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December 15, 2000

Mr. Paul Supple
ARCO Products Company
P.O. Box 6549
Moraga, CA 94570

3854

MW1 - elevated MTE
@ 18,800 ppb
9/20/00

Subject: *Quarterly Groundwater Monitoring Report, Third Quarter 2000*
ARCO Service Station No. 4494
566 Hegenberger Road
Oakland, California
Project No. D000-319

Dear Mr. Supple:

Delta Environmental Consultants, Inc. is submitting the attached report that presents the results of the third quarter 2000 groundwater monitoring program as ARCO Products Company Service Station No. 4494, located at 566 Hegenberger Road, Oakland, California. The monitoring program complies with the Alameda County Health Care Services Agency requirements regarding underground tank investigations.

The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeological and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions concerning this project, please contact Steven W. Meeks at (916) 536-2613.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Trevor L. Atkinson
Project Engineer

Steven W. Meeks, P.E.
California Registered Civil Engineer No. C057461
Project Manager



TLA (LRP002.319.doc)
Enclosures

cc: Mr. Barney Chan – Alameda County Health Care Services

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ENVIRONMENTAL
PROTECTION

Date: December 15, 2000

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Station No.: 4494 Address: 566 Hegenberger Road, Oakland, CA
ARCO Environmental Engineer/Phone No.: Paul Supple 925-299-8891
Consulting Co./Contact Person Delta Environmental Consultants, Inc.
Steven W. Meeks, P.E.
Consultant Project No.: D000-319
Primary Agency/Regulatory ID No. Alameda County Health Care Services/STID #3854

WORK PERFORMED THIS QUARTER

1. Performed quarterly groundwater monitoring for third quarter 2000.

WORK PROPOSED FOR NEXT QUARTER

1. Prepare and submit quarterly groundwater monitoring report for third quarter 2000.
2. Perform quarterly groundwater monitoring and sampling for fourth quarter 2000.

QUARTERLY MONITORING:

Current Phase of Project	<u>Monitoring</u>
Frequency of Groundwater Sampling:	<u>Quarterly</u>
Frequency of Groundwater Monitoring:	<u>Quarterly</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
FP Recovered this Quarter:	<u>None</u>
Cumulative FP Recovered to Date:	<u>0.92 feet (volume not available)</u>
Bulk Soil Removed This Quarter:	<u>None</u>
Bulk Soil Removed to Date:	<u>1,200 cubic yards</u>
Current Remediation Techniques:	<u>None</u>
Approximate Depth to Groundwater:	<u>7.91</u>
Groundwater Gradient:	<u>0.018 North</u>

DISCUSSION:

- Analytical results indicate that MW-1 and MW-7 contain MTBE concentrations.
- A review of offsite (upgradient) groundwater quality data will be necessary to adequately assess a possible source.
- The site is currently scheduled for quarterly monitoring through the remainder of 2000.

ATTACHMENTS:

- Table 1 Groundwater Elevation and Analytical Data
- Figure 1 Groundwater Analytical Summary Map
- Figure 2 Groundwater Elevation Contour Map
- Appendix A Sampling and Analysis Procedures
- Appendix B Historical Data Tables (Pacific Environmental Group, Inc.)
- Appendix C Certified Analytical Reports with Chain-of-Custody Documentation
- Appendix D Field Sample Sheets

TABLE 1

GROUNDWATER ANALYTICAL DATA

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TPH as Gasoline (µg/L)	MTBE (µg/L)
MW-1	06/20/00	106.10	7.02	99.08	<10	<10	<10	<20	<1,000	14,000/15,000 ^a
	09/28/00		7.07	99.03	<5.0	<5.0	<5.0	<5.0	<500	13000/18,800 ^a
MW-3	06/20/00	106.29	9.18	97.11	<0.5	<0.5	<0.5	<1.0	<50	27/27 ^a
	09/28/00		9.33	96.96	<0.5	<0.5	<0.5	<1.0	<50	4.3/<2.0 ^a
MW-4	06/20/00	107.40	8.49	98.91	<0.5	<0.5	<0.5	<1.0	<50	<10
	09/28/00		8.70	98.7	<0.5	<0.5	<0.5	<1.0	<50	<2.5
MW-5	06/20/00	105.19	7.65	97.54	<0.5	<0.5	<0.5	<1.0	<50	<10
	09/28/00		6.82	98.37	<0.5	<0.5	<0.5	<1.0	<50	<2.5
MW-6	06/20/00	105.07	6.24	98.83	<0.5	<0.5	<0.5	<1.0	<50	<10
	09/28/00		6.45	98.62	<0.5	<0.5	<0.5	<1.0	<50	<2.5
MW-7	06/20/00	105.52	8.65	96.87	<0.5	<0.5	<0.5	<1.0	<50	13/13 ^a
	09/28/00		8.75	96.77	<0.5	<0.5	<0.5	<1.0	<50	136/261 ^a
RW-1	06/20/00	NM	8.21	NC	<0.5	1.1	<0.5	<1.0	<50	<10
	09/28/00		8.28	NC	<0.5	<0.5	<0.5	<1.0	<50	<2.5

