



GETTLER-RYAN INC.

ENVIRONMENTAL
PROTECTION

TRANSMITTAL

99 OCT 28 PM 4:17

October 13, 1999

G-R #:180203

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 7, 1999	Groundwater Monitoring and Sampling Report Third Quarter 1999 - Event of September 2, 1999

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 25, 1999*, 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

11/1/99 Relayed info to Deanna H.

- Can drop confirmation using 8260 for MTBE
Just do 8020 now.

- Ask if lab can quantify for other oxygenates
done - No other oxygenates detected.
except MTBE.

agency/0843dbd.qmt



GETTLER-RYAN Inc.

October 7, 1999
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 1999 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 September 2, 1999, field personnel monitored and sampled four wells (MW-1 through MW-4) 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 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 Table 1, and a Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

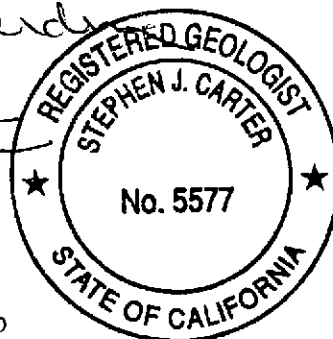
Sincerely,

Deanna L. Harding

Deanna L. Harding
Project Coordinator

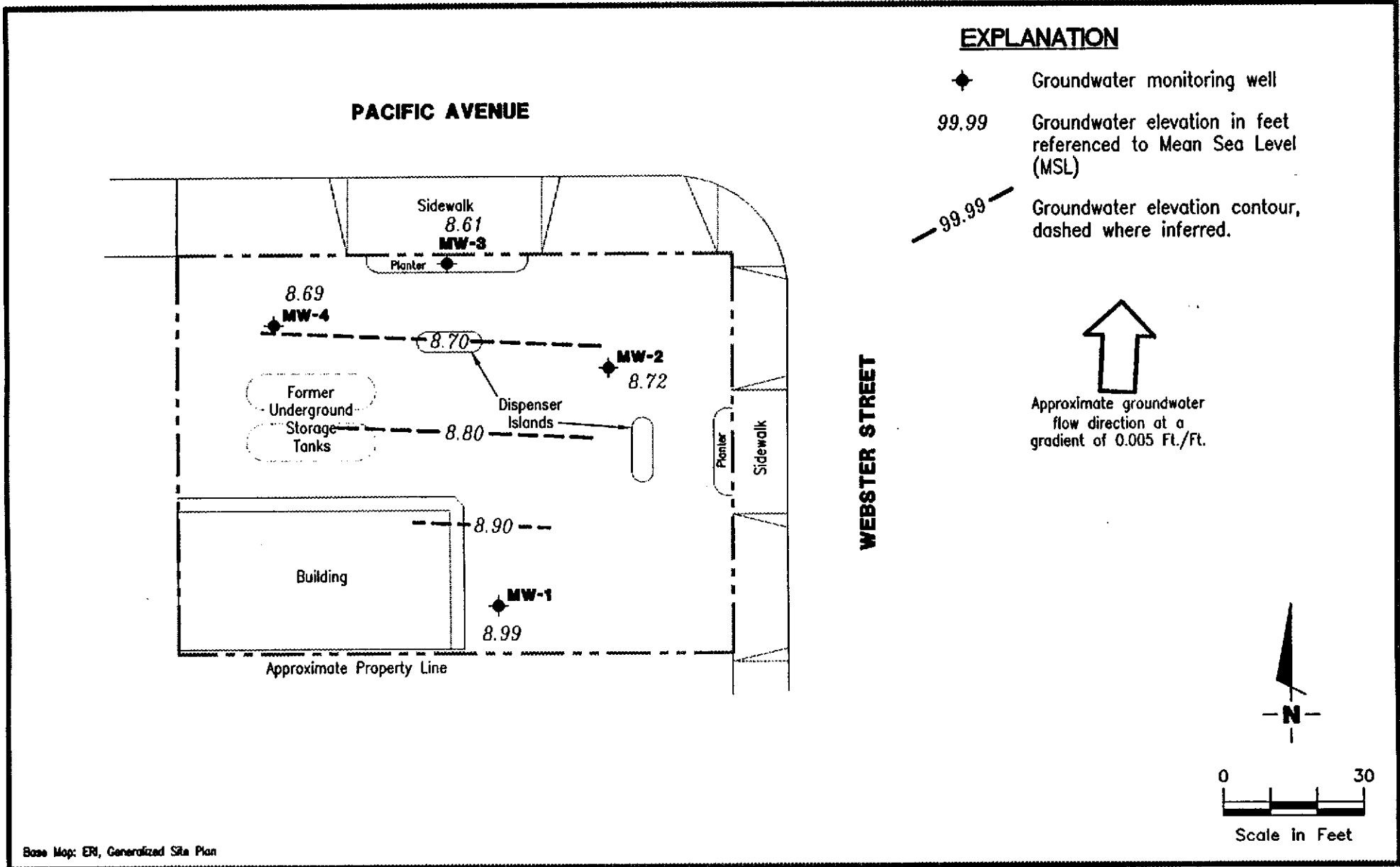
Stephen J. Carter

Stephen J. Carter
Senior Geologist, R.G. No. 5577



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

0843.qml



Gertler - Ryan Inc.

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 Dublin, CA 94568

POTENTIOMETRIC MAP
 Former Tosco 76 Service Station No. 0843
 1629 Webster Street
 Alameda, California

FIGURE

1

JOB NUMBER
 180203

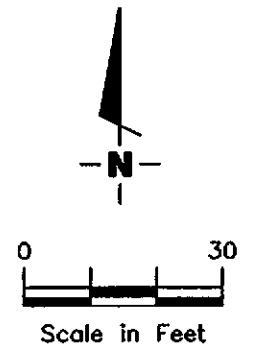
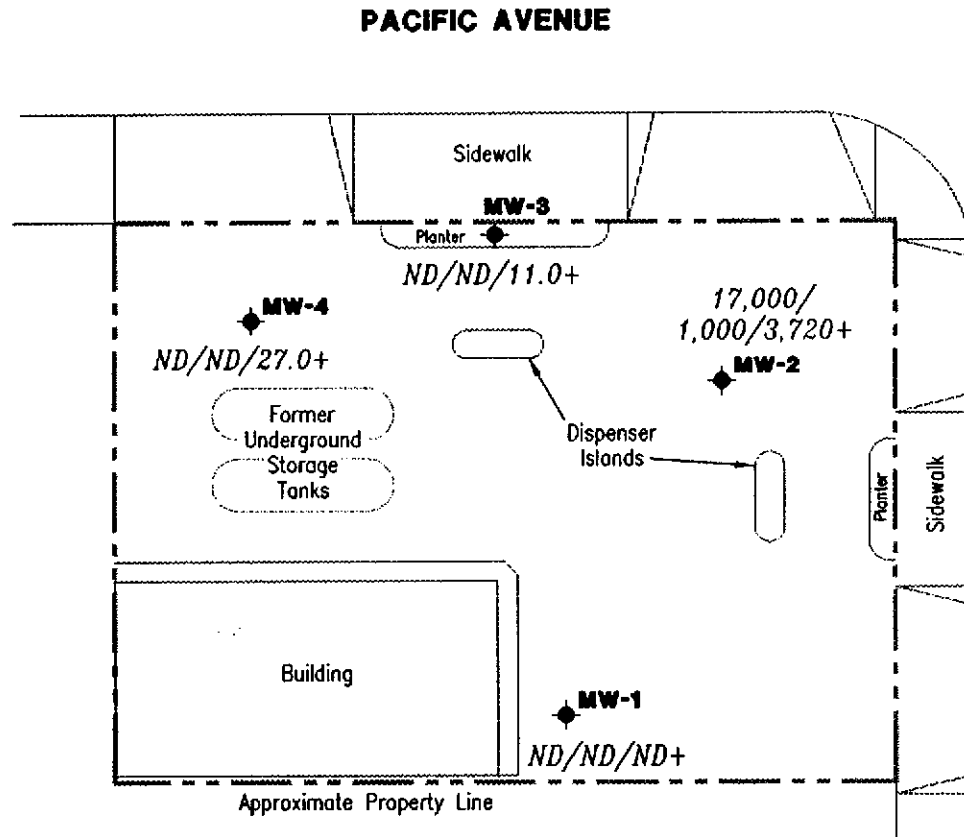
REVIEWED BY

DATE
 September 2, 1999

REVISED DATE

EXPLANATION

- ◆ Groundwater monitoring well
- A/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/MTBE concentrations in ppb
- + MTBE by EPA Method 8260
- ND Not Detected



Base Map: ERI, Generalized Site Plan



Gertler - Ryan Inc.

