



GETTLER-RYAN INC.

ENVIRONMENTAL
PROTECTION
00 JUN 19 AM 9:00

TRANSMITTAL

June 2, 2000
G-R #:180022

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

CC: Mr. Keith Romstad
ERI, Inc.
73 Digital Drive, Suite 100
Novato, California 94949

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

RE: Tosco(Unocal) SS #7176
7850 Amador Valley Blvd.
Dublin, California

Handwritten notes in circles:
- Top circle: "SAD 4/104"
- Middle circle: "Unocal SS #7176 8/17/2000"
- Bottom circle: "186"

WE HAVE ENCLOSED THE FOLLOWING:

| COPIES | DATED | DESCRIPTION |
|--------|--------------|--|
| 1 | May 24, 2000 | Groundwater Monitoring and Sampling Report Second Quarter 2000 - Event of April 4, 2000 |

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by **June 15, 2000**, this report will be distributed to the following:

Enclosure

cc: Mr. Amir K. Gholami, REHS
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

trans/7176dbd.qmt



GETTLER-RYAN INC.

May 24, 2000
G-R Job #180022

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

RE: Second Quarter 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On April 4, 2000, field personnel monitored and sampled five wells (U-1, U-2, U-3, MW-4, and MW-5) at the above referenced site.

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

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding
FOR

Deanna L. Harding
Project Coordinator

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

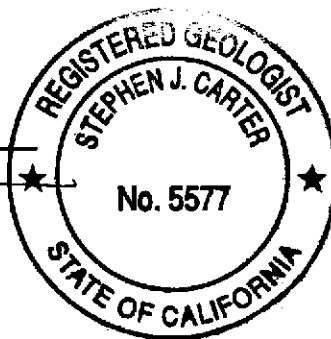
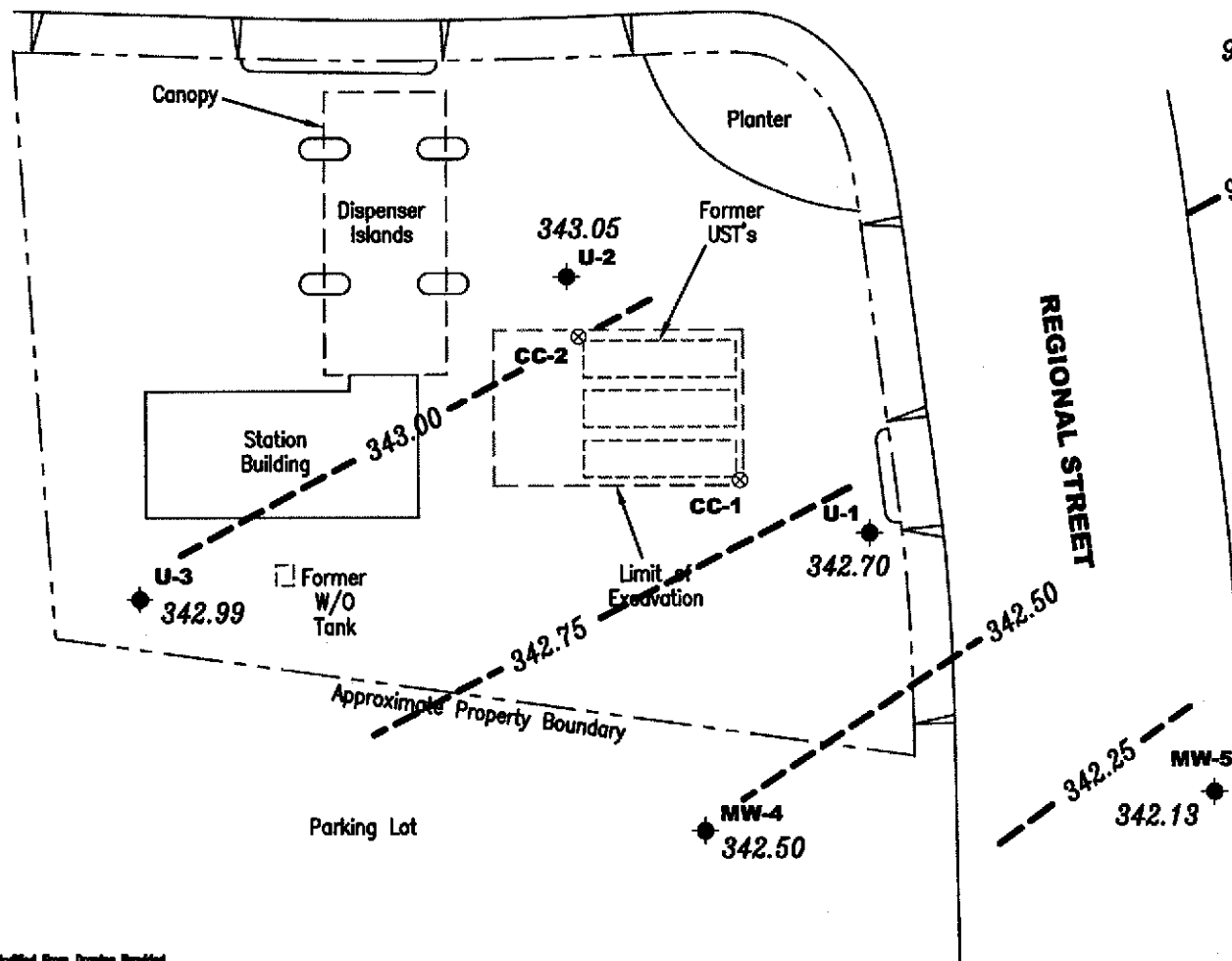


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Table 3: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets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

7176.qml

AMADOR VALLEY BOULEVARD



EXPLANATION

- ◆ Groundwater monitoring well
- ⊗ Conductor casing
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- Groundwater elevation contour, dashed where inferred.



Approximate groundwater flow direction at a gradient of 0.01 Ft./Ft.



Source: Figure Modified from Drawing Provided by MPOS Services, Inc.



Gettler - Ryan Inc.

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

POTENTIOMETRIC MAP
 Tosco (Unocal) Service Station No. 7176
 7850 Amador Valley Boulevard
 Dublin, California

FIGURE

1

JOB NUMBER
180022

REVIEWED BY

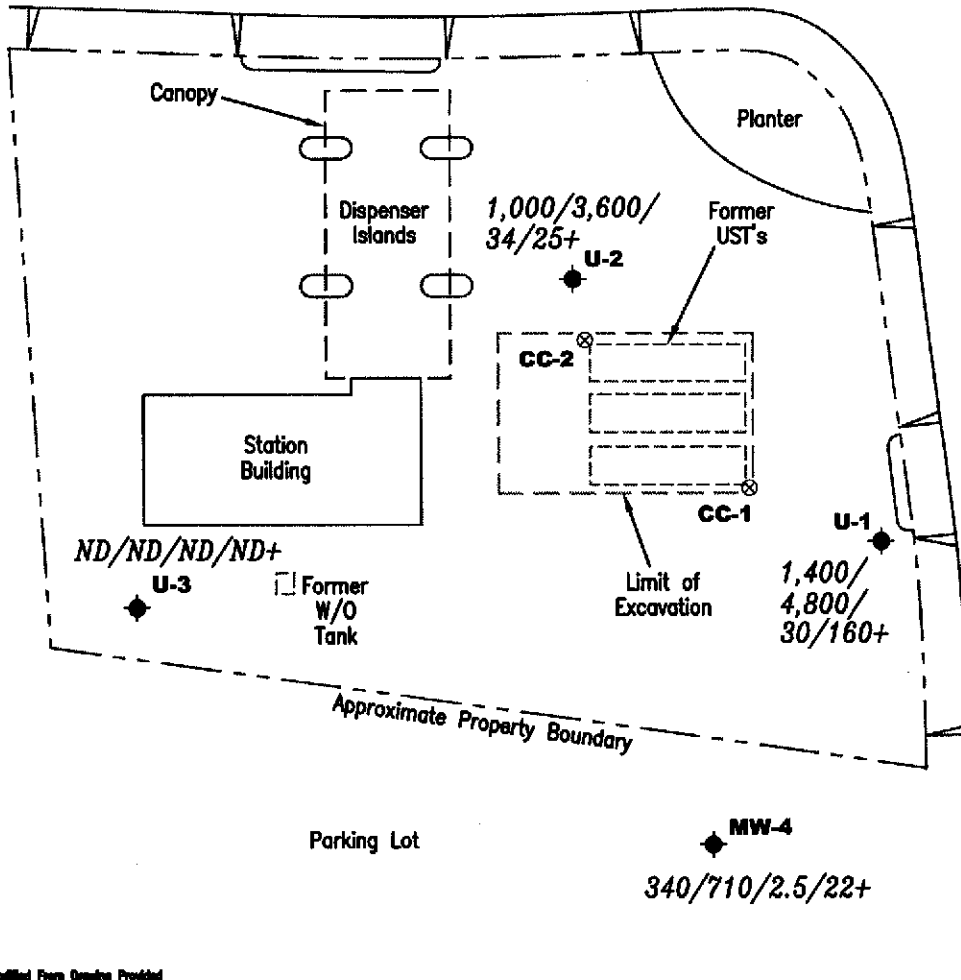
DATE
April 4, 2000

REVISED DATE

AMADOR VALLEY BOULEVARD

EXPLANATION

- ◆ Groundwater monitoring well
- ⊗ Conductor casing
- A/B/C/D TPH(D) (Total Petroleum Hydrocarbons as Diesel) with silica gel/TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/MTBE concentrations in ppb
- ND Not Detected
- + MTBE by EPA Method 8260



Source: Figure Modified From Drawing Provided by MPOS Services, Inc.



