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September 18, 2001

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

Subject: *Quarterly Groundwater Monitoring Report, Second Quarter 2001*
ARCO Service Station No. 2111
1156 Davis Street
San Leandro, California
Delta Project No. D000-306

SEP 24 2001

Dear Mr. Supple:

Delta Environmental Consultants, Inc. is submitting the attached report that presents the results of the second quarter 2001 groundwater monitoring at ARCO Products Company Service Station No. 2111 located at 1156 Davis Street, San Leandro, 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.

Brett Brandley for
Trevor L. Atkinson
Project Engineer

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



TLA (LRP008.306.doc)
Enclosures

cc: Mr. Amir Gholami – Alameda County Health Care Services Agency
Mr. Mike Bakaldin, San Leandro Fire Department, Hazardous Materials Program

Date: September 18, 2001

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Station No.: 2111 Address: 1156 Davis Street, San Leandro, 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.: D000-306
 Primary Agency/Regulatory ID No. Alameda County Health Care Services Agency

SEP 24 2001

WORK PERFORMED THIS QUARTER

1. Performed quarterly groundwater monitoring and sampling for second quarter 2001
2. Performed quarterly pumping activities from monitoring well MW-2 and MW-7 as approved per ACHCSA letter dated October 12, 2000 (MW-7 did not produce water).

WORK PROPOSED FOR NEXT QUARTER

1. Perform quarterly groundwater monitoring and sampling for third quarter 2001.
2. Perform quarterly pumping activities from monitoring well MW-2 and MW-7 as approved per ACHCSA letter dated October 12, 2000.

QUARTERLY MONITORING:

Current Phase of Project	<u>Quarterly groundwater monitoring</u>
Frequency of Groundwater Sampling:	<u>Quarterly: MW-1 through MW-7</u>
Frequency of Groundwater Monitoring:	<u>Quarterly (groundwater)</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
FP Recovered this Quarter:	<u>None</u>
Cumulative FP Recovered to Date:	<u>0.381 gallons</u>
Bulk Soil Removed This Quarter:	<u>None</u>
Bulk Soil Removed to Date:	<u>Unknown</u>
Current Remediation Techniques:	<u>Bailing free product as needed/well pumpouts</u>
Approximate Depth to Groundwater:	<u>15.55</u>
Groundwater Gradient:	<u>0.004 ft/ft West-Northwest</u>

DISCUSSION:

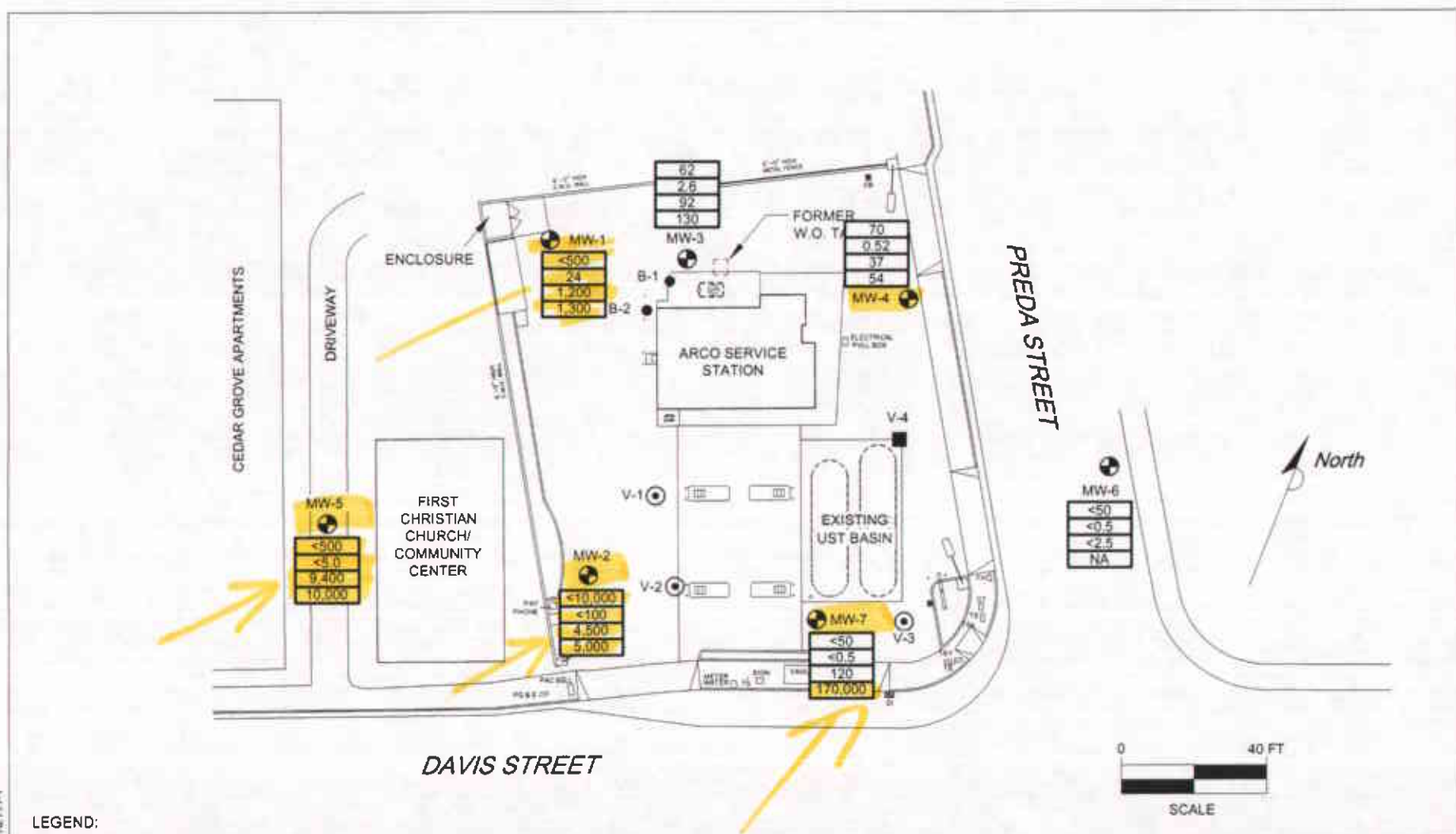
- Free product was not present in the monitoring wells during the March 13, 2001 monitoring.
- Approximately 5,000 gallons of ground water were pumped from MW-2 on March 13, 2001 (see Table 3). MW-7 was not pumped due to low recovery.
- The site data suggest that there is a general decreasing trend of dissolved petroleum hydrocarbons occurring in the groundwater.

