ENVIRONMENTAL RESOLUTIONS, INC.

June 19, 2001
ERI 209214AG.L01



Mr. Amir K. Gholami
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Addendum to *Request and Work Plan for Case Closure*, Tosco 76 Service Station 7176, 7850 Amador Valley Boulevard, Dublin, California.

Mr. Gholami:

At the request of Tosco Marketing Company (Tosco), Environmental Resolutions, Inc. (ERI) is submitting this Addendum to ERI's *Request and Work Plan for Case Closure* (Closure Plan) for the subject site dated August 31, 2000. This Addendum includes graphs of hydrocarbon concentrations plotted versus time for the three groundwater monitoring wells (U1, U2, and MW4) that are located within the dissolved hydrocarbon plume in shallow groundwater beneath the site. Hydrographs for each of these wells are included as a reference in analyzing the concentration trends. The purpose of the graphs is to demonstrate that the dissolved hydrocarbon plume is decreasing in concentration. ERI prepared this Addendum in response to personal communication between Tosco and Alameda County Health Care Services Agency (the County).

This Addendum also includes closure summary information required by the County to review closure requests. ERI's Closure Plan submitted in August 2000 contained a completed Regional Water Quality Control Board Site Information Summary Form, however, it was in a different format than that used by the County. An updated Site Closure Summary form, including summary tables and site plans, is provided in Attachment A. ERI's Criteria For Case Closure is provided in Attachment B. The data provided in this Addendum, as well as in the original Closure Plan, should complete the County's request for summary information related to closure of the environmental case at the site.

To generate Graphs 1 through 3, ERI utilized the cumulative groundwater monitoring and sampling data provided in Gettler-Ryan, Inc.'s *Second Quarter 2001 Groundwater Monitoring & Sampling Report* for the site dated May 7, 2001. Graph 1 shows strong decreasing trends in benzene and methyl tertiary butyl ether (MTBE) concentrations in well U1 since July 1995. Total petroleum hydrocarbons as gasoline (TPHg) concentrations in well U1 have decreased less significantly; however, a decreasing trend is observed from July 1999 through the present. Graph 2 shows strong decreasing hydrocarbon concentration trends in well U2 since July 1995. Graph 3 shows the concentrations of benzene, MTBE, and TPHg in well MW4 since its installation in April 1998. Sufficient data to warrant trendlines are not available for well MW4; however, based on the curves of hydrocarbon concentration versus time, concentrations appear to be decreasing or stable. Fluctuations in hydrocarbon concentrations in the wells do not appear to be significantly related to fluctuations in groundwater elevation.

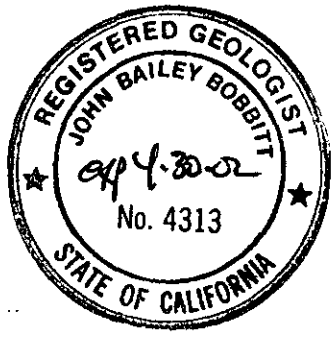
It is ERI's opinion that the dissolved hydrocarbon plume in groundwater at the site is decreasing in concentration. Based on the results of 1) this data analysis; 2) previous site investigations; and 3) the results of the sensitive receptor survey (SRS) and Risk-Based Corrective Action (RBCA) Tier II analysis reported in the Closure Plan, ERI recommends closure of the environmental case at the site.

Please call Mr. Paul Blank, ERI's project manager for this site, at (415) 382-5988 with any questions regarding this Addendum.

Sincerely,
Environmental Resolutions, Inc.

Paul D. Blank
Assistant Project Manager

John B. Bobbitt
R.G. 4313

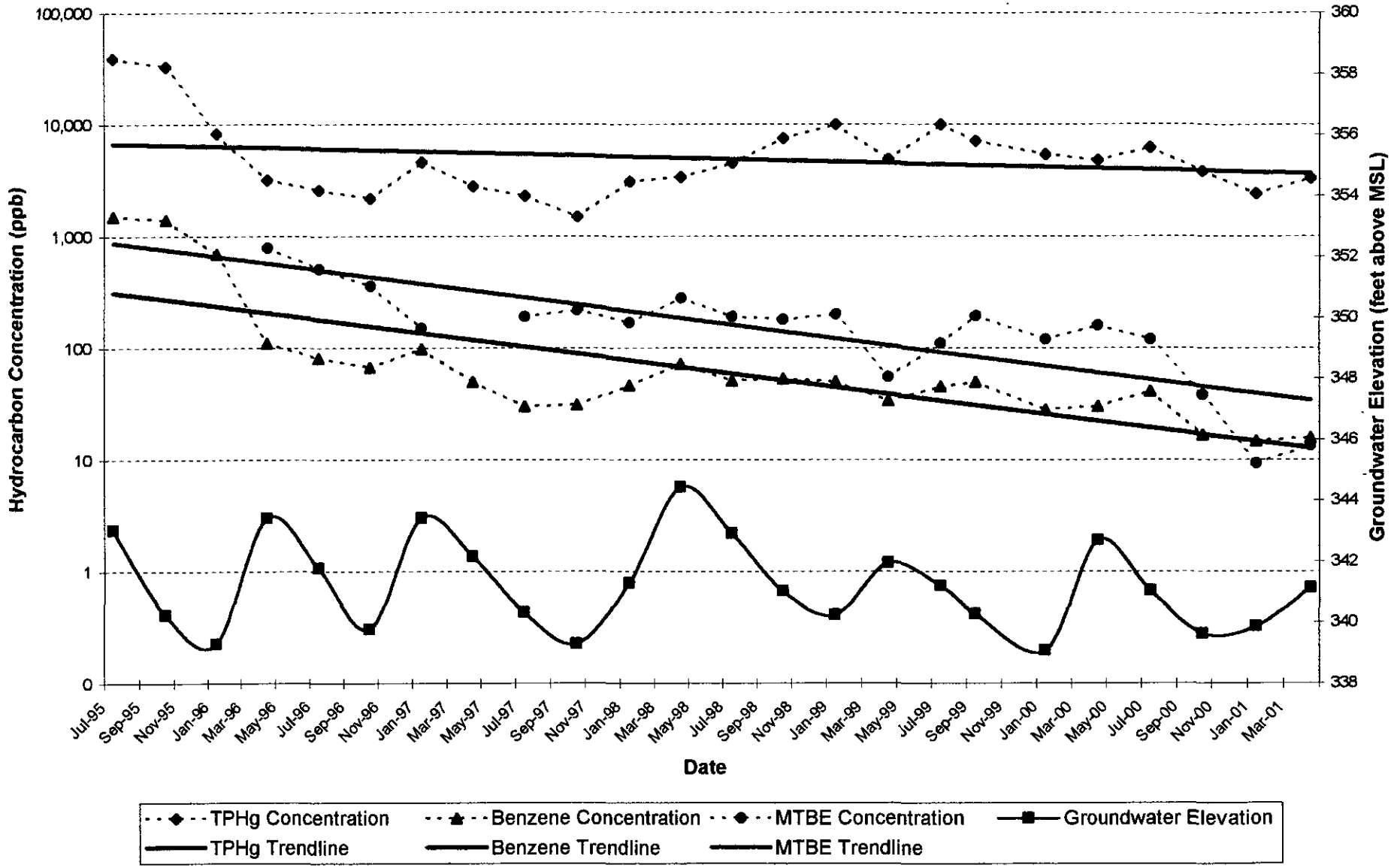



Attachment: Graph 1: Well U1 – Hydrocarbon Concentrations vs. Time
Graph 2: Well U2 – Hydrocarbon Concentrations vs. Time
Graph 3: Well MW4 – Hydrocarbon Concentrations vs. Time