Gettler - Ryan Inc.

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

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 7176
7850 Amador Valley Boulevard
Dublin, California

FIGURE

2

JOB NUMBER
180022

REVIEWED BY

DATE
April 4, 2000

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

| Well ID/ TOC* | Date | DTW (ft.) | GWE (msl) | TPH(D)♦ (ppb) | TPH(G) (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) |
|------------------|-----------------------|--------------|--------------|---|----------------------|------------------|------------------|---------------------|------------|------------------------------------|
| U-1 | | | | | | | | | | |
| 355.62 | 07/08/95 | 12.59 | 343.03 | 9,400 ³ | 39,000 | 1,500 | 19 | 1,600 | 5,200 | -- |
| | 10/12/95 | 15.38 | 340.24 | 4,200 ⁵ | 33,000 | 1,400 | ND | 1,400 | 3,100 | -- ⁷ |
| | 01/11/96 ¹ | 16.33 | 339.29 | 8,200 ⁵ | 8,300 | 690 | 11 | 680 | 1,500 | -- ⁸ |
| | 04/11/96 ² | 12.20 | 343.42 | 630 ⁵ | 3,200 | 110 | ND | 180 | 290 | 790 |
| | 07/10/96 | 13.84 | 341.78 | 2,200 ⁵ | 2,600 | 81 | 4.4 | 210 | 230 | 510 |
| | 10/30/96 | 15.85 | 339.77 | 560 ⁵ | 2,200 | 67 | 19 | 140 | 150 | 360 |
| | 01/27/97 | 12.20 | 343.42 | 2,300 ⁵ | 4,600 | 98 | ND | 360 | 290 | 150 |
| | 04/08/97 | 13.46 | 342.16 | 1,300 ⁵ | 2,800 | 50 | ND | 220 | 140 | ND |
| | 07/17/97 | 15.30 | 340.32 | 460 ⁶ | 2,300 | 30 | 4.5 | 140 | 94 | 190 |
| | 10/17/97 | 16.33 | 339.29 | 510 ⁶ | 1,500 | 31 | 6.7 | 110 | 88 | 220 |
| | 01/19/98 | 14.34 | 341.28 | ¹⁰ 1,900/1,300 ¹⁰ | 3,100 | 46 | 3.4 | 310 | 200 | 170 |
| 355.59 | NP 04/23/98 | 11.16 | 344.43 | --/1,700 ¹¹ | 3,400 | 72 | 3.8 | 470 | 350 | 280 |
| | NP 07/08/98 | 12.67 | 342.92 | 2,000 ¹⁴ | 4,500 | 51 | ND ¹² | 590 | 430 | 190 |
| | 10/05/98 | 14.57 | 341.02 | --/2,500 ¹⁰ | 7,500 ¹⁶ | 53 | ND ¹² | 680 | 350 | 190/180 ¹⁷ |
| | 01/04/99 | 15.35 | 340.24 | ¹¹ 2,700/2,500 ¹¹ | 10,000 ¹⁹ | ND ¹² | ND ¹² | 1,200 ¹⁹ | 540 | ND ¹² |
| | 04/05/99 | 13.64 | 341.95 | ¹⁰ 920/570 ¹⁰ | 4,900 | 34 | ND ¹² | 350 | 150 | 150/55 ¹⁷ |
| | 07/01/99 | 14.39 | 341.20 | ¹⁰ 2,700/3,600 ²⁶ | 10,000 | 45 | ND ¹² | 850 | 420 | 260/110 ¹⁷ |
| | 09/30/99 | 15.32 | 340.27 | ¹⁰ 2,360/1,680 ¹⁰ | 7,150 ²⁷ | ND ¹² | ND ¹² | 415 | 84.4 | ¹² ND/195 ¹⁷ |
| | 01/03/00 | 16.51 | 339.08 | ²⁶ 2,000/1,700 ²⁶ | 5,400 ²⁷ | 28 | 8.4 | 180 | 33 | 160/120 ¹⁷ |
| | 04/04/00 | 12.89 | 342.70 | ²⁶ 990/1,400 ²⁶ | 4,800 ²⁷ | 30 | ND ¹² | 210 | 93 | 170/160 ¹⁷ |
| U-2 | | | | | | | | | | |
| 356.59 | 07/08/95 | 12.68 | 343.91 | 4,700 ³ | 17,000 | 430 | ND | 2,200 | 590 | -- |
| | 10/12/95 | 16.01 | 340.58 | 3,600 ⁵ | 24,000 | 310 | 60 | 1,900 | 190 | -- ⁷ |
| | 01/11/96 ¹ | 17.06 | 339.53 | 8,600 ⁵ | 10,000 | 210 | 55 | 1,400 | 240 | -- ⁸ |
| | 04/11/96 ² | 12.75 | 343.84 | 1,900 ⁵ | 7,700 | 130 | 27 | 1,100 | 110 | 340 |
| | 07/10/96 | 14.42 | 342.17 | 2,300 ⁵ | 5,600 | 59 | 15 | 610 | 42 | 250 |
| | 10/30/96 | 16.82 | 339.77 | 1,800 ⁵ | 7,700 | 67 | 35 | 1,000 | 54 | 260 |
| | 01/27/97 | 12.91 | 343.68 | 660 ⁵ | 1,600 | 14 | ND | 130 | 7.0 | 100 |
| | 04/08/97 | 14.07 | 342.52 | 2,000 ⁵ | 4,300 | 35 | ND | 400 | 16 | ND |
| | 07/17/97 | 15.96 | 340.63 | 1,300 ⁶ | 6,200 | 17 | 22 | 410 | ND | 130 |
| | 10/17/97 | 17.03 | 339.56 | 1,400 ⁶ | 7,100 | 71 | 26 | 520 | 50 | ND |
| | 01/19/98 | 15.10 | 341.49 | ¹⁰ 2,100/1,500 ¹⁰ | 5,300 | 46 | 11 | 350 | 16 | 110 |
| 356.55 | NP 04/23/98 | 11.74 | 344.81 | --/1,200 ¹¹ | 3,200 | 23 | 11 | 210 | 38 | 160 |