ATTACHMENTS:

- Table 1 Groundwater Elevation and Analytical Data
- Table 2 Groundwater Flow Direction and Gradient
- Table 3 LPH Remediation Ground Water Pumpout Recovery Analytical Data
- Figure 1 Groundwater Analytical Summary Map
- Figure 2 Groundwater Elevation Contour Map
- Appendix A Sampling and Analysis Procedures
- Appendix B Historical Groundwater Elevation Analytical Data Table
- Appendix C Groundwater Flow Direction and Gradient Table
- Appendix D Certified Analytical Reports with Chain-of-Custody Documentation

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LEGEND:

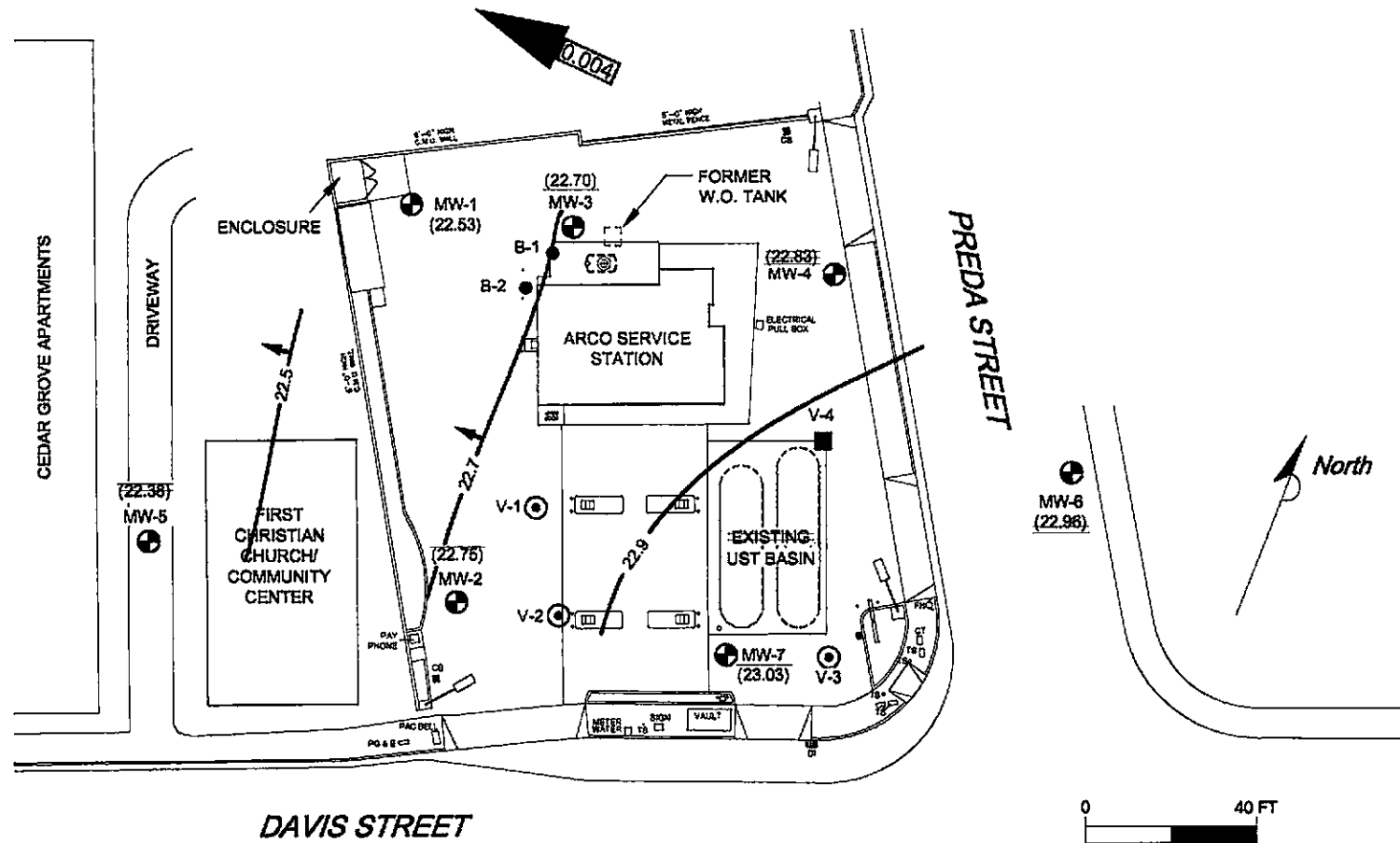
- ⊕ MW-1 MONITORING WELL LOCATION
- ⊙ V-1 VAPOR EXTRACTION WELL LOCATION
- B-1 SOIL BORING LOCATION
- V-4 DESTROYED WELL LOCATION

<50	TPH AS GASOLINE IN MICROGRAMS PER LITER (µg/L)
<0.5	BENZENE IN µg/L
<2.5	MTBE IN µg/L BY EPA METHOD 8020
NA	MTBE IN µg/L BY EPA METHOD 8260

NA NOT ANALYZED/ NOT APPLICABLE

FIGURE 1
GROUND WATER ANALYTICAL SUMMARY
 SECOND QUARTER 2001 (5/30/01)
 ARCO SERVICE STATION NO. 2111
 1156 DAVIS STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. D000-306	DRAWN BY TLA 8/1/01	
FILE NO. 2111-1	PREPARED BY TLA	
REVISION NO. 1	REVIEWED BY	



LEGEND:

- ⊕ MW-1 MONITORING WELL LOCATION
- ⊙ V-1 VAPOR EXTRACTION WELL LOCATION
- B-1 SOIL BORING LOCATION
- V-4 DESTROYED WELL LOCATION
- (22.53) GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (MSL)
- 22.5 - WATER TABLE CONTOUR IN FEET ABOVE MSL
- GROUND WATER FLOW DIRECTION
- 0.004 → APPROXIMATE GROUND WATER FLOW GRADIENT

FIGURE 2
GROUND WATER ELEVATION CONTOUR MAP
 SECOND QUARTER 2001 (5/30/01)
 ARCO SERVICE STATION NO. 2111
 1156 DAVIS STREET
 SAN LEANDRO, CALIFORNIA

PROJECT NO. D000-306	DRAWN BY TLA 8/1/01
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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

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. Ground water removed from the wells was stored in 55-gallon barrels at the site. The barrels were labeled with corresponding monitoring well numbers and the date of purging. 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 will be collected from the storage barrels in a vacuum truck and transported to an appropriate facility for treatment and/or disposal.

If the depth to groundwater was above the top of screens of the monitoring wells, then the wells were purged. Before sampling occurred, a polyvinyl chloride (PVC) bailer, centrifugal pump, low-flow submersible pump, or Teflon bailer was used to purge standing water in the casing and gravel pack from the monitoring well. Monitoring wells were purged according to the protocol previously stated in the first paragraph of this sub-section. In most monitoring wells, the amount of water purged before sampling was greater than or equal to three casing volumes. Some monitoring wells were expected to be evacuated to dryness after removing fewer than three casing volumes. These low-yield monitoring wells were allowed to recharge for up to 24 hours. Samples were obtained as soon as the monitoring wells recharged to a level sufficient for sample collection. If insufficient water recharged after 24 hours, the monitoring well was recorded as dry for the sampling event.

**Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111
1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-1	08-01-95	39.60	17.45	ND	22.15	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--		
MW-1	12-14-95	39.60	17.09	ND	22.51	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	03-21-96	39.60	14.72	ND	24.88	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	05-24-96	39.60	15.94	ND	23.66	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	08-09-96	39.60	17.89	ND	21.71	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	11-06-96	39.60	18.66	ND	20.94	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	03-24-97	39.60	16.13	ND	23.47	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	05-27-97	39.60	17.23	ND	22.37	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	08-07-97	39.60	18.68	ND	20.92	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	11-10-97	39.60	19.19	ND	20.41	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	02-16-98	39.60	12.61	ND	26.99	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	04-15-98	39.60	14.30	ND	25.30	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	07-24-98	39.60	16.40	ND	23.20	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	10-19-98	39.60	17.90	ND	21.70	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--		
MW-1	01-28-99	39.60	16.85	ND	22.75	01-28-99	<20,000	580	<200	<200	320	14,000	--	--	--		
MW-1	06-25-99	39.60	17.35	ND	22.25	06-25-99	730	140	5	3	2	7,700	--	--	--	0.79	NP
MW-1	08-25-99	39.60	18.20	ND	21.40	08-25-99	390	66	8.5	<2.5	8.6	3,700	--	--	--	1.56	NP
MW-1	11-10-99	39.60	17.77	ND	21.83	11-10-99	360	70	13	2.2	13	980	--	--	--	0.30	NP
MW-1	02-09-00	39.60	16.25	ND	23.35	02-09-00	190	4.5	0.9	<0.5	12	3,500	--	--	--	0.53	NP
MW-2	08-01-95	37.99	15.67	ND	22.32	08-01-95	23,000	1,300	310	500	3,500	--	--	--	--		
MW-2	12-14-95	37.99	15.36	ND	22.63	12-14-95	7,300	900	25	180	1,000	<200	--	--	--		
MW-2	03-21-96	37.99	12.84	ND	25.15	03-21-96	9,600	850	30	280	1,400	250	--	--	--		
MW-2	05-24-96	37.99	14.03	ND	23.96	05-24-96	2,300	300	<5	73	310	<25	--	--	--		
MW-2	08-09-96	37.99	16.10	ND	21.89	08-09-96	2,800	290	6	75	320	50	--	--	--		

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Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-2	11-06-96	37.99	16.98	ND	21.01	11-06-96	750	76	<1	15	51	110	--	--	--	
MW-2	03-24-97	37.99	14.22	ND	23.77	03-24-97	790	18	<1	2	6	280	--	--	--	
MW-2	05-27-97	37.99	15.42	ND	22.57	05-28-97	750	14	<1	<1	10	150	--	--	--	
MW-2	08-07-97	37.99	16.92	ND	21.07	08-07-97	360	31	<2.5	<2.5	15	260	--	--	--	
MW-2	11-10-97	37.99	17.52	ND	20.47	11-10-97	1,300	82	<5	14	49	550	--	--	--	
MW-2	02-16-98	37.99	12.04	ND	25.95	02-16-98	<2,500	<25	<25	<25	<25	4,200	--	--	--	
MW-2	04-15-98	37.99	12.34	ND	25.65	04-15-98	<10,000	<100	<100	<100	<100	7,300	--	--	--	
MW-2	07-24-98	37.99	14.45	ND	23.54	07-24-98	<2,500	<25	<25	<25	<25	1,500	--	--	--	
MW-2	10-19-98	37.99	16.08	ND	21.91	10-19-98	<1,000	18	<10	<10	<10	1,100	--	--	--	
MW-2	01-28-99	37.99	15.59	0.02	22.41 [1]	01-28-99	160,000	3,000	24,000	4,400	31,000	23,000	--	--	--	
MW-2	06-25-99	37.99	19.20	3.73[4]	21.51 [1]	06-25-99	120,000	6,900	21,000	2,600	19,000	18,000	17,000[3]	--	--	0.49 NP
MW-2	08-25-99	37.99	16.49	0.02	21.51 [1]	08-25-99	92,000	2,200	16,000	3,200	19,000	11,000	9,400[3]	--	--	0.84 NP
MW-2	11-10-99	37.99	16.08	ND	21.91	11-10-99	56,000	2,400	5,900	1,500	10,000	17,000	21,000[3]	--	--	0.41 NP
MW-2	02-09-00	37.99	14.85	ND	23.14	02-09-00	1,700	270	14	17	21	70,000	55,000[3]	--	--	0.97 NP
MW-3	08-01-95	39.32	17.00	ND	22.32	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	600	76[2]	
MW-3	12-14-95	39.32	16.70	ND	22.62	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50	
MW-3	03-21-96	39.32	14.17	ND	25.15	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50	
MW-3	05-24-96	39.32	15.30	ND	24.02	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50	
MW-3	08-09-96	39.32	17.58	ND	21.74	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	--	
MW-3	11-06-96	39.32	18.33	ND	20.99	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-3	03-24-97	39.32	15.44	ND	23.88	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-3	05-27-97	39.32	16.75	ND	22.57	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-3	08-07-97	39.32	18.35	ND	20.97	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-3	11-10-97	39.32	18.83	ND	20.49	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	

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Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged
MW-3	02-16-98	39.32	11.99	ND	27.33	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-3	04-15-98	39.32	13.75	ND	25.57	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-3	07-24-98	39.32	15.90	ND	23.42	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-3	10-19-98	39.32	17.45	ND	21.87	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-3	01-28-99	39.32	16.40	ND	22.92	01-28-99	<100	14	4	<1	6	100	..	..	..
MW-3	06-25-99	39.32	17.92	ND	21.40	06-25-99	83	9.0	1.4	<0.5	2.5	220	..	..	1.11	NP
MW-3	08-25-99	39.32	17.79	ND	21.53	08-25-99	240	41	12	3.7	9.9	160	..	..	1.13	NP
MW-3	11-10-99	39.32	17.37	ND	21.95	11-10-99	620	100	9.7	4.1	21	150	..	..	0.24	NP
MW-3	02-09-00	39.32	15.77	ND	23.55	02-09-00	<50	<0.5	0.7	<0.5	<1	180	..	..	0.62	NP
MW-4	08-01-95	38.10	15.65	ND	22.45	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	..	..	..	..
MW-4	12-14-95	38.10	15.35	ND	22.75	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	03-21-96	38.10	12.74	ND	25.36	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	05-24-96	38.10	14.03	ND	24.07	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	08-09-96	38.10	16.10	ND	22.00	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	11-06-96	38.10	17.00	ND	21.10	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	03-24-97	38.10	14.21	ND	23.89	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	05-27-97	38.10	15.38	ND	22.72	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	08-07-97	38.10	16.95	ND	21.15	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	11-10-97	38.10	17.53	ND	20.57	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	02-16-98	38.10	10.65	ND	27.45	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	04-15-98	38.10	12.20	ND	25.90	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	07-24-98	38.10	14.47	ND	23.63	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	10-19-98	38.10	16.20	ND	21.90	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	3	..	..	..
MW-4	01-28-99	38.10	15.02	ND	23.08	01-28-99	340	52	5.5	<0.5	74	31	..	..	..

