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the i group

Quarterly Groundwater Monitoring Report
Second Quarter 1999

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

STID 779

Prepared for

Mr. Michael Whelan
ARCO Products Company

September 30, 1999

Prepared by

IT Corporation
1921 Ringwood Avenue
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Project 330-006.2P

99 OCT -4 PM 4:47
ENVIRONMENTAL PROTECTION

Shaw Garakani
Project Engineer

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CEG 1293

REGISTERED GEOLOGIST
DEBRA J. MOSER
No. 1293
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Date: September 30, 1999
Quarter: 2Q99

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 0608 Address: 17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

ARCO Environmental Engineer: Michael Whelan
Consulting Co./Contact Person: The IT Group, Inc./ formerly Pacific Environmental Group (PEG) – Debra J. Moser
Consultant Project No.: 330-006.2P
Primary Agency/Regulatory ID No.: Alameda County Health Care Services Agency
Monitoring Events Performed to Date: 41

WORK PERFORMED THIS QUARTER (Second - 1999):

1. Submitted first quarter 1998 groundwater monitoring report.
2. Performed second quarter 1999 groundwater monitoring event on June 14 and 15, 1999.
3. Prepared second quarter 1999 groundwater monitoring report.
4. Continued monthly payments to homeowners for not using domestic irrigation wells.
5. Continued homeowner quarterly monitoring results notification program.

WORK PROPOSED FOR NEXT QUARTER (Third – 1999):

1. Submit second quarter 1999 groundwater monitoring report.
2. Perform third quarter 1999 groundwater monitoring event.
3. Prepare third quarter 1999 groundwater monitoring report.
4. Continue monthly payments to homeowners for not using domestic irrigation wells.
5. Continue homeowner quarterly monitoring results notification program.

Current Phase of Project:	Monitoring	(Assmnt, Remed., etc.)
Frequency of Groundwater Sampling:	Semiannually	(Quarterly, etc.)
Frequency of Groundwater Monitoring:	Quarterly	(Monthly, etc.)
Is Free Product (FP) Present On-Site:	No	(Yes/No)
FP Recovered this Quarter:	None	(gallons)
Cumulative FP Recovered to Date:	None	(gallons)
Bulk Soil Removed This Quarter:	None	(cubic yards)
Bulk Soil Removed to Date:	200	(cubic yards)
Current Remediation Techniques:	Natural Attenuation	(SVE/Sparge/FP Removal, etc.)
Approximate Depth to Groundwater:	9.27 to 11.85	(Measure Feet)
Groundwater Gradient:	West-Southwest	(Direction)
	0.003	(Magnitude)
Period TPPH-g/Benzene Removed:	0.0/0.0	(gallons)
Cumulative TPPH-g/Benzene Removed:	0.8/0.04	(gallons)

DISCUSSION:

- Please refer to PEG *Quarterly Groundwater Monitoring Report - Fourth Quarter 1996*, for historical groundwater elevation and analytical data.
- In a phone message dated June 9, 1998, the Alameda County Health Care Services Agency (ACHCSA) representative indicated that the methyl tert-butyl ether (MtBE) Risk Assessment had been approved, and the site would be reviewed for case closure.
- As indicated in PEG's *Quarterly Groundwater Monitoring Report – Fourth Quarter 1998,* effective second quarter 1999, the frequency of groundwater monitoring has been reduced as follows:

  Wells MW-7, MW-13, MW-19, and MW-24 are removed from the monitoring program since they are located upgradient or crossgradient from the site, and the extent of the plume has been defined by other nearby monitoring wells. The frequency of groundwater sampling at Wells MW-14, MW-18, MW-21, MW-23, and MW-26 is reduced from quarterly to annually during the first quarter. These wells are either located crossgradient from the site, or the extent of the plume has been defined by other nearby monitoring wells.

ATTACHMENTS:

- Table 1 - Groundwater Monitoring Schedule
- Table 2 - Groundwater Elevation and Analytical Data – Groundwater Monitoring Wells – Total Purgeable Petroleum Hydrocarbons
- Table 3 - Groundwater Analytical Data – Domestic Irrigation Wells
- Figure 1 - Groundwater Elevation Contour Map
- Figure 2 - TPPH-g/Benzene Concentration Map
- Attachment A - Field and Laboratory Procedures
- Attachment B - Certified Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets

cc: Mr. Amir K. Gholami, REHS, Alameda County Health Care Services Agency
Mr. Ron Sykora/Mr. Robert L. Webster, David D. Bohannon Organization
Mr. Chuck Headlee, Regional Water Quality Control Board - San Francisco Bay Region
Dr. Charles Lapin, ARCO Products Company

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and checking for the presence of separate-phase hydrocarbons (SPH), using either an electronic indicator and a clear Teflon® bailer, or an oil-water interface probe. Wells not containing SPH are then purged of approximately three casing volumes of water (or to dryness) using a centrifugal pump, gas displacement pump, or bailer. Equipment used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored in order to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially recover. Groundwater samples are collected using a Teflon® bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a California State-certified laboratory.

Analytical Procedures

Laboratory. The groundwater samples were analyzed for the presence of total purgeable petroleum hydrocarbons; benzene, toluene, ethylbenzene, and xylenes; and methyl tert-butyl ether. The analyses were performed according to EPA Methods 8015 (modified) and 8020, utilizing a purge-and-trap extraction technique. Final detection was by gas chromatography using flame- and photo-ionization detectors. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical report, chain-of-custody documentation, and field data sheets are presented as Attachment B.

Field. Dissolved oxygen is measured in the field utilizing Hydac AccuVac test kit.

ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS, CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD DATA SHEETS

Table 1 (continued)
Groundwater Monitoring Schedule

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Sampling Frequency
Domestic Irrigation Wells (cont.)					
17200 VM	----------Destroyed----------				
17203 VM	a	a	a	a	Quarterly
17302 VM	a	a	a	a	Quarterly
17348 VE	a	a	a	a	Quarterly
17349 VM	a	a	a	a	Quarterly
17371 VM	a	a	a	a	Quarterly
17372 VM	a	a	a	a	Quarterly
17393 VM	----------Destroyed----------				

a. Samples analyzed for TPPH-g, BTEX compounds, and MtBE according to EPA Methods 8015 (modified) and 8020.