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

| Well ID/ TOC* | Date | DTW (ft.) | GWE (msl) | TPH(D)♦ (ppb) | TPH(G) (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | |
|------------------|-----------------------|--------------|--------------|---|---------------------|------------------|------------------|------------------|---------------------|-----------------------------------|----|
| U-2 (cont) | NP 07/08/98 | 13.27 | 343.28 | 1,100 ¹⁴ | 1,600 | 34 | 8.5 | 100 | 7.4 | 190 | |
| | 10/05/98 | 14.90 | 341.65 | --/1,300 ¹⁰ | 2,900 ¹⁸ | 37 | 8.4 | 110 | 7.3 | 78 | |
| | 01/04/99 | 15.94 | 340.61 | ¹¹ 670/250 ²⁰ | 2,200 ²¹ | 35 | ND ¹² | 17 | ND ¹² | 86 | |
| | 04/05/99 | 14.19 | 342.36 | ¹⁰ 660/490 ¹⁰ | 4,900 | 21 | 77 | 130 | 310 | 100/6.9 ¹⁷ | |
| | 07/01/99 | 14.98 | 341.57 | ²⁴ 210/440 ²⁶ | 1,500 ²⁵ | 7.6 | ND ¹² | ND ¹² | ND ¹² | ¹² ND/35 ¹⁷ | |
| | 09/30/99 | 16.00 | 340.55 | ¹⁰ 483/340 ¹⁰ | 256 ²⁷ | 1.85 | ND ¹² | 2.42 | ND ¹² | 26.3/29.8 ¹⁷ | |
| | 01/03/00 | 17.20 | 339.35 | ²⁶ 2,400/1,900 ²⁶ | 3,400 ²⁷ | 23 | 13 | ND ¹² | 44 | 46/14 ¹⁷ | |
| | 04/04/00 | 13.50 | 343.05 | ²⁶ 1,000/1,000 ²⁶ | 3,600 ²⁷ | 34 | 17 | 56 | ND ¹² | 59/25 ¹⁷ | |
| U-3 358.13 | 07/08/95 | 14.58 | 343.55 | 710 ³ | 1,100 ⁴ | 0.57 | 2.1 | 1.7 | 2.4 | -- | |
| | 10/12/95 | 17.60 | 340.53 | 470 ⁶ | 560 | ND | 0.87 | 0.7 | 1.1 | -- | |
| | 01/11/96 ¹ | 18.65 | 339.48 | 260 ⁶ | 230 | 0.62 | 0.91 | 0.97 | 1.9 | -- | |
| | 04/11/96 | 13.20 | 344.93 | ND | 68 ⁹ | ND | ND | ND | ND | ND | |
| | 07/10/96 | 15.98 | 342.15 | ND | ND | ND | ND | ND | ND | ND | |
| | 10/30/96 | 18.24 | 339.89 | ND | 70 | ND | ND | ND | ND | ND | |
| | 01/27/97 | 14.41 | 343.72 | ND | ND | ND | ND | ND | ND | ND | |
| | 04/08/97 | 15.73 | 342.40 | ND | ND | ND | ND | ND | ND | ND | |
| | 07/17/97 | 17.54 | 340.59 | ND | ND | ND | ND | ND | ND | ND | |
| | 10/17/97 | 18.64 | 339.49 | 63 ⁶ | ND | ND | ND | ND | ND | ND | |
| | 01/19/98 | 16.67 | 341.46 | ¹⁰ 68/ND | ND | ND | ND | ND | ND | ND | |
| | 358.09 | NP 04/23/98 | 13.28 | 344.81 | --/ND | ND | ND | ND | ND | ND | ND |
| | | NP 07/08/98 | 14.90 | 343.19 | 80 ¹⁵ | ND | ND | ND | ND | ND | ND |
| | | 10/05/98 | 16.50 | 341.59 | --/ND | ND | ND | ND | ND | ND | ND |
| | | 01/04/99 | 17.70 | 340.39 | ND | ND | ND | ND | ND | ND | ND |
| 04/05/99 | | 15.67 | 342.42 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ | |
| 07/01/99 | | 16.79 | 341.30 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ | |
| 09/30/99 | | 17.60 | 340.49 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ | |
| 01/03/00 | | 18.86 | 339.23 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ | |
| 04/04/00 | 15.10 | 342.99 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ | | |
| MW-4 356.41 | 04/23/98 | 12.11 | 344.30 | --/1,400 ¹¹ | 2,500 | 5.9 | 6.4 | 16 | 31 | ND ¹² | |
| | 07/08/98 | 13.70 | 342.71 | 1,400 ¹¹ | 1,000 ¹³ | ND ¹² | ND ¹² | ND ¹² | ND ¹² | ND ¹² | |

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #7176
 7850 Amador Valley Boulevard
 Dublin, California

| Well ID/ TOC* | Date | DTW (ft.) | GWE (msl) | TPH(D) [†] (ppb) | TPH(G) (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) |
|---------------------|----------|--------------|--------------|--|--------------------|------------------|------------------|------------------|------------------|------------------------------------|
| MW-4 (cont) | 10/05/98 | 15.18 | 341.23 | --/230 ¹⁰ | 890 ¹⁶ | ND ¹² | ND ¹² | ND ¹² | 14 | ND ¹² |
| | 01/04/99 | 16.39 | 340.02 | ¹⁰ 71/71 ¹⁰ | 230 ²² | 0.56 | 1.3 | 1.4 | 1.8 | 10 |
| | 04/05/99 | 14.61 | 341.80 | ¹⁰ 340/210 ¹⁰ | 620 ²³ | ND ¹² | 1.8 | 2.1 | ND ¹² | 6.0/9.3 ¹⁷ |
| | 07/01/99 | 15.43 | 340.98 | ²⁴ 260/310 ²⁶ | 700 ¹⁹ | 2.1 | ND ¹² | 1.9 | 2.4 | ¹² ND/21 ¹⁷ |
| | 09/30/99 | 16.27 | 340.14 | ¹⁰ 420/220 ¹⁰ | 582 ²⁷ | 2.60 | 1.30 | 1.98 | ND ¹² | 23.1/22.5 ¹⁷ |
| | 01/03/00 | 17.50 | 338.91 | ²⁶ 250/260 ²⁶ | 800 ²⁷ | 4.2 | 4.6 | 3.3 | 11 | 31/17 ¹⁷ |
| | 04/04/00 | 13.91 | 342.50 | ^{10,15} 460/340 ²⁶ | 710 ²⁷ | 2.0 | 1.3 | 4.4 | 2.0 | 21/22 ¹⁷ |
| MW-5 355.03 | 04/23/98 | 11.15 | 343.88 | --/100 ¹¹ | 120 | 0.53 | 0.90 | 1.0 | 3.8 | 13 |
| | 07/08/98 | 12.63 | 342.40 | 170 ¹⁰ | ND | ND | ND | ND | ND | 12 |
| | 10/05/98 | 14.00 | 341.03 | --/100 ¹⁰ | ND | ND | ND | ND | ND | 12 |
| | 01/04/99 | 15.21 | 339.82 | ND | ND | ND | ND | ND | ND | ND |
| | 04/05/99 | 13.76 | 341.27 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ |
| | 07/01/99 | 14.48 | 340.55 | ND | ND | ND | ND | ND | ND | ¹² ND/2.3 ¹⁷ |
| | 09/30/99 | 15.15 | 339.88 | ¹⁰ 60.4/ND | 50.8 ²⁷ | ND | ND | ND | ND | ND/ND ¹⁷ |
| | 01/03/00 | 16.34 | 338.69 | ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ |
| | 04/04/00 | 12.90 | 342.13 | ¹⁵ 69/ND | ND | ND | ND | ND | ND | ND/ND ¹⁷ |
| Trip Blank TB-LB | 01/19/98 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 04/23/98 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 07/08/98 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 10/05/98 | -- | -- | -- | ND | ND | 0.70 | ND | 0.71 | ND |
| | 01/04/99 | -- | -- | -- | ND | ND | 0.74 | ND | 0.92 | ND |
| | 04/05/99 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 07/01/99 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 09/30/99 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 01/03/00 | -- | -- | -- | ND | ND | ND | ND | ND | ND |
| | 04/04/00 | -- | -- | -- | ND | ND | ND | ND | ND | ND |

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #7176
 7850 Amador Valley Boulevard
 Dublin, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 19, 1998, were compiled from reports prepared by MPDS Services, Inc.

| | | |
|---|---|---|
| TOC = Top of Casing elevation | TPH(G) = Total Petroleum Hydrocarbons as Gasoline | |
| DTW = Depth to Water | B = Benzene | ppb = Parts per billion |
| (ft.) = Feet | T = Toluene | ND = Not Detected |
| GWE = Groundwater Elevation | E = Ethylbenzene | -- = Not Measured/Not Analyzed |
| msl = Relative to mean sea level | X = Xylenes | NP = No purge |
| TPH(D) = Total Petroleum Hydrocarbons as Diesel | MTBE = Methyl tertiary butyl ether | PNA = Polynuclear Aromatic Hydrocarbons |

- * TOC elevations were surveyed relative to msl, per the Benchmark AM-STW1977 located at the easterly return at the most easterly corner of intersection at Amador Valley Boulevard and Starward Street (Elevation = 344.17 feet msl).
- ◆ Analytical results reported as follows: TPH(D)/TPH(D) with silica gel cleanup.
- 1 PNA compound naphthalene was detected in well U-1 at a concentration of 320 ppb, and at a concentration of 310 ppb in well U-2. All other PNA compounds were ND in both wells.
- 2 PNA compounds were ND.
- 3 Laboratory report indicates unidentified hydrocarbons C9-C26.
- 4 Laboratory report indicates gasoline and unidentified hydrocarbons >C12.
- 5 Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- 6 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- 7 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 8 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- 9 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 10 Laboratory report indicates unidentified hydrocarbons C9-C24.
- 11 Laboratory report indicates diesel and unidentified hydrocarbons <C14.
- 12 Detection limit raised. Refer to analytical reports.
- 13 Laboratory report indicates unidentified hydrocarbons >C8.
- 14 Laboratory report indicates unidentified hydrocarbons <C14.
- 15 Laboratory report indicates discrete peaks.
- 16 Laboratory report indicates weathered gas C6-C12.
- 17 MTBE by EPA Method 8260.
- 18 Laboratory report indicates unidentified hydrocarbons <C8.
- 19 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- 20 Laboratory report indicates diesel and unidentified hydrocarbons <C16.
- 21 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 22 Laboratory report indicates gasoline and unidentified hydrocarbons >C10.
- 23 Laboratory report indicates gasoline and unidentified hydrocarbons <C7.
- 24 Laboratory report indicates unidentified hydrocarbons C10-C24.
- 25 Laboratory report indicates gasoline and unidentified hydrocarbons <C6.
- 26 Laboratory report indicates unidentified hydrocarbons <C16.
- 27 Laboratory report indicates gasoline C6-C12.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

