

R 298

JUL 23 2002



# GETTLER-RYAN INC.

## TRANSMITTAL

July 3, 2002  
G-R #180255

TO: Mr. David B. De Witt  
Phillips 66 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      | June 19, 2002 | Groundwater Monitoring and Sampling Report<br>Second Quarter - Event of May 8, 2002 |

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by **July 19, 2002**, 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.

June 19, 2002  
G-R Job #180255

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

**RE: Second Quarter Event of May 8, 2002**  
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 and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below.

A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical report are also attached.

Please call if you have any questions or comments regarding this report. Thank you.

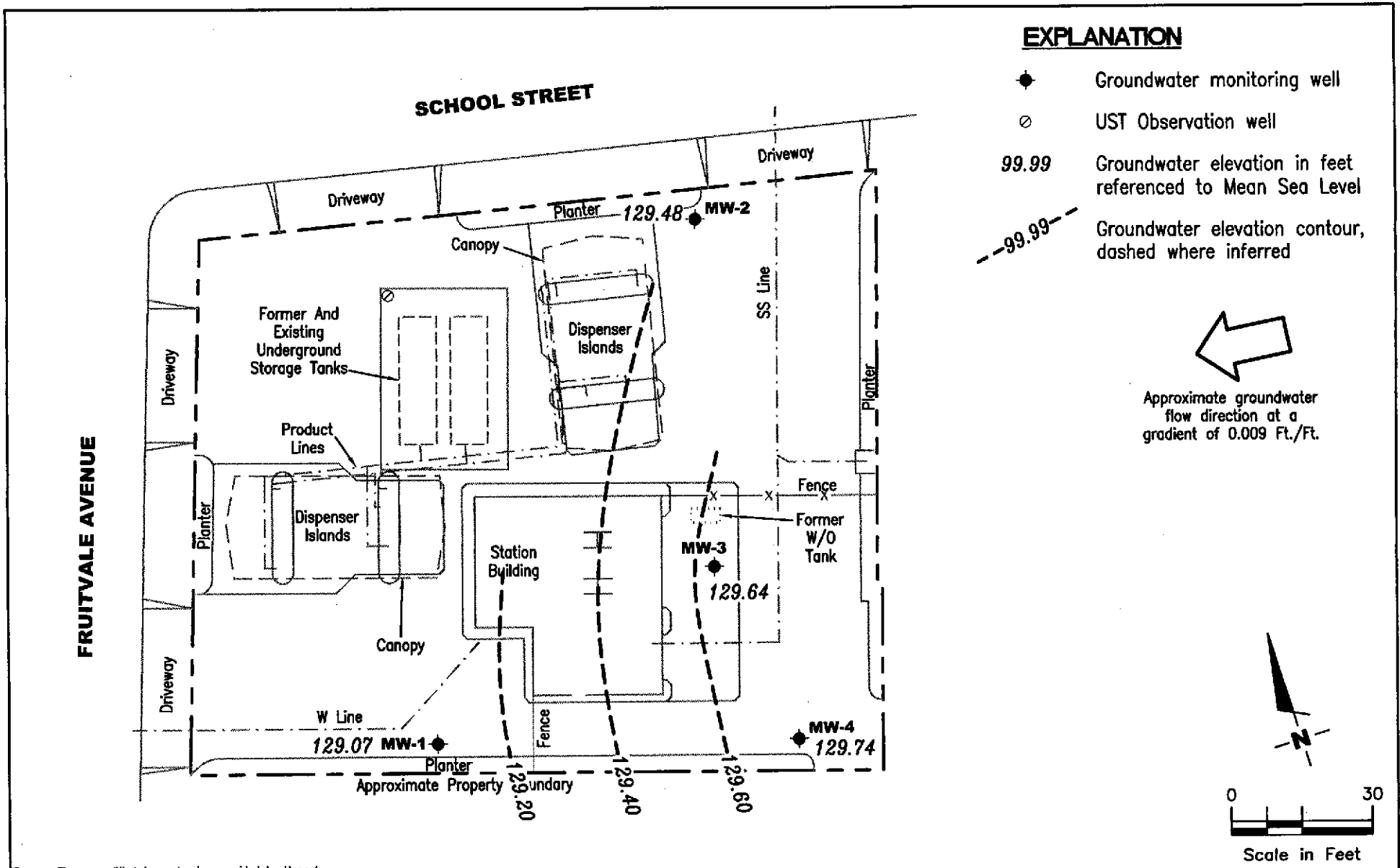
Sincerely,

Deanna L. Harding  
Project Coordinator

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

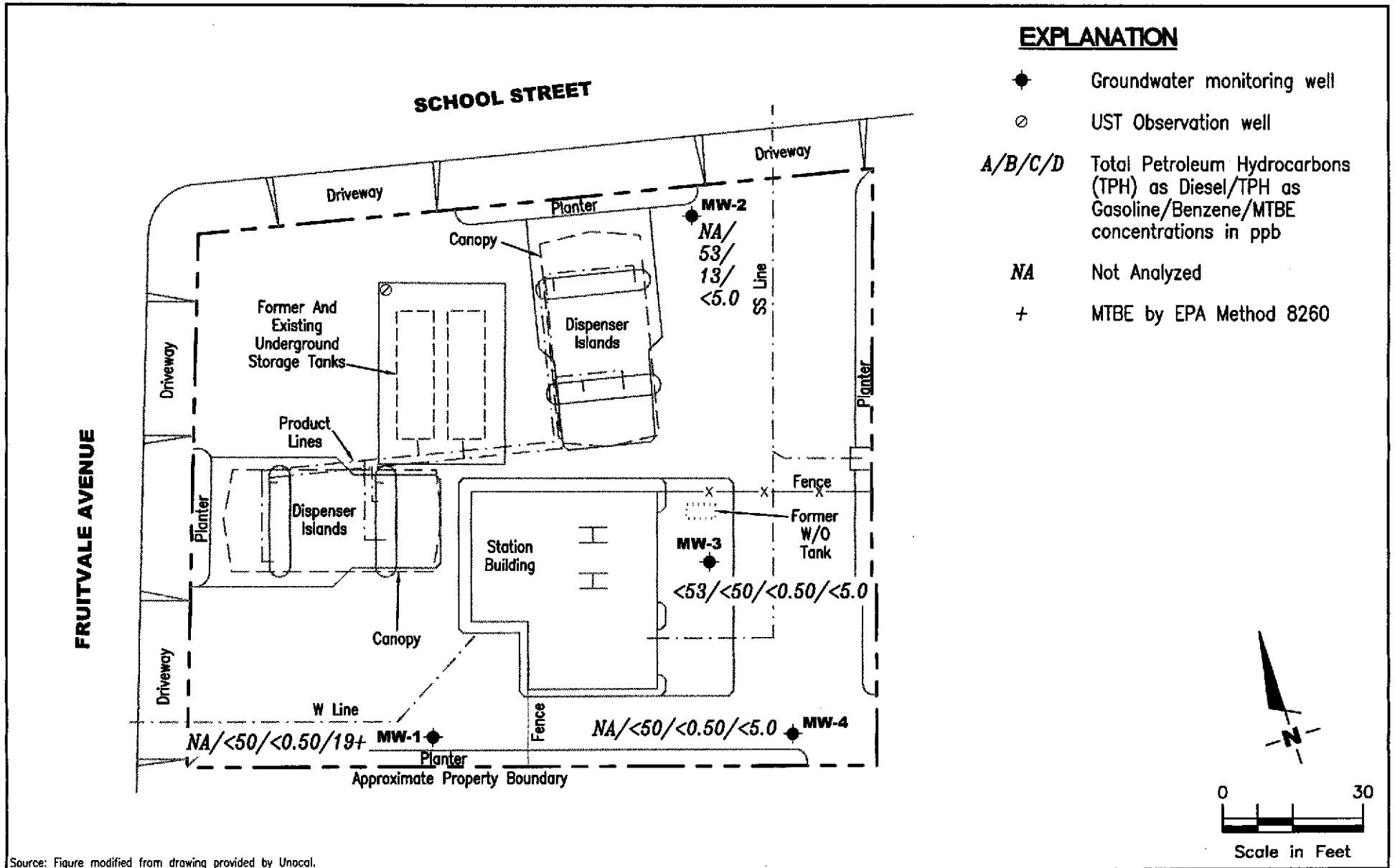


**GETTLER - RYAN INC.**  
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**POTENTIOMETRIC MAP**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

FIGURE  
**1**

|                                 |             |                            |              |
|---------------------------------|-------------|----------------------------|--------------|
| PROJECT NUMBER<br><b>180255</b> | REVIEWED BY | DATE<br><b>May 8, 2002</b> | REVISED DATE |
|---------------------------------|-------------|----------------------------|--------------|



Source: Figure modified from drawing provided by Unocal.

**GETTLER - RYAN INC.**  
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**CONCENTRATION MAP**  
 Tosco (76) Service Station #4625  
 3070 Fruitvale Avenue  
 Oakland, California

FIGURE  
**2**

|                                 |             |                            |              |
|---------------------------------|-------------|----------------------------|--------------|
| PROJECT NUMBER<br><b>180255</b> | REVIEWED BY | DATE<br><b>May 8, 2002</b> | REVISED DATE |
|---------------------------------|-------------|----------------------------|--------------|

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

| WELL ID/<br>TOC*(ft) | DATE     | DTW<br>(ft.) | SL<br>(ft.lgs) | GWE<br>(msl) | TPH-D<br>(ppb)  | TPH-G<br>(ppb)     | B<br>(ppb) | T<br>(ppb)      | E<br>(ppb)      | X<br>(ppb) | MTBE<br>(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>          |
|                      | 08/10/01 | 8.47         |                | 127.89       | --              | <50                | <0.50      | <0.50           | <0.50           | <0.50      | 17/19 <sup>7</sup>              |
|                      | 11/07/01 | 8.10         |                | 128.26       | --              | <50                | <0.50      | <0.50           | <0.50           | <0.50      | 22/26 <sup>2</sup>              |
|                      | 02/06/02 | 6.84         |                | 129.52       | --              | <50                | <0.50      | <0.50           | <0.50           | <0.50      | 14/18 <sup>2</sup>              |
|                      | 05/08/02 | 7.29         |                | 129.07       | --              | <50                | <0.50      | <0.50           | <0.50           | <0.50      | 20/19 <sup>2</sup>              |
| <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                              |
|                      | 08/10/01 | 10.68        |                | 127.96       | --              | 96 <sup>1</sup>    | 20         | <0.50           | 2.1             | 9.4        | <5.0                            |
|                      | 11/07/01 | 10.01        |                | 128.63       | --              | 480 <sup>1</sup>   | 110        | <1.0            | 26              | 42         | <10                             |
|                      | 02/06/02 | 8.10         |                | 130.54       | --              | 69 <sup>1</sup>    | 13         | <0.50           | 0.84            | 4.4        | <5.0                            |
|                      | 05/08/02 | 9.16         |                | 129.48       | --              | 53 <sup>1</sup>    | 13         | <0.50           | 1.2             | 1.5        | <5.0                            |
| <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                              |
|                      | 08/10/01 | 9.09         |                | 128.59       | 63 <sup>8</sup> | <50                | <0.50      | <0.50           | <0.50           | <0.50      | <5.0                            |