Table 2
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-5 ††	03/13,14/96	33.99	9.75	24.24	1,600	30	<10	13	<10	NA	NM
	05/28,29/96		11.48	22.51	240	2.4	<0.50	<0.50	<0.50	NA	NM
	08/28/96		12.58	21.41	250	210	8.0	<1.0	<1.0	210	NM
	11/25,26/96		12.07	21.92	<500	<5.0	<5.0	<5.0	<5.0	280	NM
	03/31/97 †		12.42	21.57	<50	<0.50	<0.50	<0.50	<0.50	41	NM
	06/25/97		12.64	21.35	NS	NS	NS	NS	NS	NS	NM
	09/09,10/97		12.75	21.24	<50	<0.50	<0.50	<0.50	<0.50	19	NM
	11/24,25/97		12.60	21.39	<50	0.9	<0.50	<0.50	<0.50	23	1.4
	03/19,20/98		10.43	23.56	61	1.0	0.56	0.55	<0.50	75	1.2
	06/04/98		11.24	22.75	150	<0.30	<0.30	0.32	0.74	20	1.4
	09/21,22/98		12.45	21.54	110	0.59	<0.50	<0.50	<0.50	25	1.8
	12/14,15/98		11.85	22.14	<200	<2.0	<2.0	<2.0	<2.0	600	1.2
	03/15,16/99		11.05	22.94	50.9	<0.50	<0.50	<0.50	<0.50	211	1.0
	06/15/99		11.85	22.14	211.0	<0.50	<0.50	<0.50	<0.50	212	1.2
MW-7	03/13,15/96	34.40	9.73	24.67	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		11.60	22.80	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.63	21.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25,26/96		12.10	22.30	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		11.72	22.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.98	21.42	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.25	22.15	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		12.57	21.83	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.0
	03/19,20/98		10.35	24.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.0
	06/04/98		11.30	23.10	<50	<0.30	<0.30	<0.30	<0.60	<10	0.7
	09/21,22/98		12.48	21.92	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14,15/98		11.90	22.50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.2
	03/15,16/99		11.10	23.30	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.0
	06/15/99		Removed from Sampling Program								
MW-8	03/13,14/96	32.79	8.90	23.89	670	5.1	<2.0	<2.0	<2.0	NA	NM
	05/28,29/96		10.58	22.21	490	<1.0	<1.0	0.91	0.91	NA	NM
	08/28/96		11.30	21.49	680	29	2.1	3.0	2.4	80	NM
	11/25/96		10.80	21.99	620	1.2	2.6	2.9	2.0	46	NM
	03/31-04/01/9		10.76	22.03	530	<1.0	1.7	2.0	3.8	380	NM
	06/25/97		11.65	21.14	480	6.7	0.69	0.8	0.71	88	NM
	09/09,10/97		11.67	21.12	570	57	<1.0	2.1	1.7	57	2.0

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-8	09/09,10/97 a		--	--	--	--	--	--	--	48	--
(cont.)	11/24,25/97		11.50	21.29	530	3.0	1.7	1.9	1.5	26	2.0
	03/19,20/98		9.40	23.39	440	1.4	<0.50	<0.50	3.7	140	2.2
	06/03/98		10.25	22.54	360	2.2	1.2	1.8	1.0	47	0.3
	09/21,22/98		11.37	21.42	380	<2.5	<2.5	<2.5	<2.5	620	0.0
	12/14,15/98		10.80	21.99	<50	<0.50	<0.50	<0.50	<0.50	1,600	0.0
	03/15,16/99		10.00	22.79	<500	<5.0	<5.0	<5.0	<5.0	625	0.0
	06/15/99		10.35	22.44	166	<0.50	<0.50	<0.50	<0.50	141	NM
MW-9	03/13,15/96	32.11	7.65	24.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.67	22.44	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		10.78	21.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.24	21.87	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		9.95	22.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.85	21.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.87	21.24	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		10.70	21.41	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	03/19,20/98		8.63	23.48	<50	<0.50	<0.50	<0.50	<0.50	58	4.8
	06/04/98		9.35	22.76	<50	<0.30	<0.30	<0.30	<0.60	<10	2.0
	09/21,22/98		10.55	21.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	12/14,15/98		9.98	22.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	03/15,16/99		9.10	23.01	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.0
	06/15/99		9.80	22.31	<50	<0.50	<0.50	<0.50	<0.50	3.27	2.2
MW-10 ††	03/13,14/96	31.67	7.78	23.89	870	35	<5.0	5.2	7.0	NA	NM
	05/29/96		10.00	21.67	800	<1.0	<1.0	<1.0	<1.0	NA	NM
	08/28/96		10.93	20.74	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96		10.45	21.22	1,100	6.0	4.9	3.8	9.5	200	NM
	03/31/97 †		10.15	21.52	160	<0.50	<0.50	<0.50	<0.50	140	NM
	06/25/97		10.99	20.68	800	4.2	1.4	1.5	1.4	170	NM
	09/09,10/97		11.08	20.59	950	<1.2	3.3	2.5	3.7	240	2.0
	09/09,10/97 a		--	--	--	--	--	--	--	210	--
	11/24,25/97		10.85	20.82	920	5.7	6.7	<5.0	<5.0	160	2.4
	11/24,25/97		--	--	--	--	--	--	--	160	--
	03/19/98		8.78	22.89	330	1.7	<0.50	<0.50	<0.50	130	1.0
	06/04/98		9.59	22.08	680	<0.30	4.8	2.3	8.6	79	0.0

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-13	03/13,15/96	35.42	10.90	24.52	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		12.90	22.52	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		13.89	21.53	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		13.41	22.01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		13.11	22.31	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		13.98	21.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		14.09	21.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		13.90	21.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	03/19,20/98		11.80	23.62	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.8
	06/04/98		12.63	22.79	<50	<0.30	<0.30	<0.30	<0.60	<10	1.3
	09/21,22/98		13.77	21.65	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	12/14,15/98		13.28	22.14	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/15,16/99 b		12.48	22.94	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.2
	06/15/99		Removed from Sampling Program								
MW-14	03/13,15/96	30.46	6.63	23.83	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		8.83	21.63	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		9.83	20.63	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		9.33	21.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		9.04	21.42	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		9.94	20.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.08	20.38	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		9.78	20.68	<50	<0.50	<0.50	<0.50	<0.50	2.9	2.6
	03/19/98		7.92	22.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/03/98		8.52	21.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.1
	09/21,22/98		9.72	20.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.8
	12/14/98		9.15	21.31	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.8
	03/15,16/99		8.20	22.26	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
	06/15/99		9.27	21.19	Sampled Annually in First Quarter						
MW-15	03/13,15/96	31.41	8.13	23.28	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		10.30	21.11	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.30	20.11	<50	<0.50	<0.50	<0.50	<0.50	5.3	NM
	11/25/96		10.83	20.58	<50	<0.50	<0.50	<0.50	<0.50	12	NM
	03/31-04/01/9		10.45	20.58	<50	<0.50	<0.50	<0.50	<0.50	7.2	NM
	06/25/97		11.39	20.02	<50	<0.50	<0.50	<0.50	<0.50	7.0	NM
	09/09,10/97		11.50	19.91	---------- Well Inaccessible ----------						

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-15	11/24,25/97		Well Inaccessible								
(cont.)	03/19/98		9.15	22.26	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.2
	06/04/98		Well Inaccessible								
	09/21,22/98		Well Inaccessible								
	12/14/98		10.63	20.78	<50	<0.50	<0.50	<0.50	<0.50	48.2	1.8
	03/15,16/99		Well Inaccessible								
	06/15/99		Well Inaccessible								
MW-16	03/13/96	31.39	8.62	22.77	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		10.90	20.49	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.84	19.55	<50	<0.50	<0.50	<0.50	<0.50	89	NM
	11/25/96		11.32	20.07	<50	<0.50	<0.50	<0.50	<0.50	66	NM
	03/31-04/01/9		11.06	20.33	<50	<0.50	<0.50	<0.50	<0.50	49	NM
	06/25/97		11.92	19.47	<50	<0.50	<0.50	<0.50	<0.50	59	NM
	09/09,10/97		12.03	19.36	<50	<0.50	<0.50	<0.50	<0.50	63	3.0
	09/09,10/97 a		--	--	--	--	--	--	--	86	--
	11/24,25/97		11.76	19.63	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	03/19/98		9.80	21.59	<50	<0.50	<0.50	<0.50	<0.50	8.4	3.0
	06/03/98		10.55	20.84	<50	<0.50	<0.50	<0.50	<0.50	22	1.6
	09/21,22/98		11.77	19.62	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.2
	12/14/98		11.20	20.19	<50	<0.50	<0.50	<0.50	<0.50	25	1.0
	03/15,16/99		10.30	21.09	<50	<0.50	<0.50	<0.50	<0.50	<5.0	3.6
	06/15/99		11.15	20.24	<50	<0.50	<0.50	<0.50	<0.50	3.13	3.4
MW-17			Well Destroyed								
MW-18	03/13/96	29.70	7.53	22.17	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.88	19.82	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.82	18.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.18	19.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		10.14	19.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.94	18.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		11.00	18.70	<50	<0.50	<0.50	<0.50	<0.50	<2.5	4.0
	11/24,25/97		10.65	19.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.4
	03/19/98		8.95	20.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	06/03/98		9.57	20.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.8