^a Analyzed by EPA Method 8260

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted

µg/L = Micrograms per liter

NM = Not measured

NC = Not calculated

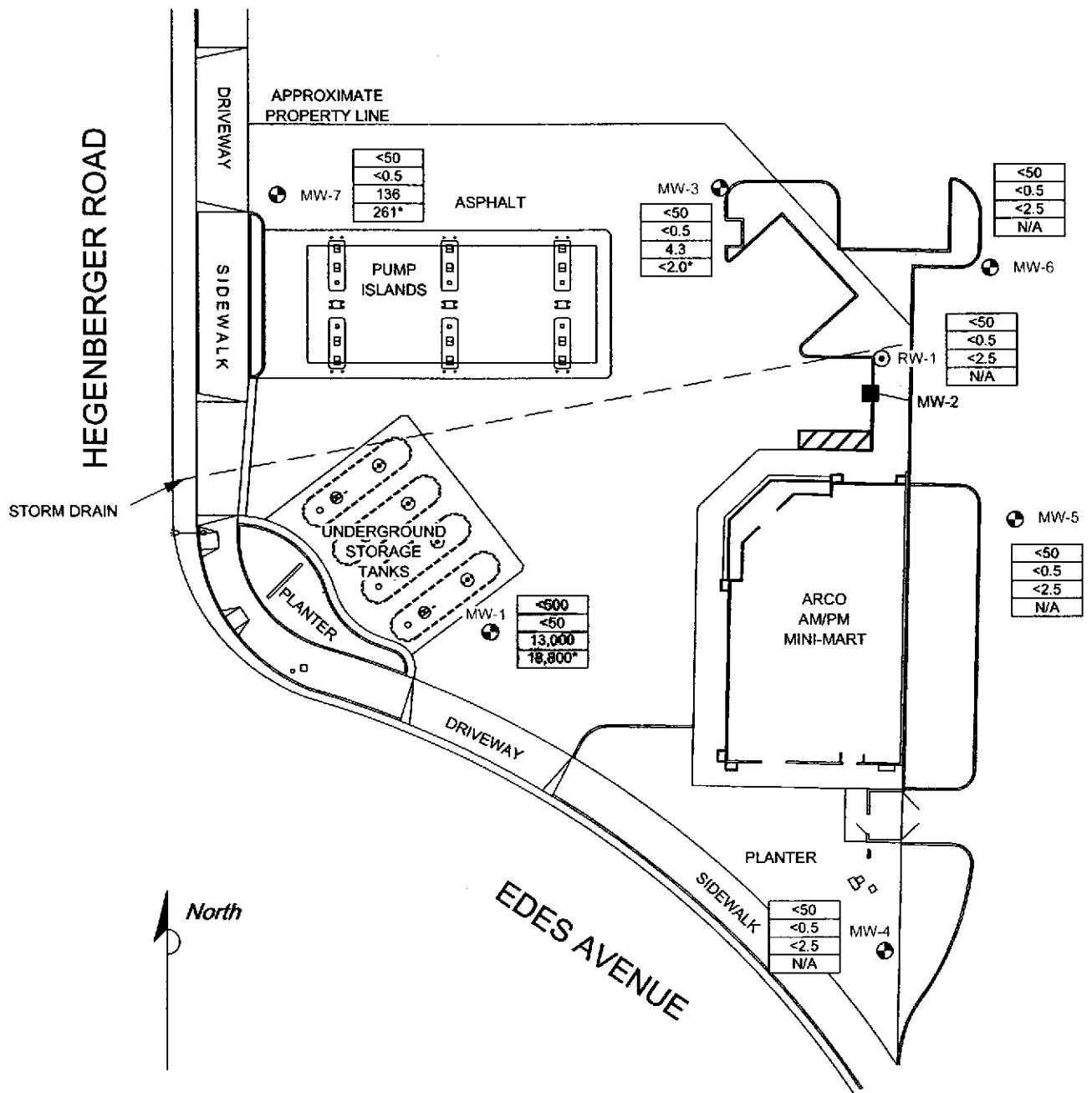
TABLE 2

GROUNDWATER FLOW DIRECTION AND GRADIENT

ARCO Service Station No. 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

<u>Date Measured</u>	<u>Average Flow Direction</u>	<u>Average Hydraulic Gradient</u>
06/20/00	North-Northeast	0.015
09/28/00	North	0.018

Note: Please refer to Appendix B for Historical Groundwater Elevation and Analytical Data
Tables developed by IT Corporation



LEGEND:

- MW-7 MONITORING WELL LOCATION
- ⊙ RW-1 RECOVERY WELL LOCATION, INSTALLED DURING SLURRY WALL CONSTRUCTION (RESNA-APRIL 1993)
- MW-2 DESTROYED MONITORING WELL (DECEMBER 1992)

<50	TPH AS GASOLINE IN MICROGRAMS PER LITER
<0.5	BENZENE IN MICROGRAMS PER LITER
<2.5	MTBE IN MICROGRAMS PER LITER
<2.0*	MTBE CONFIRMED BY EPA METHOD 8260

N/A NOT APPLICABLE

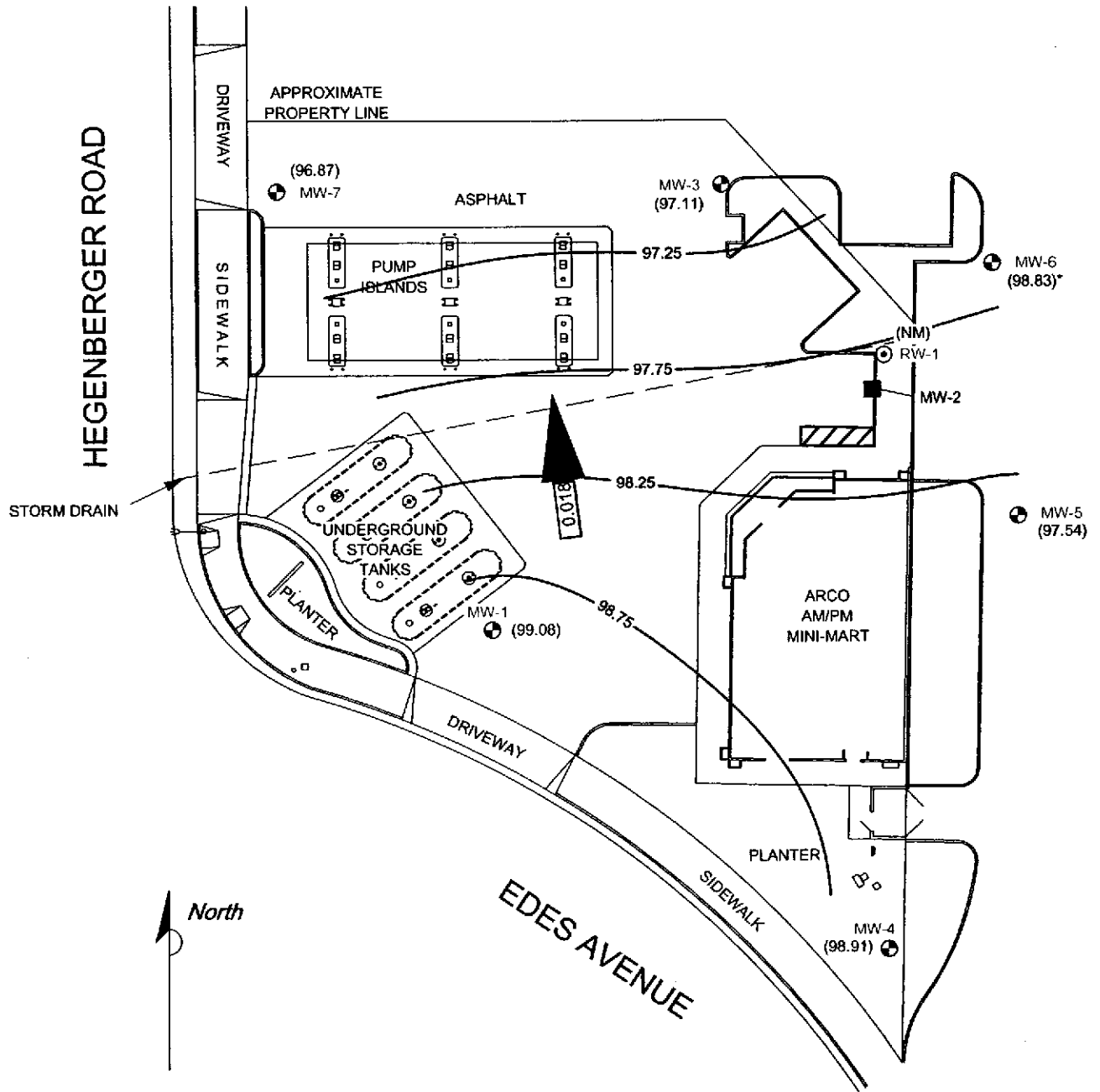
NOTE: SITE MAP ADAPTED FROM RESNA INC. AND TAIT & ASSOCIATES FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