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

| WELL ID/<br>TOC*(p)         | DATE     | DTW<br>(ft.) | S.L.<br>(ft.bgs) | GWE<br>(msl) | TPH-D<br>(ppb)  | TPH-G<br>(ppb) | B<br>(ppb) | T<br>(ppb) | E<br>(ppb) | X<br>(ppb) | MTBE<br>(ppb)      |
|-----------------------------|----------|--------------|------------------|--------------|-----------------|----------------|------------|------------|------------|------------|--------------------|
| MW-3                        | 11/07/01 | 9.03         | 5.0-25.0         | 128.65       | 88 <sup>8</sup> | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
| (cont)                      | 02/06/02 | 7.16         |                  | 130.52       | <310            | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
|                             | 05/08/02 | 8.04         |                  | 129.64       | <53             | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
| <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                 |
|                             | 08/10/01 | 8.66         |                  | 127.94       | --              | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
|                             | 11/07/01 | 7.92         |                  | 128.68       | --              | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
|                             | 02/06/02 | 7.18         |                  | 129.42       | --              | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
|                             | 05/08/02 | 6.86         |                  | 129.74       | --              | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0               |
| <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         |                  | --           | --              | --             | --         | --         | --         | --         | --                 |
|                             | 08/10/01 | 9.54         |                  | --           | --              | --             | --         | --         | --         | --         | --                 |
|                             | 11/07/01 | 9.33         |                  | --           | --              | --             | --         | --         | --         | --         | --                 |
|                             | 02/06/02 | 8.08         |                  | --           | --              | --             | --         | --         | --         | --         | --                 |
|                             | 05/08/02 | 8.51         |                  | --           | --              | --             | --         | --         | --         | --         | --                 |

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

| WELL ID/<br>TOC*(#) | DATE     | DTW<br>(ft.) | S.I.<br>(ft.bgs) | GWE<br>(msl) | TPH-D<br>(ppb) | TPH-G<br>(ppb) | B<br>(ppb) | T<br>(ppb) | E<br>(ppb) | X<br>(ppb) | MTBE<br>(ppb) |
|---------------------|----------|--------------|------------------|--------------|----------------|----------------|------------|------------|------------|------------|---------------|
| <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            |
|                     | 08/10/01 | --           | --               | --           | --             | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0          |
|                     | 11/07/01 | --           | --               | --           | --             | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0          |
|                     | 02/06/02 | --           | --               | --           | --             | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0          |
|                     | 05/08/02 | --           | --               | --           | --             | <50            | <0.50      | <0.50      | <0.50      | <0.50      | <5.0          |

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

**EXPLANATIONS:**

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

S.I. = Screen Interval

(ft.bgs) = Feet Below Ground Surface

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Measured/Not Analyzed

- \* 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

| WELL ID | DATE     | VOCs<br>by EPA 8240<br>(ppb) | VOCs<br>by EPA 8021<br>(ppb) | VOCs<br>by EPA 8260<br>(ppb) | SVOCs<br>by EPA 8270<br>(ppb) | Chromium<br>(ppm) | TOG<br>(ppm) |
|---------|----------|------------------------------|------------------------------|------------------------------|-------------------------------|-------------------|--------------|
| MW-3    |          |                              |                              |                              |                               |                   |              |
|         | 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         |
|         | 11/07/01 | <2.0-<20                     | <0.50-<5.0 <sup>2</sup>      | --                           | <5.0-<50                      | <0.010            | <5.0         |
|         | 02/06/02 | <2.0-<20                     | <0.50-<5.0                   | --                           | <5.0-<50                      | 0.11              | <5.0         |
|         | 05/08/02 | <2.0-<20                     | --                           | <0.50 <sup>3</sup>           | <5.2-<100                     | 0.037             | <5.2         |

**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 (PCE) was detected at 2.7 ppb.
- <sup>2</sup> All VOCs by EPA Method 8021 were less than the reporting limit, except for Trichloroethane (TCE) was detected at 0.55 ppb.
- <sup>3</sup> All VOCs by EPA Method 8260 were less than the reporting limit, except for cis-1,2-Dichloroethene (c-1,2-DCE) was detected at 0.69 ppb, PCE at 0.56 ppb, and TCE at 0.86 ppb.

**ANALYTICAL METHODS:**

EPA 200 Series Methods for Chromium  
 EPA Method SM5520 for Total Oil and Grease

NOTE: All EPA Method 8240, 8021, 8260, 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<br>(ppb) | TBA<br>(ppb) | MTBE<br>(ppb) | DIPE<br>(ppb) | ETBE<br>(ppb) | TAME<br>(ppb) | 1,2-DCA<br>(ppb) | EDB<br>(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         |
|         | 11/07/01              | <500             | <20          | 26            | <1.0          | <1.0          | <1.0          | <1.0             | <1.0         |
|         | 02/06/02              | <500             | <100         | 18            | <2.0          | <2.0          | <2.0          | <2.0             | <2.0         |
|         | 05/08/02              | <500             | <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/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 Phillips 66 Company, the purge water and decontamination water generated during sampling activities is transported to Phillips 66 - San Francisco Refinery, located in Rodeo, California.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

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

Job#: 180255  
Date: 5-8-02  
Sampler: Joe

Well ID: MW-1  
Well Diameter: 2 in.  
Total Depth: 25.08 ft.  
Depth to Water: 7.29 ft.

Well Condition: O.K.  
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

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

17.79 X VF 0.17 = 3.02 X 3 (case volume) = Estimated Purge Volume: 9 (gal.)

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

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

Starting Time: 11:15  
Sampling Time: 11:36 AM (1136)  
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 $\mu\text{mhos/cm} \times 10^3$ | Temperature $^{\circ}\text{F}$ | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|--|--------------------------------|-------------|----------|------------------|
| <u>11:23</u> | <u>3</u>      | <u>8.12</u> | <u>10.61</u>                                 | <u>71.1</u>                    |             |          |                  |
| <u>11:25</u> | <u>6</u>      | <u>7.36</u> | <u>10.24</u>                                 | <u>72.4</u>                    |             |          |                  |
| <u>12:28</u> | <u>9</u>      | <u>7.39</u> | <u>10.31</u>                                 | <u>73.1</u>                    |             |          |                  |
|              |               |             |  |                                |             |          |                  |
|              |               |             |  |                                |             |          |                  |

**LABORATORY INFORMATION**

| SAMPLE ID   | (#) - CONTAINER | REFRIG.  | PRESERV. TYPE | LABORATORY  | ANALYSES                |
|-------------|-----------------|----------|---------------|-------------|-------------------------|
| <u>MW-1</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: 5-8-02  
Sampler: Joe

Well ID MW-2

Well Condition: OK

Well Diameter 2 in.

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

Total Depth 24.30 ft.

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

Depth to Water 9.16 ft.

15.14 x VF 0.17 = 2.57 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: 11:43

Weather Conditions: clear

Sampling Time: 12:03 PM (1203)

Water Color: clear Odor: none

Purging Flow Rate: 10 gpm

Sediment Description: \_\_\_\_\_

Did well de-water? \_\_\_\_\_

If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

| Time         | Volume (gal.) | pH          | Conductivity $\mu\text{mhos/cm} \times 10^3$ | Temperature F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|--|---------------|-------------|----------|------------------|
| <u>11:50</u> | <u>3</u>      | <u>7.70</u> | <u>10.14</u>                                 | <u>74.0</u>   |             |          |                  |
| <u>11:53</u> | <u>5</u>      | <u>7.59</u> | <u>10.20</u>                                 | <u>73.6</u>   |             |          |                  |
| <u>11:55</u> | <u>8</u>      | <u>7.63</u> | <u>10.18</u>                                 | <u>73.2</u>   |             |          |                  |
| _____        | _____         | _____       | _____  | _____         | _____       | _____    | _____            |
| _____        | _____         | _____       | _____  | _____         | _____       | _____    | _____            |

**LABORATORY INFORMATION**

| SAMPLE ID   | (#) - CONTAINER | REFRIG.  | PRESERV. TYPE | LABORATORY  | ANALYSES                |
|-------------|-----------------|----------|---------------|-------------|-------------------------|
| <u>MW-2</u> | <u>3 vol</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: 5-8-02  
Sampler: Joe

Well ID: MW-3  
Well Diameter: 2 in.  
Total Depth: 24.72 ft.  
Depth to Water: 8.04 ft.

Well Condition: OK

|                        |  |                                |              |
|------------------------|--|--------------------------------|--------------|
| Hydrocarbon Thickness: | <u>0</u> in.   | Amount Bailed (product/water): | <u>0</u> gal |
| Volume Factor (VF)     | 2' = 0.17<br>3' = 0.38<br>4' = 0.66<br>5' = 1.50<br>12' = 5.80 |                                |              |

16.68 x VF 0.17 = 2.84 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: 12:12  
Sampling Time: 12:38 p.m. (1238)  
Purging Flow Rate: \_\_\_\_\_ L/min  
Did well de-water? \_\_\_\_\_

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

| Time         | Volume (gal) | pH          | Conductivity $\mu\text{mhos/cm K}$ | Temperature F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|--------------|-------------|------------------------------------|---------------|-------------|----------|------------------|
| <u>12:21</u> | <u>2.5</u>   | <u>7.15</u> | <u>8.19</u>                        | <u>72.9</u>   |             |          |                  |
| <u>12:23</u> | <u>5.5</u>   | <u>7.18</u> | <u>8.36</u>                        | <u>73.0</u>   |             |          |                  |
| <u>12:26</u> | <u>8.5</u>   | <u>7.24</u> | <u>8.32</u>                        | <u>73.4</u>   |             |          |                  |
|              |              |             |                                    |               |             |          |                  |
|              |              |             |                                    |               |             |          |                  |

**LABORATORY INFORMATION**

| SAMPLE ID   | (#) - CONTAINER | REFRIG.  | PRESERV. TYPE                  | LABORATORY  | ANALYSES                                   |
|-------------|-----------------|----------|--------------------------------|-------------|--|
| <u>MW-3</u> | <u>3 Vol</u>    | <u>Y</u> | <u>HCL</u>                     | <u>Seq.</u> | <u>TPHG, BTEX, MTBE</u>                    |
|             | <u>2 Vol</u>    | <u>"</u> | <u>"</u>                       | <u>"</u>    | <u>VOEs by 8240</u>                        |
|             | <u>1 Amb</u>    | <u>"</u> |                                | <u>"</u>    | <u>SVOCs by 8270</u>                       |
|             | <u>1 Amb</u>    | <u>"</u> |                                | <u>"</u>    | <u>TPHD</u>                                |
| COMMENTS:   | <u>1 poly</u>   | <u>"</u> | <u>HCL<br/>HNO<sub>3</sub></u> | <u>"</u>    | <u>Oil &amp; Grease<br/>Total Chromium</u> |

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

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

Job#: 180255  
Date: 5-8-02  
Sampler: Joe

Well ID MW-4

Well Condition: o.k

Well Diameter 2 in

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

Total Depth 24.65 ft

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

Depth to Water 6.86 ft

17.79 X VF 0.17 = 3.02 X 3 (case volume) = Estimated Purge Volume: 9 (gal.)

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

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

Starting Time: 10:40  
Sampling Time: 11:04 AM (11:04)  
Purging Flow Rate: \_\_\_\_\_ lpm  
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>10:50</u> | <u>2</u>      | <u>7.17</u> | <u>10.04</u>                                 | <u>72.5</u>   |             |          |                  |
| <u>10:52</u> | <u>6</u>      | <u>7.40</u> | <u>9.55</u>                                  | <u>72.8</u>   |             |          |                  |
| <u>10:54</u> | <u>9</u>      | <u>7.37</u> | <u>9.54</u>                                  | <u>73.2</u>   |             |          |                  |
| _____        | _____         | _____       | _____  | _____         | _____       | _____    | _____            |

**LABORATORY INFORMATION**

| SAMPLE ID   | (#) - CONTAINER | REFRIG.  | PRESERV. TYPE | LABORATORY  | ANALYSES                |
|-------------|-----------------|----------|---------------|-------------|-------------------------|
| <u>MW-4</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

Job#: 180255

Address: 3070 Fruitvale Ave.