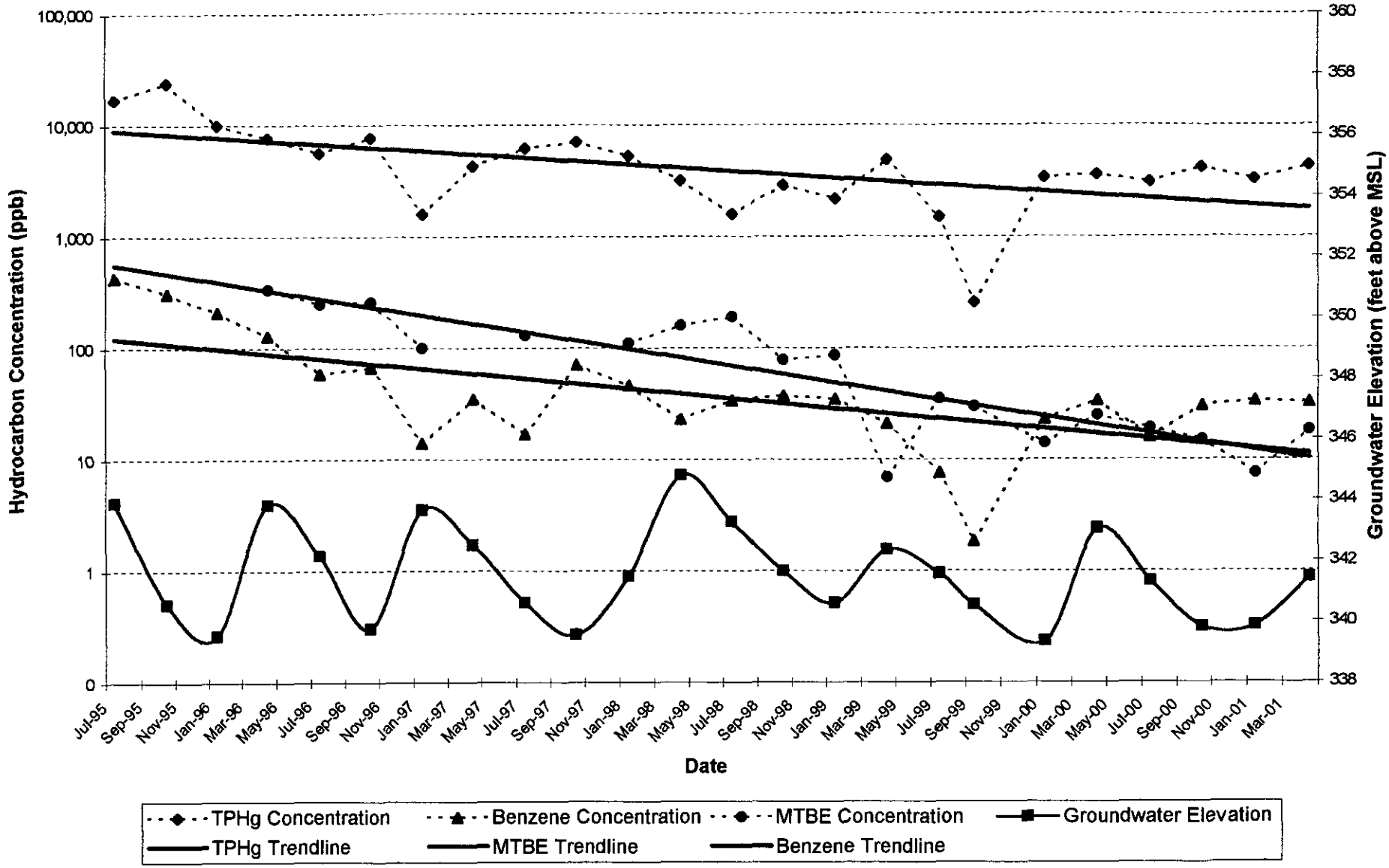
Attachment A: Updated Site Closure Summary
Attachment B: Criteria For Case Closure

cc: Mr. Dave DeWitt, Tosco Marketing Company
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region