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHC LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged Y/N/P
MW-4	06-25-99	38.10	15.57	ND	22.53	06-25-99	510	78	4.1	0.5	18	94	..	..	0.90	NP
MW-4	08-25-99	38.10	16.43	ND	21.67	08-25-99	660	130	21	6.4	39	110	..	..	1.01	NP
MW-4	11-10-99	38.10	16.02	ND	22.08	11-10-99	510	98	5.1	3.1	15	69	..	..	0.28	NP
MW-4	02-09-00	38.10	14.30	ND	23.80	02-09-00	<50	<0.5	0.9	<0.5	<1	55	..	..	0.67	NP
MW-5	03-21-96	37.21	12.60	ND	24.61	03-22-96	<50	<0.5	<0.5	<0.5	<0.5	82	..	..	..	..
MW-5	05-24-96	37.21	13.71	ND	23.50	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	7	..	..	..	..
MW-5	08-09-96	37.21	15.60	ND	21.61	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	8	..	..	..	..
MW-5	11-06-96	37.21	16.36	ND	20.85	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	100	..	..	..	..
MW-5	03-24-97	37.21	13.87	ND	23.34	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	460	..	..	..	..
MW-5	05-27-97	37.21	14.71	ND	22.50	05-28-97	<100	<1	<1	<1	<1	120	..	..	..	..
MW-5	08-07-97	37.21	16.90	ND	20.31	08-07-97	<250	<2.5	<2.5	<2.5	<2.5	250	..	..	..	..
MW-5	11-10-97	37.21	16.88	ND	20.33	11-10-97	<1,000	<10	<10	<10	<10	770	..	..	..	..
MW-5	02-16-98	37.21	10.56	ND	26.65	02-16-98	<200	<2	<2	<2	<2	230	..	..	..	..
MW-5	04-15-98	37.21	12.20	ND	25.01	04-15-98	<500	<5	<5	<5	<5	900	..	..	..	..
MW-5	07-24-98	37.21	14.20	ND	23.01	07-24-98	<500	<5	<5	<5	<5	570	..	..	..	..
MW-5	10-19-98	37.21	15.74	ND	21.47	10-19-98	<250	<2.5	<2.5	<2.5	<2.5	300	..	..	..	..
MW-5	01-28-99	37.21	14.60	ND	22.61	01-28-99	<500	8	<5	<5	<5	290	..	..	..	..
MW-5	06-25-99	37.21	15.10	ND	22.11	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	1,300	..	..	0.76	NP
MW-5	08-25-99	37.21	15.91	ND	21.30	08-25-99	<50	<0.5	<0.5	<0.5	<0.5	6,700	..	..	0.98	NP
MW-5	11-10-99	37.21	15.52	ND	21.69	11-10-99	130	2.0	7.0	1.3	21	5,000	..	..	0.21	NP
MW-5	02-09-00	37.21	14.03	ND	23.18	02-09-00	92	<0.5	0.8	<0.5	1.0	7,900	..	..	0.51	NP
MW-6	03-21-96	37.11	11.55	ND	25.56	03-22-96	<50	<0.5	1.9	<0.5	<0.5	<3	..	..	..	..
MW-6	05-24-96	37.11	12.80	ND	24.31	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	6	..	..	..	..

**Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents**

**ARCO Service Station 2111
1156 Davis Street, San Leandro, California**

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged Y/N
MW-6	08-09-96	37.11	Not surveyed			08-09-96	Not sampled: Car parked on well									
MW-6	11-06-96	37.11	Not surveyed			11-06-96	Not sampled: Car parked on well									
MW-6	03-24-97	37.11	13.06	ND	24.05	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	05-27-97	37.11	14.30	ND	22.81	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	08-07-97	37.11	16.40	ND	20.71	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	11-10-97	37.11	16.53	ND	20.58	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	02-16-98	37.11	Not surveyed			02-16-98	Not sampled: Car parked on well									
MW-6	04-15-98	37.11	10.95	ND	26.16	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	07-24-98	37.11	13.30	ND	23.81	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	10-19-98	37.11	Not surveyed			10-19-98	Not sampled: Car parked on well									
MW-6	01-28-99	37.11	13.92	ND	23.19	01-28-99	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	--	
MW-6	06-25-99	37.11	15.47	ND	21.64	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	△	--	--	0.74	NP
MW-6	08-25-99	37.11	15.39	ND	21.72	08-25-99	<50	<0.5	3.4	0.6	3.7	△	--	--	0.92	NP
MW-6	11-10-99	37.11	14.92	ND	22.19	11-10-99	<50	<0.5	<0.5	<0.5	<1	△	--	--	0.31	NP
MW-6	02-09-00	37.11	13.30	ND	23.81	02-09-00	<50	<0.5	0.9	<0.5	1.3	△	--	--	0.79	NP
MW-7	03-21-96	38.68	13.32	ND	25.36	03-22-96	32,000	870	450	970	4,900	280	--	--	--	
MW-7	05-24-96	38.68	14.58	ND	24.10	05-24-96	22,000	570	40	42	1,900	<200[2]	--	--	--	
MW-7	08-09-96	38.68	15.33	ND	23.35	08-09-96	14,000	390	<10	180	470	<200[2]	--	--	--	
MW-7	11-06-96	38.68	16.95	ND	21.73	11-06-96	9,500	440	<10	210	150	<100[2]	--	--	--	
MW-7	03-24-97	38.68	14.65	ND	24.03	03-24-97	6,400	420	<10	260	13	480	--	--	--	
MW-7	05-27-97	38.68	15.58	ND	23.10	05-28-97	5,000	420	<5	230	10	460	--	--	--	
MW-7	08-07-97	38.68	17.10	ND	21.58	08-07-97	3,900	350	<5	200	10	330	--	--	--	
MW-7	11-10-97	38.68	18.05	ND	20.63	11-10-97	5,600	590	10	370	43	540	--	--	--	
MW-7	02-16-98	38.68	12.03	ND	26.65	02-16-98	<5,000	390	<50	<50	61	4,300	--	--	--	