Date: 5-8-02

City: Oakland, CA.

Sampler: Joe

Well ID UST Ob. Well

Well Condition: O.K.

Well Diameter 6 in.

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

Total Depth 0 ft.

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

Depth to Water 8.51 ft.

0.17 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: \_\_\_\_\_

Weather Conditions: clear

Sampling Time: \_\_\_\_\_

Water Color: clear Odor: \_\_\_\_\_

Purging Flow Rate: \_\_\_\_\_ lpm.

Sediment Description: \_\_\_\_\_

Did well de-water? \_\_\_\_\_

If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

| Time | Volume (gal.) | pH | Conductivity $\mu$ mhos/cm X | Temperature F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|------|---------------|----|------------------------------|---------------|-------------|----------|------------------|
|      |               |    |                              |               |             |          |                  |
|      |               |    |                              |               |             |          |                  |
|      |               |    |                              |               |             |          |                  |
|      |               |    |                              |               |             |          |                  |
|      |               |    |                              |               |             |          |                  |

**LABORATORY INFORMATION**

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

COMMENTS: M. only.





TOSCO

Tosco Marketing Company  
2000 East Canyon Pl., Ste. 200  
San Ramon, California 94583

Facility Number TOSCO #4625  
 Facility Address 3070 Fruitvale Ave., Oakland, CA  
 Consultant Project Number 180255  
 Consultant Name Gottler-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) 925-551-7899

Contact (Name) MR. Dave DeWitt  
 (Phone) 925-277-2384  
 Laboratory Name Sequoia Analytical  
 Laboratory Release Number \_\_\_\_\_  
 Samples Collected by (Name) JOE ASEMIAN  
 Collection Date 5-8-02  
 Signature [Signature]

205032

| Sample Number | Lab Sample Number | Number of Containers | Matrix<br>S = Soil<br>W = Water<br>A = Air<br>C = Chloroform | Type<br>G = Grab<br>C = Composite<br>D = Diurnal | Time | Sample Preservation | Leak (Yes or No) | Analyses To Be Performed   |                   |                       |                                |                            |                           |                             |  |           |            |                |  |  |  |  |  |
|---------------|-------------------|----------------------|--|--|------|---------------------|------------------|----------------------------|-------------------|-----------------------|--------------------------------|----------------------------|---------------------------|-----------------------------|--|-----------|------------|----------------|--|--|--|--|--|
|               |                   |                      |  |  |      |                     |                  | TPH Gas STEC-VIATBC (8010) | TPH Diesel (8013) | Oil and Grease (8520) | Purgeable Hydrocarbons (80107) | Purgeable Aromatics (8020) | Purgeable Organics (8240) | Extractable Organics (8270) | Metals<br>Cd, Cr, Pb, Zn, Ni<br>(8280 or 84) | VOCs 8240 | SVOCS 8270 | Total Chromium |  |  |  |  |  |
| TB-LB         | 01                | 1                    | VOA  | W  |      | HCC                 | Y                | ✓                          |                   |                       |                                |                            |                           |                             |  |           |            |                |  |  |  |  |  |
| MW-1          | 02                | 3                    | VOA  |  |      |                     |                  | ✓                          |                   |                       |                                |                            |                           |                             |  |           |            |                |  |  |  |  |  |
| MW-2          | 03                | 3                    | VOA  |  |      |                     |                  | ✓                          |                   |                       |                                |                            |                           |                             |  |           |            |                |  |  |  |  |  |
| MW-3          | 04                | 5                    | VOA<br>2 sub<br>1 poly                                       |  |      |                     |                  | ✓                          | ✓                 | ✓                     | ✓                              |                            |                           |                             |  |           |            |                |  |  |  |  |  |
| MW-4          | 05                | 3                    | VOA  |  |      |                     |                  | ✓                          |                   |                       |                                |                            |                           |                             |  |           |            |                |  |  |  |  |  |

DO NOT BILL!  
TB-LB ANALYSIS

Run 8 Oxy's by 8260 on all 8021 MTBE hits.

8 Oxy's - MTBE, TBA, DMB, ETBE, TAME, 1,2DCA, EDB, Ethanol

|   |                          |                          |   |                         |                         |
|---|--------------------------|--------------------------|---|-------------------------|-------------------------|
| Relinquished By (Signature)<br><u>[Signature]</u> | Organization<br>G-R Inc. | Date/Time 1545<br>5-8-02 | Received By (Signature)<br><u>[Signature]</u> | Organization<br>Sequoia | Date/Time 315<br>5/8/02 |
| Relinquished By (Signature)                       | Organization             | Date/Time                | Received By (Signature)                       | Organization            | Date/Time               |
| Relinquished By (Signature)                       | Organization             | Date/Time                | Received For Laboratory By (Signature)        | Organization            | Date/Time               |

Turn Around Time (Circle Choice)

24 Hrs.  
 48 Hrs.  
 5 Days  
 10 Days  
As Contracted



Sequoia  
Analytical

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

22 May, 2002

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

RECEIVED

RE: Tosco(1)  
Sequoia Report: L205032

GETTLER-RYAN INC.  
GENERAL CONTRACTOR

Enclosed are the results of analyses for samples received by the laboratory on 05/08/02 15:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard G. Yee For Wayne Stevenson  
Project Manager

CA ELAP Certificate #2360



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

**ANALYTICAL REPORT FOR SAMPLES**

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| TB-LB     | L205032-01    | Water  | 05/08/02 00:00 | 05/08/02 15:45 |
| MW-1      | L205032-02    | Water  | 05/08/02 11:36 | 05/08/02 15:45 |
| MW-2      | L205032-03    | Water  | 05/08/02 12:03 | 05/08/02 15:45 |
| MW-3      | L205032-04    | Water  | 05/08/02 12:38 | 05/08/02 15:45 |
| MW-4      | L205032-05    | Water  | 05/08/02 11:04 | 05/08/02 15:45 |

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.*

Richard G. Yee For Wayne Stevenson, Project Manager



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**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>TB-LB (L205032-01) Water</b> Sampled: 05/08/02 00:00 Received: 05/08/02 15:45 |        |                 |        |          |         |          |          |           |       |
| Purgeable Hydrocarbons as Gasoline   | ND     | 50              | ug/l   | 1        | 2050042 | 05/20/02 | 05/21/02 | EPA 8021B |       |
| 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  |        | 101 %           | 70-130 |          | "       | "        | "        | "         |       |
| <b>MW-1 (L205032-02) Water</b> Sampled: 05/08/02 11:36 Received: 05/08/02 15:45  |        |                 |        |          |         |          |          |           |       |
| Purgeable Hydrocarbons as Gasoline   | ND     | 50              | ug/l   | 1        | 2050042 | 05/20/02 | 05/21/02 | EPA 8021B |       |
| Benzene  | ND     | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Toluene  | ND     | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Ethylbenzene   | ND     | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Xylenes (total)  | ND     | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Methyl tert-butyl ether  | 20     | 5.0             | "      | "        | "       | "        | "        | "         |       |
| Surrogate: a,a,a-Trifluorotoluene  |        | 98.8 %          | 70-130 |          | "       | "        | "        | "         |       |
| <b>MW-2 (L205032-03) Water</b> Sampled: 05/08/02 12:03 Received: 05/08/02 15:45  |        |                 |        |          |         |          |          |           |       |
| Purgeable Hydrocarbons as Gasoline   | 53     | 50              | ug/l   | 1        | 2050042 | 05/20/02 | 05/21/02 | EPA 8021B | P-01  |
| Benzene  | 13     | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Toluene  | ND     | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Ethylbenzene   | 1.2    | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Xylenes (total)  | 1.5    | 0.50            | "      | "        | "       | "        | "        | "         |       |
| Methyl tert-butyl ether  | ND     | 5.0             | "      | "        | "       | "        | "        | "         |       |
| Surrogate: a,a,a-Trifluorotoluene  |        | 85.7 %          | 70-130 |          | "       | "        | "        | "         |       |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**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 (L205032-04) Water</b> Sampled: 05/08/02 12:38 Received: 05/08/02 15:45 |        |                 |        |          |         |          |          |           |       |
| Purgeable Hydrocarbons as Gasoline  | ND     | 50              | ug/l   | 1        | 2050042 | 05/20/02 | 05/21/02 | EPA 8021B |       |
| 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>  |        | 90.6 %          | 70-130 |          | "       | "        | "        | "         |       |
| <b>MW-4 (L205032-05) Water</b> Sampled: 05/08/02 11:04 Received: 05/08/02 15:45 |        |                 |        |          |         |          |          |           |       |
| Purgeable Hydrocarbons as Gasoline  | ND     | 50              | ug/l   | 1        | 2050047 | 05/21/02 | 05/21/02 | EPA 8021B |       |
| 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>  |        | 98.0 %          | 70-130 |          | "       | "        | "        | "         |       |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