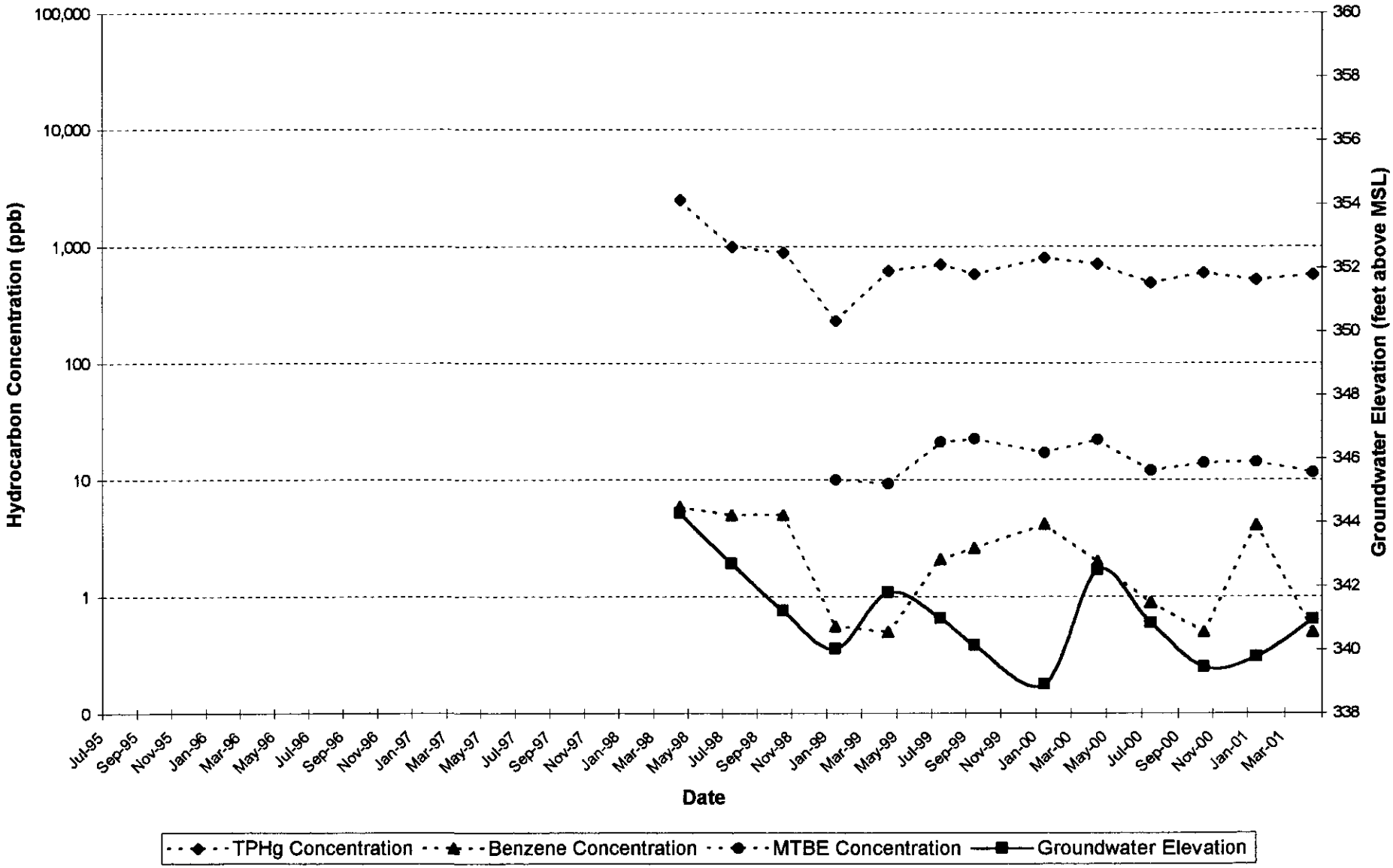
# GRAPH 1
## Well U1 - Hydrocarbon Concentrations vs. Time
## Tosco 76 Service Station 7176
## Dublin, California



**GRAPH 2**
**Well U2 - Hydrocarbon Concentrations vs. Time**
**Tosco 76 Service Station 7176**
**Dublin, California**



**GRAPH 3**
**Well MW4 - Hydrocarbon Concentrations vs. Time**
**Tosco 76 Service Station 7176**
**Dublin, California**



# ATTACHMENT A

# UPDATED SITE CLOSURE SUMMARY FORM

## SITE CLOSURE SUMMARY



Date: June 19, 2001

### I. AGENCY INFORMATION

| | |
|---|---|
| Agency Name: Alameda County Health Care Services Agency | Address: 1131 Harbor Bay Parkway |
| City/State/Zip: Alameda, California 94502 | Phone: (510) 567-6700 |
| Responsible Staff Person: Mr. Amir K. Gholami | Title: Hazardous Materials Specialist |

### II. SITE INFORMATION

Site Facility Name: Tosco 76 Service Station 7176

Site Facility Address: 7850 Amador Valley Boulevard, Dublin, California

| | | |
|---|---|---|
| RB/SMS Case No.: NA | **Local or LOP Case No: 4104** | Priority: |
| URF Filing Date: | SWEEPS No.: NA | |

**Responsible Party** (include address and phone number):

Tosco Marketing Company, 2000 Crow Canyon Place, Suite 400, San Ramon, California, 94583.
Contact: Mr. Dave DeWitt (925) 227-2384

| Tank No. | Size in Gallons | Contents | Closed In Place/Removed? | Date |
|---|---|---|---|---|
| 1 | 10,000 | Gasoline | Removed | November 1994 |
| 2 | 10,000 | Gasoline | Removed | November 1994 |
| 3 | 10,000 | Gasoline | Removed | November 1994 |
| 4 | 10,000 | Diesel | Removed | November 1994 |
| 5 | 280 | Used-Oil | Removed | November 1994 |

### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown

| | | |
|---|---|---|
| Site characterization complete? Yes | Date Approved By Oversight Agency: | |
| Monitoring wells installed? Yes | Number: 5 | Proper screened interval? Yes |
| Highest GW Depth: 11' below TOC | Lowest Depth: 19' | Flow Direction: Southeast |

Most Sensitive Current Use of Aquifer: Domestic Water Supply

Most Sensitive Potential Use and Probability of Use: Domestic Water Supply. Probability of use of shallow aquifer for water supply is low due to silty clay soil type assumed to have low transmissivity.

| | |
|---|---|
| Are drinking water wells affected? No | Aquifer Name: Unknown |
| Is surface water affected? No | Nearest SW Name: Drainage Ditch 800' North of Site |

Off-Site Beneficial Use Impacts (Addresses/Locations): None

| | |
|---|---|
| Report(s) on file? Yes | Where is report(s) filed? ACHCSA and RWQCB |

**TREATMENT AND DISPOSAL OF AFFECTED MATERIAL**

| Material | Amount (Include Units) | Action (Treatment or Disposal w/Destination) | Date |
|---|---|---|---|
| Tank | (1) 280-gallon<br>(4) 10,000-gallon | Disposal (Destination unknown) | Nov. 1994 |
| Piping | Unknown | Disposal (Destination unknown) | Nov. 1994 |
| Free Product | N/A | N/A | N/A |
| Soil | 1,863 tons | Removal and Disposal at BFI Vasco Landfill | Nov. 1994 |
| Groundwater | 5,000 gallons | Removal and Disposal at Tosco Refinery | Nov. 1994 |
| Barrels | N/A | N/A | N/A |

**MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**

| Pollutant | 1 Soil (ppm) | | 2 Water (ppb) | | Pollutant | 1 Soil (ppm) | | 2 Water (ppb) | |
|---|---|---|---|---|---|---|---|---|---|
| | Before | After | Before | After | | Before | After | Before | After |
| **TPH (Gas)** | 2,200 | 1,300 | 39,000 | 6,200 | **Xylene** | 300 | 150 | 5,200 | 32 |
| **TPH (Diesel)** | 9,100 | 75 | 9,400 | 1,900 | **Oil & Grease** | ND | NA | NA | NA |
| **Benzene** | 1.6 | ND | 1,500 | 41 | **PCE** | NA | NA | NA | NA |
| **Toluene** | 54 | 31 | 19 | 16 | **MTBE** | NA | NA | 790 | 120 |
| **Ethylbenzene** | 36 | 26 | 2,200 | 210 | **Heavy Metal** | 7.1 | NA | NA | NA |

1 – From: Enviros, Inc. March 23, 1995. Storage Tank Replacement Observation Report, Unocal Service Station No. 7176. 95132.01. Enviros, Inc. October 10, 1995. Preliminary Soil and Groundwater Investigation, Unocal Service Station No. 7176. 95132.02. Environmental Resolutions, Inc. August 4, 1998. Supplemental Evaluation and Investigation Report at Tosco 76 Service Station 7176. ERI 209203.R01

2 – From: Gettler-Ryan, Inc. May 7, 2001. Second Quarter Event of April 3, 2001 – Groundwater Monitoring and Sampling Report. G-R #: 180022.