Table 1
Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/Not Purged P/NP
MW-7	04-15-98	38.68	13.02	ND	25.66	04-15-98	<10,000	<100	<100	<100	<100	8,900	--	--	--	
MW-7	07-24-98	38.68	14.18	ND	24.50	07-24-98	5,800	180	<50	74	<50	4,200	--	--	--	
MW-7	10-19-98	38.68	15.99	ND	22.69	10-19-98	<2,500	54	<25	72	<25	3,000	--	--	--	
MW-7	01-28-99	38.68	15.69	ND	22.99	01-28-99	4,500	560	250	<50	94	6,200	--	--	--	
MW-7	06-25-99	38.68	15.36	ND	23.32	06-25-99	3,900	520	160	46	100	45,000	63,000[3]	--	--	0.56 NP
MW-7	08-25-99	38.68	16.71	ND	21.97	08-25-99	3,400	730	77	51	110	62,000	76,000[3]	--	--	0.90 NP
MW-7	11-10-99	38.68	16.76	ND	21.92	11-10-99	15,000	340	19	13	20	55,000	91,000[3]	--	--	0.37 NP
MW-7	02-09-00	38.68	14.45	0.03	24.25 [1]	02-09-00	Not sampled: free product present									

ft-MSL: elevation in feet, relative to mean sea level
TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
MTBE: Methyl tert-butyl ether
TRPH: total recoverable petroleum hydrocarbons
TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method
*: EPA method 8020 prior to 11/10/99
EPA: United States Environmental Protection Agency
µg/L: micrograms per liter
mg/L: milligrams per liter
ND: none detected
--: not available or not analyzed
<: less than laboratory detection limit stated to the right
[1]: [corrected elevation (Z')] = Z + (h * 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water
[2]: chromatogram fingerprint is not characteristic of diesel
[3]: also analyzed for fuel oxygenates
[4]: this value is suspected to be erroneous based on subsequent check by bailer (following day). See discussion

**Table 2
Groundwater Flow Direction and Gradient**

**ARCO Service Station 2111
1156 Davis Street, San Leandro, California**

Date Measured	Average Flow Direction	Average Hydraulic Gradient
08-01-95	NR	NR
12-14-95	West	0.002
03-21-96	West-Southwest	0.005
05-24-96	West	0.003
08-09-96	West-Northwest	0.01
11-06-96	West-Northwest	0.007
03-24-97	West	0.005
05-27-97	North-Northwest	0.006
08-07-97	West	0.009
11-10-97	West	0.002
02-16-98	South-Southwest	0.013
04-15-98	West-Southwest	0.014
07-24-98	Northwest	0.01
10-19-98	West	0.008
01-28-99	Southwest	0.01
06-25-99	North-Northwest	0.017
08-25-99	West-Northwest	0.005
11-10-99	West-Southwest	0.002
02-09-00	West-Northwest	0.015

NR: not recorded



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

Arco Site Address: 1156 Davis Street
San Leandro, California

Arco Site Number: Arco 2111

Delta Project No.: D000-306

Arco Project Manager: Paul Supple

Delta Project PM: Steve Meeks

Site Contact & Phone Number: _____

Site Sampled By: Stratus (CH)

Date Sampled: 05/30/01

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 (8260) VOA	Dissolved Oxygen (mg/L)	Sample Frequency (A, S, Q)	Sample I.D.	Sample Time
MW-1	5:10	17.07	12.5	26.0	<input checked="" type="checkbox"/>	8.93	4 inch	2.0	17.9	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.80	Q/2,5,8,11	MW-1	5:21
MW-2	5:41	15.24	12.0	26.3	<input checked="" type="checkbox"/>	11.06	4 inch	2.0	22.1	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.10	Q/2,5,8,11	MW-2	6:30
MW-3	5:20	16.62	11.9	26.5	<input checked="" type="checkbox"/>	9.88	4 inch	2.0	19.8	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.80	Q/2,5,8,11	MW-3	5:47
MW-4	5:31	15.27	10.0	21.6	<input checked="" type="checkbox"/>	6.33	4 inch	2.0	12.7	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.80	Q/2,5,8,11	MW-4	5:57
MW-5	4:59	14.83	9.4	23.6	<input checked="" type="checkbox"/>	8.77	2 inch	0.5	4.4	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.80	Q/2,5,8,11	MW-5	5:33
MW-6	4:35	14.15	10.0	24.8	<input checked="" type="checkbox"/>	10.65	2 inch	0.5	5.3	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.60	Q/2,5,8,11	MW-6	8:29
MW-7	4:47	15.65	12.0	26.9	<input checked="" type="checkbox"/>	11.25	4 inch	2.0	22.5	NP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.90	Q/2,5,8,11	MW-7	6:09
					<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"/>				
					<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"/>				
					<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"/>				

(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-6, MW-5, MW-4, MW-3, MW-1, MW-7, MW-2

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.



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

Arco Site Address: 1156 Davis Street
San Leandro, California

Arco Site Number: Arco 2111
 Delta Project No.: D000-306

Arco Project Manager: Paul Supple

Delta Project PM: Steve Meeks

Site Sampled By: Stratus (CH)

Date Sampled: 05/30/01

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		17.8	6.40	639	NP												
MW-2		18.0	6.40	690	NP												
MW-3		18.0	3.40	665	NP												
MW-4		17.9	6.30	742	NP												
MW-5		18.3	6.60	704	NP												
MW-6		18.6	6.40	791	NP												
MW-7		18.5	6.60	892	NP												

Notes: NP = NO PURGE

Original Copies of Field Sampling Sheets are Located in Project File

APPENDIX D

**Certified Analytical Reports
And
Chain-of-Custody Documentation**



**Sequoia
Analytical**

819 Striker Avenue, Suite 8
Sacramento, CA 95834
(916) 921-9600
FAX (916) 921-0100
www.sequoialabs.com

20 June, 2001

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

RE: ARCO 2111, San Leandro, CA
Sequoia Report: S105432

Enclosed are the results of analyses for samples received by the laboratory on 05/30/01 15:14. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew
Client Services Representative

Lito Diaz
Laboratory Director

CA ELAP Certificate #1624



Delta Environmental Consultants/Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
06/20/01 13:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1-17'	S105432-01	Water	05/30/01 05:15	05/30/01 15:14
MW2-15'	S105432-02	Water	05/30/01 05:46	05/30/01 15:14
MW3-16'	S105432-03	Water	05/30/01 05:26	05/30/01 15:14
MW4-15'	S105432-04	Water	05/30/01 05:34	05/30/01 15:14
MW6-14'	S105432-05	Water	05/30/01 04:41	05/30/01 15:14
MW7-15'	S105432-06	Water	05/30/01 04:52	05/30/01 15:14
MW2	S105432-07	Water	05/30/01 13:21	05/30/01 15:14

Sequoia Analytical - Sacramento

Ron Chew, Client Services Representative

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.