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-18	09/21,22/98		10.80	18.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
(cont.)	12/14/98		10.18	19.52	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.6
	03/15,16/99		9.20	20.50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
	06/15/99		10.30	19.40	Sampled Annually in First Quarter						
MW-19	03/13/96	29.02	7.06	21.96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.42	19.60	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.33	18.69	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		9.67	19.35	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		9.65	19.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.41	18.61	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.47	18.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		10.35	18.67	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	03/19/98		8.67	20.35	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/03/98		9.15	19.87	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2
	09/21,22/98		10.28	18.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	12/14/98		9.70	19.32	<50	<0.50	<0.50	0.588	0.647	<2.0	2.4
	03/15,16/99	---------- Well Inaccessible ----------									
	06/15/99	Removed from Sampling Program									
MW-20	---------- Well Destroyed ----------										
MW-21	03/13/96	28.72	7.58	21.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		9.85	18.87	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.00	18.72	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		10.03	18.69	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.83	17.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.90	17.82	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		10.50	18.22	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98		9.08	19.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.08
	06/03/98		9.57	19.15	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.6
	09/21,22/98		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14/98		10.11	18.61	<50	<0.50	<0.50	<0.50	<0.50	<2.0	0.6
	03/15,16/99		9.10	19.62	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
	06/15/99		10.07	18.65	Sampled Annually in First Quarter						

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-22	03/13/96	29.29	7.83	21.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		10.33	18.96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.28	18.01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.61	18.68	<50	<0.50	<0.50	<0.50	<0.50	3.0	NM
	12/30/96		10.61	18.68	NA	NA	NA	NA	NA	3.3	NM
	03/31-04/01/9		10.56	18.73	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		11.51	17.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		11.45	17.84	<50	<0.50	<0.50	<0.50	<0.50	3.4	1.0
	11/24,25/97		11.08	18.21	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.6
	03/19/98		9.40	19.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	06/03/98		10.00	19.29	<50	<0.50	<0.50	<0.50	<0.50	0.87	3.2
	09/21,22/98		11.27	18.02	<50	<0.50	<0.50	<0.50	<0.50	2.1	2.8
	12/14/98		10.65	18.64	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.4
	03/15,16/99		9.67	19.62	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.4
	06/15/99		10.80	18.49	<50	<0.50	<0.50	<0.50	<0.50	5.05	1.0
MW-23	03/13/96	30.99	9.13	21.86	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		11.37	19.62	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		12.31	18.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		11.76	19.23	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		11.56	19.43	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.39	18.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.53	18.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		12.13	18.86	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98		10.22	20.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.4
	06/03/98		11.03	19.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3
	09/21,22/98		12.31	18.68	<50	<0.50	0.54	1.9	<0.50	<2.5	2.2
	12/14/98		11.67	19.32	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.0
	03/15,16/99		10.82	20.17	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
	06/15/99		11.80	19.19	Sampled Annually in First Quarter						
MW-24	03/13,15/96	34.38	10.10	24.28	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		12.25	22.13	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		13.28	21.10	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		12.71	21.67	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		12.50	21.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		13.38	21.00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-24	09/09,10/97		13.46	20.92	<50	<0.50	<0.50	<0.50	<0.50	<2.5	5.0
(cont.)	11/24,25/97		13.25	21.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/19,20/98		11.32	23.06	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	06/04/98		12.00	22.38	<50	<0.30	<0.30	<0.30	<0.60	<10	0.8
	09/21,22/98		13.13	21.25	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14,15/98		12.53	21.85	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.2
	03/15,16/99		11.58	22.80	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.0
	06/15/99		Removed from Sampling Program								
MW-25	03/13,14/96	34.12	9.61	24.51	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		11.30	22.82	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.32	21.80	<50	<0.50	<0.50	<0.50	<0.50	51	NM
	11/25/96		11.83	22.29	<50	<0.50	<0.50	<0.50	<0.50	110	NM
	03/31-04/01/9		11.55	22.57	<50	<0.50	<0.50	<0.50	<0.50	39	NM
	06/25/97		14.57	19.55	<50	<0.50	<0.50	<0.50	<0.50	49	NM
	09/09,10/97		12.45	21.67	<50	<0.50	<0.50	<0.50	<0.50	78	1.0
	09/09,10/97	a	--	--	--	--	--	--	--	79	--
	11/24,25/97		12.30	21.82	<50	<0.50	<0.50	<0.50	<0.50	130	0.0
	03/19,20/98		10.18	23.94	<50	<0.50	<0.50	<0.50	<0.50	96	1.8
	06/04/98		11.00	23.12	<50	<0.30	<0.30	<0.30	<0.60	44	0.8
	09/21,22/98		12.13	21.99	<50	<0.50	<0.50	<0.50	<0.50	150	0.4
	12/14,15/98		11.60	22.52	<50	<0.50	<0.50	<0.50	<0.50	44	1.0
	03/15,16/99		10.78	23.34	<50	<0.50	<0.50	<0.50	<0.50	26.6	2.0
	06/15/99		11.45	22.67	<50	<0.50	<0.50	<0.50	<0.50	98.9	2.0
MW-26	03/13,15/96	33.71	9.38	24.33	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		11.57	22.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.55	21.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		12.03	21.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/9		11.84	21.87	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.94	20.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.77	20.94	<50	<0.50	<0.50	<0.50	<0.50	<2.5	5.0
	11/24,25/97		12.55	21.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	03/19,20/98		10.55	23.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	06/04/98		11.22	22.49	<50	<0.30	<0.30	<0.30	<0.60	<10	2.1

Table 2 (continued)
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-26 (cont.)	09/21,22/98		12.45	21.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	12/14,15/98		11.83	21.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	03/15,16/99		10.86	22.85	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
	06/15/99		11.75	21.96	Sampled Annually in First Quarter						

TPPH = Total purgeable petroleum hydrocarbons
MtBE = Methyl tert-butyl ether
MSL = Mean sea level
TOB = Top of box
ppb = Parts per billion
ppm = Parts per million
< = Less than laboratory detection limit stated to the right.
† = Well sampled without purging.
†† = ORC program at well was initiated on September 21, 1995 and discontinued on May 15, 1997.

NA = Not analyzed
NM = Not measured
NS = Not sampled
a. MtBE result confirmed by EPA Method 8260.
b. Depths to water originally measured from TOC. Depth to water adjusted to reflect a TOB measurement by adding the average difference between TOB and TOC measurements over the last four gauging events.