**FIGURE 1
GROUND WATER ANALYTICAL SUMMARY
THIRD QUARTER 2000 (9/28/00)**

ARCO STATION NO. 4494
566 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. D000-319	DRAWN BY TLA 11/01/00
FILE NO. 4494-1	PREPARED BY TLA
REVISION NO. 1	REVIEWED BY





LEGEND:

- ⊕ MW-7 MONITORING WELL LOCATION
- ⊙ RW-1 RECOVERY WELL LOCATION, INSTALLED DURING SLURRY WALL CONSTRUCTION (RESNA-APRIL 1993)
- MW-2 DESTROYED MONITORING WELL (DECEMBER 1992)
- (99.03) GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL)
- 97.75 — WATER TABLE CONTOUR IN FEET ABOVE MSL
- GROUND WATER FLOW DIRECTION
- 0.018 → APPROXIMATE GROUND WATER FLOW GRADIENT
- MONITORING WELL(S) NOT USED IN CONTOUR MAP CONSTRUCTION

NOTE: SITE MAP ADAPTED FROM RESNA INC. AND TAIT & ASSOCIATES FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

**FIGURE 2
GROUND WATER ELEVATION CONTOUR MAP
THIRD QUARTER 2000 (9/28/00)**

ARCO STATION NO. 4494

**566 HEGENBERGER ROAD
OAKLAND, CALIFORNIA**

PROJECT NO. D000-319	DRAWN BY TLA 11/01/00
FILE NO. 4494-1	PREPARED BY TLA
REVISION NO. 1	REVIEWED BY



APPENDIX A

Sampling and Analysis Procedures

FIELD METHODS AND PROCEDURES

1.0 GROUND WATER AND LIQUID-PHASE HYDROCARBON DEPTH ASSESSMENT

A water/liquid-phase hydrocarbon (LPH) interface probe was used to assess the thickness of LPH, if present, and a water level indicator was used to measure ground water depth in monitoring wells that did not contain LPH. Depth to ground water was measured from the top of each monitoring well casing. The tip of the water level indicator was subjectively analyzed for LPH sheen. All measurements and physical observations were recorded in the field.

2.0 SUBJECTIVE ANALYSIS OF GROUND WATER

Prior to purging, a water sample was collected from the monitoring well for subjective analysis. The sample was retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer was then retrieved and the sample contained within the bailer was examined for LPH and the appearance of a LPH sheen.

3.0 MONITORING WELL PURGING AND SAMPLING

If the depth to groundwater was above the top of screens of the monitoring wells, then the wells were purged. Monitoring wells were purged using a centrifugal pump or disposable bailers until pH, temperature, and conductivity of the purge water had stabilized and a minimum of three to four well volumes of water had been removed. After purging, ground water levels were allowed to stabilize. A ground water sample was then removed from each of the wells using a dedicated disposable bailer. If the well was purged dry, it was allowed to sufficiently recharge and a sample was collected. Samples were collected in air-tight vials, appropriately labeled, and stored on ice from the time of collection through the time of delivery to the laboratory. A chain-of-custody form was completed to document possession of the samples. Ground water samples were transported to the laboratory and analyzed within the EPA-specified holding times for the requested analyses. Purge water was collected in storage barrels or tank(s) and transported to an ARCO approved facility for treatment and/or disposal.

APPENDIX B

Historical Data Tables

Pacific Environmental Group, Inc.

Table 2
Liquid Surface Elevation Data

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Depth to Liquid (feet, TOC)	SPH Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-1	06/06/90	105.31	6.65	6.05	0.00	98.66
	08/16/90		7.00	7.00	0.00	98.31
	08/21/90		7.05	7.05	0.00	98.26
	09/07/90		7.24	7.24	0.00	98.07
	11/20/90		7.46	7.46	0.00	97.85
	11/29/90		7.40	7.40	0.00	97.91
	12/19/90		6.99	6.99	0.00	98.32
	01/29/91		7.23	7.23	0.00	98.08
	02/27/91		7.45	7.45	0.00	97.86
	03/07/91		6.96	6.96	0.00	98.35
	03/26/91		6.02	6.02	0.00	99.29
	05/02/91		7.04	7.04	0.00	98.27
	06/27/91		6.71	6.71	0.00	98.60
	07/24/91		6.91	6.91	0.00	98.40
	08/22/91		6.85	6.85	0.00	98.46
	09/30/91		7.04	7.04	0.00	98.27
	10/17/91		7.22	7.22	0.00	98.09
	11/21/91		7.17	7.17	0.00	98.14
	12/18/91		7.46	7.46	0.00	97.85
	01/19/92	7.44	7.44	0.00	97.87	
	02/20/92	6.25	6.25	0.00	99.06	
	03/20/92	6.40	6.40	0.00	98.91	
	04/20/92	6.88	6.88	0.00	98.43	
	05/19/92	7.10	7.10	0.00	98.21	
	06/08/92	7.22	7.22	0.00	98.09	
	07/15/92	106.10	7.92	7.92	0.00	97.39
	08/06/92		7.29	7.29	0.00	98.81
	10/29/92		7.34	7.34	0.00	98.76
	11/23/92		8.15	8.15	0.00	97.95
	08/16/93		7.23	7.23	0.00	98.87
	11/17/93		7.51	7.51	0.00	98.59
	02/21/94		6.56	6.56	0.00	99.54
	05/11/94		6.57	6.57	0.00	99.53
08/12/94	7.12		7.12	0.00	98.98	
11/17/94	6.85		6.85	0.00	99.28	
02/22/95	7.35	7.35	0.00	98.75		
05/24/95	7.07	7.07	0.00	99.03		
08/23/95	7.10	7.10	0.00	99.00		
11/17/95	7.72	7.72	0.00	98.38		
MW-2	06/06/90	105.78	9.92*	9.00	0.92	95.86
	08/16/90		NM	NM	0.17	NM
	08/21/90		NM	NM	0.17	NM
	09/07/90		9.34*	9.17	0.17	96.44
	11/20/90		9.20*	9.2	Sheen	96.58
	11/29/90		9.92*	9.92	Sheen	95.86
	12/19/90		8.95	8.95	0/00	96.83
	01/29/91		9.01	9.01	Sheen	96.77
	02/27/91		9.14	9.14	Sheen	96.64
	03/07/91		8.94	8.94	Sheen	96.84
	03/26/91		8.11	8.11	Sheen	97.67
	05/02/91		8.72	8.72	0	97.06

