: 29-Aug-00 16:40									
Purgeable Hydrocarbons	ND	50	ug/l	1	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.7 %	70-130	"	"	"	"	"	
<b>MW-2 (W008618-03) Water</b> Sampled: 29-Aug-00 15:00 Received: 29-Aug-00 16:40 <span style="float: right;">P-01</span>									
Purgeable Hydrocarbons	7900	1000	ug/l	20	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	390	10	"	"	"	"	"	"	
Toluene	1500	10	"	"	"	"	"	"	
Ethylbenzene	280	10	"	"	"	"	"	"	
Xylenes (total)	1900	10	"	"	"	"	"	"	
Methyl tert-butyl ether	1800	50	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.3 %	70-130	"	"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (W008618-04) Water</b> Sampled: 29-Aug-00 13:50 Received: 29-Aug-00 16:40									
Purgeable Hydrocarbons	ND	50	ug/l	1	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.0 %		70-130	"	"	"	"	
<b>MW-4 (W008618-05) Water</b> Sampled: 29-Aug-00 14:25 Received: 29-Aug-00 16:40									
Purgeable Hydrocarbons	ND	50	ug/l	1	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	6.1	2.5	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.7 %		70-130	"	"	"	"	
<b>MW-5 (W008618-06) Water</b> Sampled: 29-Aug-00 11:45 Received: 29-Aug-00 16:40									
Purgeable Hydrocarbons	ND	50	ug/l	1	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.3 %		70-130	"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

**Reported:**  
15-Sep-00 07:44

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W008618-07) Water    Sampled: 29-Aug-00 12:25    Received: 29-Aug-00 16:40									
Purgeable Hydrocarbons	ND	50	ug/l	1	0I11003	11-Sep-00	11-Sep-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	270	2.5	"	"	"	"	"	"	CC-3
Surrogate: a,a,a-Trifluorotoluene		98.3 %		70-130	"	"	"	"	







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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

**MTBE Confirmation by EPA Method 8260A  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (W008618-05) Water</b> Sampled: 29-Aug-00 14:25 Received: 29-Aug-00 16:40									
Methyl tert-butyl ether	3.2	2.0	ug/l	1	0I12020	12-Sep-00	12-Sep-00	EPA 8260B	
Surrogate: Dibromofluoromethane		96.0 %	50-150		"	"	"	"	
<b>MW-6 (W008618-07) Water</b> Sampled: 29-Aug-00 12:25 Received: 29-Aug-00 16:40									
Methyl tert-butyl ether	400	20	ug/l	10	0I12020	12-Sep-00	12-Sep-00	EPA 8260B	
Surrogate: Dibromofluoromethane		102 %	50-150		"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-2 (W008618-03) Water</b> Sampled: 29-Aug-00 15:00    Received: 29-Aug-00 16:40									
Ethanol	ND	500	ug/l	1	0H29016	01-Sep-00	01-Sep-00	EPA 8260B	
tert-Butyl alcohol	250	50	"	"	"	"	"	"	
Methyl tert-butyl ether	1300	20	"	10	"	"	05-Sep-00	"	
Di-isopropyl ether	ND	2.0	"	1	"	"	01-Sep-00	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %		50-150	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		82.0 %		50-150	"	"	"	"	





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE 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 0I11003 - EPA 5030B [P/T]</b>										
<b>Blank (0I11003-BLK1)</b> Prepared & Analyzed: 11-Sep-00										
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a, a, a-Trifluorotoluene</i>	30.1		"	30.0		100	70-130			
<b>LCS (0I11003-BS1)</b> Prepared & Analyzed: 11-Sep-00										
Benzene	19.5	0.50	ug/l	20.0		97.5	70-130			
Toluene	19.7	0.50	"	20.0		98.5	70-130			
Ethylbenzene	19.8	0.50	"	20.0		99.0	70-130			
Xylenes (total)	57.2	0.50	"	60.0		95.3	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	28.1		"	30.0		93.7	70-130			
<b>Matrix Spike (0I11003-MS1)</b> Source: W009124-04 Prepared & Analyzed: 11-Sep-00										
Benzene	18.3	0.50	ug/l	20.0	ND	91.5	70-130			
Toluene	18.5	0.50	"	20.0	ND	92.5	70-130			
Ethylbenzene	19.3	0.50	"	20.0	ND	96.5	70-130			
Xylenes (total)	53.9	0.50	"	60.0	ND	89.8	70-130			
<i>Surrogate: a, a, a-Trifluorotoluene</i>	31.1		"	30.0		104	70-130			
<b>Matrix Spike Dup (0I11003-MSD1)</b> Source: W009124-04 Prepared & Analyzed: 11-Sep-00										
Benzene	18.9	0.50	ug/l	20.0	ND	94.5	70-130	3.23	20	
Toluene	19.1	0.50	"	20.0	ND	95.5	70-130	3.19	20	
Ethylbenzene	19.3	0.50	"	20.0	ND	96.5	70-130	0	20	
Xylenes (total)	55.6	0.50	"	60.0	ND	92.7	70-130	3.11	20	
<i>Surrogate: a, a, a-Trifluorotoluene</i>	27.7		"	30.0		92.3	70-130			