| Well ID | Date | Ethanol (ppb) | TBA (ppb) | MTBE (ppb) | DIPE (ppb) | ETBE (ppb) | TAME (ppb) | EDB (ppb) | 1,2-DCA (ppb) |
|---------|----------|------------------|-----------------|---------------|-----------------|-----------------|-----------------|-----------------|------------------|
| U-1 | 04/05/99 | ND ¹ | ND ¹ | 55 | ND ¹ | ND ¹ | ND ¹ | ND ¹ | ND ¹ |
| | 07/01/99 | ND | ND | 110 | ND | ND | ND | ND | ND |
| | 09/30/99 | ND ¹ | ND ¹ | 195 | ND ¹ | ND ¹ | ND ¹ | ND ¹ | ND ¹ |
| | 01/03/00 | ND | ND | 120 | ND | ND | ND | ND | ND |
| | 04/04/00 | ND ¹ | ND ¹ | 160 | ND ¹ | ND ¹ | ND ¹ | ND ¹ | ND ¹ |
| U-2 | 04/05/99 | ND ¹ | ND ¹ | 6.9 | ND ¹ | ND ¹ | ND ¹ | ND ¹ | ND ¹ |
| | 07/01/99 | ND | ND | 35 | ND | ND | ND | ND | ND |
| | 09/30/99 | ND | ND | 29.8 | ND | ND | ND | ND | ND |
| | 01/03/00 | ND | ND | 14 | ND | ND | ND | ND | ND |
| | 04/04/00 | ND ¹ | ND ¹ | 25 | ND ¹ | ND ¹ | ND ¹ | ND ¹ | ND ¹ |
| U-3 | 04/05/99 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 07/01/99 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 09/30/99 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 01/03/00 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 04/04/00 | ND | ND | ND | ND | ND | ND | ND | ND |
| MW-4 | 04/05/99 | ND | ND | 9.3 | ND | ND | ND | ND | ND |
| | 07/01/99 | ND | ND | 21 | ND | ND | ND | ND | ND |
| | 09/30/99 | ND | ND | 22.5 | ND | ND | ND | ND | ND |
| | 01/03/00 | ND | ND | 17 | ND | ND | ND | ND | ND |
| | 04/04/00 | ND | ND | 22 | ND | ND | ND | ND | ND |
| MW-5 | 04/05/99 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 07/01/99 | ND | ND | 2.3 | ND | ND | ND | ND | ND |
| | 09/30/99 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 01/03/00 | ND | ND | ND | ND | ND | ND | ND | ND |
| | 04/04/00 | ND | ND | ND | ND | ND | ND | ND | ND |

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

EXPLANATIONS:

TBA = Tertiary Butyl Alcohol
MTBE = Methyl Tertiary Butyl Ether
DIPE = Di-isopropyl Ether
ETBE = Ethyl Tertiary Butyl Ether
TAME = Tertiary Amyl Methyl Ether
EDB = 1,2-Dibromomethane
1,2-DCA = 1,2-Dichloroethane
ppb = Parts per billion
ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Detection limit raised. Refer to analytical reports.

Table 3
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #7176
 7850 Amador Valley Boulevard
 Dublin, California

| Well ID | Date | Before Purging (mg/L) | After Purging (mg/L) |
|---------|-----------------------|--------------------------|-------------------------|
| U-1 | 01/11/96 | -- | 3.41 |
| | 04/11/96 | 3.77 | 3.78 |
| | 07/10/96 ¹ | 1.22 | -- |
| | 10/30/96 ¹ | 1.41 | -- |
| | 01/27/97 ¹ | 1.34 | -- |
| | 04/08/97 ¹ | 2.09 | -- |
| | 07/17/97 ¹ | 2.00 | -- |
| | 10/17/97 ¹ | 1.86 | -- |
| | 01/19/98 ¹ | 2.91 | -- |
| | 04/23/98 ¹ | 0.59 | -- |
| | 07/08/98 ¹ | 1.10 | -- |
| U-2 | 01/11/96 | -- | 3.99 |
| | 04/11/96 | 3.32 | 3.41 |
| | 07/10/96 ¹ | 1.01 | -- |
| | 10/30/96 ¹ | 1.42 | -- |
| | 01/27/97 ¹ | 1.29 | -- |
| | 04/08/97 ¹ | 1.69 | -- |
| | 07/17/97 ¹ | 2.08 | -- |
| | 10/17/97 ¹ | 1.80 | -- |
| | 01/19/98 ¹ | 2.95 | -- |
| | 04/23/98 ¹ | 0.55 | -- |
| | 07/08/98 ¹ | 1.36 | -- |
| U-3 | 01/11/96 | -- | 5.05 |
| | 04/11/96 | 5.16 | 4.96 |
| | 07/10/96 ¹ | 3.44 | -- |
| | 10/30/96 ¹ | 2.18 | -- |
| | 01/27/97 ¹ | 2.61 | -- |
| | 04/08/97 ¹ | 3.73 | -- |
| | 07/17/97 ¹ | 2.65 | -- |
| | 10/17/97 ¹ | 2.44 | -- |
| | 01/19/98 ¹ | 6.51 | -- |
| | 04/23/98 ¹ | 4.72 | -- |
| | 07/08/98 ¹ | 4.35 | -- |
| CC-1 | 10/02/95 | 2.83 | -- |

EXPLANATIONS:

Dissolved oxygen concentrations prior to January 19, 1998, were compiled from reports prepared by MPDS Services, Inc.

CC-1 = Conductor casing in the underground storage tank backfill

-- = Not Measured

mg/L = milligrams per liter

¹ The wells were not purged on this date.

Note: Measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

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

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

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility: UNOCAL SS # 7176 (Tosco) Job#: 180022
 Address: 7850 AMADOR VALLEY ROAD Date: 4-4-00
 City: DUBLIN, CA Sampler: STEVE RALIAN

Well ID: U-1 Well Condition: OK
 Well Diameter: 2" in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
 Total Depth: 27.90 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water: 12.89 ft. Factor (VF) 6" = 1.50 12" = 5.80

15.01 x VF 0.17 = 2.55 x 3 (case volume) = Estimated Purge Volume: 7.66 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 15:39 Weather Conditions: SUNNY
 Sampling Time: 16:00 Water Color: NOT CLEAR Odor: YES
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? No If yes: Time: _____ Volume: _____ (gal.)

| Time | Volume (gal.) | pH | Conductivity $\mu\text{mhos/cm}$ | Temperature $^{\circ}\text{F}$ | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|----------------------------------|--------------------------------|-------------|----------|------------------|
| <u>15:42</u> | <u>3</u> | <u>6.85</u> | <u>665</u> | <u>70.0</u> | | | |
| <u>15:44</u> | <u>5.5</u> | <u>6.84</u> | <u>686</u> | <u>69.8</u> | | | |
| <u>15:46</u> | <u>8</u> | <u>6.84</u> | <u>683</u> | <u>69.7</u> | | | |
| | | | | | | | |
| | | | | | | | |

| LABORATORY INFORMATION | | | | | | ANALYSES |
|------------------------|------------------|----------|---------------|----------------|-----------------------------------|----------|
| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | | |
| <u>U-1</u> | <u>6 - VOA'</u> | <u>Y</u> | <u>Hel</u> | <u>SEQUOIA</u> | <u>TPH(GI)/bTEX/mtbe / 6-044'</u> | |
| <u>U-1</u> | <u>1 - AMBER</u> | <u>Y</u> | <u>-</u> | <u>"</u> | <u>TPH-D 1.2 PPM EDB</u> | |
| | | | | | | |
| | | | | | | |

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Facility: UNOCAL SS # 7176 (Tosco) Job#: 180022
 Address: 7850 AMADOR VALLEY ROAD Date: 4-4-00
 City: DUBLIN, CA Sampler: STEVE BALIAN

Well ID: U-2 Well Condition: O.K.
 Well Diameter: 2" in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
 Total Depth: 26.50 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water: 13.50 ft. Factor (VF) 6" = 1.50 12" = 5.80

13.00 x VF 0.17 = 2.21 x 3 (case volume) = Estimated Purge Volume: 6.63 (gal.)