Table 3
Groundwater Analytical Data
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
590 H	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96 a	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24/97 a	NS	NS	NS	NS	NS	NS	NM
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.8
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.2
	12/14/98	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.2
	03/15/99 a	NS	NS	NS	NS	NS	NS	NM
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
633 H	03/14/96	480	10	11	1.8	140	NA	NM
	05/13/96 b	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	3.70	NM
	12/30/96	--	--	--	--	--	4.9 c	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/10/97	<50	<0.50	<0.50	<0.50	0.66	<2.5	1.0
	11/24/97	110	2.0	2.1	1.0	4.2	<2.5 c	NM
	03/19/98	150	1.8	0.62	<0.50	28	77	NM
	03/19/98	--	--	--	--	--	<2.0 c	NM
	06/03/98	480	6.2	4.3	2.9	120	28	1.3
	09/21/98	<50	<0.50	<0.50	<0.50	0.66	<2.5	1.2
	12/14/98	<50	<0.50	<0.50	<0.50	2.21	11.7	NM
	03/15/99	<50	0.513	<0.50	<0.50	0.542	31	NM
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	7.93	NM
634 H	03/13/96 a	NS	NS	NS	NS	NS	NA	NM
	05/27/96 a	NS	NS	NS	NS	NS	NA	NM
	08/29/96 a	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/09/97 g	NS	NS	NS	NS	NS	NS	NM
	11/24/97 g	NS	NS	NS	NS	NS	NS	NM
	03/19/98 e	NS	NS	NS	NS	NS	NS	NM
	06/03/98 e	NS	NS	NS	NS	NS	NS	NM
	09/21/98 e	NS	NS	NS	NS	NS	NS	NM
	12/14/98 e	NS	NS	NS	NS	NS	NS	NM
	03/15/99 e	NS	NS	NS	NS	NS	NS	NM
	06/14/99 e	NS	NS	NS	NS	NS	NS	NM
642 H	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM

Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
642 H	06/25/97	NS	NS	NS	NS	NS	NS	NM
(cont.)	09/09/97 a	NS	NS	NS	NS	NS	NS	NM
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/19/98 a	NS	NS	NS	NS	NS	NS	NM
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	NM
	09/21/98 a	NS	NS	NS	NS	NS	NS	NM
	12/14/98 a	NS	NS	NS	NS	NS	NS	NM
	03/15/99 a	NS	NS	NS	NS	NS	NS	NM
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
675 H	03/13/96 a	NS	NS	NS	NS	NS	NA	NM
	05/27/96 a	NS	NS	NS	NS	NS	NA	NM
	08/29/96 d	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM
	03/19/98 f	NS	NS	NS	NS	NS	NS	NM
	06/03/98 f	NS	NS	NS	NS	NS	NS	NM
	09/21/98 a,f	NS	NS	NS	NS	NS	NS	NM
	12/14/98 f	NS	NS	NS	NS	NS	NS	NM
	03/15/99 f	NS	NS	NS	NS	NS	NS	NM
	06/14/99 f	NS	NS	NS	NS	NS	NS	NM
17197 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.2
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	12/14/98	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.4
	03/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.6
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
17200 VM	03/15/96	730	<1.0	<1.0	1.5	1.7	NA	NM
	05/27/96	200	<0.50	<0.50	1.4	1.8	NA	NM
	08/29/96	Well Destroyed						
17203 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97 f	NS	NS	NS	NS	NS	NS	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM
	03/19/98	Well Dry						

Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17203 VM	06/03/98 f	NS	NS	NS	NS	NS	NS	NM
(cont.)	09/21/98 f	NS	NS	NS	NS	NS	NS	NM
	12/14/98 f	NS	NS	NS	NS	NS	NS	NM
	03/15/99 f	NS	NS	NS	NS	NS	NS	NM
	06/14/99 f	NS	NS	NS	NS	NS	NS	NM
17302 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97 f	NS	NS	NS	NS	NS	NS	NM
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM
	03/19/98 f	NS	NS	NS	NS	NS	NS	NM
	06/03/98 f	NS	NS	NS	NS	NS	NS	NM
	09/21/98 f	NS	NS	NS	NS	NS	NS	NM
	12/14/98 f	NS	NS	NS	NS	NS	NS	NM
	03/15/99 f	NS	NS	NS	NS	NS	NS	NM
	06/14/99 f	NS	NS	NS	NS	NS	NS	NM
17348 VE	03/13/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	Well Dry						
	08/29/96	Well Dry						
	11/26/96	Well Dry						
	03/31/97	Well Dry						
	06/25/97	Well Inaccessible						
	09/09/97 g	NS	NS	NS	NS	NS	NS	NM
	11/24/97 g	NS	NS	NS	NS	NS	NS	NM
	03/19/98 a	NS	NS	NS	NS	NS	NS	NM
	06/03/98 a	NS	NS	NS	NS	NS	NS	NM
	09/21/98 a	NS	NS	NS	NS	NS	NS	NM
	12/14/98 a	NS	NS	NS	NS	NS	NS	NM
	03/15/99 a	NS	NS	NS	NS	NS	NS	NM
	06/14/99 f	NS	NS	NS	NS	NS	NS	NM
17349 VM	03/15/96	1,700	<2.0	<2.0	2.5	13	NA	NM
	05/27/96	320	4.2	1.3	0.95	0.71	NA	NM
	08/29/96	410	7.5	<0.50	<0.50	1.1	NA	NM
	11/26/96	300	<1.0	1.7	<1.0	2.1	55 *	NM
	03/31/97	430	<1.0	2.7	<1.0	1.0	57 c	NM
	06/25/97 **	2,100	30	<5.0	<5.0	6.7	140	NM
	08/18/97	320	2.0	<0.5	<0.5	<0.5	34	NM
	08/18/97	--	--	--	--	--	31 c	NM
	09/09/97	380	6.0	1.4	0.98	<0.50	38	3.0
	09/09/97	--	--	--	--	--	34 c	NM
	11/24/97	240	<1.0	1.1	<1.0	1.4	53	2.4
	11/24/97	--	--	--	--	--	33 c	NM
	03/19/98	1,300	14	<0.50	<0.50	1.2	250	1.0
	03/19/98	--	--	--	--	--	27 c	NM
	06/03/98	860	8.7	<0.50	0.7	8.0	38	4.9
	07/29/98	860	20	2.1	<1.2	<1.2	27	NM
	07/29/98	--	--	--	--	--	25 c	NM
	09/21/98	200	<0.50	<0.50	<0.50	14	14	5.2

Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17349 VM	12/14/98	254	<0.50	6.92	0.604	1.58	21.7	1.0
(cont.)	03/15/99	172	1.35	<0.50	<0.50	<0.50	24.2	3.6
	06/14/99	91	<0.50	3.5	<0.50	<0.50	88.3	2.8
	06/14/99	--	--	--	--	--	59.2 c	--
17371 VM	03/13/96 e	NS	NS	NS	NS	NS	NA	NM
	05/27/96 e	NS	NS	NS	NS	NS	NA	NM
	08/29/96 e	NS	NS	NS	NS	NS	NA	NM
	11/26/96 e	NS	NS	NS	NS	NS	NS	NM
	03/31/97 e	NS	NS	NS	NS	NS	NS	NM
	06/25/97 e	NS	NS	NS	NS	NS	NS	NM
	09/09/97 e	NS	NS	NS	NS	NS	NS	NM
	11/24/97 e	NS	NS	NS	NS	NS	NS	NM
	03/19/98 e	NS	NS	NS	NS	NS	NS	NM
	06/03/98 e	NS	NS	NS	NS	NS	NS	NM
	09/21/98 e	NS	NS	NS	NS	NS	NS	NM
	12/14/98 e	NS	NS	NS	NS	NS	NS	NM
	03/15/99 e	NS	NS	NS	NS	NS	NS	NM
	06/14/99 e	NS	NS	NS	NS	NS	NS	NM
17372 VM	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	4.0
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	1,200	1.8
	03/19/98	--	--	--	--	--	1,400 c	NM
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	16,000	1.8
	07/29/98	<200	<2.0	<2.0	<2.0	<2.0	940	NM
	07/29/98	--	--	--	--	--	1,100 c	NM
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	200	1.6
	09/21/98	--	--	--	--	--	360 c	NM
	12/14/98	<50	<0.50	0.823	<0.50	<0.50	20.1	3.8
	03/15/99	<50	<0.50	<0.50	<0.50	<0.50	6.66	4.6
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	3.33	4.0
17393 VM	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM

Table 3 (continued)
Groundwater Analytical Data
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17393 VM	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
(cont.)	03/31/97 a	NS	NS	NS	NS	NS	NS	NM
	06/25/97	Well Destroyed						

TPPH = Total purgeable petroleum hydrocarbons
MtBE = Methyl tert-butyl ether
NA = Not analyzed
NM = Not measured
NS = Not sampled
ppm = Parts per million
ppb = Parts per billion
H = Hacienda Avenue
VM = Via Magdalena
VE = Via Encinas
< = Less than laboratory detection limit stated to the right.
* = MtBE data maybe anamolous; unable to confirm with EPA Method 8260.
** = Concentration data are suspect due to inadequate purging. Well resampled on August 18, 1997 for confirmation purposes.
a. Owner not available to approve sampling access; well not sampled.
b. Well resampled to confirm data of March 14, 1996.
c. MtBE result confirmed by EPA Method 8260.
d. Pumping equipment obstructing sampling access; well not sampled.
e. Access denied by owner; well not sampled.
f. Pump on well does not work.
g. Well blocked and pump non-operational; well cannot be sampled.
Note: Homeowners are contacted 1 week prior to sampling event.

DRAWING NUMBER 330-006.2P
APPROVED BY
CHECKED BY
DRAWN BY K Troyer 8/25/99

VIA MANZANAS
POTRERO COURT
MW-20
MW-19**
VIA MAGDALENA
APARTMENTS
APARTMENTS
VIA ARRIBA
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
VIA MEDIA
VIA FLORES
CHURCH AND SCHOOL
17200VM
MW-17
MW-14+ (21.19)
MW-24**
RESIDENTIAL
MW-26 (21.96)
RESTAURANT
MW-9 (22.31)
MW-21 (18.65)
MW-18* (19.40)
17197VM+
17203VM+
17302+
17372VM+
MW-16 (20.24)
633H+
MW-10 (21.72)
SP-2/V-5
MW-15*
MW-11 (21.71)
590H+
MW-8 (22.44)
E-1A (23.21)
MW-5 (22.14)
MW-25 (22.67)
MW-7**
MW-13**
RESIDENTIAL
SHOPS
MW-22 (18.49)
17349+
17371VM+
17393VM+
17348VE+
VIA ENCINAS COURT
675H+
642H+
634H+
MW-23 (19.19)
HACIENDA AVENUE
VIA ALAMO
18.5
19.0
19.5
20.0
20.5
21.0
21.5
22.0
22.5

LEGEND

- GROUNDWATER MONITORING WELL
- DESTROYED WELL
- GROUNDWATER EXTRACTION WELL
- DOMESTIC IRRIGATION WELL
- (19.40) GROUNDWATER ELEVATION (FEET-MSL), MEASURED 6/15/99
- GROUNDWATER ELEVATION CONTOUR IN FEET- MEASURED 6/15/99
- NS NOT SAMPLED
- * WELL INACCESSIBLE
- ** WELL REMOVED FROM MONITORING PROGRAM
- + WELL NOT GAUGED
- Ψ WELL NOT USED IN CONTOURING

0.003 APPROXIMATE DIRECTION OF GROUNDWATER FLOW SHOWING GRADIENT

SCALE
0 150 300 FEET

IT CORPORATION

ARCO PRODUCTS COMPANY
ARCO SERVICE STATION 0608

FIGURE 1
GROUNDWATER ELEVATION CONTOUR MAP
SECOND QUARTER 1999
17601 HESPERIAN BLVD. AT HACIENDA AVE.
SAN LORENZO, CALIFORNIA

SANJOSE/CADD: G:\330\006\2p\SJGWC.dwg Fri, 01/Oct/99 10:36am ktroyer

DRAWING NUMBER 330-006.2P
APPROVED BY
CHECKED BY
DRAWN BY K Troyer 8/25/99

VIA MANZANAS
POTRERO COURT
MW-20
MW-19**
VIA MAGDALENA
APARTMENTS
APARTMENTS
VIA ARRIBA
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
CHURCH AND SCHOOL
17200VM
MW-17
MW-14+
MW-24**
VIA MEDIA
MW-21+
VIA FLORES
MW-18+
17197VM <50/<0.5
17203VM NS
17302 NS
17372VM <50/<0.5
RESIDENTIAL
MW-26+
RESTAURANT
MW-9 <50/<0.5
E-1A 5,090/<0.5
MW-25 <50/<0.5
MW-16 <50/<0.5
633H <50/<0.5
MW-10 643/<0.5
MW-8 166/<0.5
MW-5 211/<0.5
MW-7**
SP-2/V-5
MW-15*
MW-11 <50/<0.5
590H <50/<0.5
MW-13**
RESIDENTIAL
MW-22 <50/<0.5
17349 91/<0.5
17371VM NS
VIA ENCINAS COURT
17393VM
17348VE NS
642H <50/<0.5
634H NS
SHOPS
675H NS
MW-23+
HACIENDA AVENUE
VIA ALAMO

LEGEND

- GROUNDWATER MONITORING WELL
- DESTROYED WELL
- GROUNDWATER EXTRACTION WELL
- DOMESTIC IRRIGATION WELL LOCATION
- 91/<0.5 TPPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 6/14/99 AND 6/15/99
- ND NOT DETECTED
- NS NOT SAMPLED
- * WELL INACCESSIBLE
- ** WELL REMOVED FROM MONITORING PROGRAM
- + WELL SAMPLED ANNUALLY IN FIRST QUARTER

SCALE
0 150 300 FEET

IT CORPORATION

ARCO PRODUCTS COMPANY
ARCO SERVICE STATION 0608

FIGURE 2
TPH-g/BENZENE CONCENTRATION MAP
SECOND QUARTER 1999
17601 HESPERIAN BLVD. AT HACIENDA AVE.
SAN LORENZO, CALIFORNIA

SANJOSE/CADD: G:\330\006\2p\SJCHEM.dwg Fri, 01/Oct/99 10:47am ktroyer

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and checking for the presence of separate-phase hydrocarbons (SPH), using either an electronic indicator and a clear Teflon® bailer, or an oil-water interface probe. Wells not containing SPH are then purged of approximately three casing volumes of water (or to dryness) using a centrifugal pump, gas displacement pump, or bailer. Equipment used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored in order to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially recover. Groundwater samples are collected using a Teflon® bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a California State-certified laboratory.

Analytical Procedures

Laboratory. The groundwater samples were analyzed for the presence of total purgeable petroleum hydrocarbons; benzene, toluene, ethylbenzene, and xylenes; and methyl tert-butyl ether. The analyses were performed according to EPA Methods 8015 (modified) and 8020, utilizing a purge-and-trap extraction technique. Final detection was by gas chromatography using flame- and photo-ionization detectors. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical report, chain-of-custody documentation, and field data sheets are presented as Attachment B.

Field. Dissolved oxygen is measured in the field utilizing Hydac AccuVac test kit.

ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS, CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD DATA SHEETS

Sequoia
Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

July 13, 1999

Kayvan Kimyai
Sequoia - Morgan Hill
885 Jarvis Drive
Morgan Hill, CA 95037

RE: 1

Dear Kayvan Kimyai

Enclosed are the results of analyses for sample(s) received by the laboratory on July 9, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Wayne Stevenson
Project Manager

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project: 1	Sampled: 6/14/99
885 Jarvis Drive	Project Number: M906283	Received: 7/9/99
Morgan Hill, CA 95037	Project Manager: Kayvan Kimyai	Reported: 7/13/99 08:28

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
M906283-05	L907048-04	Water	6/14/99

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project:	1	Sampled: 6/14/99
885 Jarvis Drive	Project Number:	M906283	Received: 7/9/99
Morgan Hill, CA 95037	Project Manager:	Kayvan Kimyai	Reported: 7/13/99 08:28

M906283-05
[L907048-04]

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
MTBE by EPA Method 8260A								
Methyl tert-butyl ether	9070031	7/12/99	7/12/99		2.00	**59.2**	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	*76.0-114*		*79.8*	%	

Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612

Sequoia - Morgan Hill	Project: 1	Sampled: 6/14/99
885 Jarvis Drive	Project Number: M906283	Received: 7/9/99
Morgan Hill, CA 95037	Project Manager: Kayvan Kin yai	Reported: 7/13/99 08:28

MTBE by EPA Method 8260A/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9070031	**Date Prepared: 7/9/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9070031-BLK1**									
Methyl tert-butyl ether	7/9/99			**ND**	ug/l	**2.00**				
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*53.4*	"	*76.0-114*	*107*			
Blank	**9070031-BLK2**									
Methyl tert-butyl ether	7/12/99			**ND**	ug/l	**2.00**				
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*46.9*	"	*76.0-114*	*93.8*			
LCS	**9070031-BS1**									
Methyl tert-butyl ether	7/9/99	50.0		42.2	ug/l	70.0-130	84.4			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*51.9*	"	*76.0-114*	*104*			
LCS	**9070031-BS2**									
Methyl tert-butyl ether	7/12/99	50.0		42.8	ug/l	70.0-130	85.6			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*48.6*	"	*76.0-114*	*97.2*			
Matrix Spike	**9070031-MS1**		**L907040-01**							
Methyl tert-butyl ether	7/9/99	50.0	39.8	89.8	ug/l	60.0-140	**100**			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*50.0*	"	*76.0-114*	*100*			
Matrix Spike Dup	**9070031-MSD1**		**L907040-01**							
Methyl tert-butyl ether	7/9/99	50.0	39.8	90.0	ug/l	60.0-140	**100**	25.0	**0**	
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*48.8*	"	*76.0-114*	*97.6*			

Sequoia Analytical

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San Carlos, CA 94070-4111
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Sequoia - Morgan Hill	Project: 1	Sampled: 6/14/99
885 Jarvis Drive	Project Number: M906283	Received: 7/9/99
Morgan Hill, CA 95037	Project Manager: Kayvan Kimyai	Reported: 7/13/99 08:28

Notes and Definitions

#	Note
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

ARCO Products Company Division of AtlanticRichfieldCompany 330006[illegible] **Task Order No.** [illegible]

Chain of Custody

ARCO Facility no. 0608	City (Facility) [illegible]	Project manager (Consultant) [illegible]	Laboratory name [illegible]
ARCO engineer Mike Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) (408)441-7500 / Fax no. (Consultant) (408)441-7[illegible]	Contract number
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway Place #440 San Jose CA		

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
*[illegible]		3		W		Y	HCl	6/11/97	9:15		X	*1										
*[illegible]		↓		↓		↓	↓	↓	10:00		X	6/16										
*[illegible]									10:05		X											
*[illegible]									11:45		X											
[illegible]									11:00		X											
[illegible]									10:30		X											
[illegible]									10:50		X											
[illegible]									[illegible]:45		X											

Special detection Limit/reporting

Special QA/QC

Remarks
*[illegible] w/ MTBE [illegible] 35 ml

Lab number

Method of shipment

Condition of sample:			Temperature received:		
Relinquished by sampler [signature]	Date 6/11/97	Time 14:45	Received by		
Relinquished by	Date	Time	Received by		
Relinquished by	Date	Time	Received by laboratory	Date	Time

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☐

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant
APC-3292 (2-91)

Sequoia Analytical

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FAX (408) 782-6308

July 9, 1999

Shaw Garakani
Pacific Environmental Group (Arco)
2025 Gateway Place, Suite 440
San Jose, CA 95110

RE: Arco/M906446

Dear Shaw Garakani

Enclosed are the results of analyses for sample(s) received by the laboratory on June 21, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew
Project Manager

CA ELAP Certificate Number 1210

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project: Arco	Sampled: 6/15/99
2025 Gateway Place, Suite 440	Project Number: 3300.0621P	Received: 6/21/99
San Jose, CA 95110	Project Manager: Shaw Garakani	Reported: 7/9/99

ANALYTICAL REPORT FOR M906446

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW5	M906446-01	Water	6/15/99
MW8	M906446-02	Water	6/15/99
MW9	M906446-03	Water	6/15/99
MW10	M906446-04	Water	6/15/99
MW11	M906446-05	Water	6/15/99
MW25	M906446-06	Water	6/15/99
E-1A	M906446-07	Water	6/15/99

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project:	Arco	Sampled: 6/15/99
2025 Gateway Place, Suite 440	Project Number:	3300.0621P	Received: 6/21/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/9/99

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

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW5			**M906446-01**				**Water**	
Purgeable Hydrocarbons	9060406	6/26/99	6/26/99		50.0	**211**	ug/l	1
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	**212**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*92.6*	%	
MW8			**M906446-02**				**Water**	
Purgeable Hydrocarbons	9060406	6/26/99	6/26/99		50.0	**166**	ug/l	1
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		2.50	**141**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*90.1*	%	
MW9			**M906446-03**				**Water**	
Purgeable Hydrocarbons	9060406	6/26/99	6/26/99		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	**3.27**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*90.2*	%	
MW10			**M906446-04**				**Water**	
Purgeable Hydrocarbons	9060406	6/26/99	6/26/99		50.0	**643**	ug/l	1
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	**0.761**	"	
Ethylbenzene	"	"	"		0.500	**1.13**	"	
Xylenes (total)	"	"	"		0.500	**1.35**	"	
Methyl tert-butyl ether	"	"	"		2.50	**232**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*107*	%	
MW11			**M906446-05**				**Water**	
Purgeable Hydrocarbons	9060406	6/26/99	6/26/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project:	Arco	Sampled: 6/15/99
2025 Gateway Place, Suite 440	Project Number:	3300.0621P	Received: 6/21/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/9/99

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

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW11 (continued)			**M906446-05**				**Water**	
Methyl tert-butyl ether	9060406	6/26/99	6/26/99		2.50	ND	ug/l	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*95.4*	%	
MW25			**M906446-06**				**Water**	
Purgeable Hydrocarbons	9060406	6/26/99	6/26/99		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	**98.9**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*90.9*	%	
E-1A			**M906446-07**				**Water**	
Purgeable Hydrocarbons	9060449	6/29/99	6/29/99		500	**5090**	ug/l	2,D
Benzene	"	"	"		5.00	ND	"	D
Toluene	"	"	"		5.00	ND	"	D
Ethylbenzene	"	"	"		5.00	**6.01**	"	D
Xylenes (total)	"	"	"		5.00	ND	"	D
Methyl tert-butyl ether	"	"	"		25.0	**234**	"	D
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*79.8*	%	

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Pacific Environmental Group (Arco)	Project:	Arco	Sampled: 6/15/99
2025 Gateway Place, Suite 440	Project Number:	3300.0621P	Received: 6/21/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/9/99