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

| Analyte   | Result      | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---|-------------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>MW-3 (L205032-04) Water</b> <b>Sampled: 05/08/02 12:38</b> <b>Received: 05/08/02 15:45</b> |             |                 |       |          |         |          |          |           |       |
| Bromodichloromethane  | ND          | 0.50            | ug/l  | 1        | 2050022 | 05/09/02 | 05/09/02 | EPA 8260B |       |
| Bromoform   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Bromomethane  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Carbon tetrachloride  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Chlorobenzene   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Chloroethane  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Chloroform  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Chloromethane   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Dibromochloromethane  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,2-Dibromoethane (EDB)   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,2-Dichlorobenzene   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,3-Dichlorobenzene   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,4-Dichlorobenzene   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Dichlorodifluoromethane   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,1-Dichloroethane  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,2-Dichloroethane  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,1-Dichloroethene  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| <b>cis-1,2-Dichloroethene</b>   | <b>0.69</b> | 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            | "     | "        | "       | "        | "        | "         |       |
| Freon 113   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Methylene chloride  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,1,2,2-Tetrachloroethane   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| <b>Tetrachloroethene</b>  | <b>0.56</b> | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,1,1-Trichloroethane   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| 1,1,2-Trichloroethane   | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| <b>Trichloroethene</b>  | <b>0.86</b> | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Trichlorofluoromethane  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| Vinyl chloride  | ND          | 0.50            | "     | "        | "       | "        | "        | "         |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>   |             | 94.2 %          |       | 70-130   | "       | "        | "        | "         |       |
| <i>Surrogate: Toluene-d8</i>  |             | 96.2 %          |       | 70-130   | "       | "        | "        | "         |       |
| <i>Surrogate: 4-BFB</i>   |             | 92.0 %          |       | 70-130   | "       | "        | "        | "         |       |

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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

**Volatile Organic Compounds by EPA Method 8240B**  
**Sequoia Analytical - San Carlos**

| Analyte   | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method          | Notes       |
|---|--------|-----------------|-------|----------|---------|----------|----------|-----------------|-------------|
| <b>MW-3 (L205032-04) Water</b>                          |        |                 |       |          |         |          |          |                 | <b>A-01</b> |
| <b>Sampled: 05/08/02 12:38 Received: 05/08/02 15:45</b> |        |                 |       |          |         |          |          |                 |             |
| Acetone   | ND     | 20              | ug/l  | 1        | 2050022 | 05/09/02 | 05/09/02 | EPA Method 8240 |             |
| Benzene   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Bromodichloromethane                                    | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Bromoform   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Bromomethane  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 2-Butanone  | ND     | 20              | "     | "        | "       | "        | "        | "               |             |
| Carbon disulfide  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Carbon tetrachloride                                    | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Chlorobenzene   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Chloroethane  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Chloroform  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Chloromethane   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Dibromochloromethane                                    | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,1-Dichloroethane                                      | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,2-Dichloroethane                                      | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,1-Dichloroethene                                      | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| cis-1,2-Dichloroethene                                  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| trans-1,2-Dichloroethene                                | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,2-Dichloropropane                                     | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| cis-1,3-Dichloropropene                                 | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| trans-1,3-Dichloropropene                               | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Ethylbenzene  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 2-Hexanone  | ND     | 20              | "     | "        | "       | "        | "        | "               |             |
| Methylene chloride                                      | ND     | 5.0             | "     | "        | "       | "        | "        | "               |             |
| 4-Methyl-2-pentanone                                    | ND     | 20              | "     | "        | "       | "        | "        | "               |             |
| Styrene   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,1,2,2-Tetrachloroethane                               | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Tetrachloroethene                                       | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Toluene   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,1,1-Trichloroethane                                   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| 1,1,2-Trichloroethane                                   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Trichloroethene   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Trichlorofluoromethane                                  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Vinyl acetate   | ND     | 5.0             | "     | "        | "       | "        | "        | "               |             |
| Vinyl chloride  | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| Total Xylenes   | ND     | 2.0             | "     | "        | "       | "        | "        | "               |             |
| <i>Surrogate: 1,2-Dichloroethane-d4</i>                 |        | 94.2 %          |       | 76-114   |         | "        | "        | "               |             |
| <i>Surrogate: Toluene-d8</i>                            |        | 96.2 %          |       | 88-110   |         | "        | "        | "               |             |
| <i>Surrogate: 4-BFB</i>                                 |        | 92.0 %          |       | 86-115   |         | "        | "        | "               |             |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

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

| Analyte   | Result    | Reporting<br>Limit | Units | Dilution      | Batch   | Prepared | Analyzed | Method    | Notes |
|---|-----------|--------------------|-------|---------------|---------|----------|----------|-----------|-------|
| <b>MW-1 (L205032-02) Water</b> <b>Sampled: 05/08/02 11:36</b> <b>Received: 05/08/02 15:45</b> |           |                    |       |               |         |          |          |           |       |
| Ethanol   | ND        | 500                | ug/l  | 1             | 2050048 | 05/22/02 | 05/22/02 | 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>   |           | <i>105 %</i>       |       | <i>70-130</i> |         |          |          |           |       |
| <i>Surrogate: Toluene-d8</i>  |           | <i>101 %</i>       |       | <i>70-130</i> |         |          |          |           |       |





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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

**Diesel Hydrocarbons (C10-C28) by 8015B modified  
Sequoia Analytical - Morgan Hill**

| Analyte   | Result | Reporting<br>Limit | Units  | Dilution | Batch   | Prepared | Analyzed | Method | Notes |
|---|--------|--------------------|--------|----------|---------|----------|----------|--------|-------|
| <b>MW-3 (L205032-04) Water</b> <b>Sampled: 05/08/02 12:38</b> <b>Received: 05/08/02 15:45</b> |        |                    |        |          |         |          |          |        |       |
| Diesel Range Organics (C10-C28)   | ND     | 53                 | ug/l   | 1        | 2E14022 | 05/14/02 | 05/21/02 | 8015Bm |       |
| <i>Surrogate: n-Octacosane</i>  |        | 80.2 %             | 50-150 |          | "       | "        | "        | "      |       |



Gettler-Ryan/Geostrategies(1)  
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Dublin CA, 94568

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

**Total Metals by EPA 200 Series Methods  
Sequoia Analytical - Morgan Hill**

| Analyte  | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|--|--------|--------------------|-------|----------|---------|----------|----------|-----------|-------|
| MW-3 (L205032-04) Water    Sampled: 05/08/02 12:38    Received: 05/08/02 15:45 |        |                    |       |          |         |          |          |           |       |
| Chromium   | 0.037  | 0.010              | mg/l  | 1        | 2E14008 | 05/14/02 | 05/20/02 | EPA 200.7 |       |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**Semivolatile Organic Compounds by EPA Method 8270C**  
**Sequoia Analytical - Morgan Hill**

| Analyte   | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>MW-3 (L205032-04) Water    Sampled: 05/08/02 12:38    Received: 05/08/02 15:45</b> |        |                 |       |          |         |          |          |           |       |
| Acenaphthene  | ND     | 5.2             | ug/l  | 1        | 2E10019 | 05/10/02 | 05/14/02 | EPA 8270C |       |
| Acenaphthylene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Anthracene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Benzoic acid  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Benzo (a) anthracene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Benzo (b) fluoranthene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Benzo (k) fluoranthene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Benzo (ghi) perylene  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Benzo[a]pyrene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Benzyl alcohol  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Bis(2-chloroethoxy)methane  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Bis(2-chloroethyl)ether   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Bis(2-chloroisopropyl)ether   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Bis(2-ethylhexyl)phthalate  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 4-Bromophenyl phenyl ether  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Butyl benzyl phthalate  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 4-Chloroaniline   | ND     | 52              | "     | "        | "       | "        | "        | "         |       |
| 2-Chloronaphthalene   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 4-Chloro-3-methylphenol   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2-Chlorophenol  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 4-Chlorophenyl phenyl ether   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Chrysene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Dibenz (a,h) anthracene   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Dibenzofuran  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Di-n-butyl phthalate  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 1,2-Dichlorobenzene   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 1,3-Dichlorobenzene   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 1,4-Dichlorobenzene   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 3,3'-Dichlorobenzidine  | ND     | 52              | "     | "        | "       | "        | "        | "         |       |
| 2,4-Dichlorophenol  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Diethyl phthalate   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2,4-Dimethylphenol  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Dimethyl phthalate  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 4,6-Dinitro-2-methylphenol  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2,4-Dinitrophenol   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 2,4-Dinitrotoluene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2,6-Dinitrotoluene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Di-n-octyl phthalate  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Fluoranthene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Fluorene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |



Gettler-Ryan/Geostrategies(1)  
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Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**Semivolatile Organic Compounds by EPA Method 8270C**  
**Sequoia Analytical - Morgan Hill**

| Analyte   | Result | Reporting Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|---|--------|-----------------|-------|----------|---------|----------|----------|-----------|-------|
| <b>MW-3 (L205032-04) Water    Sampled: 05/08/02 12:38    Received: 05/08/02 15:45</b> |        |                 |       |          |         |          |          |           |       |
| Hexachlorobenzene   | ND     | 5.2             | ug/l  | 1        | 2E10019 | 05/10/02 | 05/14/02 | EPA 8270C |       |
| Hexachlorobutadiene   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Hexachlorocyclopentadiene   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Hexachloroethane  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Indeno (1,2,3-cd) pyrene  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Isophorone  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2-Methylnaphthalene   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2-Methylphenol  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 4-Methylphenol  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Naphthalene   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2-Nitroaniline  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 3-Nitroaniline  | ND     | 100             | "     | "        | "       | "        | "        | "         |       |
| 4-Nitroaniline  | ND     | 52              | "     | "        | "       | "        | "        | "         |       |
| Nitrobenzene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2-Nitrophenol   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 4-Nitrophenol   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| N-Nitrosodiphenylamine  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| N-Nitrosodi-n-propylamine   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Pentachlorophenol   | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| Phenanthrene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Phenol  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| Pyrene  | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 1,2,4-Trichlorobenzene  | ND     | 10              | "     | "        | "       | "        | "        | "         |       |
| 2,4,5-Trichlorophenol   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| 2,4,6-Trichlorophenol   | ND     | 5.2             | "     | "        | "       | "        | "        | "         |       |
| <i>Surrogate: 2-Fluorophenol</i>  |        | 34.5 %          |       | 2-86     | "       | "        | "        | "         |       |
| <i>Surrogate: Phenol-d6</i>   |        | 23.8 %          |       | 15-50    | "       | "        | "        | "         |       |
| <i>Surrogate: Nitrobenzene-d5</i>   |        | 87.3 %          |       | 68-115   | "       | "        | "        | "         |       |
| <i>Surrogate: 2-Fluorobiphenyl</i>  |        | 91.0 %          |       | 70-120   | "       | "        | "        | "         |       |
| <i>Surrogate: 2,4,6-Tribromophenol</i>  |        | 80.4 %          |       | 23-176   | "       | "        | "        | "         |       |
| <i>Surrogate: p-Terphenyl-d14</i>   |        | 90.4 %          |       | 91-143   | "       | "        | "        | "         | S-BN  |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