Delta Environmental Consultants/Rancho Cordova
 3164 Gold Camp Drive Ste. 200
 Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
 Project Number: N/A
 Project Manager: Steven Meeks

Reported:
 06/20/01 13:41

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-17' (S105432-01) Water Sampled: 05/30/01 05:15 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	ND	500	ug/l	10	1060041	06/06/01	06/06/01	DHS LUFT	zR-05
Benzene	24	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	zR-05
Ethylbenzene	ND	5.0	"	"	"	"	"	"	zR-05
Xylenes (total)	ND	5.0	"	"	"	"	"	"	zR-05
Methyl tert-butyl ether	1200	25	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		74.9 %	60-140		"	"	"	"	A-01
MW2-15' (S105432-02) Water Sampled: 05/30/01 05:46 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	ND	10000	ug/l	200	1060141	06/18/01	06/18/01	DHS LUFT	
Benzene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	
Xylenes (total)	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	4500	500	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		111 %	60-140		"	"	"	"	
MW3-16' (S105432-03) Water Sampled: 05/30/01 05:26 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	62	50	ug/l	1	1060086	06/06/01	06/06/01	DHS LUFT	zP-02
Benzene	2.6	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	92	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %	60-140		"	"	"	"	



Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
06/20/01 13:41

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW4-15' (S105432-04) Water Sampled: 05/30/01 05:34 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	70	50	ug/l	1	1060141	06/18/01	06/18/01	DHS LUFT	A-01,zP-03
Benzene	0.52	0.50	"	"	"	"	"	"	A-01
Toluene	ND	0.50	"	"	"	"	"	"	A-01
Ethylbenzene	ND	0.50	"	"	"	"	"	"	A-01
Xylenes (total)	ND	0.50	"	"	"	"	"	"	A-01
Methyl tert-butyl ether	37	2.5	"	"	"	"	"	"	A-01
Surrogate: a,a,a-Trifluorotoluene		119 %	60-140		"	"	"	"	A-01
MW6-14' (S105432-05) Water Sampled: 05/30/01 04:41 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	ND	50	ug/l	1	1060086	06/06/01	06/06/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		97.4 %	60-140		"	"	"	"	
MW7-15' (S105432-06) Water Sampled: 05/30/01 04:52 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	ND	50	ug/l	1	1060086	06/06/01	06/06/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	120	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		111 %	60-140		"	"	"	"	



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Delta Environmental Consultants(Rancho Cordova
 3164 Gold Camp Drive Ste. 200
 Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
 Project Number: N/A
 Project Manager: Steven Meeks

Reported:
 06/20/01 13:41

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2 (S105432-07) Water									A-01a,zP-02
Sampled: 05/30/01 13:21 Received: 05/30/01 15:14									
Purgeable Hydrocarbons	ND	50	ug/l	1	1060130	06/15/01	06/15/01	DHS LUFT	
Benzene	12	0.50	"	"	"	"	"	"	
Toluene	3.6	0.50	"	"	"	"	"	"	
Ethylbenzene	7.9	0.50	"	"	"	"	"	"	
Xylenes (total)	16	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	100	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		118 %	60-140		"	"	"	"	



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Reported:
 06/20/01 13:41

MTBE Confirmation by EPA Method 8260A
Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-17' (S105432-01) Water Sampled: 05/30/01 05:15 Received: 05/30/01 15:14									
Methyl tert-butyl ether	1300	20	ug/l	10	1060069	06/12/01	06/12/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		102 %	60-140		"	"	"	"	
MW2-15' (S105432-02) Water Sampled: 05/30/01 05:46 Received: 05/30/01 15:14									
Methyl tert-butyl ether	5000	100	ug/l	50	1060069	06/12/01	06/12/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		102 %	60-140		"	"	"	"	
MW3-16' (S105432-03) Water Sampled: 05/30/01 05:26 Received: 05/30/01 15:14									
Methyl tert-butyl ether	130	5.0	ug/l	2.5	1060069	06/12/01	06/12/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		107 %	60-140		"	"	"	"	
MW4-15' (S105432-04) Water Sampled: 05/30/01 05:34 Received: 05/30/01 15:14									
Methyl tert-butyl ether	54	5.0	ug/l	2.5	1060069	06/12/01	06/12/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		110 %	60-140		"	"	"	"	
MW7-15' (S105432-06) Water Sampled: 05/30/01 04:52 Received: 05/30/01 15:14									
Methyl tert-butyl ether	170000	1000	ug/l	500	1060081	06/12/01	06/13/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		109 %	60-140		"	"	"	"	
MW2 (S105432-07) Water Sampled: 05/30/01 13:21 Received: 05/30/01 15:14									
Methyl tert-butyl ether	39000	400	ug/l	200	1060081	06/12/01	06/13/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		109 %	60-140		"	"	"	"	



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Reported:
06/20/01 13:41

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060041 - EPA 5030B (P/T)										
Blank (1060041-BLK1) Prepared & Analyzed: 06/06/01										
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>	8.58		"	10.0		85.8	60-140			
LCS (1060041-BS1) Prepared & Analyzed: 06/06/01										
Benzene	8.80	0.50	ug/l	10.0		88.0	70-130			
Toluene	9.66	0.50	"	10.0		96.6	70-130			
Ethylbenzene	9.99	0.50	"	10.0		99.9	70-130			
Xylenes (total)	30.7	0.50	"	30.0		102	70-130			
Methyl tert-butyl ether	7.73	2.5	"	10.0		77.3	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.66		"	10.0		86.6	60-140			
Matrix Spike (1060041-MS1) Source: S105450-04 Prepared & Analyzed: 06/06/01										
Benzene	8.26	0.50	ug/l	10.0	ND	82.6	60-140			
Toluene	9.04	0.50	"	10.0	ND	90.4	60-140			
Ethylbenzene	9.32	0.50	"	10.0	ND	93.2	60-140			
Xylenes (total)	27.7	0.50	"	30.0	ND	92.3	60-140			
Methyl tert-butyl ether	8.34	2.5	"	10.0	ND	83.4	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.21		"	10.0		82.1	60-140			
Matrix Spike Dup (1060041-MSD1) Source: S105450-04 Prepared & Analyzed: 06/06/01										
Benzene	8.18	0.50	ug/l	10.0	ND	81.8	60-140	0.973	25	
Toluene	9.19	0.50	"	10.0	ND	91.9	60-140	1.65	25	
Ethylbenzene	9.40	0.50	"	10.0	ND	94.0	60-140	0.855	25	
Xylenes (total)	28.6	0.50	"	30.0	ND	95.3	60-140	3.20	25	
Methyl tert-butyl ether	8.29	2.5	"	10.0	ND	82.9	60-140	0.601	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.96		"	10.0		79.6	60-140			



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Reported:
06/20/01 13:41

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1060086 - EPA 5030B (P/T)

Blank (1060086-BLK1)

Prepared & Analyzed: 06/06/01

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>	<i>10.3</i>		<i>"</i>	<i>10.0</i>		<i>103</i>	<i>60-140</i>			

LCS (1060086-BS1)

Prepared & Analyzed: 06/06/01

Benzene	9.02	0.50	ug/l	10.0		90.2	70-130			
Toluene	10.2	0.50	"	10.0		102	70-130			
Ethylbenzene	10.6	0.50	"	10.0		106	70-130			
Xylenes (total)	27.8	0.50	"	30.0		92.7	70-130			
Methyl tert-butyl ether	9.42	2.5	"	10.0		94.2	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>11.3</i>		<i>"</i>	<i>10.0</i>		<i>113</i>	<i>60-140</i>			

Matrix Spike (1060086-MS1)

Source: S105450-05

Prepared: 06/06/01 Analyzed: 06/07/01

Benzene	8.65	0.50	ug/l	10.0	ND	86.5	60-140			
Toluene	9.69	0.50	"	10.0	ND	96.9	60-140			
Ethylbenzene	10.0	0.50	"	10.0	ND	100	60-140			
Xylenes (total)	26.0	0.50	"	30.0	ND	86.7	60-140			
Methyl tert-butyl ether	44.7	2.5	"	10.0		447	60-140			zQ-03
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>11.1</i>		<i>"</i>	<i>10.0</i>		<i>111</i>	<i>60-140</i>			