Impacted soil at site appears limited to the vicinity of USTs, southern dispenser island, and boring U1. Soil impact has been delineated.

Dissolved fuel hydrocarbons appear restricted to the vicinity of wells U1, U2, and MW4. Dissolved fuel hydrocarbons are delineated by wells U3 and MW5 in the downgradient/crossgradient directions of groundwater flow from on-site source areas.

## IV. CLOSURE

| | | |
|---|---|---|
| Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes | | |
| Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes | | |
| Does corrective action protect public health for current land use? Yes | | |
| Site Management Requirements: Site management is required if excavation is proposed in the vicinity of the UST cavity or southern dispenser island. | | |
| Should Corrective action be reviewed if land use changes? Yes | | |
| Monitoring Wells Decommissioned: No | Number Decommissioned: N/A | Number Retained: N/A |
| List Enforcement Actions Taken: N/A | | |
| | | |
| List Enforcement Actions Rescinded: N/A | | |
| | | |

## V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Amir K. Gholami** Title: **Hazardous Materials Specialist**

Signature: Date:

**Reviewed By:**

Name: Title:

Signature: Date:

Name: Title:

Signature: Date:

## VI. RWQCB NOTIFICATION

Date Submitted to RB: R.B. Response:

RWQCB Staff Name: **Chuck Headlee** Title:

Signature: Date:

## VII. ADDITIONAL COMMENTS, DATA, ETC.

Attached please find the following relevant information:

1) Table 1: Summary of Groundwater Sample Hydrocarbon Analytical Results
2) Table 2: Summary of Soil Sample Hydrocarbon Analytical Results
3) Plate 1: Potentiometric Map (from Gettler-Ryan, Inc. *Second Quarter Event of April 3, 2001 Groundwater Monitoring and Sampling Report* dated May 7, 2001)
4) Plate 2: Concentration Map (from Gettler-Ryan, Inc. *Second Quarter Event of April 3, 2001 Groundwater Monitoring and Sampling Report* dated May 7, 2001)

Boring Logs and Well Construction Details, Soil Sample and Soil Boring Locations, Groundwater Flow Direction Rose Diagram, and Risk-Based Corrective Action (RBCA) Analysis Results are included in ERI's *Request and Work Plan for Case Closure* dated August 31, 2000.

**In Summary, Case Closure Is Recommended Because:**

- The primary source (former petroleum UST system) has been removed, and ongoing secondary sources (residual hydrocarbons in soil and soil vapor) have been removed to the extent feasible;
- The site has been adequately characterized;
- The dissolved plume is not migrating, and is decreasing in concentration;
- No water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- The site presents no significant risk to human health or the environment.

TABLE 1
SUMMARY OF GROUNDWATER SAMPLE HYDROCARBON ANALYTICAL RESULTS
Tosco 76 Service Station 7176
7850 Amador Valley Boulevard
Dublin, California


| Well Number | Date | EPA Method 8015M (ug/L) | | EPA Method 8020 (ug/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPHg | TPHd | B | T | E | X | MTBE |
| U1 | 07/08/95 | 39,000 | 9,400 | 1,500 | 19 | 1,600 | 5,200 | NA |
| | 10/12/95 | 33,000 | 4,200 | 1,400 | ND | 1,400 | 3,100 | NA |
| | 01/11/96 | 8,300 | 8,200 | 690 | 11 | 680 | 1,500 | NA |
| | 04/11/96 | 3,200 | 630 | 110 | ND | 180 | 290 | 790 |
| | 07/10/96 | 2,600 | 2,200 | 81 | 4.4 | 210 | 230 | 510 |
| | 10/30/96 | 2,200 | 560 | 67 | 19 | 140 | 150 | 360 |
| | 01/27/97 | 4,600 | 2,300 | 98 | ND | 360 | 290 | 150 |
| | 04/08/97 | 2,800 | 1,300 | 50 | ND | 220 | 140 | ND |
| | 07/17/97 | 2,300 | 460 | 30 | 4.5 | 140 | 94 | 190 |
| | 10/17/97 | 1,500 | 510 | 31 | 6.7 | 110 | 88 | 220 |
| | 01/19/98 | 3,100 | 1,300* | 46 | 3.4 | 310 | 200 | 170 |
| | 04/23/98 | 3,400 | 1,700* | 72 | 3.8 | 470 | 350 | 280 |
| | 07/08/98 | 4,500 | 2,000 | 51 | ND | 590 | 430 | 190 |
| | 10/05/98 | 7,500 | 2,500* | 53 | ND | 680 | 350 | 180** |
| | 01/04/99 | 10,000 | 2,500* | ND | ND | 1,200 | 540 | ND |
| | 04/05/99 | 4,900 | 570* | 34 | ND | 350 | 150 | 55** |
| | 07/01/99 | 10,000 | 3,600* | 45 | ND | 850 | 420 | 110** |
| | 09/30/99 | 7,150 | 1,680* | ND | ND | 415 | 84.4 | 195** |
| | 01/03/00 | 5,400 | 1,700* | 28 | 8.4 | 180 | 33 | 120** |
| | 04/04/00 | 4,800 | 1,400* | 30 | ND | 210 | 93 | 160** |
| | 07/14/00 | 6,200 | 1,200* | 41 | 16 | 170 | 32 | 120** |
| | 10/27/00 | 3,830 | 1,300* | 17 | ND | 68.6 | 7.99 | 38** |
| | 01/08/01 | 2,410 | 873* | 15 | 4.30 | 30.5 | 5.04 | 9.33** |
| | 04/03/01 | 3,330 | 830* | 15.8 | 5.96 | 74.8 | 7.06 | 13.3** |
| U2 | 07/08/95 | 17,000 | 4,700 | 430 | ND | 2,200 | 590 | NA |
| | 10/12/95 | 24,000 | 3,600 | 310 | 60 | 1,900 | 190 | NA |
| | 01/11/96 | 10,000 | 8,600 | 210 | 55 | 1,400 | 240 | NA |
| | 04/11/96 | 7,700 | 1,900 | 130 | 27 | 1,100 | 110 | 340 |
| | 07/10/96 | 5,600 | 2,300 | 59 | 15 | 610 | 42 | 250 |
| | 10/30/96 | 7,700 | 1,800 | 67 | 35 | 1,000 | 54 | 260 |
| | 01/27/97 | 1,600 | 660 | 14 | ND | 130 | 7.0 | 100 |
| | 04/08/97 | 4,300 | 2,000 | 35 | ND | 400 | 16 | ND |
| | 07/17/97 | 6,200 | 1,300 | 17 | 22 | 410 | ND | 130 |
| | 10/17/97 | 7,100 | 1,400 | 71 | 26 | 520 | 50 | ND |
| | 01/19/98 | 5,300 | 1,500* | 46 | 11 | 350 | 16 | 110 |
| | 04/23/98 | 3,200 | 1,200* | 23 | 11 | 210 | 38 | 160 |
| | 07/08/98 | 1,600 | 1,100 | 34 | 8.5 | 100 | 7.4 | 190 |
| | 10/05/98 | 2,900 | 1,300* | 37 | 8.4 | 110 | 7.3 | 78 |
| | 01/04/99 | 2,200 | 250* | 35 | ND | 17 | ND | 86 |
| | 04/05/99 | 4,900 | 490* | 21 | 77 | 130 | 310 | 6.9** |
| | 07/01/99 | 1,500 | 440* | 7.6 | ND | ND | ND | 35** |
| | 09/30/99 | 256 | 340* | 1.85 | ND | 2.42 | ND | 29.8** |
| | 01/03/00 | 3,400 | 1,900* | 23 | 13 | ND | 44 | 14** |
| | 04/04/00 | 3,600 | 1,000* | 34 | 17 | 56 | ND | 25** |
| | 07/14/00 | 3,100 | 350* | 16 | 13 | 15 | 10 | 19** |
| | 10/27/00 | 4,180 | 1900* | 30.4 | 10.2 | 14.6 | ND | 15** |
| | 01/08/01 | 3,300 | 624* | 33.5 | 7.32 | 3.49 | ND | 7.49** |
| | 04/03/01 | 4,290 | 830* | 32.4 | 9.91 | 20.1 | ND | 18.1** |