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

Starting Time: 15:04 Weather Conditions: SUNNY
 Sampling Time: 15:25 Water Color: NOT CLEAR Odor: Y/B
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? NO If yes: Time: _____ Volume: _____ (gal.)

| Time | Volume (gal.) | pH | Conductivity $\mu\text{hos/cm}$ | Temperature $^{\circ}\text{F}$ | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|---------------------------------|--------------------------------|-------------|----------|------------------|
| <u>15:06</u> | <u>2.5</u> | <u>6.89</u> | <u>810</u> | <u>70.6</u> | | | |
| <u>15:08</u> | <u>5</u> | <u>6.88</u> | <u>797</u> | <u>70.2</u> | | | |
| <u>15:10</u> | <u>7</u> | <u>6.87</u> | <u>785</u> | <u>70.0</u> | | | |
| | | | | | | | |
| | | | | | | | |

LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|------------|-----------------|----------|---------------|----------------|--|
| <u>U-2</u> | <u>6-VOA</u> | <u>Y</u> | <u>Hcl</u> | <u>SEQUOIA</u> | <u>TPH(GI)/btex/mtbe/6-oxy</u> |
| <u>U-2</u> | <u>1-AMBER</u> | <u>Y</u> | <u>-</u> | <u>"</u> | <u>TPH-0</u> <u>1,2-DCA</u> <u>EDS</u> |
| | | | | | |
| | | | | | |

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility: UNOCAL SS # 7176 (Tosco) Job#: 180022
 Address: 7850 AMADOR VALLEY ROAD Date: 4-4-00
 City: DUBLIN CA Sampler: STEVE RALIAN

Well ID: U-3 Well Condition: * ONE FLANGE IS BROKEN
 Well Diameter: 2" in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (Gallons): Ø
 Total Depth: 28.50 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water: 15.10 ft. Factor (VF) 6" = 1.50 12" = 5.80

13.40 x VF 0.17 = 2.27 x 3 (case volume) = Estimated Purge Volume: 6.83 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 13:22 Weather Conditions: SUNNY
 Sampling Time: 13:40 Water Color: NOT CLEAR Odor: -
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? NO If yes: Time: _____ Volume: _____ (gal.)

| Time | Volume (gal.) | pH | Conductivity $\mu\text{mhos/cm}$ | Temperature $^{\circ}\text{F}$ | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|----------------------------------|--------------------------------|-------------|----------|------------------|
| <u>13:24</u> | <u>2.5</u> | <u>6.90</u> | <u>792</u> | <u>74.3</u> | | | |
| <u>13:26</u> | <u>5</u> | <u>6.89</u> | <u>806</u> | <u>72.2</u> | | | |
| <u>13:28</u> | <u>7</u> | <u>6.89</u> | <u>814</u> | <u>71.7</u> | | | |
| | | | | | | | |

LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|------------|------------------|----------|---------------|----------------|--------------------------------------|
| <u>U-3</u> | <u>50 - VOA</u> | <u>Y</u> | <u>HR</u> | <u>SEQUOIA</u> | <u>TPH(GI)/btex/mtbe /6-oxyl/1,2</u> |
| <u>U-3</u> | <u>1 - AMBER</u> | <u>Y</u> | <u>-</u> | <u>"</u> | <u>TPH-D /EDB</u> |
| | | | | | |

COMMENTS: * 8" (METAL)

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility: UNOCAL SS # 7176 (Tosco) Job#: 180022
 Address: 7850 AMADOR VALLEY ROAD Date: 4-4-00
 City: DUBLIN, CA Sampler: STEVE BAIAN

Well ID: MW-4 Well Condition: O.K.
 Well Diameter: 2" in. Hydrocarbon Amount Bailed
 Thickness: Ø (feet) (product/water): Ø (Gallons)
 Total Depth: 25.50 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water: 13.91 ft. Factor (VF) 6" = 1.50 12" = 5.80

11.59 x VF 0.17 = 1.97 x 3 (case volume) = Estimated Purge Volume: 5.91 (gal.)

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

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

Starting Time: 14:29 Weather Conditions: SUNNY
 Sampling Time: 14:50 Water Color: NOT CLEAR Odor: YES
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? No If yes; Time: _____ Volume: _____ (gal.)

| Time | Volume (gal.) | pH | Conductivity μ mhos/cm | Temperature $^{\circ}$ F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|----------------------------|--------------------------|-------------|----------|------------------|
| <u>14:31</u> | <u>2</u> | <u>6.82</u> | <u>825</u> | <u>70.4</u> | | | |
| <u>14:33</u> | <u>4</u> | <u>6.83</u> | <u>820</u> | <u>69.8</u> | | | |
| <u>14:35</u> | <u>6</u> | <u>6.83</u> | <u>811</u> | <u>69.7</u> | | | |
| | | | | | | | |
| | | | | | | | |

LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|-------------|-----------------|----------|---------------|----------------|---------------------------------|
| <u>MW-4</u> | <u>6-WA</u> | <u>Y</u> | <u>HP</u> | <u>SEQUOIA</u> | <u>TPHIGI/btax/mtbe /6-04/1</u> |
| <u>MW-4</u> | <u>1-AMBER</u> | <u>Y</u> | <u>-</u> | <u>"</u> | <u>TPH-D EOB 6201</u> |
| | | | | | |
| | | | | | |

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility: UNOCAL SS # 7176 (Tosco) Job#: 180022
 Address: 7850 AMADOR VALLEY ROAD Date: 4-4-00
 City: DUBLIN, CA Sampler: STEVE RALIAN

Well ID: MW-5 Well Condition: O.K.
 Well Diameter: 2" in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
 Total Depth: 25.00 ft.
 Depth to Water: 12.90 ft.

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

12.10 x VF 0.17 = 2.06 x 3 (case volume) = Estimated Purge Volume: 6.17 gal.

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 13:54 Weather Conditions: SUNNY
 Sampling Time: 14:15 Water Color: NOT CLEAR Odor: -
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? No If yes: Time: _____ Volume: _____ gal.

| Time | Volume (gal.) | pH | Conductivity μ mhos/cm | Temperature $^{\circ}$ F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|--------------|---------------|-------------|----------------------------|--------------------------|-------------|----------|------------------|
| <u>13:56</u> | <u>2.5</u> | <u>6.90</u> | <u>817</u> | <u>70.6</u> | | | |
| <u>13:58</u> | <u>4.5</u> | <u>6.90</u> | <u>814</u> | <u>70.1</u> | | | |
| <u>14:00</u> | <u>6.5</u> | <u>6.90</u> | <u>80.7</u> | <u>70.0</u> | | | |
| | | | | | | | |
| | | | | | | | |

LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|-------------|------------------|----------|---------------|----------------|-------------------------------------|
| <u>MW-5</u> | <u>58 - VOA</u> | <u>Y</u> | <u>HY</u> | <u>SEQUOIA</u> | <u>TPH(GI)/btex/mtbe 16-005/112</u> |
| <u>MW-5</u> | <u>1 - AMBER</u> | <u>Y</u> | <u>-</u> | <u>"</u> | <u>TPH-7 EDB</u> |
| | | | | | |
| | | | | | |

COMMENTS: _____



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

Facility Number: UNOCAL SS# 7176
 Facility Address: 7850 Amador Valley Blvd. Dublin, CA
 Consultant Project Number: 180022.85
 Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
 Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
 Project Contact (Name): Deanna L. Harding
 (Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name): MR. DAVE DEWITT
 (Phone): (925) 277-2384
 Laboratory Name: Sequoia Analytical
 Laboratory Release Number: _____
 Samples Collected by (Name): STEVE BAWAN
 Collection Date: 4-4-00
 Signature: STEVE BAWAN

| Sample Number | Lab Sample Number | Number of Containers | Matrix S = Soil W = Water C = Charcoal | A = Air C = Charcoal | Type G = Grab C = Composite D = Discrete | Time | Sample Preservation | Lead (Yes or No) | Analytes To Be Performed | | | | | | | | | | | Remarks | | |
|---------------|-------------------|----------------------|---|-------------------------|---|-------|---------------------|------------------|------------------------------|-------------------|-----------------------|------------------------------|----------------------------|---------------------------|-----------------------------|--|----------------------------------|--|--|---------|--|-----------------|
| | | | | | | | | | TPH Gas + STEK w/MTBE (8015) | TPH Diesel (8015) | Oil and Grease (5520) | Purgeable Halocarbons (8010) | Purgeable Aromatics (8020) | Purgeable Organics (8240) | Extractable Organics (8270) | Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA) | 6-oxy's by 8260 or 1,2 DCA & EDB | | | | | |
| TB-LB | | 1 | W | | G | | H ₂ | Y | X | | | | | | | | | | | | | Run silica Gel |
| U-1 | | 6 | " | | " | 16:00 | " | Y | X | X | | | | | | | | | | | | clean-up on agg |
| U-2 | | 6 | " | | " | 15:25 | " | Y | X | X | | | | | | | | | | | | Diesel hits |
| U-3 | | 6 | " | | " | 13:40 | " | Y | X | X | | | | | | | | | | | | |
| MW-4 | | 6 | " | | " | 14:50 | " | Y | X | X | | | | | | | | | | | | |
| MW-5 | | 6 | " | | " | 14:15 | " | Y | X | X | | | | | | | | | | | | |

DO NOT BILL
TB-LB ANALYSIS

| | | | | | | |
|---|---------------------------------|----------------------------------|---|---------------------------------|----------------------------------|---|
| Relinquished By (Signature) <u>STEVE BAWAN</u> | Organization <u>G-R Inc.</u> | Date/Time <u>4-4-00 16:30</u> | Received By (Signature) <u>W M H</u> | Organization <u>G-R Inc.</u> | Date/Time <u>4/5/00 11:40</u> | Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days <u>10-Days</u> As Contracted |
| Relinquished By (Signature) | Organization | Date/Time | Received By (Signature) | Organization | Date/Time | |
| Relinquished By (Signature) | Organization | Date/Time | Received For Laboratory By (Signature) | | Date/Time | |