Matrix Spike Dup (1060086-MSD1)

Source: S105450-05

Prepared: 06/06/01 Analyzed: 06/07/01

Benzene	8.43	0.50	ug/l	10.0	ND	84.3	60-140	2.58	25	
Toluene	9.25	0.50	"	10.0	ND	92.5	60-140	4.65	25	
Ethylbenzene	9.74	0.50	"	10.0	ND	97.4	60-140	2.63	25	
Xylenes (total)	25.1	0.50	"	30.0	ND	83.7	60-140	3.52	25	
Methyl tert-butyl ether	46.1	2.5	"	10.0		461	60-140	3.08	25	zQ-03
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>60-140</i>			



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Reported:
 06/20/01 13:41

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1060130 - EPA 5030B (P/T)

Blank (1060130-BLK1)

Prepared & Analyzed: 06/15/01

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>	<i>11.6</i>		<i>"</i>	<i>10.0</i>		<i>116</i>	<i>60-140</i>			

LCS (1060130-BS1)

Prepared & Analyzed: 06/15/01

Benzene	8.31	0.50	ug/l	10.0		83.1	70-130			
Toluene	9.19	0.50	"	10.0		91.9	70-130			
Ethylbenzene	9.67	0.50	"	10.0		96.7	70-130			
Xylenes (total)	26.9	0.50	"	30.0		89.7	70-130			
Methyl tert-butyl ether	9.55	2.5	"	10.0		95.5	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>11.9</i>		<i>"</i>	<i>10.0</i>		<i>119</i>	<i>60-140</i>			

Matrix Spike (1060130-MS1)

Source: S106075-07

Prepared & Analyzed: 06/15/01

Benzene	8.60	0.50	ug/l	10.0	ND	86.0	60-140			
Toluene	9.31	0.50	"	10.0	ND	93.1	60-140			
Ethylbenzene	9.81	0.50	"	10.0	ND	98.1	60-140			
Xylenes (total)	27.2	0.50	"	30.0	ND	90.7	60-140			
Methyl tert-butyl ether	9.01	2.5	"	10.0	ND	90.1	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>12.4</i>		<i>"</i>	<i>10.0</i>		<i>124</i>	<i>60-140</i>			

Matrix Spike Dup (1060130-MSD1)

Source: S106075-07

Prepared & Analyzed: 06/15/01

Benzene	9.28	0.50	ug/l	10.0	ND	92.8	60-140	7.61	25	
Toluene	10.1	0.50	"	10.0	ND	101	60-140	8.14	25	
Ethylbenzene	10.6	0.50	"	10.0	ND	106	60-140	7.74	25	
Xylenes (total)	29.4	0.50	"	30.0	ND	98.0	60-140	7.77	25	
Methyl tert-butyl ether	9.37	2.5	"	10.0	ND	93.7	60-140	3.92	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>12.4</i>		<i>"</i>	<i>10.0</i>		<i>124</i>	<i>60-140</i>			



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Project Manager: Steven Meeks

Reported:
06/20/01 13:41

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1060141 - EPA 5030B (P/T)

Blank (1060141-BLK1)

Prepared & Analyzed: 06/18/01

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>	<i>11.5</i>		<i>"</i>	<i>10.0</i>		<i>115</i>	<i>60-140</i>			

LCS (1060141-BS1)

Prepared & Analyzed: 06/18/01

Benzene	8.58	0.50	ug/l	10.0		85.8	70-130			
Toluene	9.52	0.50	"	10.0		95.2	70-130			
Ethylbenzene	9.86	0.50	"	10.0		98.6	70-130			
Xylenes (total)	27.4	0.50	"	30.0		91.3	70-130			
Methyl tert-butyl ether	8.11	2.5	"	10.0		81.1	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>12.4</i>		<i>"</i>	<i>10.0</i>		<i>124</i>	<i>60-140</i>			

Matrix Spike (1060141-MS1)

Source: S106201-14

Prepared & Analyzed: 06/18/01

Benzene	7.71	0.50	ug/l	10.0	ND	77.1	60-140			
Toluene	8.73	0.50	"	10.0	ND	87.3	60-140			
Ethylbenzene	9.10	0.50	"	10.0	ND	91.0	60-140			
Xylenes (total)	25.5	0.50	"	30.0	ND	85.0	60-140			
Methyl tert-butyl ether	8.81	2.5	"	10.0	ND	88.1	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>11.1</i>		<i>"</i>	<i>10.0</i>		<i>111</i>	<i>60-140</i>			

Matrix Spike Dup (1060141-MSD1)

Source: S106201-14

Prepared & Analyzed: 06/18/01

Benzene	8.85	0.50	ug/l	10.0	ND	88.5	60-140	13.8	25	
Toluene	9.97	0.50	"	10.0	ND	99.7	60-140	13.3	25	
Ethylbenzene	10.3	0.50	"	10.0	ND	103	60-140	12.4	25	
Xylenes (total)	28.8	0.50	"	30.0	ND	96.0	60-140	12.2	25	
Methyl tert-butyl ether	10.3	2.5	"	10.0	ND	103	60-140	15.6	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>12.1</i>		<i>"</i>	<i>10.0</i>		<i>121</i>	<i>60-140</i>			



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Project: ARCO 2111, San Leandro, CA
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Reported:
06/20/01 13:41

**MTBE Confirmation by EPA Method 8260A - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060069 - EPA 5030B [P/T]										
Blank (1060069-BLK1)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: 1,2-DCA-d4	49.9		"	50.0		99.8	60-140			
Blank (1060069-BLK2)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: 1,2-DCA-d4	53.8		"	50.0		108	60-140			
LCS (1060069-BS1)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	47.9	2.0	ug/l	50.0		95.8	70-130			
Surrogate: 1,2-DCA-d4	51.5		"	50.0		103	60-140			
LCS (1060069-BS2)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	50.5	2.0	ug/l	50.0		101	70-130			
Surrogate: 1,2-DCA-d4	53.1		"	50.0		106	60-140			
Matrix Spike (1060069-MS1)					Source: S106071-04		Prepared & Analyzed: 06/12/01			
Methyl tert-butyl ether	46.7	2.0	ug/l	50.0	ND	93.4	60-140			
Surrogate: 1,2-DCA-d4	50.1		"	50.0		100	60-140			
Matrix Spike Dup (1060069-MSD1)					Source: S106071-04		Prepared & Analyzed: 06/12/01			
Methyl tert-butyl ether	48.6	2.0	ug/l	50.0	ND	97.2	60-140	3.99	25	
Surrogate: 1,2-DCA-d4	50.7		"	50.0		101	60-140			
Batch 1060081 - EPA 5030B [P/T]										
Blank (1060081-BLK1)					Prepared & Analyzed: 06/13/01					
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: 1,2-DCA-d4	52.5		"	50.0		105	60-140			