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

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9060406	**Date Prepared: 6/26/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9060406-BLK1**									
Purgeable Hydrocarbons	6/26/99			**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**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.79*	"	*70.0-130*	*97.9*			
LCS	**9060406-BS1**									
Purgeable Hydrocarbons	6/26/99	250		221	ug/l	70.0-130	88.4			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*12.9*	"	*70.0-130*	*129*			
LCS Dup	**9060406-BSD1**									
Purgeable Hydrocarbons	6/26/99	250		242	ug/l	70.0-130	96.8	25.0	9.07	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*13.3*	"	*70.0-130*	*133*			3
Batch: 9060449	**Date Prepared: 6/29/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9060449-BLK1**									
Purgeable Hydrocarbons	6/29/99			**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**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.80*	"	*70.0-130*	*88.0*			
LCS	**9060449-BS1**									
Benzene	6/29/99	10.0		8.94	ug/l	70.0-130	89.4			
Toluene	"	10.0		8.77	"	70.0-130	87.7			
Ethylbenzene	"	10.0		8.71	"	70.0-130	87.1			
Xylenes (total)	"	30.0		26.4	"	70.0-130	88.0			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.48*	"	*70.0-130*	*84.8*			
Matrix Spike	**9060449-MS1**	**M906287-05**								
Benzene	6/29/99	10.0	ND	9.25	ug/l	60.0-140	**92.5**			
Toluene	"	10.0	ND	9.11	"	60.0-140	**91.1**			
Ethylbenzene	"	10.0	ND	9.06	"	60.0-140	**90.6**			
Xylenes (total)	"	30.0	ND	27.1	"	60.0-140	**90.3**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.45*	"	*70.0-130*	*84.5*			

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project: Arco	Sampled: 6/15/99
2025 Gateway Place, Suite 440	Project Number: 3300.0621P	Received: 6/21/99
San Jose, CA 95110	Project Manager: Shaw Garakani	Reported: 7/9/99

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

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	**9060449-MSD1**		**M906287-05**							
Benzene	6/29/99	10.0	ND	9.30	ug/l	60.0-140	**93.0**	25.0	**0.539**	
Toluene	"	10.0	ND	8.82	"	60.0-140	**88.2**	25.0	**3.23**	
Ethylbenzene	"	10.0	ND	8.88	"	60.0-140	**88.8**	25.0	**2.01**	
Xylenes (total)	"	30.0	ND	26.1	"	60.0-140	**87.0**	25.0	**3.72**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*7.67*	"	*70.0-130*	*76.7*			

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project:	Arco	Sampled: 6/15/99
2025 Gateway Place, Suite 440	Project Number:	3300.0621P	Received: 6/21/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/9/99

Notes and Definitions

#	Note
D	Data reported from a dilution.
1	Chromatogram Pattern: Gasoline C6-C12
2	Chromatogram Pattern: Weathered Gasoline C6-C12
3	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

Sequoia Analytical

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JUL 14 1999

July 13, 1999

Shaw Garakani
Pacific Environmental Group (Arco)
2025 Gateway Place, Ste 440
San Jose, CA 95110

RE: Arco 17601 Hesperian Blvd. San Jose/M906283

Dear Shaw Garakani

Enclosed are the results of analyses for sample(s) received by the laboratory on June 15, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kayvan Kimyai
Project Manager D.M.

CA ELAP Certificate Number 1210

Sequoia Analytical

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Pacific Environmental Group (Shell)	Project:	Arco	Sampled: 6/14/99
2025 Gateway Place, Ste 440	Project Number:	17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/13/99

ANALYTICAL REPORT FOR M906283

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
590H	M906283-01	Water	6/14/99
633H	M906283-02	Water	6/14/99
642H	M906283-03	Water	6/14/99
17197 VM	M906283-04	Water	6/14/99
17349 VM	M906283-05	Water	6/14/99
17372 VM	M906283-06	Water	6/14/99
MW22	M906283-07	Water	6/14/99
MW16	M906283-08	Water	6/14/99

Sequoia Analytical

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Pacific Environmental Group (Shell)	Project: Arco	Sampled: 6/14/99
2025 Gateway Place, Ste 440	Project Number: 17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager: Shaw Garakani	Reported: 7/13/99

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

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
90H			**M906283-01**				**Water**	
Purgeable Hydrocarbons	9060180	6/18/99	6/18/99		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	"	"	"	*70.0-130*		*97.8*	%	
633H			**M906283-02**				**Water**	
Purgeable Hydrocarbons	9060180	7/13/99	6/18/99		50.0	ND	ug/l	
Methyl tert-butyl ether	"	"	7/13/99		2.50	**7.93**	"	1
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*78.3*	%	*1*
42H			**M906283-03**				**Water**	
Purgeable Hydrocarbons	9060180	6/18/99	6/18/99		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	"	"	"	*70.0-130*		*94.5*	%	
17197 VM			**M906283-04**				**Water**	
Purgeable Hydrocarbons	9060180	6/18/99	6/18/99		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	"	"	"	*70.0-130*		*87.3*	%	
17349 VM			**M906283-05**				**Water**	
Purgeable Hydrocarbons	9060180	7/13/99	6/18/99		50.0	**91.0**	ug/l	
Methyl tert-butyl ether	"	"	7/13/99		2.50	**88.3**	"	1
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*82.0*	%	*1*
17372 VM			**M906283-06**				**Water**	
Purgeable Hydrocarbons	9060217	6/21/99	6/21/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	

Sequoia Analytical

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Pacific Environmental Group (Shell)	Project:	Arco	Sampled: 6/14/99
2025 Gateway Place, Ste 440	Project Number:	17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/13/99

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

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
17372 VM (continued)			**M906283-06**				**Water**	
Xylenes (total)	9060217	6/21/99	6/21/99		0.500	ND	ug/l	
Methyl tert-butyl ether	"	"	"		2.50	**3.33**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*119*	%	
MW22			**M906283-07**				**Water**	
Purgeable Hydrocarbons	9060217	6/21/99	6/21/99		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	**5.05**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*117*	%	
MW16			**M906283-08**				**Water**	
Purgeable Hydrocarbons	9060217	6/21/99	6/21/99		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	**3.13**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*116*	%	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308

Pacific Environmental Group (Shell)	Project:	Arco	Sampled: 6/14/99
2025 Gateway Place, Ste 440	Project Number:	17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/13/99

BTEX by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
590H			**M906283-01**				**Water**	
Benzene	9060180	6/18/99	6/18/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*97.8*	%	
633H			**M906283-02**				**Water**	
Benzene	9060180	7/13/99	6/18/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*97.6*	%	
642H			**M906283-03**				**Water**	
Benzene	9060180	6/18/99	6/18/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*94.5*	%	
17197 VM			**M906283-04**				**Water**	
Benzene	9060180	6/18/99	6/18/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*87.3*	%	
17349 VM			**M906283-05**				**Water**	
Benzene	9060180	7/13/99	6/18/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	**3.53**	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*142*	%	*2*
17372 VM			**M906283-06**				**Water**	
Benzene	9060217	6/21/99	6/21/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*119*	%	

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Pacific Environmental Group (Shell)	Project:	Arco	Sampled: 6/14/99
2025 Gateway Place, Ste 440	Project Number:	17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/13/99

BTEX by DHS LUFT
Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW22			**M906283-07**				**Water**	
Benzene	9060217	6/21/99	6/21/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*117*	%	
MW16			**M906283-08**				**Water**	
Benzene	9060217	6/21/99	6/21/99		0.500	ND	ug/l	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*116*	%	