**Conventional Chemistry Parameters by APHA/EPA Methods  
Sequoia Analytical - Morgan Hill**

| Analyte   | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method   | Notes |
|---|--------|--------------------|-------|----------|---------|----------|----------|----------|-------|
| <b>MW-3 (L205032-04) Water</b> <b>Sampled: 05/08/02 12:38</b> <b>Received: 05/08/02 15:45</b> |        |                    |       |          |         |          |          |          |       |
| Oil & Grease  | ND     | 5.2                | mg/l  | 1        | 2E14029 | 05/14/02 | 05/15/02 | SM 5520B |       |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2050042 - EPA 5030B (P/T)**

**Blank (2050042-BLK1)**

Prepared & Analyzed: 05/20/02

|                                    |      |      |      |      |  |      |        |  |  |  |
|------------------------------------|------|------|------|------|--|------|--------|--|--|--|
| 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  | "    |      |  |      |        |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene  | 9.59 |      | "    | 10.0 |  | 95.9 | 70-130 |  |  |  |

**LCS (2050042-BS1)**

Prepared & Analyzed: 05/20/02

|                                   |      |      |      |      |  |      |        |  |  |  |
|-----------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Benzene                           | 10.3 | 0.50 | ug/l | 10.0 |  | 103  | 70-130 |  |  |  |
| Toluene                           | 9.49 | 0.50 | "    | 10.0 |  | 94.9 | 70-130 |  |  |  |
| Ethylbenzene                      | 8.92 | 0.50 | "    | 10.0 |  | 89.2 | 70-130 |  |  |  |
| Xylenes (total)                   | 26.4 | 0.50 | "    | 30.0 |  | 88.0 | 70-130 |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene | 10.5 |      | "    | 10.0 |  | 105  | 70-130 |  |  |  |

**LCS (2050042-BS2)**

Prepared & Analyzed: 05/20/02

|                                    |      |    |      |      |  |     |        |  |  |  |
|------------------------------------|------|----|------|------|--|-----|--------|--|--|--|
| Purgeable Hydrocarbons as Gasoline | 269  | 50 | ug/l | 250  |  | 108 | 70-130 |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene  | 10.6 |    | "    | 10.0 |  | 106 | 70-130 |  |  |  |

**Matrix Spike (2050042-MS1)**

Source: L205041-01

Prepared & Analyzed: 05/20/02

|                                    |      |    |      |      |    |      |        |  |  |  |
|------------------------------------|------|----|------|------|----|------|--------|--|--|--|
| Purgeable Hydrocarbons as Gasoline | 249  | 50 | ug/l | 250  | ND | 99.6 | 60-140 |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene  | 9.89 |    | "    | 10.0 |    | 98.9 | 70-130 |  |  |  |

**Matrix Spike Dup (2050042-MSD1)**

Source: L205041-01

Prepared & Analyzed: 05/20/02

|                                    |      |    |      |      |    |     |        |      |    |  |
|------------------------------------|------|----|------|------|----|-----|--------|------|----|--|
| Purgeable Hydrocarbons as Gasoline | 257  | 50 | ug/l | 250  | ND | 103 | 60-140 | 3.16 | 25 |  |
| Surrogate: a,a,a-Trifluorotoluene  | 10.6 |    | "    | 10.0 |    | 106 | 70-130 |      |    |  |



|   |  |                             |
|---|--|-----------------------------|
| Gettler-Ryan/Geostrategies(1)<br>6747 Sierra Court, Suite J<br>Dublin CA, 94568 | Project: Tosco(1)<br>Project Number: Tosco #4625, Oakland<br>Project Manager: Deanna Harding | Reported:<br>05/22/02 15:35 |
|---|--|-----------------------------|

**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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2050047 - EPA 5030B (P/T)**

**Blank (2050047-BLK1)**

Prepared & Analyzed: 05/21/02

|                                    |      |      |      |      |  |      |        |  |  |  |
|------------------------------------|------|------|------|------|--|------|--------|--|--|--|
| 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  | "    |      |  |      |        |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene  | 9.22 |      | "    | 10.0 |  | 92.2 | 70-130 |  |  |  |

**LCS (2050047-BS1)**

Prepared & Analyzed: 05/21/02

|                                   |      |      |      |      |  |      |        |  |  |  |
|-----------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Benzene                           | 9.22 | 0.50 | ug/l | 10.0 |  | 92.2 | 70-130 |  |  |  |
| Toluene                           | 8.81 | 0.50 | "    | 10.0 |  | 88.1 | 70-130 |  |  |  |
| Ethylbenzene                      | 8.09 | 0.50 | "    | 10.0 |  | 80.9 | 70-130 |  |  |  |
| Xylenes (total)                   | 24.2 | 0.50 | "    | 30.0 |  | 80.7 | 70-130 |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene | 10.1 |      | "    | 10.0 |  | 101  | 70-130 |  |  |  |

**LCS (2050047-BS2)**

Prepared & Analyzed: 05/21/02

|                                    |      |    |      |      |  |      |        |  |  |  |
|------------------------------------|------|----|------|------|--|------|--------|--|--|--|
| Purgeable Hydrocarbons as Gasoline | 243  | 50 | ug/l | 250  |  | 97.2 | 70-130 |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene  | 9.82 |    | "    | 10.0 |  | 98.2 | 70-130 |  |  |  |

**Matrix Spike (2050047-MS1)**

Source: L205032-05

Prepared & Analyzed: 05/21/02

|                                   |      |      |      |      |    |      |        |  |  |  |
|-----------------------------------|------|------|------|------|----|------|--------|--|--|--|
| Benzene                           | 9.68 | 0.50 | ug/l | 10.0 | ND | 96.8 | 60-140 |  |  |  |
| Toluene                           | 9.24 | 0.50 | "    | 10.0 | ND | 92.4 | 60-140 |  |  |  |
| Ethylbenzene                      | 8.70 | 0.50 | "    | 10.0 | ND | 87.0 | 60-140 |  |  |  |
| Xylenes (total)                   | 25.7 | 0.50 | "    | 30.0 | ND | 85.7 | 60-140 |  |  |  |
| Surrogate: a,a,a-Trifluorotoluene | 9.98 |      | "    | 10.0 |    | 99.8 | 70-130 |  |  |  |

**Matrix Spike Dup (2050047-MSD1)**

Source: L205032-05

Prepared & Analyzed: 05/21/02

|                                   |      |      |      |      |    |      |        |      |    |  |
|-----------------------------------|------|------|------|------|----|------|--------|------|----|--|
| Benzene                           | 10.2 | 0.50 | ug/l | 10.0 | ND | 102  | 60-140 | 5.23 | 25 |  |
| Toluene                           | 9.63 | 0.50 | "    | 10.0 | ND | 96.3 | 60-140 | 4.13 | 25 |  |
| Ethylbenzene                      | 9.14 | 0.50 | "    | 10.0 | ND | 91.4 | 60-140 | 4.93 | 25 |  |
| Xylenes (total)                   | 26.8 | 0.50 | "    | 30.0 | ND | 89.3 | 60-140 | 4.19 | 25 |  |
| Surrogate: a,a,a-Trifluorotoluene | 10.4 |      | "    | 10.0 |    | 104  | 70-130 |      |    |  |

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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

**Volatile Organic 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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2050022 - EPA 5030B [P/T]**
**Blank (2050022-BLK1)**

Prepared &amp; Analyzed: 05/09/02

|                                  |      |      |      |      |  |      |        |  |  |  |
|----------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Bromodichloromethane             | ND   | 0.50 | ug/l |      |  |      |        |  |  |  |
| Bromoform                        | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Bromomethane                     | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Carbon tetrachloride             | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Chlorobenzene                    | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Chloroethane                     | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Chloroform                       | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Chloromethane                    | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Dibromochloromethane             | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| 1,2-Dibromoethane (EDB)          | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| 1,2-Dichlorobenzene              | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| 1,3-Dichlorobenzene              | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| 1,4-Dichlorobenzene              | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Dichlorodifluoromethane          | 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 | "    |      |  |      |        |  |  |  |
| Freon 113                        | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| Methylene chloride               | ND   | 0.50 | "    |      |  |      |        |  |  |  |
| 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   | 0.50 | "    |      |  |      |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 9.50 |      | "    | 10.0 |  | 95.0 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 9.70 |      | "    | 10.0 |  | 97.0 | 70-130 |  |  |  |
| Surrogate: 4-BFB                 | 9.20 |      | "    | 10.0 |  | 92.0 | 70-130 |  |  |  |



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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

**Volatile Organic 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 |
|---|--------|-----------------|-------|-------------|-------------------------------|------|-------------|-----|-----------|-------|
| <b>Batch 2050022 - EPA 5030B [P/T]</b>  |        |                 |       |             |                               |      |             |     |           |       |
| <b>Blank (2050022-BLK2)</b>             |        |                 |       |             | Prepared & Analyzed: 05/14/02 |      |             |     |           |       |
| Bromodichloromethane                    | ND     | 0.50            | ug/l  |             |                               |      |             |     |           |       |
| Bromoform                               | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Bromomethane                            | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Carbon tetrachloride                    | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Chlorobenzene                           | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Chloroethane                            | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Chloroform                              | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Chloromethane                           | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Dibromochloromethane                    | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| 1,2-Dibromoethane (EDB)                 | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| 1,2-Dichlorobenzene                     | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| 1,3-Dichlorobenzene                     | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| 1,4-Dichlorobenzene                     | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Dichlorodifluoromethane                 | 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            | "     |             |                               |      |             |     |           |       |
| Freon 113                               | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| Methylene chloride                      | ND     | 0.50            | "     |             |                               |      |             |     |           |       |
| 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     | 0.50            | "     |             |                               |      |             |     |           |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 9.73   |                 | "     | 10.0        |                               | 97.3 | 70-130      |     |           |       |
| <i>Surrogate: Toluene-d8</i>            | 10.1   |                 | "     | 10.0        |                               | 101  | 70-130      |     |           |       |
| <i>Surrogate: 4-BFB</i>                 | 8.35   |                 | "     | 10.0        |                               | 83.5 | 70-130      |     |           |       |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**Volatile Organic 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 |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| <b>Batch 2050022 - EPA 5030B [P/T]</b> |        |                 |       |             |               |      |             |     |           |       |
| <b>Blank (2050022-BLK3)</b>            |        |                 |       |             |               |      |             |     |           |       |
| Prepared & Analyzed: 05/17/02          |        |                 |       |             |               |      |             |     |           |       |
| Bromodichloromethane                   | ND     | 0.50            | ug/l  |             |               |      |             |     |           |       |
| Bromoform                              | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Bromomethane                           | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Carbon tetrachloride                   | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Chlorobenzene                          | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Chloroethane                           | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Chloroform                             | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Chloromethane                          | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Dibromochloromethane                   | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| 1,2-Dibromoethane (EDB)                | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| 1,2-Dichlorobenzene                    | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| 1,3-Dichlorobenzene                    | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| 1,4-Dichlorobenzene                    | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Dichlorodifluoromethane                | 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            | "     |             |               |      |             |     |           |       |
| Freon 113                              | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| Methylene chloride                     | ND     | 0.50            | "     |             |               |      |             |     |           |       |
| 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     | 0.50            | "     |             |               |      |             |     |           |       |
| Surrogate: 1,2-Dichloroethane-d4       | 10.9   |                 | "     | 10.0        |               | 109  | 70-130      |     |           |       |
| Surrogate: Toluene-d8                  | 10.6   |                 | "     | 10.0        |               | 106  | 70-130      |     |           |       |
| Surrogate: 4-BFB                       | 9.04   |                 | "     | 10.0        |               | 90.4 | 70-130      |     |           |       |