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Dublin, CA 94568

CONCENTRATION MAP

Former Tosco 76 Service Station No. 0843
1629 Webster Street
Alameda, California

FIGURE

2

JOB NUMBER
180203

REVIEWED BY

DATE
September 2, 1999

REMOVED 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 (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1									
16.18	03/05/99 ¹	--	--	86.6 ³	ND	2.04	ND	4.06	23.9 ²
	06/03/99	6.24	9.94	ND	ND	ND	ND	ND	ND/ND ²
	09/02/99	7.19	8.99	ND	ND	ND	ND	ND	ND/ND ²
MW-2									
15.57	03/05/99 ¹	--	--	34,400	2,070	7,710	2,340	8,240	8,460 ²
	06/03/99	5.96	9.61	51,200 ⁴	1,820	7,570	2,510	7,320	6,460/8,800 ²
	09/02/99	6.85	8.72	17,000 ⁵	1,000	3,100	1,400	3,700	4,000/3,720 ²
MW-3									
15.11	03/05/99 ¹	--	--	135 ³	ND	ND	ND	4.84	2.46 ²
	06/03/99	5.57	9.54	ND	ND	ND	ND	ND	5.23/12.7 ²
	09/02/99	6.50	8.61	ND	ND	ND	ND	ND	13/11.0 ²
MW-4									
15.17	03/05/99 ¹	--	--	ND	ND	ND	ND	2.44	25.2 ²
	06/03/99	5.45	9.72	ND	ND	ND	ND	ND	ND/3.96 ²
	09/02/99	6.48	8.69	ND	ND	ND	ND	ND	23/27.0 ²
Trip Blank									
TB-LB	03/05/99 ¹	--	--	ND	ND	ND	ND	ND	ND ²
	06/03/99	--	--	ND	ND	ND	ND	ND	ND
	09/02/99	--	--	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 elevation

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

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).

¹ Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8260A.

² MTBE by EPA Method 8260A.

³ Laboratory report indicates weathered gasoline C6-C12.

⁴ Laboratory report indicates chromatogram pattern C6-C12.

⁵ Laboratory report indicates gasoline C6-C12.

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 a MMC flexi-dip 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/ Tosco
 Facility # 0843 Job#: 180203
 Address: 1629 Webster St. Date: 9/2/99
 City: Alameda Sampler: Vastik

Well ID HW-1 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Amount Bailed
 Thickness: Ø (feet) (product/water): Ø (Gallons)
 Total Depth 20.50 ft.
 Depth to Water 7.19 ft.

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

13.31 x VF 0.17 = 2.26 x 3 (case volume) = Estimated Purge Volume: 6.78 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 12:05 Weather Conditions: clear
 Sampling Time: 12:20 Water Color: brn Odor: no
 Purging Flow Rate: 1 gpm. Sediment Description: sand
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:07</u>	<u>2</u>	<u>7.89</u>	<u>5.32</u>	<u>67.6</u>			
<u>12:10</u>	<u>4.5</u>	<u>7.70</u>	<u>5.48</u>				
<u>12:12</u>	<u>7</u>	<u>7.63</u>	<u>5.54</u>	<u>66.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>MW-1</u>	<u>1 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>MTBE (8260)</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Tosco 0843
 Address: 1629 Webster st.
 City: Alameda

Job#: 180203
 Date: 9/2/99
 Sampler: Varkk

Well ID MW-2

Well Condition: OK

Well Diameter 2 in.

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

Total Depth 20.50 ft.

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

Depth to Water 6.85 ft.

13.65 x VF 0.17 = 2.32 x 3 (case volume) = Estimated Purge Volume: 6.96 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1:23

Weather Conditions: clear

Sampling Time: 1:45

Water Color: gray Odor: ∅

Purging Flow Rate: 1/2 gpm.