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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|-----------------|-----------------|
| TB-LB | W004100-01 | Water | 04-Apr-00 00:00 | 05-Apr-00 17:30 |
| U-1 | W004100-02 | Water | 04-Apr-00 16:00 | 05-Apr-00 17:30 |
| U-2 | W004100-03 | Water | 04-Apr-00 15:25 | 05-Apr-00 17:30 |
| U-3 | W004100-04 | Water | 04-Apr-00 13:40 | 05-Apr-00 17:30 |
| MW-4 | W004100-05 | Water | 04-Apr-00 14:50 | 05-Apr-00 17:30 |
| MW-5 | W004100-06 | Water | 04-Apr-00 14:15 | 05-Apr-00 17:30 |

Sequoia Analytical - Walnut Creek

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


Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|--------|----------|---------|-----------|-----------|------------|-------|
| TB-LB (W004100-01) Water Sampled: 04-Apr-00 00:00 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 0D12002 | 12-Apr-00 | 12-Apr-00 | EPA | |
| Benzene | ND | 0.50 | " | " | " | " | " | 8015M/8020 | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 94.3 % | 70-130 | " | " | " | " | " | |
| U-1 (W004100-02) Water Sampled: 04-Apr-00 16:00 Received: 05-Apr-00 17:30 P-01 | | | | | | | | | |
| Purgeable Hydrocarbons | 4800 | 1000 | ug/l | 20 | 0D13001 | 13-Apr-00 | 13-Apr-00 | EPA | |
| Benzene | 30 | 10 | " | " | " | " | " | 8015M/8020 | |
| Toluene | ND | 10 | " | " | " | " | " | " | |
| Ethylbenzene | 210 | 10 | " | " | " | " | " | " | |
| Xylenes (total) | 93 | 10 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | 170 | 50 | " | " | " | " | " | " | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 109 % | 70-130 | " | " | " | " | " | |
| U-2 (W004100-03) Water Sampled: 04-Apr-00 15:25 Received: 05-Apr-00 17:30 P-01 | | | | | | | | | |
| Purgeable Hydrocarbons | 3600 | 1000 | ug/l | 20 | 0D13001 | 13-Apr-00 | 13-Apr-00 | EPA | |
| Benzene | 34 | 10 | " | " | " | " | " | 8015M/8020 | |
| Toluene | 17 | 10 | " | " | " | " | " | " | |
| Ethylbenzene | 56 | 10 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 10 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | 59 | 50 | " | " | " | " | " | " | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 114 % | 70-130 | " | " | " | " | " | |





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|--------|----------|---------|-----------|-----------|------------|-------|
| U-3 (W004100-04) Water Sampled: 04-Apr-00 13:40 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 0D12003 | 12-Apr-00 | 12-Apr-00 | EPA | |
| Benzene | ND | 0.50 | " | " | " | " | " | 8015M/8020 | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 98.0 % | 70-130 | " | " | " | " | " | |
| MW-4 (W004100-05) Water Sampled: 04-Apr-00 14:50 Received: 05-Apr-00 17:30 P-01 | | | | | | | | | |
| Purgeable Hydrocarbons | 710 | 50 | ug/l | 1 | 0D12003 | 12-Apr-00 | 12-Apr-00 | EPA | |
| Benzene | 2.0 | 0.50 | " | " | " | " | " | 8015M/8020 | |
| Toluene | 1.3 | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | 4.4 | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | 2.0 | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | 21 | 2.5 | " | " | " | " | " | " | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 70.7 % | 70-130 | " | " | " | " | " | |
| MW-5 (W004100-06) Water Sampled: 04-Apr-00 14:15 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 0D12001 | 12-Apr-00 | 12-Apr-00 | EPA | |
| Benzene | ND | 0.50 | " | " | " | " | " | 8015M/8020 | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | | 86.7 % | 70-130 | " | " | " | " | " | |

Sequoia Analytical - Walnut Creek

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


Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------------|--------|----------|---------|-----------|-----------|-----------|-----------|
| U-1 (W004100-02) Water Sampled: 04-Apr-00 16:00 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 990 | 50 | ug/l | 1 | 0D18018 | 18-Apr-00 | 18-Apr-00 | EPA 8015M | D-11 |
| Surrogate: n-Pentacosane | | 61.0 % | 50-150 | | " | " | " | " | |
| U-2 (W004100-03) Water Sampled: 04-Apr-00 15:25 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 1000 | 50 | ug/l | 1 | 0D18018 | 18-Apr-00 | 18-Apr-00 | EPA 8015M | D-11 |
| Surrogate: n-Pentacosane | | 68.1 % | 50-150 | | " | " | " | " | |
| U-3 (W004100-04) Water Sampled: 04-Apr-00 13:40 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | ND | 50 | ug/l | 1 | 0D18018 | 18-Apr-00 | 18-Apr-00 | EPA 8015M | |
| Surrogate: n-Pentacosane | | 79.0 % | 50-150 | | " | " | " | " | |
| MW-4 (W004100-05) Water Sampled: 04-Apr-00 14:50 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 460 | 50 | ug/l | 1 | 0D18018 | 18-Apr-00 | 18-Apr-00 | EPA 8015M | D-06,D-14 |
| Surrogate: n-Pentacosane | | 91.0 % | 50-150 | | " | " | " | " | |
| MW-5 (W004100-06) Water Sampled: 04-Apr-00 14:15 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 69 | 50 | ug/l | 1 | 0D18018 | 18-Apr-00 | 18-Apr-00 | EPA 8015M | D-06 |
| Surrogate: n-Pentacosane | | 101 % | 50-150 | | " | " | " | " | |

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT
Sequoia Analytical - Walnut Creek

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------------|--------|----------|---------|-----------|-----------|-----------|-------|
| U-1 (W004100-02) Water Sampled: 04-Apr-00 16:00 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 1400 | 50 | ug/l | 1 | 0D25019 | 18-Apr-00 | 24-Apr-00 | EPA 8015M | D-11 |
| Surrogate: n-Pentacosane | | 50.2 % | 50-140 | | " | " | " | " | |
| U-2 (W004100-03) Water Sampled: 04-Apr-00 15:25 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 1000 | 50 | ug/l | 1 | 0D25019 | 18-Apr-00 | 24-Apr-00 | EPA 8015M | D-11 |
| Surrogate: n-Pentacosane | | 73.0 % | 50-140 | | " | " | " | " | |
| MW-4 (W004100-05) Water Sampled: 04-Apr-00 14:50 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | 340 | 50 | ug/l | 1 | 0D25019 | 18-Apr-00 | 24-Apr-00 | EPA 8015M | D-11 |
| Surrogate: n-Pentacosane | | 63.1 % | 50-140 | | " | " | " | " | |
| MW-5 (W004100-06) Water Sampled: 04-Apr-00 14:15 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Diesel Range Hydrocarbons | ND | 50 | ug/l | 1 | 0D25019 | 18-Apr-00 | 24-Apr-00 | EPA 8015M | |
| Surrogate: n-Pentacosane | | 105 % | 50-140 | | " | " | " | " | |

Sequoia Analytical - Walnut Creek

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


Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|--|--------|-----------------|--------|----------|---------|-----------|-----------|-----------|-------|
| U-1 (W004100-02) Water Sampled: 04-Apr-00 16:00 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Ethanol | ND | 2500 | ug/l | 5 | 0D04020 | 06-Apr-00 | 06-Apr-00 | EPA 8260A | |
| tert-Butyl alcohol | ND | 500 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | 160 | 10 | " | " | " | " | " | " | |
| Di-isopropyl ether | ND | 10 | " | " | " | " | " | " | |
| Ethyl tert-butyl ether | ND | 10 | " | " | " | " | " | " | |
| tert-Amyl methyl ether | ND | 10 | " | " | " | " | " | " | |
| 1,2-Dichloroethane | ND | 10 | " | " | " | " | " | " | |
| Ethylene dibromide | ND | 10 | " | " | " | " | " | " | |
| <i>Surrogate: Dibromofluoromethane</i> | | 92.0 % | 50-150 | | " | " | " | " | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 78.0 % | 50-150 | | " | " | " | " | |
| U-2 (W004100-03) Water Sampled: 04-Apr-00 15:25 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Ethanol | ND | 2500 | ug/l | 5 | 0D04020 | 06-Apr-00 | 06-Apr-00 | EPA 8260A | |
| tert-Butyl alcohol | ND | 500 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | 25 | 10 | " | " | " | " | " | " | |
| Di-isopropyl ether | ND | 10 | " | " | " | " | " | " | |
| Ethyl tert-butyl ether | ND | 10 | " | " | " | " | " | " | |
| tert-Amyl methyl ether | ND | 10 | " | " | " | " | " | " | |
| 1,2-Dichloroethane | ND | 10 | " | " | " | " | " | " | |
| Ethylene dibromide | ND | 10 | " | " | " | " | " | " | |
| <i>Surrogate: Dibromofluoromethane</i> | | 90.0 % | 50-150 | | " | " | " | " | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 76.0 % | 50-150 | | " | " | " | " | |
| U-3 (W004100-04) Water Sampled: 04-Apr-00 13:40 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Ethanol | ND | 500 | ug/l | 1 | 0D04020 | 06-Apr-00 | 06-Apr-00 | EPA 8260A | |
| tert-Butyl alcohol | ND | 100 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Di-isopropyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Ethyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| tert-Amyl methyl ether | ND | 2.0 | " | " | " | " | " | " | |
| 1,2-Dichloroethane | ND | 2.0 | " | " | " | " | " | " | |
| Ethylene dibromide | ND | 2.0 | " | " | " | " | " | " | |
| <i>Surrogate: Dibromofluoromethane</i> | | 92.0 % | 50-150 | | " | " | " | " | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 74.0 % | 50-150 | | " | " | " | " | |