3300412B\4Q95TBLS.XLS!Table2

Recreated from hard copies of tables developed by Pacific Environmental Group, Inc.

February 15, 1996

Table 2 (continued)
Liquid Surface Elevation Data

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Depth to Liquid (feet, TOC)	SPH Thickness (feet)	Liquid Surface Elevation (feet, MSL)	
MW-2	06/27/91		9.20	9.2	Sheen	96.58	
(cont.)	07/24/91		9.25	9.25	0.00	96.53	
	08/22/91		9.20	9.20	0.00	96.58	
	09/30/91		9.31	9.31	Sheen	96.47	
	10/17/91		9.39	9.39	Sheen	96.39	
	11/21/91		9.20	9.2	0	96.58	
	12/18/91		9.23	9.23	Sheen	96.55	
	01/19/92		9.96**	9.96	Skimmer	95.82	
	02/20/92		9.13**	9.13	Skimmer	96.65	
	03/20/92		9.31**	9.31	Skimmer	96.47	
	04/20/92		9.69	9.69	Skimmer	96.09	
	05/19/92		9.92	9.92	Skimmer	95.86	
	06/08/92		9.84	9.84	Skimmer	95.94	
	07/15/92		10.19	10.19	Skimmer	95.59	
	08/06/92	106.57	10.05	10.05	Skimmer	96.52	
	10/29/92		10.00	10.00	Skimmer	96.57	
	11/23/92		9.88	9.87	0.01	96.69	
	12/08/92		-----Well Destroyed-----				
MW-3	08/16/90	105.51	8.87	8.87	0.00	96.64	
	08/21/90		8.85	8.85	0.00	96.66	
	09/07/90		8.98	8.98	0.00	96.53	
	11/20/90		9.10	9.10	0.00	96.41	
	11/29/90		9.05	9.05	0.00	96.46	
	12/19/90		8.67	8.67	0.00	96.84	
	01/29/91		8.96	8.96	0.00	96.55	
	02/27/91		8.71	8.71	0.00	96.80	
	03/07/91		8.49	8.49	0.00	97.02	
	03/26/91		7.65	7.65	0.00	97.86	
	05/02/91		8.62	8.62	0.00	96.89	
	06/27/91		8.94	8.94	0.00	96.57	
	07/24/91		8.96	8.96	0.00	96.55	
	08/22/91		8.92	8.92	0.00	96.59	
	09/30/91		9.04	9.04	0.00	96.47	
	10/17/91		9.12	9.12	0.00	96.39	
	11/21/91		8.92	8.92	0.00	96.59	
	12/18/91		8.97	8.97	0.00	96.54	
	01/19/92		8.69	8.69	0.00	96.82	
	02/20/92		7.78	7.78	0.00	97.73	
	03/20/92		8.15	8.15	0.00	97.36	
	04/20/92		8.57	8.57	0.00	96.94	
	05/19/92		8.76	8.76	0.00	96.75	
	06/08/92		8.74	8.74	0.00	96.77	
	07/15/92		9.12	9.12	0.00	96.39	
	08/06/92	106.29	8.95	8.95	0.00	97.34	
	10/29/92		8.78	8.78	0.00	97.51	
	11/23/92		9.91	9.91	0.00	96.38	
	08/16/93		8.62	8.62	0.00	97.67	
	11/17/93		8.72	8.72	0.00	97.57	
	02/21/94		7.91	7.91	0.00	98.38	
	05/11/94		8.09	8.09	0.00	98.20	