Sediment Description: sand

Did well de-water? no

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:28</u>	<u>2.5</u>	<u>7.73</u>	<u>6.79</u>	<u>69.8</u>			
<u>1:32</u>	<u>4.5</u>	<u>7.58</u>	<u>6.87</u>	<u>69.5</u>			
<u>1:37</u>	<u>7</u>	<u>7.50</u>	<u>6.84</u>	<u>69.6</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>MW-2</u>	<u>1 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>MTBE (8260)</u>

COMMENTS: slow Recovery

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Tosco 0843
 Address: 1629 Webster St.
 City: Alameda

Job#: 180203
 Date: 9/2/99
 Sampler: Vanthk

Well ID MW-3

Well Condition: OK

Well Diameter 2 in.

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

Total Depth 20.50 ft.

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

Depth to Water 6.50 ft.

14.00 X VF 0.17 = 2.38 X 3 (case volume) = Estimated Purge Volume: 7.14 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1:00

Weather Conditions: clear

Sampling Time: 1:15

Water Color: brn Odor: no

Purging Flow Rate: 1 gpm.

Sediment Description: Sand

Did well de-water? no

If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:03</u>	<u>2.5</u>	<u>7.85</u>	<u>5.31</u>	<u>70.8</u>			
<u>1:05</u>	<u>5</u>	<u>7.71</u>	<u>5.60</u>	<u>69.4</u>			
<u>1:08</u>	<u>7.5</u>	<u>7.64</u>	<u>5.72</u>	<u>69.1</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
<u>MW-3</u>	<u>1 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>MTBE (8260)</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility # Tosco 0843
 Address: 1629 Webster St.
 City: Alameda

Job#: 180203
 Date: 9/2/99
 Sampler: Vaark

Well ID MW-4
 Well Diameter 2 in.
 Total Depth 20.50 ft.
 Depth to Water 6.48 ft.

Well Condition: OK
 Hydrocarbon Thickness: Ø (feet) Amount Bailed (Gallons)
 Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
 6" = 1.50 12" = 5.80

14.02 x VF 0.17 = 2.38 x 3 (case volume) = Estimated Purge Volume: 7.15 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 12:27
 Sampling Time: 12:50
 Purging Flow Rate: 1/2 gpm.
 Did well de-water? no

Weather Conditions: clear
 Water Color: brn Odor: no
 Sediment Description: sand
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:32</u>	<u>2.5</u>	<u>7.92</u>	<u>8.13</u>	<u>71.7</u>			
<u>12:36</u>	<u>5</u>	<u>7.80</u>	<u>7.96</u>	<u>71.3</u>			
<u>12:40</u>	<u>7.5</u>	<u>7.72</u>	<u>7.85</u>	<u>70.9</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>TPH(G)/btex/mtbe</u>
<u>MW-4</u>	<u>1 VOA</u>	<u>~</u>	<u>~</u>	<u>~</u>	<u>MTBE (8260)</u>

COMMENTS: slow recovery



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) 925-551-7088

Contact (Name): Mr. Ed Ralston
 (Phone): (916) 774-2910
 Laboratory Name: Sequoia Analytical
 Laboratory Release Number: W/909125
 Samples Collected by (Name): Vartkes Tashjian
 Collection Date: 9/2/99
 Signature: Vartkes Tashjian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed										Remarks					
								TPH C- BTEX w/MTBE (8016)	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 (ICAP or AA)	MTBE (8260)							
TB-LB	01A	1	C	G		HCl	Y	X															
MW-1	02A-D	4	C	G	12:20 PM		Y	X															
MW-2	03A-D	4	C	G	1:45 PM		Y	X															
MW-3	04A-D	4	C	G	1:15 PM		Y	X															
MW-4	05A-D	4	C	G	12:50 PM		Y	X															

Relinquished By (Signature): <u>Vartkes Tashjian</u>	Organization: <u>G-R Inc.</u>	Date/Time: <u>9/2/99 2:30 PM</u>	Received By (Signature): <u>[Signature]</u>	Organization: <u>Sequoia SC</u>	Date/Time: <u>9/2/99 4:50</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature): <u>[Signature]</u>	Organization:	Date/Time: <u>9/3/99 12:30</u>	Received By (Signature):	Organization:	Date/Time:	
Relinquished By (Signature):	Organization:	Date/Time:	Received For Laboratory By (Signature): <u>[Signature]</u>	Organization:	Date/Time: <u>9/3/99 12:40</u>	