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Rancho Cordova CA, 95670

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Project Number: N/A
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Reported:
06/20/01 13:41

**MTBE Confirmation by EPA Method 8260A - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1060081 - EPA 5030B [P/T]

LCS (1060081-BS1)

Prepared & Analyzed: 06/13/01

Methyl tert-butyl ether	47.7	2.0	ug/l	50.0		95.4	70-130			
Surrogate: 1,2-DCA-d4	53.7		"	50.0		107	60-140			

LCS Dup (1060081-BS1)

Prepared & Analyzed: 06/13/01

Methyl tert-butyl ether	47.9	2.0	ug/l	50.0		95.8	70-130	0.418	25	
Surrogate: 1,2-DCA-d4	54.8		"	50.0		110	60-140			



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Project: ARCO 2111, San Leandro, CA
Project Number: N/A
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Reported:
06/20/01 13:41

Notes and Definitions

- A-01 Sample reanalyzed after EPA recommended holding time.
- A-01a Sample was reanalyzed outside of EPA recommended holding time.
- zP-02 Chromatogram Pattern: Weathered Gasoline C6-C12
- zP-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
- zQ-03 The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
- zR-05 The reporting limit(s) for this sample have been raised due to high levels of non-target interferents.
- 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



**Sequoia
Analytical**

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14 June, 2001

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

RE: ARCO 2111, San Leandro, CA
Sequoia Report: S105431

Enclosed are the results of analyses for samples received by the laboratory on 05/30/01 15:17. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew
Client Services Representative

Lito Diaz
Laboratory Director

CA ELAP Certificate #1624



Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
06/14/01 12:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW5-14'	S105431-01	Water	05/30/01 05:04	05/30/01 15:17

Sequoia Analytical - Sacramento

Ron Chew, Client Services Representative

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.



Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

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Project Manager: Steven Meeks

Reported:
06/14/01 12:32

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW5-14' (S105431-01) Water Sampled: 05/30/01 05:04 Received: 05/30/01 15:17									
Purgeable Hydrocarbons	ND	500	ug/l	10	1060050	06/07/01	06/07/01	DHS LUFT	zR-05
Benzene	ND	5.0	"	"	"	"	"	"	zR-05
Toluene	ND	5.0	"	"	"	"	"	"	zR-05
Ethylbenzene	ND	5.0	"	"	"	"	"	"	zR-05
Xylenes (total)	ND	5.0	"	"	"	"	"	"	zR-05
<i>Surrogate: a,a,a-Trifluorotoluene</i>		74.1 %		60-140	"	"	"	"	
MW5-14' (S105431-01RE1) Water Sampled: 05/30/01 05:04 Received: 05/30/01 15:17									
Methyl tert-butyl ether	9400	500	ug/l	200	1060050	06/07/01	06/07/01	DHS LUFT	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.2 %		60-140	"	"	"	"	



Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova CA, 95670

Project: ARCO 2111, San Leandro, CA
Project Number: N/A
Project Manager: Steven Meeks

Reported:
06/14/01 12:32

**MTBE Confirmation by EPA Method 8260A
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW5-14' (S105431-01) Water Sampled: 05/30/01 05:04 Received: 05/30/01 15:17									
Methyl tert-butyl ether	10000	200	ug/l	100	1060069	06/12/01	06/12/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		104 %	60-140		"	"	"	"	



Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670	Project: ARCO 2111, San Leandro, CA Project Number: N/A Project Manager: Steven Meeks	Reported: 06/14/01 12:32
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060050 - EPA 5030B (P/T)										
Blank (1060050-BLK1) Prepared & Analyzed: 06/07/01										
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>	8.49		"	10.0		84.9	60-140			
LCS (1060050-BS1) Prepared & Analyzed: 06/07/01										
Benzene	8.40	0.50	ug/l	10.0		84.0	70-130			
Toluene	9.29	0.50	"	10.0		92.9	70-130			
Ethylbenzene	9.66	0.50	"	10.0		96.6	70-130			
Xylenes (total)	29.7	0.50	"	30.0		99.0	70-130			
Methyl tert-butyl ether	8.18	2.5	"	10.0		81.8	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.31		"	10.0		83.1	60-140			
Matrix Spike (1060050-MS1) Source: S105451-02 Prepared & Analyzed: 06/07/01										
Benzene	7.98	0.50	ug/l	10.0	ND	79.8	60-140			
Toluene	8.97	0.50	"	10.0	ND	89.7	60-140			
Ethylbenzene	9.22	0.50	"	10.0	ND	92.2	60-140			
Xylenes (total)	27.2	0.50	"	30.0	ND	90.7	60-140			
Methyl tert-butyl ether	8.27	2.5	"	10.0	ND	82.7	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.02		"	10.0		80.2	60-140			
Matrix Spike Dup (1060050-MSD1) Source: S105451-02 Prepared & Analyzed: 06/07/01										
Benzene	7.97	0.50	ug/l	10.0	ND	79.7	60-140	0.125	25	
Toluene	8.93	0.50	"	10.0	ND	89.3	60-140	0.447	25	
Ethylbenzene	9.15	0.50	"	10.0	ND	91.5	60-140	0.762	25	
Xylenes (total)	27.0	0.50	"	30.0	ND	90.0	60-140	0.738	25	
Methyl tert-butyl ether	8.84	2.5	"	10.0	ND	88.4	60-140	6.66	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	7.80		"	10.0		78.0	60-140			



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**MTBE Confirmation by EPA Method 8260A - Quality Control
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060069 - EPA 5030B [P/T]										
Blank (1060069-BLK1)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: 1,2-DCA-d4	49.9		"	50.0		99.8	60-140			
Blank (1060069-BLK2)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: 1,2-DCA-d4	53.8		"	50.0		108	60-140			
LCS (1060069-BS1)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	47.9	2.0	ug/l	50.0		95.8	70-130			
Surrogate: 1,2-DCA-d4	51.5		"	50.0		103	60-140			
LCS (1060069-BS2)					Prepared & Analyzed: 06/12/01					
Methyl tert-butyl ether	50.5	2.0	ug/l	50.0		101	70-130			
Surrogate: 1,2-DCA-d4	53.1		"	50.0		106	60-140			
Matrix Spike (1060069-MS1)					Source: S106071-04		Prepared & Analyzed: 06/12/01			
Methyl tert-butyl ether	46.7	2.0	ug/l	50.0	ND	93.4	60-140			
Surrogate: 1,2-DCA-d4	50.1		"	50.0		100	60-140			
Matrix Spike Dup (1060069-MSD1)					Source: S106071-04		Prepared & Analyzed: 06/12/01			
Methyl tert-butyl ether	48.6	2.0	ug/l	50.0	ND	97.2	60-140	3.99	25	
Surrogate: 1,2-DCA-d4	50.7		"	50.0		101	60-140			



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Notes and Definitions

zR-05 The reporting limit(s) for this sample have been raised due to high levels of non-target interferents.

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