**TABLE 1**
**SUMMARY OF GROUNDWATER SAMPLE HYDROCARBON ANALYTICAL RESULTS**
Tosco 76 Service Station 7176
7850 Amador Valley Boulevard
Dublin, California


| Well Number | Date | EPA Method 8015M (ug/L) | | EPA Method 8020 (ug/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPHg | TPHd | B | T | E | X | MTBE |
| U3 | 07/08/95 | 1,100 | 710 | 0.57 | 2.1 | 1.7 | 2.4 | NA |
| | 10/12/95 | 560 | 470 | ND | 0.87 | 0.7 | 1.1 | NA |
| | 01/11/96 | 230 | 260 | 0.62 | 0.91 | 0.97 | 1.9 | NA |
| | 04/11/96 | 68 | ND | ND | ND | ND | ND | ND |
| | 07/10/96 | ND | ND | ND | ND | ND | ND | ND |
| | 10/30/96 | 70 | ND | ND | ND | ND | ND | ND |
| | 01/27/97 | ND | ND | ND | ND | ND | ND | ND |
| | 04/08/97 | ND | ND | ND | ND | ND | ND | ND |
| | 07/17/97 | ND | ND | ND | ND | ND | ND | ND |
| | 10/17/97 | ND | 63 | ND | ND | ND | ND | ND |
| | 01/19/98 | ND | ND** | ND | ND | ND | ND | ND |
| | 04/23/98 | ND | ND** | ND | ND | ND | ND | ND |
| | 07/08/98 | ND | 80 | ND | ND | ND | ND | ND |
| | 10/05/98 | ND | ND** | ND | ND | ND | ND | ND |
| | 01/04/99 | ND | ND | ND | ND | ND | ND | ND |
| | 04/05/99 | ND | ND | ND | ND | ND | ND | ND** |
| | 07/01/99 | ND | ND | ND | ND | ND | ND | ND** |
| | 09/30/99 | ND | ND | ND | ND | ND | ND | ND** |
| | 01/03/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 04/04/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 07/14/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 10/27/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 01/08/01 | ND | ND** | ND | ND | ND | ND | ND** |
| | 04/03/01 | ND | ND | ND | ND | ND | ND | ND** |
| MW4 | 04/23/98 | 2,500 | 1,400* | 5.9 | 6.4 | 16 | 31 | ND |
| | 07/08/98 | 1,000 | 1,400 | ND | ND | ND | ND | ND |
| | 10/05/98 | 890 | 230* | ND | ND | ND | 14 | ND |
| | 01/04/99 | 230 | 71* | 0.56 | 1.3 | 1.4 | 1.8 | 10 |
| | 04/05/99 | 620 | 210* | ND | 1.8 | 2.1 | ND | 9.3** |
| | 07/01/99 | 700 | 310* | 2.1 | ND | 1.9 | 2.4 | 21** |
| | 09/30/99 | 582 | 220* | 2.60 | 1.30 | 1.98 | ND | 2.5** |
| | 01/03/00 | 800 | 260* | 4.2 | 4.6 | 3.3 | 11 | 17** |
| | 04/04/00 | 710 | 340* | 2.0 | 1.3 | 4.4 | 2.0 | 22** |
| | 07/14/00 | 490 | 76* | 0.89 | 1.3 | 0.85 | 1.8 | 12** |
| | 10/27/00 | 598 | 120* | ND | 1.56 | 4.65 | ND | 14** |
| | 01/08/01 | 522 | 202* | 4.09 | 1.69 | 2.53 | 1.26 | 14.3** |
| | 04/03/01 | 575 | ND* | ND | ND | ND | ND | 11.6** |

TABLE 1
SUMMARY OF GROUNDWATER SAMPLE HYDROCARBON ANALYTICAL RESULTS
Tosco 76 Service Station 7176
7850 Amador Valley Boulevard
Dublin, California


| Well Number | Date | EPA Method 8015M (ug/L) | | EPA Method 8020 (ug/L) | | | | |
|---|---|---|---|---|---|---|---|---|
| | | TPHg | TPHd | B | T | E | X | MTBE |
| MW5 | 04/23/98 | 120 | 100* | 0.53 | 0.90 | 1.0 | 3.8 | 13 |
| | 07/08/98 | ND | 170 | ND | ND | ND | ND | 12 |
| | 10/05/98 | ND | 100* | ND | ND | ND | ND | 12 |
| | 01/04/99 | ND | ND | ND | ND | ND | ND | ND |
| | 04/05/99 | ND | ND | ND | ND | ND | ND | ND** |
| | 07/01/99 | ND | ND | ND | ND | ND | ND | 2.3** |
| | 09/30/99 | 50.8 | ND* | ND | ND | ND | ND | ND** |
| | 01/03/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 04/04/00 | ND | ND* | ND | ND | ND | ND | ND** |
| | 07/14/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 10/27/00 | ND | ND | ND | ND | ND | ND | ND** |
| | 01/08/01 | ND | ND* | ND | ND | ND | ND | ND** |
| | 04/03/01 | ND | ND | ND | ND | ND | ND | ND** |

Notes:

This data table was modified from the Gettler-Ryan, Inc. Second *Quarter Event of April 3, 2001 - Groundwater Monitoring and Sampling Report Tosco (Unocal) Service Station #7176, 7850 Amador Valley Boulevard, Dublin, Cqlifornia*, dated May 7, 2001.