17:00



Sequoia Analytical

680 Chesapeake Drive
404 N. Wlget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D
1551 Industrial Road

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954
San Carlos, CA 94070-4111

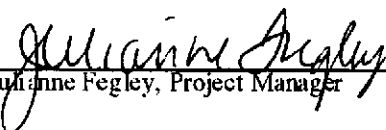
(650) 364-9600
(925) 988-9600
(916) 921-9600
(707) 792-1865
(650) 232-9600

FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342
FAX (650) 232-9612

Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Tosco Project Number: Tosco SS# 0843 Project Manager: Deanna L. Harding	Reported: 23-Sep-99 13:05
--	--	-------------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4	W909125-05	Water	02-Sep-99 12:50	03-Sep-99 17:00
MW-1	W909125-02	Water	02-Sep-99 12:20	03-Sep-99 17:00
MW-3	W909125-04	Water	02-Sep-99 01:15	03-Sep-99 17:00
TB-LB	W909125-01	Water	02-Sep-99 00:00	03-Sep-99 17:00
MW-2	W909125-03	Water	02-Sep-99 01:45	03-Sep-99 17:00


Julianne Pegley, Project Manager



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8
1455 McDowell Blvd. North, Ste. D
1551 Industrial Road

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834
Petaluma, CA 94954
San Carlos, CA 94070-4111

(650) 364-9600
(925) 988-9600
(916) 921-9600
(707) 792-1865
(650) 232-9600

FAX (650) 364-9233
FAX (925) 988-9673
FAX (916) 921-0100
FAX (707) 792-0342
FAX (650) 232-9612

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

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

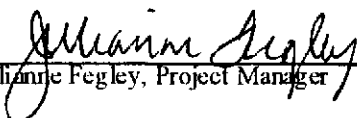
Reported:
23-Sep-99 13:05

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
TB-LB (W909125-01) Water Sampled: 02-Sep-99 00:00 Received: 03-Sep-99 17:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I10002	09-Sep-99	09-Sep-99	DHS LUFT	
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>		80.0 %	70-130	"	"	"	"	"	
MW-1 (W909125-02) Water Sampled: 02-Sep-99 12:20 Received: 03-Sep-99 17:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I10002	09-Sep-99	09-Sep-99	DHS LUFT	
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>		83.3 %	70-130	"	"	"	"	"	
MW-2 (W909125-03) Water Sampled: 02-Sep-99 01:45 Received: 03-Sep-99 17:00 P-01									
Purgeable Hydrocarbons	17000	2000	ug/l	40	9I10002	09-Sep-99	09-Sep-99	DHS LUFT	
Benzene	1000	20	"	"	"	"	"	"	
Toluene	3100	20	"	"	"	"	"	"	
Ethylbenzene	1400	20	"	"	"	"	"	"	
Xylenes (total)	3700	20	"	"	"	"	"	"	
Methyl tert-butyl ether	4000	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.7 %	70-130	"	"	"	"	"	

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.


Julianne Segley, Project Manager



Sequoia Analytical

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

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


Reported:
23-Sep-99 13:05

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-3 (W909125-04) Water Sampled: 02-Sep-99 01:15 Received: 03-Sep-99 17:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I10002	09-Sep-99	09-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	13	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.7 %	70-130	"	"	"	"	"	
MW-4 (W909125-05) Water Sampled: 02-Sep-99 12:50 Received: 03-Sep-99 17:00									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I10002	09-Sep-99	09-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	23	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.0 %	70-130	"	"	"	"	"	

Sequoia Analytical - Walnut Creek

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Julianne Fegley, Project Manager



Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: N/A Project Number: (WO#W909125) Project Manager: Julianne Fegley	Sampled: 9/2/99 Received: 9/3/99 Reported: 9/20/99
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**MTBE by EPA Method 8260A
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
W909125-02/MW-1				S909197-01			Water	
Methyl tert-butyl ether	9090151	9/16/99	9/16/99		2.00	ND	ug/l	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		128	%	
W909125-03/MW-2				S909197-02			Water	
Methyl tert-butyl ether	9090151	9/16/99	9/16/99		20.0	3720	ug/l	D
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		115	%	
W909125-04/MW-3				S909197-03			Water	
Methyl tert-butyl ether	9090151	9/16/99	9/16/99		2.00	11.0	ug/l	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		117	%	
W909125-05/MW-4				S909197-04			Water	
Methyl tert-butyl ether	9090151	9/16/99	9/16/99		2.00	27.0	ug/l	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		122	%	