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|--------|-----------------|--------|----------|---------|-----------|-----------|-----------|-------|
| MW-4 (W004100-05) Water Sampled: 04-Apr-00 14:50 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Ethanol | ND | 500 | ug/l | 1 | 0D04020 | 06-Apr-00 | 06-Apr-00 | EPA 8260A | |
| tert-Butyl alcohol | ND | 100 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | 22 | 2.0 | " | " | " | " | " | " | |
| Di-isopropyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Ethyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| tert-Amyl methyl ether | ND | 2.0 | " | " | " | " | " | " | |
| 1,2-Dichloroethane | ND | 2.0 | " | " | " | " | " | " | |
| Ethylene dibromide | ND | 2.0 | " | " | " | " | " | " | |
| <i>Surrogate: Dibromofluoromethane</i> | | 90.0 % | 50-150 | | " | " | " | " | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 74.0 % | 50-150 | | " | " | " | " | |
| MW-5 (W004100-06) Water Sampled: 04-Apr-00 14:15 Received: 05-Apr-00 17:30 | | | | | | | | | |
| Ethanol | ND | 500 | ug/l | 1 | 0D04020 | 06-Apr-00 | 06-Apr-00 | EPA 8260A | |
| tert-Butyl alcohol | ND | 100 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Di-isopropyl ether | ND | 2.0 | " | " | " | " | " | " | |
| Ethyl tert-butyl ether | ND | 2.0 | " | " | " | " | " | " | |
| tert-Amyl methyl ether | ND | 2.0 | " | " | " | " | " | " | |
| 1,2-Dichloroethane | ND | 2.0 | " | " | " | " | " | " | |
| Ethylene dibromide | ND | 2.0 | " | " | " | " | " | " | |
| <i>Surrogate: Dibromofluoromethane</i> | | 90.0 % | 50-150 | | " | " | " | " | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | | 72.0 % | 50-150 | | " | " | " | " | |

Sequoia Analytical - Walnut Creek

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


Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| Batch 0D12001: Prepared 12-Apr-00 Using EPA 5030B [P/T] | | | | | | | | | | |
| Blank (0D12001-BLK1) | | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| <i>Surrogate: a, a, a-Trifluorotoluene</i> | 30.5 | | " | 30.0 | | 102 | 70-130 | | | |
| LCS (0D12001-BS1) | | | | | | | | | | |
| Benzene | 16.3 | 0.50 | ug/l | 20.0 | | 81.5 | 70-130 | | | |
| Toluene | 17.0 | 0.50 | " | 20.0 | | 85.0 | 70-130 | | | |
| Ethylbenzene | 20.1 | 0.50 | " | 20.0 | | 101 | 70-130 | | | |
| Xylenes (total) | 55.5 | 0.50 | " | 60.0 | | 92.5 | 70-130 | | | |
| <i>Surrogate: a, a, a-Trifluorotoluene</i> | 26.6 | | " | 30.0 | | 88.7 | 70-130 | | | |
| Matrix Spike (0D12001-MS1) Source: W004117-05 | | | | | | | | | | |
| Benzene | 18.3 | 0.50 | ug/l | 20.0 | ND | 91.5 | 70-130 | | | |
| Toluene | 19.1 | 0.50 | " | 20.0 | ND | 95.5 | 70-130 | | | |
| Ethylbenzene | 18.3 | 0.50 | " | 20.0 | ND | 91.5 | 70-130 | | | |
| Xylenes (total) | 61.6 | 0.50 | " | 60.0 | ND | 103 | 70-130 | | | |
| <i>Surrogate: a, a, a-Trifluorotoluene</i> | 27.0 | | " | 30.0 | | 90.0 | 70-130 | | | |
| Matrix Spike Dup (0D12001-MSD1) Source: W004117-05 | | | | | | | | | | |
| Benzene | 17.3 | 0.50 | ug/l | 20.0 | ND | 86.5 | 70-130 | 5.62 | 20 | |
| Toluene | 17.9 | 0.50 | " | 20.0 | ND | 89.5 | 70-130 | 6.49 | 20 | |
| Ethylbenzene | 18.5 | 0.50 | " | 20.0 | ND | 92.5 | 70-130 | 1.09 | 20 | |
| Xylenes (total) | 58.7 | 0.50 | " | 60.0 | ND | 97.8 | 70-130 | 4.82 | 20 | |
| <i>Surrogate: a, a, a-Trifluorotoluene</i> | 26.9 | | " | 30.0 | | 89.7 | 70-130 | | | |





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

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

Batch 0D12002: Prepared 12-Apr-00 Using EPA 5030B [P/T]

Blank (0D12002-BLK1)

| | | | | | | | | | | |
|--|------|------|------|------|--|------|--------|--|--|--|
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 28.4 | | " | 30.0 | | 94.7 | 70-130 | | | |

LCS (0D12002-BS1)

| | | | | | | | | | | |
|--|------|------|------|------|--|------|--------|--|--|--|
| Benzene | 16.5 | 0.50 | ug/l | 20.0 | | 82.5 | 70-130 | | | |
| Toluene | 17.4 | 0.50 | " | 20.0 | | 87.0 | 70-130 | | | |
| Ethylbenzene | 18.2 | 0.50 | " | 20.0 | | 91.0 | 70-130 | | | |
| Xylenes (total) | 54.7 | 0.50 | " | 60.0 | | 91.2 | 70-130 | | | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 28.4 | | " | 30.0 | | 94.7 | 70-130 | | | |

LCS Dup (0D12002-BSD1)

| | | | | | | | | | | |
|--|------|------|------|------|--|------|--------|------|----|--|
| Benzene | 18.1 | 0.50 | ug/l | 20.0 | | 90.5 | 70-130 | 9.25 | 20 | |
| Toluene | 19.1 | 0.50 | " | 20.0 | | 95.5 | 70-130 | 9.32 | 20 | |
| Ethylbenzene | 19.7 | 0.50 | " | 20.0 | | 98.5 | 70-130 | 7.92 | 20 | |
| Xylenes (total) | 59.2 | 0.50 | " | 60.0 | | 98.7 | 70-130 | 7.90 | 20 | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 29.8 | | " | 30.0 | | 99.3 | 70-130 | | | |

Batch 0D12003: Prepared 12-Apr-00 Using EPA 5030B [P/T]

Blank (0D12003-BLK1)

| | | | | | | | | | | |
|--|------|------|------|------|--|-----|--------|--|--|--|
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| <i>Surrogate: a,a,a-Trifluorotoluene</i> | 31.4 | | " | 30.0 | | 105 | 70-130 | | | |

Sequoia Analytical - Walnut Creek

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


Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

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

Batch 0D12003: Prepared 12-Apr-00 Using EPA 5030B [P/T]

LCS (0D12003-BS1)

| | | | | | | | | | | |
|-------------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Benzene | 20.7 | 0.50 | ug/l | 20.0 | | 104 | 70-130 | | | |
| Toluene | 21.0 | 0.50 | " | 20.0 | | 105 | 70-130 | | | |
| Ethylbenzene | 21.2 | 0.50 | " | 20.0 | | 106 | 70-130 | | | |
| Xylenes (total) | 61.0 | 0.50 | " | 60.0 | | 102 | 70-130 | | | |
| Surrogate: a, a, a-Trifluorotoluene | 28.8 | | " | 30.0 | | 96.0 | 70-130 | | | |

Matrix Spike (0D12003-MS1)

Source: W004084-01

| | | | | | | | | | | |
|-------------------------------------|------|------|------|------|----|------|--------|--|--|--|
| Benzene | 20.7 | 0.50 | ug/l | 20.0 | ND | 104 | 70-130 | | | |
| Toluene | 21.0 | 0.50 | " | 20.0 | ND | 105 | 70-130 | | | |
| Ethylbenzene | 21.1 | 0.50 | " | 20.0 | ND | 106 | 70-130 | | | |
| Xylenes (total) | 61.0 | 0.50 | " | 60.0 | ND | 102 | 70-130 | | | |
| Surrogate: a, a, a-Trifluorotoluene | 27.6 | | " | 30.0 | | 92.0 | 70-130 | | | |

Matrix Spike Dup (0D12003-MSD1)

Source: W004084-01

| | | | | | | | | | | |
|-------------------------------------|------|------|------|------|----|------|--------|------|----|--|
| Benzene | 19.5 | 0.50 | ug/l | 20.0 | ND | 97.5 | 70-130 | 5.97 | 20 | |
| Toluene | 19.8 | 0.50 | " | 20.0 | ND | 99.0 | 70-130 | 5.88 | 20 | |
| Ethylbenzene | 19.7 | 0.50 | " | 20.0 | ND | 98.5 | 70-130 | 6.86 | 20 | |
| Xylenes (total) | 57.3 | 0.50 | " | 60.0 | ND | 95.5 | 70-130 | 6.26 | 20 | |
| Surrogate: a, a, a-Trifluorotoluene | 27.1 | | " | 30.0 | | 90.3 | 70-130 | | | |