Table 2 (continued)
Liquid Surface Elevation Data

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Depth to Liquid (feet, TOC)	SPH Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-3 (cont.)	08/12/94		8.78	8.78	0.00	97.51
	11/17/94		8.45	8.45	0.00	97.84
	02/22/95		8.95	8.95	0.00	97.34
	05/24/95		8.67	8.67	0.00	97.62
	08/23/95		9.17	9.17	0.00	97.12
	11/17/95		9.39	9.39	0.00	96.90
MW-4	08/16/90	106.61	8.16	8.16	0.00	98.45
	08/21/90		8.22	8.22	0.00	98.39
	09/07/90		8.39	8.39	0.00	98.22
	11/20/90		8.57	8.57	0.00	98.04
	11/29/90		8.53	8.53	0.00	98.08
	12/19/90		8.13	8.13	0.00	98.48
	01/29/91		8.66	8.66	0.00	97.95
	02/27/91		8.44	8.44	0.00	98.17
	03/07/91		8.18	8.18	0.00	98.43
	03/26/91		7.56	7.56	0.00	99.05
	05/02/91		8.25	8.25	0.00	98.36
	06/27/91		7.75	7.75	0.00	98.86
	07/24/91		8.12	8.12	0.00	98.49
	08/22/91		7.98	7.98	0.00	98.63
	09/30/91		8.26	8.26	0.00	98.35
	10/17/91		8.42	8.42	0.00	98.19
	11/21/91		8.65	8.65	0.00	97.96
	12/18/91		8.77	8.77	0.00	97.84
	01/19/92		8.42	8.42	0.00	98.19
	02/20/92		7.60	7.60	0.00	99.01
	03/20/92		7.61	7.61	0.00	99.00
	04/20/92		8.15	8.15	0.00	98.46
	05/19/92		8.14	8.14	0.00	98.47
	06/08/92		8.40	8.40	0.00	98.21
	07/15/92		8.72	8.72	0.00	97.89
	08/06/92	107.40	8.52	8.52	0.00	98.88
	10/29/92		8.63	8.63	0.00	98.77
	11/23/92		8.75	8.75	0.00	98.65
	08/16/93		8.69	8.69	0.00	98.71
	11/17/93		9.11	9.11	0.00	98.29
	02/21/94		8.16	8.16	0.00	99.24
	05/11/94		8.29	8.29	0.00	99.11
	08/12/94		8.75	8.75	0.00	98.65
11/17/94		8.40	8.40	0.00	99.00	
02/22/95		8.72	8.72	0.00	98.68	
05/24/95		8.63	8.63	0.00	98.77	
08/23/95		6.50	6.50	0.00	100.90	
11/17/95		9.15	9.15	0.00	98.25	
MW-5	08/06/92	105.19	7.19	7.19	0.00	98.00
	10/29/92		6.99	6.99	0.00	98.20
	11/23/92		6.90	6.90	0.00	98.29
	08/16/93		7.06	7.06	0.00	98.13
	11/17/93		6.91	6.91	0.00	98.28
	02/21/94		5.52	5.52	0.00	99.67
	05/11/94		6.18	6.18	0.00	99.01
	08/12/94		6.81	6.81	0.00	98.38
	11/17/94		5.38	5.38	0.00	99.81
	02/22/95		6.25	6.25	0.00	98.94

3300412B\4Q95TBLS.XLS!Table2

Recreated from hard copies of tables developed by Pacific Environmental Group, Inc.

February 15, 1996

Table 2 (continued)
Liquid Surface Elevation Data

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Depth to Liquid (feet, TOC)	SPH Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-5 (cont.)	05/24/95		6.30	6.30	0.00	98.89
	08/23/95		6.90	6.90	0.00	98.29
	11/17/95		7.02	7.02	0.00	98.17
MW-6	08/06/92	105.07	7.01	7.01	0.00	98.06
	10/29/92		6.70	6.70	0.00	98.37
	11/23/92		6.75	6.75	0.00	98.32
	08/16/93		6.71	6.71	0.00	98.36
	11/17/93		6.67	6.67	0.00	98.40
	02/21/94		5.31	5.31	0.00	99.76
	05/11/94		5.98	5.98	0.00	99.09
	08/12/94		6.60	6.60	0.00	98.47
	11/17/94		5.09	5.09	0.00	99.98
	02/22/95		5.85	5.85	0.00	99.22
	05/24/95		5.92	5.92	0.00	99.15
	08/23/95		6.50	6.50	0.00	98.57
	11/17/95		6.75	6.75	0.00	98.32
	08/06/92	105.52	8.28	8.28	0.00	97.24
	10/29/92		8.62	8.62	0.00	96.90
	11/23/92		8.21	8.21	0.00	97.31
	08/16/93		8.11	8.11	0.00	97.41
	11/17/93		8.11	8.11	0.00	97.41
	02/21/94		7.34	7.34	0.00	98.18
	05/11/94		7.45	7.45	0.00	98.07
08/12/94		8.13	8.13	0.00	97.39	
11/17/94		7.90	7.90	0.00	97.62	
02/22/95		8.40	8.40	0.00	97.12	
05/24/95		8.29	8.29	0.00	97.23	
08/23/95		8.60	8.60	0.00	96.92	
11/17/95		8.73	8.73	0.00	96.79	
RW-1	08/16/93	NM				
	11/17/93					
	02/21/94		7.69	7.69	0.00	NM
	05/11/94		7.96	7.96	0.00	NM
	08/12/94		7.58	7.58	0.00	NM
	11/17/94		7.66	7.66	0.00	NM
	02/22/95		8.00	8.00	0.00	NM
	05/24/95		8.10	8.10	0.00	NM
	08/23/95		8.67	8.67	0.00	NM
	11/17/95		9.15	9.15	0.00	NM

MSL = Mean sea level
TOC = Top of casing
* = Separate-phase hydrocarbons present in well.
** = Skimmer installed (12/24/91).
NM = Not measured

Table 3
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, TEPH as Diesel, and Total Oil and Grease)

ARCO Service Station 4494
 566 Hegenberger Road at Edes Avenue
 Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TEPH as Diesel (ppb)	Total Oil and Grease (ppm)	
MW-1	06/19/90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5000	
	08/16/90	<20	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	09/07/90	N/A	N/A	N/A	N/A	N/A	N/A	<5000	
	11/29/90	<50	<0.50	0.7	<0.50	<0.50	N/A	N/A	
	03/07/91	<50	<0.30	<0.30	<0.30	<0.30	N/A	N/A	
	06/27/91	<50	<0.30	<0.30	<0.30	<0.30	N/A	N/A	
	09/30/91	<50	<0.30	<0.30	<0.30	<0.30	N/A	N/A	
	12/18/91	<50	<0.30	<0.30	<0.30	<0.30	N/A	N/A	
	03/20/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	06/08/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	08/06/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	10/29/92	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	08/16/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	02/22/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	05/11/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	08/12/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	11/17/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	02/22/95	Well Sampled Annually							
	05/24/95	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
08/23/95	Well Sampled Annually								
11/17/95	Well Sampled Annually								
MW-2	06/19/90	0.92 foot of Separate-Phase Hydrocarbons							
	08/16/90	0.17 foot of Separate-Phase Hydrocarbons							
	09/07/90	Separate-Phase Hydrocarbons							
	11/29/90	Separate-Phase Hydrocarbons							
	03/07/91	Separate-Phase Hydrocarbons							
	06/27/91	Separate-Phase Hydrocarbons							
	09/30/91	Separate-Phase Hydrocarbons							
	12/18/91	Separate-Phase Hydrocarbons							
	03/20/92	48,000	2,000	580	2,300	7,000	N/A	N/A	
	06/08/92	43,000	2,900	940	240	5,100	N/A	N/A	
08/06/92	78,000	2,500	6,700	2,900	16,000	N/A	N/A		
10/29/92	NS	NS	NS	NS	NS	NS	NS		
12/08/92	Well Destroyed								
MW-3	06/19/90	<20	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	08/16/90	N/A	N/A	N/A	N/A	N/A	N/A	<5,000	
	09/07/90	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	11/29/90	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	03/07/91	<50	<30	<30	<30	<30	N/A	N/A	
	06/27/91	<30	<30	<30	<30	<30	N/A	N/A	
	09/30/91	<30	<30	<30	<30	<30	N/A	N/A	
	12/18/91	<30	<30	<30	<30	<30	N/A	N/A	
	03/20/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	06/08/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	08/06/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
	10/29/92	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	08/16/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A	

3300412B\4Q95TBLS.XLS\Table3

Recreated from hard copies of tables developed by Pacific Environmental Group, Inc.