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

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

**MTBE Confirmation by EPA Method 8260A - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0I12020 - EPA 5030B [P/F]</b>										
<b>Blank (0I12020-BLK1)</b>										
Prepared & Analyzed: 12-Sep-00										
Methyl tert-butyl ether	ND	2.0	ug/l							
<i>Surrogate: Dibromofluoromethane</i>	47.0		"	50.0		94.0	50-150			
<b>LCS (0I12020-BS1)</b>										
Prepared & Analyzed: 12-Sep-00										
Methyl tert-butyl ether	54.7	2.0	ug/l	50.0		109	70-130			
<i>Surrogate: Dibromofluoromethane</i>	46.0		"	50.0		92.0	50-150			
<b>LCS Dup (0I12020-BSD1)</b>										
Prepared & Analyzed: 12-Sep-00										
Methyl tert-butyl ether	54.2	2.0	ug/l	50.0		108	70-130	0.918	25	
<i>Surrogate: Dibromofluoromethane</i>	48.0		"	50.0		96.0	50-150			





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco # 0843 Project Manager: Deanna L. Harding	Reported: 15-Sep-00 07:44
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**Volatile Organic Compounds by EPA Method 8260B - 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 0H29016 - EPA 5030B [P/T]**

**Blank (0H29016-BLK1)**

Prepared & Analyzed: 31-Aug-00

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	50	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							

*Surrogate: Dibromofluoromethane*

53.0

50.0

106

50-150

*Surrogate: 1,2-Dichloroethane-d4*

52.0

50.0

104

50-150

**Blank (0H29016-BLK2)**

Prepared & Analyzed: 01-Sep-00

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	50	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							

*Surrogate: Dibromofluoromethane*

50.0

50.0

100

50-150

*Surrogate: 1,2-Dichloroethane-d4*

47.0

50.0

94.0

50-150

**Blank (0H29016-BLK3)**

Prepared & Analyzed: 05-Sep-00

Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	50	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							

*Surrogate: Dibromofluoromethane*

53.0

50.0

106

50-150

*Surrogate: 1,2-Dichloroethane-d4*

49.0

50.0

98.0

50-150





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6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Tosco  
Project Number: Tosco # 0843  
Project Manager: Deanna L. Harding

Reported:  
15-Sep-00 07:44

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0H29016 - EPA 5030B [P/T]</b>										
<b>LCS (0H29016-BS1)</b> Prepared & Analyzed: 31-Aug-00										
Methyl tert-butyl ether	48.9	2.0	ug/l	50.0		97.8	70-130			
Surrogate: Dibromofluoromethane	52.0		"	50.0		104	50-150			
Surrogate: 1,2-Dichloroethane-d4	50.0		"	50.0		100	50-150			
<b>LCS (0H29016-BS2)</b> Prepared & Analyzed: 01-Sep-00										
Methyl tert-butyl ether	40.7	2.0	ug/l	50.0		81.4	70-130			
Surrogate: Dibromofluoromethane	50.0		"	50.0		100	50-150			
Surrogate: 1,2-Dichloroethane-d4	45.0		"	50.0		90.0	50-150			
<b>LCS (0H29016-BS3)</b> Prepared & Analyzed: 05-Sep-00										
Methyl tert-butyl ether	53.2	2.0	ug/l	50.0		106	70-130			
Surrogate: Dibromofluoromethane	53.0		"	50.0		106	50-150			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	50-150			
<b>Matrix Spike (0H29016-MS1)</b> Source: W008624-02 Prepared & Analyzed: 01-Sep-00										
Methyl tert-butyl ether	138	2.0	ug/l	50.0	79	118	60-150			
Surrogate: Dibromofluoromethane	54.0		"	50.0		108	50-150			
Surrogate: 1,2-Dichloroethane-d4	48.0		"	50.0		96.0	50-150			
<b>Matrix Spike Dup (0H29016-MSD1)</b> Source: W008624-02 Prepared & Analyzed: 01-Sep-00										
Methyl tert-butyl ether	137	2.0	ug/l	50.0	79	116	60-150	0.727	25	
Surrogate: Dibromofluoromethane	53.0		"	50.0		106	50-150			
Surrogate: 1,2-Dichloroethane-d4	48.0		"	50.0		96.0	50-150			





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**Reported:**  
15-Sep-00 07:44

### Notes and Definitions

- CC-3 Continuing Calibration indicates that the quantitative result for this analyte includes a greater than 15% degree of uncertainty. The value as reported is within method acceptance.
- 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