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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

### Volatile Organic 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 |
|---|-------------|-----------------|-------|--|---------------|--|---------------|-----|-----------|-------|
| <b>Batch 2050022 - EPA 5030B [P/T]</b>  |             |                 |       |  |               |  |               |     |           |       |
| <b>LCS (2050022-BS1)</b>                |             |                 |       | <b>Prepared &amp; Analyzed: 05/09/02</b> |               |  |               |     |           |       |
| Chlorobenzene                           | 19.8        | 0.50            | ug/l  | 20.0                                     |               | 99.0                                     | 70-130        |     |           |       |
| 1,1-Dichloroethene                      | 19.9        | 0.50            | "     | 20.0                                     |               | 99.5                                     | 65-135        |     |           |       |
| Trichloroethene                         | 19.1        | 0.50            | "     | 20.0                                     |               | 95.5                                     | 70-130        |     |           |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>9.91</i> |                 | "     | <i>10.0</i>                              |               | <i>99.1</i>                              | <i>70-130</i> |     |           |       |
| <i>Surrogate: Toluene-d8</i>            | <i>9.43</i> |                 | "     | <i>10.0</i>                              |               | <i>94.3</i>                              | <i>70-130</i> |     |           |       |
| <i>Surrogate: 4-BFB</i>                 | <i>9.22</i> |                 | "     | <i>10.0</i>                              |               | <i>92.2</i>                              | <i>70-130</i> |     |           |       |
| <b>LCS (2050022-BS2)</b>                |             |                 |       | <b>Prepared &amp; Analyzed: 05/14/02</b> |               |  |               |     |           |       |
| Chlorobenzene                           | 19.9        | 0.50            | ug/l  | 20.0                                     |               | 99.5                                     | 70-130        |     |           |       |
| 1,1-Dichloroethene                      | 21.2        | 0.50            | "     | 20.0                                     |               | 106                                      | 65-135        |     |           |       |
| Trichloroethene                         | 19.0        | 0.50            | "     | 20.0                                     |               | 95.0                                     | 70-130        |     |           |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>10.1</i> |                 | "     | <i>10.0</i>                              |               | <i>101</i>                               | <i>70-130</i> |     |           |       |
| <i>Surrogate: Toluene-d8</i>            | <i>10.0</i> |                 | "     | <i>10.0</i>                              |               | <i>100</i>                               | <i>70-130</i> |     |           |       |
| <i>Surrogate: 4-BFB</i>                 | <i>8.46</i> |                 | "     | <i>10.0</i>                              |               | <i>84.6</i>                              | <i>70-130</i> |     |           |       |
| <b>LCS (2050022-BS3)</b>                |             |                 |       | <b>Prepared &amp; Analyzed: 05/17/02</b> |               |  |               |     |           |       |
| Chlorobenzene                           | 10.2        | 0.50            | ug/l  | 10.0                                     |               | 102                                      | 70-130        |     |           |       |
| 1,1-Dichloroethene                      | 10.7        | 0.50            | "     | 10.0                                     |               | 107                                      | 65-135        |     |           |       |
| Trichloroethene                         | 10.1        | 0.50            | "     | 10.0                                     |               | 101                                      | 70-130        |     |           |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>10.3</i> |                 | "     | <i>10.0</i>                              |               | <i>103</i>                               | <i>70-130</i> |     |           |       |
| <i>Surrogate: Toluene-d8</i>            | <i>10.5</i> |                 | "     | <i>10.0</i>                              |               | <i>105</i>                               | <i>70-130</i> |     |           |       |
| <i>Surrogate: 4-BFB</i>                 | <i>8.83</i> |                 | "     | <i>10.0</i>                              |               | <i>88.3</i>                              | <i>70-130</i> |     |           |       |
| <b>Matrix Spike (2050022-MS1)</b>       |             |                 |       | <b>Source: L205032-04</b>                |               | <b>Prepared &amp; Analyzed: 05/09/02</b> |               |     |           |       |
| Chlorobenzene                           | 19.3        | 0.50            | ug/l  | 20.0                                     | ND            | 96.5                                     | 60-140        |     |           |       |
| 1,1-Dichloroethene                      | 19.6        | 0.50            | "     | 20.0                                     | ND            | 98.0                                     | 60-140        |     |           |       |
| Trichloroethene                         | 19.3        | 0.50            | "     | 20.0                                     | 0.86          | 92.2                                     | 60-140        |     |           |       |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | <i>10.0</i> |                 | "     | <i>10.0</i>                              |               | <i>100</i>                               | <i>70-130</i> |     |           |       |
| <i>Surrogate: Toluene-d8</i>            | <i>9.52</i> |                 | "     | <i>10.0</i>                              |               | <i>95.2</i>                              | <i>70-130</i> |     |           |       |
| <i>Surrogate: 4-BFB</i>                 | <i>9.35</i> |                 | "     | <i>10.0</i>                              |               | <i>93.5</i>                              | <i>70-130</i> |     |           |       |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**Volatile Organic 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 |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|-------|-----------|-------|
| <b>Batch 2050022 - EPA 5030B [P/T]</b>           |        |                 |       |             |               |      |             |       |           |       |
| <b>Matrix Spike Dup (2050022-MSD1)</b>           |        |                 |       |             |               |      |             |       |           |       |
| Source: L205032-04 Prepared & Analyzed: 05/09/02 |        |                 |       |             |               |      |             |       |           |       |
| Chlorobenzene                                    | 19.6   | 0.50            | ug/l  | 20.0        | ND            | 98.0 | 60-140      | 1.54  | 25        |       |
| 1,1-Dichloroethene                               | 19.7   | 0.50            | "     | 20.0        | ND            | 98.5 | 60-140      | 0.509 | 25        |       |
| Trichloroethene                                  | 19.6   | 0.50            | "     | 20.0        | 0.86          | 93.7 | 60-140      | 1.61  | 25        |       |
| Surrogate: 1,2-Dichloroethane-d4                 | 9.54   |                 | "     | 10.0        |               | 95.4 | 70-130      |       |           |       |
| Surrogate: Toluene-d8                            | 9.78   |                 | "     | 10.0        |               | 97.8 | 70-130      |       |           |       |
| Surrogate: 4-BFB                                 | 9.19   |                 | "     | 10.0        |               | 91.9 | 70-130      |       |           |       |

Gettler-Ryan/Geostrategies(1)  
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 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

**Volatile Organic Compounds by EPA Method 8240B - Quality Control**  
**Sequoia Analytical - San Carlos**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

**Batch 2050022 - EPA 5030B [P/T]**
**Blank (2050022-BLK1)**

Prepared &amp; Analyzed: 05/09/02

|                           |    |     |      |  |  |  |  |  |  |  |
|---------------------------|----|-----|------|--|--|--|--|--|--|--|
| Acetone                   | ND | 20  | ug/l |  |  |  |  |  |  |  |
| Benzene                   | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Bromodichloromethane      | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Bromoform                 | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Bromomethane              | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 2-Butanone                | ND | 20  | "    |  |  |  |  |  |  |  |
| Carbon disulfide          | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Carbon tetrachloride      | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Chlorobenzene             | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Chloroethane              | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Chloroform                | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Chloromethane             | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Dibromochloromethane      | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,1-Dichloroethane        | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,2-Dichloroethane        | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,1-Dichloroethene        | ND | 2.0 | "    |  |  |  |  |  |  |  |
| cis-1,2-Dichloroethene    | ND | 2.0 | "    |  |  |  |  |  |  |  |
| trans-1,2-Dichloroethene  | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,2-Dichloropropane       | ND | 2.0 | "    |  |  |  |  |  |  |  |
| cis-1,3-Dichloropropene   | ND | 2.0 | "    |  |  |  |  |  |  |  |
| trans-1,3-Dichloropropene | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Ethylbenzene              | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 2-Hexanone                | ND | 20  | "    |  |  |  |  |  |  |  |
| Methylene chloride        | ND | 5.0 | "    |  |  |  |  |  |  |  |
| 4-Methyl-2-pentanone      | ND | 20  | "    |  |  |  |  |  |  |  |
| Styrene                   | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Tetrachloroethene         | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Toluene                   | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,1,1-Trichloroethane     | ND | 2.0 | "    |  |  |  |  |  |  |  |
| 1,1,2-Trichloroethane     | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Trichloroethene           | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Trichlorofluoromethane    | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Vinyl acetate             | ND | 5.0 | "    |  |  |  |  |  |  |  |
| Vinyl chloride            | ND | 2.0 | "    |  |  |  |  |  |  |  |
| Total Xylenes             | ND | 2.0 | "    |  |  |  |  |  |  |  |

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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