February 15, 1996

Table 3 (continued)
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, TEPH as Diesel, and Total Oil and Grease)

ARCO Service Station 4494
 566 Hegenberger Road at Edes Avenue
 Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TEPH as Diesel (ppb)	Total Oil and Grease (ppm)
MW-3 (cont.)	02/22/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	05/11/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/12/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/95	-----Well Sampled Annually-----						
	05/24/95	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	08/23/95	-----Well Sampled Annually-----						
	11/17/95	-----Well Sampled Annually-----						
MW-4	08/16/90	<20	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	09/07/90	N/A	N/A	N/A	N/A	N/A	N/A	<5,000
	11/29/90	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	03/07/91	<50	<0.30	<0.30	<0.30	<0.30	N/A	N/A
	06/27/91	<50	0.75	1.1	<0.30	1.6	N/A	N/A
	09/30/91	<50	<0.30	<0.30	<0.30	<0.30	N/A	N/A
	12/18/91	<50	0.83	1.2	<0.30	0.58	N/A	N/A
	03/20/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	06/08/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	08/06/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	10/29/92	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/16/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	05/11/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/12/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
02/22/95	-----Well Sampled Annually-----							
05/24/95	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A	
08/23/95	-----Well Sampled Annually-----							
11/17/95	-----Well Sampled Annually-----							
MW-5	08/06/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	10/29/92	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/16/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	05/11/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/12/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/95	-----Well Sampled Annually-----						
	05/24/95	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	08/23/95	-----Well Sampled Annually-----						
11/17/95	-----Well Sampled Annually-----							
MW-6	08/06/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	10/29/92	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/16/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	05/11/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/12/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/95	-----Well Sampled Annually-----						

Table 3 (continued)
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPPH as Gasoline, BTEX Compounds, TEPH as Diesel, and Total Oil and Grease)

ARCO Service Station 4494
 566 Hegenberger Road at Edes Avenue
 Oakland, California

Well Number	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TEPH as Diesel (ppb)	Total Oil and Grease (ppm)
MW-6	05/24/95	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
(cont.)	08/23/95	-----Well Sampled Annually-----						
	11/17/95	-----Well Sampled Annually-----						
MW-7	08/06/92	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	10/29/92	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/16/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/93	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	05/11/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	08/12/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	11/17/94	<50	<0.5	<0.5	<0.5	<0.5	N/A	N/A
	02/22/95	-----Well Sampled Annually-----						
	05/24/95	<50	<0.50	<0.50	<0.50	<0.50	N/A	N/A
	08/23/95	-----Well Sampled Annually-----						
	11/17/95	-----Well Sampled Annually-----						
RW-1	08/16/93	NS	NS	NS	NS	NS	NS	NS
	11/17/93	NS	NS	NS	NS	NS	NS	NS
	02/22/94	280	2,100	19	40	66	N/A	N/A
	05/11/94	3,300	32	28	87	310	N/A	N/A
	08/12/94	4,600	42	59	190	400	N/A	N/A
	11/17/94	1,400	56	21	28	210	N/A	N/A
	02/22/95	8,100	140	<10	550	560	N/A	N/A
	05/24/95	940	53	0.75	11	1.4	N/A	N/A
	08/23/95	620	2.1	2.3	0.67	0.67	N/A	N/A
	11/17/95	1,100	7.6	21	46	180	N/A	N/A

ppb = Parts per billion
 ppm = Parts per million
 N/A = Not applicable
 NS = Not sampled

Table 4
Groundwater Analytical Data
Total Methl t-Butyl Ether

ARCO Service Station 4494
566 Hegenberger Road at Edes Avenue
Oakland, California

Well Number	Date Sampled	Methyl t-Butyl Ether (ppb)
MW-1	08/23/95	NS
MW-2	08/23/95	NS
MW-3	08/23/95	NS
MW-4	08/23/95	NS
MW-5	08/23/95	NS
MW-6	08/23/95	NS
MW-7	08/23/95	NS
RW-1	08/23/95	13

ppb = Parts per billion
NS = Not sampled
See certified analytical report for detection limit.

APPENDIX C

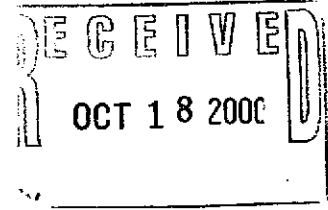
Certified Analytical Reports
With
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Sequoia Analytical

819 Striker Avenue, Suite 8
Sacramento, CA 95834
(916) 921-9600
FAX (916) 921-0100
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October 16, 2000



Steven Meeks
Delta Environmental Consultants - Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670

RE: ARCO 4494, Oakland, CA/S010025

Dear Steven Meeks

Enclosed are the results of analyses for sample(s) received by the laboratory on October 2, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sandra R. Hanson
Client Services Representative

Lito Diaz
Laboratory Director

CA ELAP Certificate Number 1624





Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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ANALYTICAL REPORT FOR S010025

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1-7	S010025-01	Water	9/28/00
MW-3-9	S010025-02	Water	9/28/00
MW-4-8	S010025-03	Water	9/28/00
MW-5-6	S010025-04	Water	9/28/00
MW-6-6	S010025-05	Water	9/28/00
MW-7-8	S010025-06	Water	9/28/00
RW-1-8	S010025-07	Water	9/28/00
TB	S010025-08	Water	9/28/00





Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
				<u>S010025-01</u>			<u>Water</u>	
Purgeable Hydrocarbons	0100117	10/11/00	10/11/00		500	ND	ug/l	1,D
Benzene	"	"	"		5.00	ND	"	1,D
Toluene	"	"	"		5.00	ND	"	1,D
Ethylbenzene	"	"	"		5.00	ND	"	1,D
Xylenes (total)	"	"	"		5.00	ND	"	1,D
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		84.9	%	
Methyl tert-butyl ether	"	"	"		500	13000	ug/l	D
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		83.8	%	
				<u>S010025-02</u>			<u>Water</u>	
Purgeable Hydrocarbons	0100117	10/11/00	10/11/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	4.30	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		80.6	%	
				<u>S010025-03</u>			<u>Water</u>	
Purgeable Hydrocarbons	0100117	10/11/00	10/11/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		79.5	%	
				<u>S010025-04</u>			<u>Water</u>	
Purgeable Hydrocarbons	0100124	10/12/00	10/12/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		94.5	%	
				<u>S010025-05</u>			<u>Water</u>	
Purgeable Hydrocarbons	0100117	10/11/00	10/11/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	





Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-6-6 (continued)				S010025-05			Water	
Xylenes (total)	0100117	10/11/00	10/11/00		0.500	ND	ug/l	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		84.2	%	
MW-7-8				S010025-06			Water	
Purgeable Hydrocarbons	0100117	10/11/00	10/11/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	136	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		82.7	%	
RW-1-8				S010025-07			Water	
Purgeable Hydrocarbons	0100124	10/12/00	10/12/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		90.8	%	
TB				S010025-08			Water	
Purgeable Hydrocarbons	0100117	10/11/00	10/11/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		83.6	%	





Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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**MTBE Confirmation by EPA Method 8260A
Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1-7				S010025-01			Water	
Methyl tert-butyl ether	0100111	10/13/00	10/13/00		50.0	1000	ug/l	2,3,D
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		104	%	
MW-3-9				S010025-02			Water	
Methyl tert-butyl ether	0100059	10/12/00	10/12/00		2.00	ND	ug/l	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		108	%	
MW-7-8				S010025-06			Water	
Methyl tert-butyl ether	0100059	10/12/00	10/12/00		2.00	261	ug/l	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		99.2	%	





Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUEP/Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100117		Date Prepared: 10/11/00			Extraction Method: EPA 5030B (MeOH)					
Blank		0100117-BLK1								
Purgeable Hydrocarbons	10/11/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.50				
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		8.49	"	60.0-140	84.9			
LCS		0100117-BS1								
Benzene	10/11/00	10.0		9.74	ug/l	70.0-130	97.4			
Toluene	"	10.0		10.4	"	70.0-130	104			
Ethylbenzene	"	10.0		9.97	"	70.0-130	99.7			
Xylenes (total)	"	30.0		28.5	"	70.0-130	95.0			
Methyl tert-butyl ether	"	10.0		10.2	"	70.0-130	102			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		9.09	"	60.0-140	90.9			
Matrix Spike		0100117-MS1		S010025-03						
Benzene	10/11/00	10.0	ND	9.31	ug/l	60.0-140	93.1			
Toluene	"	10.0	ND	9.95	"	60.0-140	99.5			
Ethylbenzene	"	10.0	ND	9.68	"	60.0-140	96.8			
Xylenes (total)	"	30.0	ND	27.5	"	60.0-140	91.7			
Methyl tert-butyl ether	"	10.0	ND	10.4	"	60.0-140	104			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		8.08	"	60.0-140	80.8			
Matrix Spike Dup		0100117-MSD1		S010025-03						
Benzene	10/11/00	10.0	ND	9.29	ug/l	60.0-140	92.9	25.0	0.215	
Toluene	"	10.0	ND	9.21	"	60.0-140	92.1	25.0	7.72	
Ethylbenzene	"	10.0	ND	9.58	"	60.0-140	95.8	25.0	1.04	
Xylenes (total)	"	30.0	ND	26.8	"	60.0-140	89.3	25.0	2.65	
Methyl tert-butyl ether	"	10.0	ND	10.4	"	60.0-140	104	25.0	0	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	10.0		8.71	"	60.0-140	87.1			
Batch: 0100124		Date Prepared: 10/12/00			Extraction Method: EPA 5030B (MeOH)					
Blank		0100124-BLK1								
Purgeable Hydrocarbons	10/12/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	2.50				





Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS/EUFI/Quality Control
Sequoia Analytical - Sacramento

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
0100124-BLK1										
Surrogate: a,a,a-Trifluorotoluene	10/12/00	10.0		9.40	ug/l	60.0-140	94.0			
LCS										
0100124-BS1										
Benzene	10/12/00	10.0		11.4	ug/l	70.0-130	114			
Toluene	"	10.0		11.0	"	70.0-130	110			
Ethylbenzene	"	10.0		10.9	"	70.0-130	109			
Xylenes (total)	"	30.0		32.7	"	70.0-130	109			
Methyl tert-butyl ether	"	10.0		11.1	"	70.0-130	111			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.98	"	60.0-140	99.8			
Matrix Spike										
0100124-MS1 S010018-01										
Benzene	10/12/00	10.0	ND	10.7	ug/l	60.0-140	107			
Toluene	"	10.0	ND	10.7	"	60.0-140	107			
Ethylbenzene	"	10.0	ND	10.7	"	60.0-140	107			
Xylenes (total)	"	30.0	ND	32.1	"	60.0-140	107			
Methyl tert-butyl ether	"	10.0	ND	10.4	"	60.0-140	104			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.52	"	60.0-140	95.2			
Matrix Spike Dup										
0100124-MSD1 S010018-01										
Benzene	10/12/00	10.0	ND	11.0	ug/l	60.0-140	110	25.0	2.76	
Toluene	"	10.0	ND	11.0	"	60.0-140	110	25.0	2.76	
Ethylbenzene	"	10.0	ND	10.8	"	60.0-140	108	25.0	0.930	
Xylenes (total)	"	30.0	ND	32.6	"	60.0-140	109	25.0	1.85	
Methyl tert-butyl ether	"	10.0	ND	10.1	"	60.0-140	101	25.0	2.93	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.42	"	60.0-140	94.2			





Sequoia Analytical

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 Sacramento, CA 95834
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Delta Environmental Consultants - Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: ARCO 4494, Oakland, CA Project Number: N/A Project Manager: Steven Meeks	Sampled: 9/28/00 Received: 10/2/00 Reported: 10/16/00
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MTBE Confirmation by EPA Method 8260A/Quality Control
 Sequoia Analytical - Sacramento