EPA = Environmental Protection Agency.
ug/L = Micrograms per liter.
TPHg = Total petroleum hydrocarbons as gasoline.
TPHd = Total petroleum hydrocarbons as diesel.
BTEX = Benzene, toleune, ethylbenzene, and total xylenes.
MTBE = Methyl tertiary butyl ether.
NA = Not analyzed.
ND = Not detected at or above the laboratory reporting limit.
* = With silica-gel clean-up.
** = Analyzed using EPA Method 8260.

**TABLE 2**
**SUMMARY OF SOIL SAMPLE HYDROCARBON ANALYTICAL RESULTS**
Tosco 76 Service Station 7176
7850 Amador Valley Boulevard
Dublin, California


| Sample Designation | Sample Depth (feet) | Date | EPA Method 8015M (mg/kg) | | EPA Method 8020 (mg/kg) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPHg | TPHd | B | T | E | X |
| *1* | | | | | | | | |
| UW-1 | 8 | 11/08/94 | ND | ND | ND | ND | ND | ND |
| UOW-1 | 6 | 11/08/94 | ND | ND | ND | ND | ND | ND |
| UT-1 | 3.5 | 11/08/94 | ND | ND | ND | ND | ND | ND |
| UT-2 | 3.5 | 11/08/94 | 100 | 1,300 | ND | ND | ND | 0.13 |
| UT-3 | 3.5 | 11/08/94 | 3.1 | NA | 0.017 | 0.25 | 0.097 | 0.56 |
| UT-4 | 3.5 | 11/08/94 | 2,200 | NA | ND | 26 | 36 | 300 |
| UT-5 | 11 | 11/10/94 | 740 | 25 | ND | 6.5 | 20 | 110 |
| UT-6 | 11 | 11/10/94 | ND | 1.1 | ND | ND | ND | 0.0070 |
| UT-7 | 19.5 | 11/30/94 | 1,300 | 50 | ND | 31 | 26 | 150 |
| UT-8 | 12 | 11/30/94 | 180 | 24 | ND | 3.8 | 3.0 | 19 |
| UT-9 | 8 | 11/30/94 | 180 | ND | ND | ND | ND | 0.59 |
| UT-10 | 8 | 11/30/94 | 140 | 12 | ND | 0.62 | 0.84 | 12 |
| UT-11 | 11 | 11/30/94 | 5.1 | 1.3 | ND | ND | 0.014 | 0.078 |
| UX-1 | 14 | 11/08/94 | NA | 9,100 | 0.98 | 1.8 | 2.7 | 3.4 |
| UX-2 | 14 | 11/08/94 | NA | ND | ND | ND | ND | 0.011 |
| UX-3 | 15.5 | 11/10/94 | 1,600 | NA | 1.6 | 54 | 24 | 220 |
| UX-4 | 15.5 | 11/10/94 | 1,500 | NA | ND | 11 | 16 | 160 |
| UX-5 | 15.5 | 11/10/94 | 5.2 | NA | 0.021 | 0.022 | 0.030 | 0.14 |
| UX-6 | 15 | 11/10/94 | 11 | NA | 0.011 | 0.067 | 0.046 | 0.40 |
| UX-7 | 15 | 11/10/94 | 2.8 | NA | 0.0062 | ND | 0.016 | 0.16 |
| UX-8 | 15 | 11/10/94 | 150 | NA | 0.22 | 3.5 | 2.1 | 21 |
| UX-9 | 16 | 11/10/94 | 41 | 36 | ND | 0.074 | 0.43 | 0.37 |
| UX-10 | 16 | 11/10/94 | 27 | 75 | ND | 0.062 | 0.29 | 0.049 |
| UX-11 | 17 | 11/11/94 | 200 | 15 | ND | 1.2 | 0.94 | 13 |
| UX-12 | 17 | 11/11/94 | 230 | 15 | ND | 2.6 | 3.0 | 24 |
| UX-13 | 15 | 11/11/94 | ND | 1.6 | ND | ND | ND | 0.0060 |
| UX-14 | 17 | 11/11/94 | 210 | 16 | ND | 0.78 | 0.98 | 9.7 |
| *2* | | | | | | | | |
| U-1-10.5 | 10.5 | 07/07/95 | ND | ND | ND | ND | ND | ND |
| U-1-18.5 | 18.5 | 07/07/95 | 26 | 25 | 0.041 | 0.053 | 0.56 | 2.2 |
| U-2-13 | 13 | 07/07/95 | ND | 1.3 | 0.017 | ND | 0.071 | ND |
| U-2-17.5 | 17.5 | 07/07/95 | 97 | 12 | ND | 0.21 | 1.7 | 1.5 |
| U-3-17.5 | 17.5 | 07/07/95 | ND | ND | ND | ND | ND | ND |
| B-1-13 | 13 | 07/08/95 | ND | 1.5 | ND | ND | ND | ND |
| B-1-18 | 18 | 07/08/95 | 2.1 | 1.0 | ND | ND | 0.028 | 0.0088 |
| B-2-16 | 16 | 07/08/95 | ND | ND | ND | ND | ND | ND |
| B-3-11 | 11 | 07/08/95 | ND | ND | ND | ND | ND | ND |
| B-3-17 | 17 | 07/08/95 | ND | ND | ND | ND | ND | ND |
| B-4-11.5 | 11.5 | 07/08/95 | ND | ND | ND | ND | ND | ND |
| B-4-16 | 16 | 07/08/95 | ND | 1.7 | ND | ND | ND | ND |
| B-5-14.5 | 14.5 | 07/08/95 | 5 | ND | 0.13 | 0.020 | 0.29 | 0.12 |
| B-4-18 | 18 | 07/08/95 | 59 | 4.8 | 0.068 | ND | 0.84 | 0.98 |
| B-6-14.5 | 14.5 | 07/08/95 | 4.9 | ND | 0.088 | ND | 0.099 | 0.22 |
| B-6-19.5 | 19.5 | 07/08/95 | 150 | 10 | 0.21 | 3.0 | 3.2 | 19 |