### Volatile Organic Compounds by EPA Method 8240B - Quality Control

#### Sequoia Analytical - San Carlos

| Analyte                                | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD   | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|-------|-----------|-------|
| <b>Batch 2050022 - EPA 5030B [P/T]</b> |        |                 |       |             |               |      |             |       |           |       |
| <b>Blank (2050022-BLK1)</b>            |        |                 |       |             |               |      |             |       |           |       |
| Prepared & Analyzed: 05/09/02          |        |                 |       |             |               |      |             |       |           |       |
| Surrogate: 1,2-Dichloroethane-d4       | 9.50   |                 | ug/l  | 10.0        |               | 95.0 | 76-114      |       |           |       |
| Surrogate: Toluene-d8                  | 9.70   |                 | "     | 10.0        |               | 97.0 | 88-110      |       |           |       |
| Surrogate: 4-BFB                       | 9.20   |                 | "     | 10.0        |               | 92.0 | 86-115      |       |           |       |
| <b>LCS (2050022-BS1)</b>               |        |                 |       |             |               |      |             |       |           |       |
| Prepared & Analyzed: 05/09/02          |        |                 |       |             |               |      |             |       |           |       |
| Benzene                                | 20.6   | 2.0             | ug/l  | 20.0        |               | 103  | 65-135      |       |           |       |
| Chlorobenzene                          | 19.8   | 2.0             | "     | 20.0        |               | 99.0 | 70-130      |       |           |       |
| 1,1-Dichloroethene                     | 19.9   | 2.0             | "     | 20.0        |               | 99.5 | 70-130      |       |           |       |
| Toluene                                | 20.2   | 2.0             | "     | 20.0        |               | 101  | 70-130      |       |           |       |
| Trichloroethene                        | 19.1   | 2.0             | "     | 20.0        |               | 95.5 | 70-130      |       |           |       |
| Surrogate: 1,2-Dichloroethane-d4       | 9.91   |                 | "     | 10.0        |               | 99.1 | 76-114      |       |           |       |
| Surrogate: Toluene-d8                  | 9.43   |                 | "     | 10.0        |               | 94.3 | 88-110      |       |           |       |
| Surrogate: 4-BFB                       | 9.22   |                 | "     | 10.0        |               | 92.2 | 86-115      |       |           |       |
| <b>Matrix Spike (2050022-MS1)</b>      |        |                 |       |             |               |      |             |       |           |       |
| Source: L205032-04                     |        |                 |       |             |               |      |             |       |           |       |
| Prepared & Analyzed: 05/09/02          |        |                 |       |             |               |      |             |       |           |       |
| Benzene                                | 21.0   | 2.0             | ug/l  | 20.0        | ND            | 105  | 60-140      |       |           |       |
| Chlorobenzene                          | 19.3   | 2.0             | "     | 20.0        | ND            | 96.5 | 60-140      |       |           |       |
| 1,1-Dichloroethene                     | 19.6   | 2.0             | "     | 20.0        | ND            | 98.0 | 60-140      |       |           |       |
| Toluene                                | 19.7   | 2.0             | "     | 20.0        | ND            | 98.5 | 60-140      |       |           |       |
| Trichloroethene                        | 19.3   | 2.0             | "     | 20.0        | ND            | 96.5 | 60-140      |       |           |       |
| Surrogate: 1,2-Dichloroethane-d4       | 10.0   |                 | "     | 10.0        |               | 100  | 76-114      |       |           |       |
| Surrogate: Toluene-d8                  | 9.52   |                 | "     | 10.0        |               | 95.2 | 88-110      |       |           |       |
| Surrogate: 4-BFB                       | 9.35   |                 | "     | 10.0        |               | 93.5 | 86-115      |       |           |       |
| <b>Matrix Spike Dup (2050022-MSD1)</b> |        |                 |       |             |               |      |             |       |           |       |
| Source: L205032-04                     |        |                 |       |             |               |      |             |       |           |       |
| Prepared & Analyzed: 05/09/02          |        |                 |       |             |               |      |             |       |           |       |
| Benzene                                | 20.7   | 2.0             | ug/l  | 20.0        | ND            | 104  | 60-140      | 1.44  | 25        |       |
| Chlorobenzene                          | 19.6   | 2.0             | "     | 20.0        | ND            | 98.0 | 60-140      | 1.54  | 25        |       |
| 1,1-Dichloroethene                     | 19.7   | 2.0             | "     | 20.0        | ND            | 98.5 | 60-140      | 0.509 | 25        |       |
| Toluene                                | 20.0   | 2.0             | "     | 20.0        | ND            | 100  | 60-140      | 1.51  | 25        |       |
| Trichloroethene                        | 19.6   | 2.0             | "     | 20.0        | ND            | 98.0 | 60-140      | 1.54  | 25        |       |
| Surrogate: 1,2-Dichloroethane-d4       | 9.54   |                 | "     | 10.0        |               | 95.4 | 76-114      |       |           |       |
| Surrogate: Toluene-d8                  | 9.78   |                 | "     | 10.0        |               | 97.8 | 88-110      |       |           |       |
| Surrogate: 4-BFB                       | 9.19   |                 | "     | 10.0        |               | 91.9 | 86-115      |       |           |       |

Gettler-Ryan/Geostrategies(1)  
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 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

**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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2050048 - EPA 5030B [P/T]**
**Blank (2050048-BLK1)**

Prepared &amp; Analyzed: 05/21/02

|   |      |     |      |      |  |     |        |  |  |  |
|---|------|-----|------|------|--|-----|--------|--|--|--|
| Ethanol                                 | ND   | 500 | 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 | "    |      |  |     |        |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 51.8 |     | "    | 50.0 |  | 104 | 70-130 |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | 51.0 |     | "    | 50.0 |  | 102 | 70-130 |  |  |  |

**Blank (2050048-BLK2)**

Prepared &amp; Analyzed: 05/22/02

|   |      |     |      |      |  |     |        |  |  |  |
|---|------|-----|------|------|--|-----|--------|--|--|--|
| Ethanol                                 | ND   | 500 | 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 | "    |      |  |     |        |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 51.0 |     | "    | 50.0 |  | 102 | 70-130 |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | 51.4 |     | "    | 50.0 |  | 103 | 70-130 |  |  |  |

**LCS (2050048-BS1)**

Prepared &amp; Analyzed: 05/21/02

|   |      |     |      |      |  |      |        |  |  |  |
|---|------|-----|------|------|--|------|--------|--|--|--|
| Methyl tert-butyl ether                 | 44.9 | 2.0 | ug/l | 50.0 |  | 89.8 | 70-130 |  |  |  |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 51.6 |     | "    | 50.0 |  | 103  | 70-130 |  |  |  |
| <i>Surrogate: Toluene-d8</i>            | 52.8 |     | "    | 50.0 |  | 106  | 70-130 |  |  |  |



Gettler-Ryan/Geostrategies(1)  
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Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**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 |
|---|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| <b>Batch 2050048 - EPA 5030B [P/T]</b>                |        |                 |       |             |               |      |             |      |           |       |
| <b>LCS (2050048-BS2)</b>                              |        |                 |       |             |               |      |             |      |           |       |
| Prepared & Analyzed: 05/22/02                         |        |                 |       |             |               |      |             |      |           |       |
| Methyl tert-butyl ether                               | 44.9   | 2.0             | ug/l  | 50.0        |               | 89.8 | 70-130      |      |           |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 50.7   |                 | "     | 50.0        |               | 101  | 70-130      |      |           |       |
| Surrogate: Toluene-d8                                 | 52.9   |                 | "     | 50.0        |               | 106  | 70-130      |      |           |       |
| <b>Matrix Spike (2050048-MS1)</b>                     |        |                 |       |             |               |      |             |      |           |       |
| Source: L205071-05      Prepared & Analyzed: 05/21/02 |        |                 |       |             |               |      |             |      |           |       |
| Methyl tert-butyl ether                               | 44.8   | 2.0             | ug/l  | 50.0        | ND            | 89.6 | 60-140      |      |           |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 50.9   |                 | "     | 50.0        |               | 102  | 70-130      |      |           |       |
| Surrogate: Toluene-d8                                 | 54.0   |                 | "     | 50.0        |               | 108  | 70-130      |      |           |       |
| <b>Matrix Spike Dup (2050048-MSD1)</b>                |        |                 |       |             |               |      |             |      |           |       |
| Source: L205071-05      Prepared & Analyzed: 05/21/02 |        |                 |       |             |               |      |             |      |           |       |
| Methyl tert-butyl ether                               | 47.3   | 2.0             | ug/l  | 50.0        | ND            | 94.6 | 60-140      | 5.43 | 25        |       |
| Surrogate: 1,2-Dichloroethane-d4                      | 51.3   |                 | "     | 50.0        |               | 103  | 70-130      |      |           |       |
| Surrogate: Toluene-d8                                 | 53.6   |                 | "     | 50.0        |               | 107  | 70-130      |      |           |       |



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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

**Reported:**  
 05/22/02 15:35

**Diesel Hydrocarbons (C10-C28) by 8015B modified - Quality Control**  
**Sequoia Analytical - Morgan Hill**

| Analyte                          | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result                      | %REC | %REC<br>Limits | RPD  | RPD<br>Limit | Notes |
|----------------------------------|--------|--------------------|-------|----------------|---------------------------------------|------|----------------|------|--------------|-------|
| <b>Batch 2E14022 - EPA 3510B</b> |        |                    |       |                |                                       |      |                |      |              |       |
| <b>Blank (2E14022-BLK1)</b>      |        |                    |       |                | Prepared: 05/14/02 Analyzed: 05/15/02 |      |                |      |              |       |
| Diesel Range Organics (C10-C28)  | ND     | 50                 | ug/l  |                |                                       |      |                |      |              |       |
| <i>Surrogate: n-Octacosane</i>   | 39.4   |                    | "     | 50.0           |                                       | 78.8 | 50-150         |      |              |       |
| <b>LCS (2E14022-BS1)</b>         |        |                    |       |                | Prepared: 05/14/02 Analyzed: 05/15/02 |      |                |      |              |       |
| Diesel Range Organics (C10-C28)  | 435    | 50                 | ug/l  | 500            |                                       | 87.0 | 60-140         |      |              |       |
| <i>Surrogate: n-Octacosane</i>   | 41.1   |                    | "     | 50.0           |                                       | 82.2 | 50-150         |      |              |       |
| <b>LCS Dup (2E14022-BSD1)</b>    |        |                    |       |                | Prepared: 05/14/02 Analyzed: 05/15/02 |      |                |      |              |       |
| Diesel Range Organics (C10-C28)  | 427    | 50                 | ug/l  | 500            |                                       | 85.4 | 60-140         | 1.86 | 50           |       |
| <i>Surrogate: n-Octacosane</i>   | 38.8   |                    | "     | 50.0           |                                       | 77.6 | 50-150         |      |              |       |



Gettler-Ryan/Geostrategies(1)  
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Dublin CA, 94568

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

**Total Metals by EPA 200 Series Methods - Quality Control  
Sequoia Analytical - Morgan Hill**

| Analyte                                | Result | Reporting<br>Limit | Units | Spike<br>Level                        | Source<br>Result | %REC                                  | %REC<br>Limits | RPD   | RPD<br>Limit | Notes |
|--|--------|--------------------|-------|---------------------------------------|------------------|---------------------------------------|----------------|-------|--------------|-------|
| <b>Batch 2E14008 - EPA 3005A</b>       |        |                    |       |                                       |                  |                                       |                |       |              |       |
| <b>Blank (2E14008-BLK1)</b>            |        |                    |       |                                       |                  |                                       |                |       |              |       |
|  |        |                    |       | Prepared: 05/14/02 Analyzed: 05/15/02 |                  |                                       |                |       |              |       |
| Chromium                               | ND     | 0.010              | mg/l  |                                       |                  |                                       |                |       |              |       |
| <b>LCS (2E14008-BS1)</b>               |        |                    |       |                                       |                  |                                       |                |       |              |       |
|  |        |                    |       | Prepared: 05/14/02 Analyzed: 05/15/02 |                  |                                       |                |       |              |       |
| Chromium                               | 1.07   | 0.010              | mg/l  | 1.00                                  |                  | 107                                   | 80-120         |       |              |       |
| <b>Matrix Spike (2E14008-MS1)</b>      |        |                    |       |                                       |                  |                                       |                |       |              |       |
|  |        |                    |       | Source: MLE0200-01                    |                  | Prepared: 05/14/02 Analyzed: 05/20/02 |                |       |              |       |
| Chromium                               | 1.03   | 0.010              | mg/l  | 1.00                                  | ND               | 103                                   | 80-120         |       |              |       |
| <b>Matrix Spike Dup (2E14008-MSD1)</b> |        |                    |       |                                       |                  |                                       |                |       |              |       |
|  |        |                    |       | Source: MLE0200-01                    |                  | Prepared: 05/14/02 Analyzed: 05/20/02 |                |       |              |       |
| Chromium                               | 1.04   | 0.010              | mg/l  | 1.00                                  | ND               | 104                                   | 80-120         | 0.966 | 20           |       |