Batch 0D13001: Prepared 13-Apr-00 Using EPA 5030B [P/T]

Blank (0D13001-BLK1)

| | | | | | | | | | | |
|-------------------------------------|------|------|------|------|--|-----|--------|--|--|--|
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| Surrogate: a, a, a-Trifluorotoluene | 30.2 | | " | 30.0 | | 101 | 70-130 | | | |

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

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

Batch 0D13001: Prepared 13-Apr-00 Using EPA 5030B [P/T]

LCS (0D13001-BS1)

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|--|------|--------|--|--|--|
| Benzene | 18.6 | 0.50 | ug/l | 20.0 | | 93.0 | 70-130 | | | |
| Toluene | 19.4 | 0.50 | " | 20.0 | | 97.0 | 70-130 | | | |
| Ethylbenzene | 19.1 | 0.50 | " | 20.0 | | 95.5 | 70-130 | | | |
| Xylenes (total) | 63.3 | 0.50 | " | 60.0 | | 105 | 70-130 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 27.4 | | " | 30.0 | | 91.3 | 70-130 | | | |

Matrix Spike (0D13001-MS1)

Source: W004085-07

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|----|------|--------|--|--|--|
| Benzene | 16.9 | 0.50 | ug/l | 20.0 | ND | 84.5 | 70-130 | | | |
| Toluene | 17.5 | 0.50 | " | 20.0 | ND | 87.5 | 70-130 | | | |
| Ethylbenzene | 18.1 | 0.50 | " | 20.0 | ND | 90.5 | 70-130 | | | |
| Xylenes (total) | 57.2 | 0.50 | " | 60.0 | ND | 95.3 | 70-130 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 26.8 | | " | 30.0 | | 89.3 | 70-130 | | | |

Matrix Spike Dup (0D13001-MSD1)

Source: W004085-07

| | | | | | | | | | | |
|-----------------------------------|------|------|------|------|----|------|--------|------|----|--|
| Benzene | 17.1 | 0.50 | ug/l | 20.0 | ND | 85.5 | 70-130 | 1.18 | 20 | |
| Toluene | 17.8 | 0.50 | " | 20.0 | ND | 89.0 | 70-130 | 1.70 | 20 | |
| Ethylbenzene | 19.2 | 0.50 | " | 20.0 | ND | 96.0 | 70-130 | 5.90 | 20 | |
| Xylenes (total) | 58.4 | 0.50 | " | 60.0 | ND | 97.3 | 70-130 | 2.08 | 20 | |
| Surrogate: a,a,a-Trifluorotoluene | 25.4 | | " | 30.0 | | 84.7 | 70-130 | | | |

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| Batch 0D18018: Prepared 18-Apr-00 Using EPA 3510B | | | | | | | | | | |
| Blank (0D18018-BLK1) | | | | | | | | | | |
| Diesel Range Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Surrogate: n-Pentacosane | 40.0 | | " | 33.3 | | 120 | 50-150 | | | |
| LCS (0D18018-BS1) | | | | | | | | | | |
| Diesel Range Hydrocarbons | 525 | 50 | ug/l | 500 | | 105 | 60-140 | | | |
| Surrogate: n-Pentacosane | 40.0 | | " | 33.3 | | 120 | 50-150 | | | |
| LCS Dup (0D18018-BSD1) | | | | | | | | | | |
| Diesel Range Hydrocarbons | 343 | 50 | ug/l | 500 | | 68.6 | 60-140 | 41.9 | 50 | |
| Surrogate: n-Pentacosane | 35.0 | | " | 33.3 | | 105 | 50-150 | | | |





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

**Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| Batch 0D25019: Prepared 18-Apr-00 Using EPA 3510B | | | | | | | | | | |
| Blank (0D25019-BLK1) | | | | | | | | | | |
| Diesel Range Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Surrogate: n-Pentacosane | 29.3 | | " | 33.3 | | 88.0 | 50-140 | | | |
| LCS (0D25019-BS1) | | | | | | | | | | |
| Diesel Range Hydrocarbons | 260 | 50 | ug/l | 500 | | 52.0 | 35-125 | | | |
| Surrogate: n-Pentacosane | 31.0 | | " | 33.3 | | 93.1 | 50-140 | | | |
| LCS Dup (0D25019-BSD1) | | | | | | | | | | |
| Diesel Range Hydrocarbons | 310 | 50 | ug/l | 500 | | 62.0 | 35-125 | 17.5 | 50 | |
| Surrogate: n-Pentacosane | 31.0 | | " | 33.3 | | 93.1 | 50-140 | | | |

Sequoia Analytical - Walnut Creek

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


Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

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

Batch 0D04020: Prepared 03-Apr-00 Using EPA 5030B [P/T]

Blank (0D04020-BLK1)

| | | | | | | | | | | |
|---|------|-----|------|------|--|------|--------|--|--|--|
| Ethanol | ND | 500 | ug/l | | | | | | | |
| tert-Butyl alcohol | ND | 100 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.0 | " | | | | | | | |
| Di-isopropyl ether | ND | 2.0 | " | | | | | | | |
| Ethyl tert-butyl ether | ND | 2.0 | " | | | | | | | |
| tert-Amyl methyl ether | ND | 2.0 | " | | | | | | | |
| 1,2-Dichloroethane | ND | 2.0 | " | | | | | | | |
| Ethylene dibromide | ND | 2.0 | " | | | | | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 46.0 | | " | 50.0 | | 92.0 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 39.0 | | " | 50.0 | | 78.0 | 50-150 | | | |

Blank (0D04020-BLK2)

| | | | | | | | | | | |
|---|------|-----|------|------|--|------|--------|--|--|--|
| Ethanol | ND | 500 | ug/l | | | | | | | |
| tert-Butyl alcohol | ND | 100 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.0 | " | | | | | | | |
| Di-isopropyl ether | ND | 2.0 | " | | | | | | | |
| Ethyl tert-butyl ether | ND | 2.0 | " | | | | | | | |
| tert-Amyl methyl ether | ND | 2.0 | " | | | | | | | |
| 1,2-Dichloroethane | ND | 2.0 | " | | | | | | | |
| Ethylene dibromide | ND | 2.0 | " | | | | | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 44.0 | | " | 50.0 | | 88.0 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 35.0 | | " | 50.0 | | 70.0 | 50-150 | | | |

LCS (0D04020-BS1)

| | | | | | | | | | | |
|---|------|-----|------|------|--|------|--------|--|--|--|
| Methyl tert-butyl ether | 58.3 | 2.0 | ug/l | 50.0 | | 117 | 70-130 | | | |
| <i>Surrogate: Dibromofluoromethane</i> | 48.0 | | " | 50.0 | | 96.0 | 50-150 | | | |
| <i>Surrogate: 1,2-Dichloroethane-d4</i> | 39.0 | | " | 50.0 | | 78.0 | 50-150 | | | |

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

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

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| Batch 0D04020: Prepared 06-Apr-00 Using EPA 5030B [P/T] | | | | | | | | | | |
| LCS (0D04020-BS2) | | | | | | | | | | |
| Methyl tert-butyl ether | 51.2 | 2.0 | ug/l | 50.0 | | 102 | 70-130 | | | |
| Surrogate: Dibromofluoromethane | 43.0 | | " | 50.0 | | 86.0 | 50-150 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 34.0 | | " | 50.0 | | 68.0 | 50-150 | | | |
| Matrix Spike (0D04020-MS1) Source: W003692-01 | | | | | | | | | | |
| Methyl tert-butyl ether | 66.9 | 2.0 | ug/l | 50.0 | 5.8 | 122 | 60-150 | | | |
| Surrogate: Dibromofluoromethane | 48.0 | | " | 50.0 | | 96.0 | 50-150 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 41.0 | | " | 50.0 | | 82.0 | 50-150 | | | |
| Matrix Spike Dup (0D04020-MSD1) Source: W003692-01 | | | | | | | | | | |
| Methyl tert-butyl ether | 72.1 | 2.0 | ug/l | 50.0 | 5.8 | 133 | 60-150 | 7.48 | 25 | |
| Surrogate: Dibromofluoromethane | 49.0 | | " | 50.0 | | 98.0 | 50-150 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 42.0 | | " | 50.0 | | 84.0 | 50-150 | | | |

Sequoia Analytical - Walnut Creek

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

Charlie Westwater, Project Manager





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

Project: Unocal
Project Number: Unocal # 7176
Project Manager: Deanna L. Harding

Report Revised:
12-May-00 08:48

Notes and Definitions

D-06 Discrete peaks.
D-11 Chromatogram Pattern: Unidentified Hydrocarbons < C16
D-14 Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
P-01 Chromatogram Pattern: Gasoline C6-C12
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