**TABLE 2**
**SUMMARY OF SOIL SAMPLE HYDROCARBON ANALYTICAL RESULTS**
Tosco 76 Service Station 7176
7850 Amador Valley Boulevard
Dublin, California


| Sample Designation | Sample Depth (feet) | Date | EPA Method 8015M (mg/kg) | | EPA Method 8020 (mg/kg) | | | |
|---|---|---|---|---|---|---|---|---|
| | | | TPHg | TPHd | B | T | E | X |
| *3* | | | | | | | | |
| S-10-B7 | 10 | 04/15/98 | ND | ND | ND | ND | ND | ND |
| S-10-B8 | 10 | 04/15/98 | ND | ND | ND | ND | ND | ND |

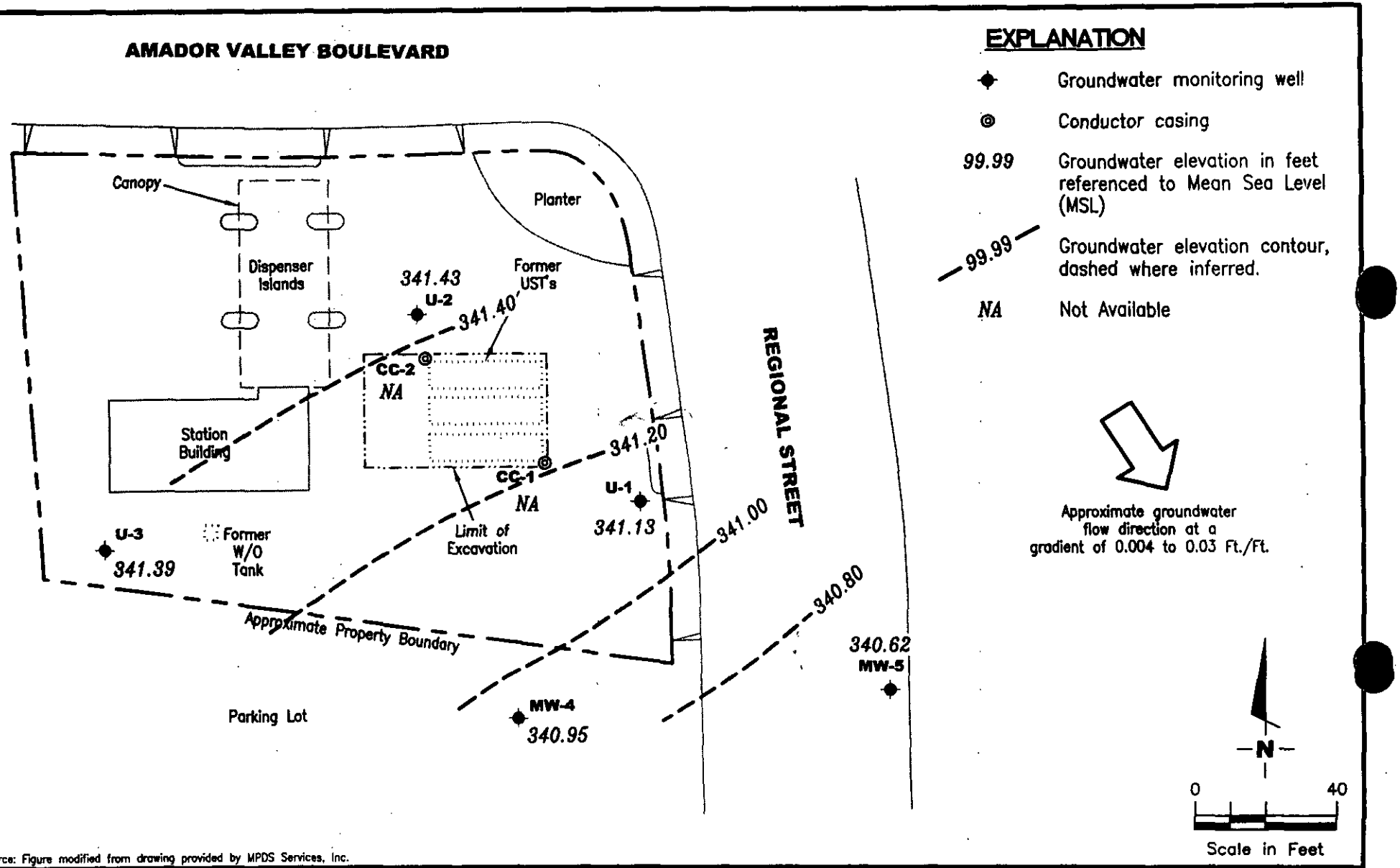
Notes:

EPA = Environmental Protection Agency.
mg/kg = Milligrams per kilogram.
TPHg = Total petroleum hydrocarbons as gasoline.
TPHd = Total petroleum hydrocarbons as diesel.
BTEX = Benzene, toleune, ethylbenzene, and total xylenes.
NA = Not analyzed.
ND = Not detected at or above the laboratory reporting limit.

*1* Enviros, Inc. March 23, 1995. Storage Tank Replacement Observation Report, Unocal Service Station No. 7176, 7850 Amador Valley Road, Dublin, California. 95132.01

*2* Enviros, Inc. October 10, 1995. Preliminary Soil and Groundwater Investigation, Unocal Service Station No. 7176, 7850 Amador Valley Road, Dublin, California. 95132.02

*3* Environmental Resolutions, Inc. August 4, 1998. Supplemental Evaluation and Investigation Report at Tosco (Union) 76 Service Station 7176, 7850 Amador Valley Boulevard, Dublin, California. ERI 209203.R01




Source: Figure modified from drawing provided by MPDS Services, Inc.