Gettler-Ryan/Geostrategies(1)  
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Dublin CA, 94568

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control  
Sequoia Analytical - Morgan Hill**

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

**Batch 2E10019 - EPA 3510B SepFunnel**

**Blank (2E10019-BLK1)**

Prepared: 05/10/02 Analyzed: 05/13/02

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

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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

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

#### Sequoia Analytical - Morgan Hill

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

**Batch 2E10019 - EPA 3510B SepFunnel**
**Blank (2E10019-BLK1)**

Prepared: 05/10/02 Analyzed: 05/13/02

|  |      |     |      |      |  |      |        |  |  |  |
|--|------|-----|------|------|--|------|--------|--|--|--|
| 2,6-Dinitrotoluene                     | ND   | 5.0 | ug/l |      |  |      |        |  |  |  |
| Di-n-octyl phthalate                   | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| Fluoranthene                           | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| Fluorene                               | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| Hexachlorobenzene                      | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| Hexachlorobutadiene                    | ND   | 10  | "    |      |  |      |        |  |  |  |
| Hexachlorocyclopentadiene              | ND   | 10  | "    |      |  |      |        |  |  |  |
| Hexachloroethane                       | ND   | 10  | "    |      |  |      |        |  |  |  |
| 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   | 100 | "    |      |  |      |        |  |  |  |
| 4-Nitroaniline                         | ND   | 50  | "    |      |  |      |        |  |  |  |
| Nitrobenzene                           | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| 2-Nitrophenol                          | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| 4-Nitrophenol                          | ND   | 10  | "    |      |  |      |        |  |  |  |
| N-Nitrosodiphenylamine                 | ND   | 10  | "    |      |  |      |        |  |  |  |
| 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   | 10  | "    |      |  |      |        |  |  |  |
| 2,4,5-Trichlorophenol                  | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| 2,4,6-Trichlorophenol                  | ND   | 5.0 | "    |      |  |      |        |  |  |  |
| <i>Surrogate: 2-Fluorophenol</i>       | 26.3 |     | "    | 50.0 |  | 52.6 | 2-86   |  |  |  |
| <i>Surrogate: Phenol-d6</i>            | 17.0 |     | "    | 50.0 |  | 34.0 | 15-50  |  |  |  |
| <i>Surrogate: Nitrobenzene-d5</i>      | 39.5 |     | "    | 50.0 |  | 79.0 | 68-115 |  |  |  |
| <i>Surrogate: 2-Fluorobiphenyl</i>     | 43.9 |     | "    | 50.0 |  | 87.8 | 70-120 |  |  |  |
| <i>Surrogate: 2,4,6-Tribromophenol</i> | 37.9 |     | "    | 50.0 |  | 75.8 | 23-176 |  |  |  |
| <i>Surrogate: p-Terphenyl-d14</i>      | 51.4 |     | "    | 50.0 |  | 103  | 91-143 |  |  |  |

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

 Project: Tosco(1)  
 Project Number: Tosco #4625, Oakland  
 Project Manager: Deanna Harding

 Reported:  
 05/22/02 15:35

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

#### Sequoia Analytical - Morgan Hill

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

**Batch 2E10019 - EPA 3510B SepFunnel**
**LCS (2E10019-BS1)**

Prepared: 05/10/02 Analyzed: 05/13/02

|  |      |     |      |      |  |      |        |  |  |  |
|--|------|-----|------|------|--|------|--------|--|--|--|
| Acenaphthene                           | 43.9 | 5.0 | ug/l | 50.0 |  | 87.8 | 67-118 |  |  |  |
| 4-Chloro-3-methylphenol                | 43.5 | 5.0 | "    | 50.0 |  | 87.0 | 56-125 |  |  |  |
| 2-Chlorophenol                         | 42.6 | 5.0 | "    | 50.0 |  | 85.2 | 57-118 |  |  |  |
| 1,4-Dichlorobenzene                    | 38.1 | 10  | "    | 50.0 |  | 76.2 | 58-103 |  |  |  |
| 2,4-Dinitrotoluene                     | 44.0 | 5.0 | "    | 50.0 |  | 88.0 | 62-113 |  |  |  |
| 4-Nitrophenol                          | 18.5 | 10  | "    | 50.0 |  | 37.0 | 16-48  |  |  |  |
| N-Nitrosodi-n-propylamine              | 45.9 | 5.0 | "    | 50.0 |  | 91.8 | 58-112 |  |  |  |
| Pentachlorophenol                      | 41.7 | 10  | "    | 50.0 |  | 83.4 | 50-111 |  |  |  |
| Phenol                                 | 20.9 | 5.0 | "    | 50.0 |  | 41.8 | 22-53  |  |  |  |
| Pyrene                                 | 51.0 | 5.0 | "    | 50.0 |  | 102  | 71-147 |  |  |  |
| 1,2,4-Trichlorobenzene                 | 39.1 | 10  | "    | 50.0 |  | 78.2 | 62-109 |  |  |  |
| <i>Surrogate: 2-Fluorophenol</i>       | 26.8 |     | "    | 50.0 |  | 53.6 | 2-86   |  |  |  |
| <i>Surrogate: Phenol-d6</i>            | 17.5 |     | "    | 50.0 |  | 35.0 | 15-50  |  |  |  |
| <i>Surrogate: Nitrobenzene-d5</i>      | 40.3 |     | "    | 50.0 |  | 80.6 | 68-115 |  |  |  |
| <i>Surrogate: 2-Fluorobiphenyl</i>     | 45.5 |     | "    | 50.0 |  | 91.0 | 70-120 |  |  |  |
| <i>Surrogate: 2,4,6-Tribromophenol</i> | 43.6 |     | "    | 50.0 |  | 87.2 | 23-176 |  |  |  |
| <i>Surrogate: p-Terphenyl-d14</i>      | 50.0 |     | "    | 50.0 |  | 100  | 91-143 |  |  |  |

**LCS Dup (2E10019-BSD1)**

Prepared: 05/10/02 Analyzed: 05/13/02

|  |      |     |      |      |  |      |        |      |    |  |
|--|------|-----|------|------|--|------|--------|------|----|--|
| Acenaphthene                           | 46.7 | 5.0 | ug/l | 50.0 |  | 93.4 | 67-118 | 6.18 | 30 |  |
| 4-Chloro-3-methylphenol                | 44.0 | 5.0 | "    | 50.0 |  | 88.0 | 56-125 | 1.14 | 30 |  |
| 2-Chlorophenol                         | 44.7 | 5.0 | "    | 50.0 |  | 89.4 | 57-118 | 4.81 | 30 |  |
| 1,4-Dichlorobenzene                    | 40.1 | 10  | "    | 50.0 |  | 80.2 | 58-103 | 5.12 | 30 |  |
| 2,4-Dinitrotoluene                     | 44.6 | 5.0 | "    | 50.0 |  | 89.2 | 62-113 | 1.35 | 30 |  |
| 4-Nitrophenol                          | 18.1 | 10  | "    | 50.0 |  | 36.2 | 16-48  | 2.19 | 30 |  |
| N-Nitrosodi-n-propylamine              | 47.0 | 5.0 | "    | 50.0 |  | 94.0 | 58-112 | 2.37 | 30 |  |
| Pentachlorophenol                      | 42.5 | 10  | "    | 50.0 |  | 85.0 | 50-111 | 1.90 | 30 |  |
| Phenol                                 | 21.4 | 5.0 | "    | 50.0 |  | 42.8 | 22-53  | 2.36 | 30 |  |
| Pyrene                                 | 49.9 | 5.0 | "    | 50.0 |  | 99.8 | 71-147 | 2.18 | 30 |  |
| 1,2,4-Trichlorobenzene                 | 39.5 | 10  | "    | 50.0 |  | 79.0 | 62-109 | 1.02 | 30 |  |
| <i>Surrogate: 2-Fluorophenol</i>       | 26.9 |     | "    | 50.0 |  | 53.8 | 2-86   |      |    |  |
| <i>Surrogate: Phenol-d6</i>            | 17.6 |     | "    | 50.0 |  | 35.2 | 15-50  |      |    |  |
| <i>Surrogate: Nitrobenzene-d5</i>      | 39.9 |     | "    | 50.0 |  | 79.8 | 68-115 |      |    |  |
| <i>Surrogate: 2-Fluorobiphenyl</i>     | 46.0 |     | "    | 50.0 |  | 92.0 | 70-120 |      |    |  |
| <i>Surrogate: 2,4,6-Tribromophenol</i> | 41.1 |     | "    | 50.0 |  | 82.2 | 23-176 |      |    |  |
| <i>Surrogate: p-Terphenyl-d14</i>      | 48.7 |     | "    | 50.0 |  | 97.4 | 91-143 |      |    |  |



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

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

**Reported:**  
05/22/02 15:35

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control  
Sequoia Analytical - Morgan Hill**

| Analyte                             | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD  | RPD Limit | Notes                                 |
|-------------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|---------------------------------------|
| <b>Batch 2E14029 - General Prep</b> |        |                 |       |             |               |      |             |      |           |                                       |
| <b>Blank (2E14029-BLK1)</b>         |        |                 |       |             |               |      |             |      |           |                                       |
|                                     |        |                 |       |             |               |      |             |      |           | Prepared: 05/14/02 Analyzed: 05/15/02 |
| Oil & Grease                        | ND     | 5.0             | mg/l  |             |               |      |             |      |           |                                       |
| <b>LCS (2E14029-BS1)</b>            |        |                 |       |             |               |      |             |      |           |                                       |
|                                     |        |                 |       |             |               |      |             |      |           | Prepared: 05/14/02 Analyzed: 05/15/02 |
| Oil & Grease                        | 15.2   | 5.0             | mg/l  | 20.0        |               | 76.0 | 70-130      |      |           |                                       |
| <b>LCS Dup (2E14029-BSD1)</b>       |        |                 |       |             |               |      |             |      |           |                                       |
|                                     |        |                 |       |             |               |      |             |      |           | Prepared: 05/14/02 Analyzed: 05/15/02 |
| Oil & Grease                        | 16.5   | 5.0             | mg/l  | 20.0        |               | 82.5 | 70-130      | 8.20 | 30        |                                       |



Gettler-Ryan/Geostrategies(1)  
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Dublin CA, 94568

Project: Tosco(1)  
Project Number: Tosco #4625, Oakland  
Project Manager: Deanna Harding

Reported:  
05/22/02 15:35

### Notes and Definitions

A-01 Sample was analyzed by EPA Method 8260.

P-01 Chromatogram Pattern: Gasoline C6-C12

S-BN Base/Neutral surrogate recovery outside control limits. The data was accepted based on valid recovery of remaining two base/neutral surrogates.

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