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

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

Reported:
23-Sep-99 13:05

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
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Batch 9I10002: Prepared 09-Sep-99 Using EPA 5030B [P/T]

Blank (9I10002-BLK1)

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>	26.8		"	30.0		89.3	70-130			

LCS (9I10002-BS1)

Benzene	21.1	0.50	ug/l	20.0		106	70-130			
Toluene	21.7	0.50	"	20.0		109	70-130			
Ethylbenzene	21.8	0.50	"	20.0		109	70-130			
Xylenes (total)	67.4	0.50	"	60.0		112	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	26.9		"	30.0		89.7	70-130			

Matrix Spike (9I10002-MS1)

Source: W909156-03

Benzene	21.0	0.50	ug/l	20.0	ND	105	70-130			
Toluene	21.2	0.50	"	20.0	ND	106	70-130			
Ethylbenzene	20.7	0.50	"	20.0	ND	104	70-130			
Xylenes (total)	64.4	0.50	"	60.0	ND	107	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	26.9		"	30.0		89.7	70-130			

Matrix Spike Dup (9I10002-MSD1)

Source: W909156-03

Benzene	20.3	0.50	ug/l	20.0	ND	101	70-130	3.39	20	
Toluene	21.0	0.50	"	20.0	ND	105	70-130	0.948	20	
Ethylbenzene	20.6	0.50	"	20.0	ND	103	70-130	0.484	20	
Xylenes (total)	64.2	0.50	"	60.0	ND	107	70-130	0.311	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	27.2		"	30.0		90.7	70-130			

Sequoia Analytical - Walnut Creek

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Julianne Fegley, Project Manager



Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: N/A Project Number: (WO#W909125) Project Manager: Julianne Fegley	Sampled: 9/2/99 Received: 9/3/99 Reported: 9/20/99
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**MTBE by EPA Method 8260A/Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090151		Date Prepared: 9/16/99		Extraction Method: EPA 5030B [P/T]						
Blank										
9090151-BLK1										
Methyl tert-butyl ether	9/16/99			ND	ug/l	2.00				
Surrogate: 1,2-DCA-d4	"	50.0		59.2	"	60.0-140	118			
Blank										
9090151-BLK2										
Methyl tert-butyl ether	9/17/99			ND	ug/l	2.00				
Surrogate: 1,2-DCA-d4	"	50.0		56.8	"	60.0-140	114			
LCS										
9090151-BS1										
Methyl tert-butyl ether	9/16/99	50.0		47.4	ug/l	70.0-130	94.8			
Surrogate: 1,2-DCA-d4	"	50.0		58.8	"	60.0-140	118			
LCS Dup										
9090151-BSD1										
Methyl tert-butyl ether	9/16/99	50.0		47.2	ug/l	70.0-130	94.4	25.0	0.423	
Surrogate: 1,2-DCA-d4	"	50.0		57.2	"	60.0-140	114			
Matrix Spike										
9090151-MS1 S909193-01										
Methyl tert-butyl ether	9/16/99	50.0	2.74	47.4	ug/l	60.0-140	89.3			
Surrogate: 1,2-DCA-d4	"	50.0		58.4	"	60.0-140	117			
Matrix Spike Dup										
9090151-MSD1 S909193-01										
Methyl tert-butyl ether	9/16/99	50.0	2.74	49.4	ug/l	60.0-140	93.3	25.0	4.38	
Surrogate: 1,2-DCA-d4	"	50.0		61.0	"	60.0-140	122			



Sequoia Analytical - Walnut Creek
404 N Wiget Lane
Walnut Creek, CA 94598

Project: N/A
Project Number: (WO#W909125)
Project Manager: Julianne Fegley

Sampled: 9/2/99
Received: 9/3/99
Reported: 9/20/99

Notes and Definitions

#	Note
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D	Data reported from a dilution.
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
Recov.	Recovery
RPD	Relative Percent Difference