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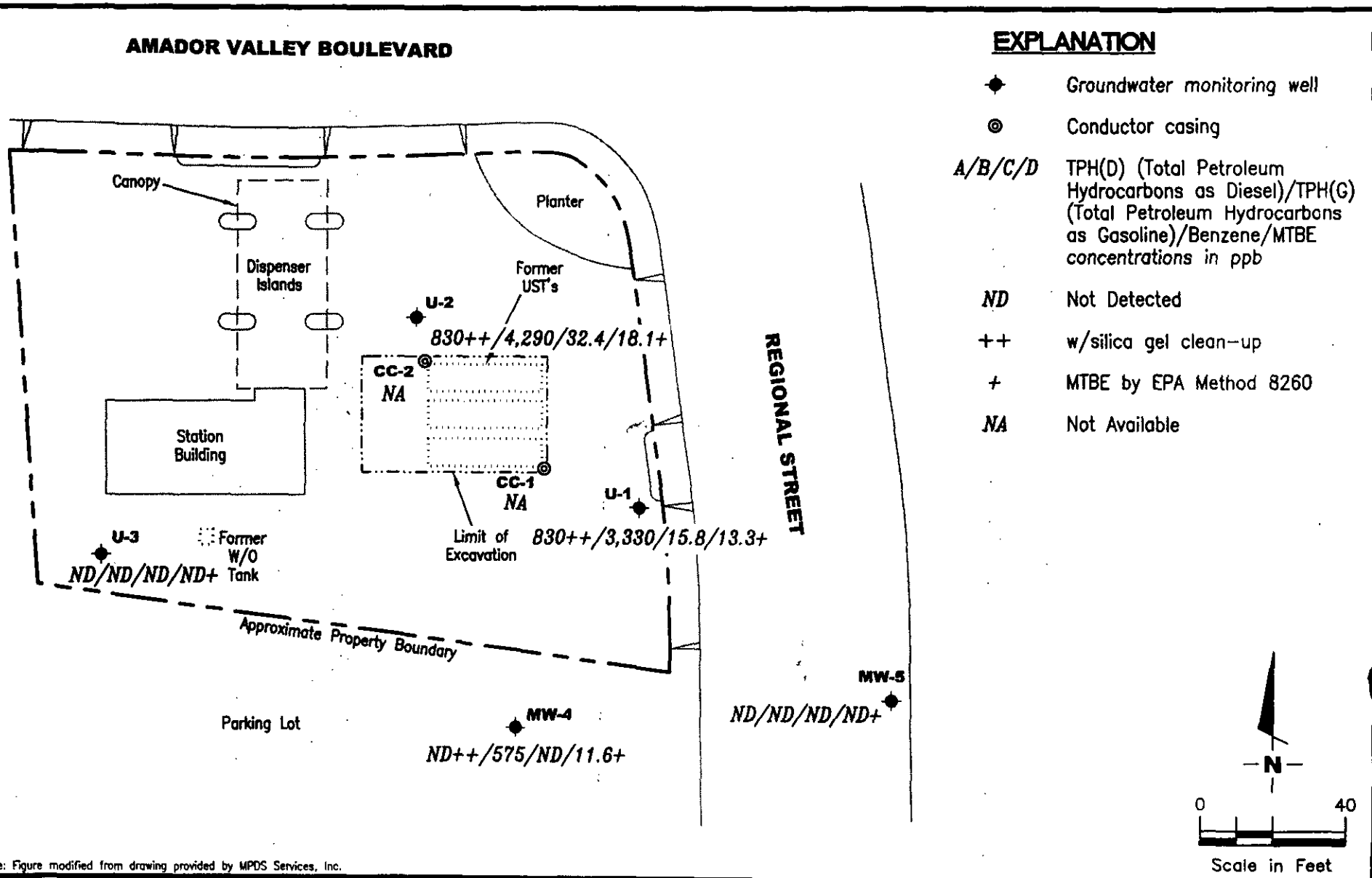
**POTENTIOMETRIC MAP**
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

FIGURE
1

| PROJECT NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 180022 | | April 3, 2001 | |

FILE NAME: P:\ENVIRO\TOSCO\7176\001-7176.DWG | Layout Tab: Pot2




Source: Figure modified from drawing provided by MPDS Services, Inc.

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**CONCENTRATION MAP**
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

FIGURE
2

| PROJECT NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 180022 | | April 3, 2001 | |

FILE NAME: P:\ENVIRO\TOSCO\7176\G01-7176.DWG | Layout Tab: Con2

# ATTACHMENT B

# CRITERIA FOR CASE CLOSURE

## CRITERIA FOR CASE CLOSURE

Tosco 76 Service Station 7176
7850 Amador Valley Boulevard
Dublin, California

Prepared by Environmental Resolutions, Inc.

1. ***Has the site been adequately characterized?***

   Yes.

   The extent of residual petroleum hydrocarbon constituents remaining in vadose sediments subsequent to remedial excavation has been defined by soil samples collected from borings B1 through B4, and during installation of groundwater monitoring wells U3, MW4, and MW5. The extent of dissolved petroleum hydrocarbon constituents in groundwater beneath the site is defined in the dominant downgradient groundwater flow direction by off-site well MW5, and in the crossgradient direction by on-site well U3.

2. ***Has the source been removed?***

   Yes.

   The primary source of dissolved petroleum hydrocarbons in groundwater was the former underground storage tank (UST) system at the site, which consisted of three 10,000-gallon gasoline USTs, one 10,000-gallon diesel UST, and one 280-gallon used-oil UST. The tanks were removed in November 1994. The secondary source is a quantity of residual petroleum hydrocarbons in vadose sediments. During UST removal activities in November 1994, remedial excavation of approximately 1,863 tons of hydrocarbon-impacted soil was performed in the vicinity of the former USTs, product piping, and dispensers to reduce this secondary source. Based on the results of site investigations performed to date, further remedial excavation is not warranted or feasible.

3. ***Have separate-phase hydrocarbons (SPH) been removed from the groundwater surface to the extent practicable?***

   Not applicable.

   To the best of ERI's knowledge, SPH has not been present in the subsurface.

4. ***Is the plume of dissolved hydrocarbons in groundwater stable or decreasing?***

   Yes.

   Based on the cumulative results of groundwater monitoring and sampling, concentrations of dissolved petroleum hydrocarbon constituents have steadily decreased since groundwater monitoring and sampling was initiated in July 1995. Furthermore, the extent of the dissolved hydrocarbon plume in groundwater has not increased.

5. ***Do subsurface conditions at the site pose a current or future threat to human health?***

No.

Based on the results of a risk-based corrective action (RBCA) Tier II analysis performed by ERI in 2000, concentrations of petroleum hydrocarbon constituents in soil and groundwater do not exceed site-specific target levels for volatilization of indoor or outdoor air, or groundwater ingestion. Therefore, subsurface conditions pose no current or future risk to human health.

6. ***Do subsurface conditions at the site pose a current or future ecological threat?***

No.

Based on the results of a groundwater receptor survey performed by ERI in 2000, no surface water bodies were located within a one-half mile radius of the site except a creek/drainage ditch located approximately 800 feet northwest of the site, in the upgradient direction of groundwater flow. Therefore, no surface water bodies are threatened by subsurface conditions. Based on the RBCA Tier II analysis, subsurface conditions pose no current or future risk to the other aspects of the environment.

7. ***Do subsurface conditions at the site threaten any current or potential water sources?***

No.

Based on the groundwater receptor survey, three water wells were historically located within a one-half mile radius, at 750 feet south (crossgradient), 950 feet southwest (crossgradient), and 1,250 feet northwest (upgradient) of the site. None of the wells were located in the downgradient direction of groundwater flow from the site. None of the three wells could be located during a field survey performed by ERI, suggesting that the wells have been abandoned or destroyed and are no longer in service. In addition, the survey located no surface water bodies within a one-half mile radius of the site except a creek/drainage ditch located approximately 800 feet northwest of the site, in the upgradient direction of groundwater flow.