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100059		Date Prepared: 10/12/00			Extraction Method: EPA 5030B [P/T]					
Blank	0100059-BLK1									
Methyl tert-butyl ether	10/12/00			ND	ug/l	2.00				
Surrogate: 1,2-DCA-d4	"	50.0		50.2	"	60.0-140	100			
LCS	0100059-BS1									
Methyl tert-butyl ether	10/12/00	50.0		56.4	ug/l	60.0-140	113			
Surrogate: 1,2-DCA-d4	"	50.0		52.0	"	60.0-140	104			
LCS Dup	0100059-BSD1									
Methyl tert-butyl ether	10/12/00	50.0		54.4	ug/l	60.0-140	109	25.0	3.60	
Surrogate: 1,2-DCA-d4	"	50.0		52.4	"	60.0-140	105			
Batch: 0100111		Date Prepared: 10/13/00			Extraction Method: EPA 5030B [P/T]					
Blank	0100111-BLK1									
Methyl tert-butyl ether	10/13/00			ND	ug/l	2.00				
Surrogate: 1,2-DCA-d4	"	50.0		47.0	"	60.0-140	94.0			
LCS	0100111-BS1									
Methyl tert-butyl ether	10/13/00	50.0		54.0	ug/l	60.0-140	108			
Surrogate: 1,2-DCA-d4	"	50.0		48.4	"	60.0-140	96.8			
LCS Dup	0100111-BSD1									
Methyl tert-butyl ether	10/13/00	50.0		54.6	ug/l	60.0-140	109	25.0	0.922	
Surrogate: 1,2-DCA-d4	"	50.0		49.0	"	60.0-140	98.0			





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Notes and Definitions

#	Note
D	Data reported from a dilution.
1	The reporting limit(s) for this sample have been raised due to high levels of non-target interferents.
2	This sample was analyzed outside of the EPA recommended holding time.
3	Estimated value. The value reported is above the initial calibration range but within the instrument linear range.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference





3164 Gold Camp Drive, Suite 200
 Rancho Cordova, California 95670
 Direct: (916) 638-2085
 Fax: (916) 638-8385

Arco Site Address: **556 Hegenberger Road**

Arco Site Number: **4494**

Oakland

Delta Project No.: **D000-319**

Arco Project Manager: **Paul Supple**

Delta Project PM: **Steven W. Meeks**

Site Sampled By: **Doulos**

Date Sampled: **09/28/00**

Site Contact & Phone Number: _____

Water Level Data						Purge Volume Calculations					Sampling Analytes					Sample Record		
Well ID	Time	Depth to Water (feet)	Top of Screen Interval (feet)	Total Depth of Well (feet)	Check if Purge Not Required	Casing Water Column (A)	Well Diameter (inches)	Multiplier Value (B)	Three Casing Volumes (gallons)	Actual Water Purged (gallons)	BTEX (8020) VOA	TPH-g (8015M) VOA	MTBE (8020) VOA	Confirm MTBE by EPA 8260	Dissolved Oxygen (mg/L)	Sample Frequency (A, S, Q)	Sample I.D.	Sample Time
MW-1	12:32	7.07	13.0	22.7	<input type="checkbox"/>	15.61	4 inch	2.0	31.2	30.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.10	Q/3,6,9,12	MW-1	
MW-3	12:35	9.33	7.0	17.7	<input checked="" type="checkbox"/>	8.34	4 inch	2.0	16.7	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.11	Q/3,6,9,12	MW-3	
MW-4	12:39	8.70	7.0	16.3	<input type="checkbox"/>	7.55	4 inch	2.0	15.1	14.7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.09	Q/3,6,9,12	MW-4	
MW-5	12:44	6.82	8.0	16.6	<input type="checkbox"/>	9.82	2 inch	0.5	4.9	4.7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2.27	Q/3,6,9,12	MW-5	
MW-6	12:48	6.45	8.0	17.8	<input type="checkbox"/>	11.36	2 inch	0.5	5.7	5.4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.16	Q/3,6,9,12	MW-6	
MW-7	12:52	8.75	9.0	13.7	<input checked="" type="checkbox"/>	4.90	4 inch	2.0	9.8	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.03	Q/3,6,9,12	MW-7	
RW-1	12:55	8.28	NM	11.0	<input type="checkbox"/>	2.73	2 inch	0.5	1.4	1.3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.51	Q/3,6,9,12	RW-1	
					<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
					<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
					<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
					<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
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					<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
					<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

(A)-Casing Water Column: Depth to Bottom - Depth to Water (B)-Multiplier Values: (2" Well: 0.5) (4" Well: 2.0) (6" Well: 4.4) Sampling Sequence: Quarterly: MW-1, MW-3, MW-4, MW-5, MW-6, MW-7, and RW-1

Sampling Notes: List depth of Sample on C.O.C. [i.e. MW-1(30)]. Make Sure to Note on C.O.C. "Provide Lowest Reporting Limit Available." Original Copies of Field Sampling Sheets are Located in Project File
 If the water level is below the top of the screen, take a grab sample and check box for NO PURGE (NP). If the water level is above the screen, purge as normal.



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Oakland

Delta Project No.: D000-319

Arco Project Manager: Paul Supple

Delta Project PM: Steven W. Meeks

Site Sampled By: Doulos

Date Sampled: 09/28/00

Site Contact & Phone Number: _____

Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
MW-1	1:15	27.4	8.46	3,320	1													
	1:17	26.9	8.40	3,311	2													
	1:19	26.6	8.38	3,309	3													
Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
MW-3	No Purge																	
Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
MW-4	15:06	25.1	7.96	2,374	1													
	15:07	24.4	7.89	2,366	2													
	15:09	23.9	7.85	2,361	3													
Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
MW-5	14:46	24.4	7.32	+3999	1													
	14:48	23.9	7.21	+3999	2													
	14:49	23.3	7.18	+3999	3													
Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
MW-6	14:12	23.4	7.16	+3999	1													
	14:14	22.9	7.10	+3999	2													
	14:16	22.7	7.08	+3999	3													
Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
MW-7	No Purge																	
Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	Well ID	Time	Temp °C	pH Units	Sp. Cond.	Gallons	
RW-1	14:31	70.2	7.41	+3999	1													
	14:32	69.6	7.36	+3999	2													
	14:33	69.2	7.33	+3999	3													

Notes: NP = NO PURGE

Original Copies of Field Sampling Sheets are Located in Project File