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Pacific Environmental Group (Shell)	Project:	Arco	Sampled: 6/14/99
2025 Gateway Place, Ste 440	Project Number:	17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/13/99

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

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9060217	**Date Prepared: 6/21/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9060217-BLK1**									
Purgeable Hydrocarbons	6/21/99			**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**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.12*	"	*70.0-130*	*91.2*			
LCS	**9060217-BS1**									
Benzene	6/21/99	10.0		9.60	ug/l	70.0-130	96.0			
Toluene	"	10.0		9.53	"	70.0-130	95.3			
Ethylbenzene	"	10.0		9.64	"	70.0-130	96.4			
Xylenes (total)	"	30.0		29.0	"	70.0-130	96.7			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.0*	"	*70.0-130*	*100*			
Matrix Spike	**9060217-MS1**	**M906283-07**								
Benzene	6/21/99	10.0	ND	11.8	ug/l	60.0-140	**118**			
Toluene	"	10.0	ND	11.7	"	60.0-140	**117**			
Ethylbenzene	"	10.0	ND	11.7	"	60.0-140	**117**			
Xylenes (total)	"	30.0	ND	35.2	"	60.0-140	**117**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*12.0*	"	*70.0-130*	*120*			
Matrix Spike Dup	**9060217-MSD1**	**M906283-07**								
Benzene	6/21/99	10.0	ND	11.0	ug/l	60.0-140	**110**	25.0	**7.02**	
Toluene	"	10.0	ND	10.9	"	60.0-140	**109**	25.0	**7.08**	
Ethylbenzene	"	10.0	ND	11.0	"	60.0-140	**110**	25.0	**6.17**	
Xylenes (total)	"	30.0	ND	33.2	"	60.0-140	**111**	25.0	**5.26**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.9*	"	*70.0-130*	*109*			

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2025 Gateway Place, Ste 440	Project Number: 17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager: Shaw Garakani	Reported: 7/13/99

BTEX by DHS LUFT/Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9060180	**Date Prepared: 6/18/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9060180-BLK1**									
Benzene	6/18/99			**ND**	ug/l	**0.500**				
Toluene	"			**ND**	"	**0.500**				
Ethylbenzene	"			**ND**	"	**0.500**				
Xylenes (total)	"			**ND**	"	**0.500**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.84*	"	*70.0-130*	*98.4*			
Batch: 9060217	**Date Prepared: 6/21/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9060217-BLK1**									
Benzene	6/21/99			**ND**	ug/l	**0.500**				
Toluene	"			**ND**	"	**0.500**				
Ethylbenzene	"			**ND**	"	**0.500**				
Xylenes (total)	"			**ND**	"	**0.500**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.12*	"	*70.0-130*	*91.2*			
LCS	**9060217-BS1**									
Benzene	6/21/99	10.0		9.60	ug/l	70.0-130	96.0			
Toluene	"	10.0		9.53	"	70.0-130	95.3			
Ethylbenzene	"	10.0		9.64	"	70.0-130	96.4			
Xylenes (total)	"	30.0		29.0	"	70.0-130	96.7			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.0*	"	*70.0-130*	*100*			
Matrix Spike	**9060217-MS1**	**M906283-07**								
Benzene	6/21/99	10.0	ND	11.8	ug/l	60.0-140	**118**			
Toluene	"	10.0	ND	11.7	"	60.0-140	**117**			
Ethylbenzene	"	10.0	ND	11.7	"	60.0-140	**117**			
Xylenes (total)	"	30.0	ND	35.2	"	60.0-140	**117**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*12.0*	"	*70.0-130*	*120*			
Matrix Spike Dup	**9060217-MSD1**	**M906283-07**								
Benzene	6/21/99	10.0	ND	11.0	ug/l	60.0-140	**110**	25.0	**7.02**	
Toluene	"	10.0	ND	10.9	"	60.0-140	**109**	25.0	**7.08**	
Ethylbenzene	"	10.0	ND	11.0	"	60.0-140	**110**	25.0	**6.17**	
Xylenes (total)	"	30.0	ND	33.2	"	60.0-140	**111**	25.0	**5.26**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.9*	"	*70.0-130*	*109*			

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2025 Gateway Place, Ste 440	Project Number:	17001 Hesperian Blvd. San Jose	Received: 6/15/99
San Jose, CA 95110	Project Manager:	Shaw Garakani	Reported: 7/13/99

Notes and Definitions

#	Note
1	This sample was analyzed outside of the EPA recommended holding time.
2	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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

JUN 1 8 1999

FIELD SERVICES / O & M REQUEST

SITE INFORMATION FORM

Project #: 330-006.2P

Station #: 0608

Site Address: 17601 Hesperian Blvd. San Lorenzo, California

County: Alameda

Project Manager: Shaw Garakani

Requestor: Kurt Lueneburger

Client: Arco

☐ 1st time visit

☐ 1st ☒ 2nd ☐ 3rd ☐ 4th

☐ Monthly

☐ Semi-Monthly

☐ Weekly

☐ One time Event

☐ Other._____

Client P.O.C.: M. Whelan.

Date of Request: 2Q99

Ideal Field Date: 6/14,15

Purge water 331 + 50 GAL DECON

Budget Hrs._____

Actual Hrs. 14

Mob de Mob_____

Total Wells_____

Prefield contacts: All Homeowners are to be contacted 1-2 weeks in advance of arrival.

Field Tasks: For General Description

Quarterly Monitoring Event. Measure TOB/TOC, and DO. Purge all wells, irrigation wells for at least 15 minutes before sampling. Also record time when purging starts and when purging is stopped. **Instruct Sequoia to run EPA 8260 on homeowner wells with MtBE greater than 35 ppb.** Attempt to sample all homeowner wells and if wells are non-operational, note the problem as best as you can and what it would take to repair pump/well. Sample homeowner wells on **June 14, 1999. Note: the sample frequency for some of the wells has been reduced. See attached sample protocol.**

WA#24152 00

Comments, remarks, from Field Staff (include problems encountered

Task Completed.

Completed by: _____ Date: 6-14-1999.

Checked by: _____

Summary of Domestic Wells Sampling Contacts
ARCO Service Station #0608
17601 Hesperian, San Lorenzo

CALL AT LEAST ONE WEEK IN ADVANCE OF EVENT EACH QUARTER
Document with copy of this log in project file
DOCUMENT EVENT WITH A SAMPLING FORM FROM ALL HOMES WHETHER SAMPLED OR NOT!!!!!!!!!!!!!!!!

Quarter calling for	Address	Contact Name Phone #	Date Contacted	Pump Assessment	Notes
AUG 27 98	590 Hacienda	Mr.& Mrs. Silva (510) 276-1534		operational	Need homeowmer there to sample. Well in backyard.
SEP 18 98					Knock first. Sample early-mid morn. Well in backyard.
1Q99					3/3 No Answer. 3/9 No Answer. 3/12 No Answer.
2Q99					Knock first. Sample in the morning.

AUG 27 98	633 Hacienda	Mr. Dahmann (510) 276-3860		operational	Well redeveloped with new pump as of 10/7/94. No access unless someone is home.
SEP 18 98					Well redeveloped with new pump as 10/7/94. Okay to sample anytime.
1Q99					3/3 No answer. 3/9 No Answer. 3/12 No Answer. He has no message machine.
2Q99					Okay to sample anytime.

AUG 27 98	642 Hacienda	Ms. Corregedor (510) 481-1063	Don't Call Not authorized	operational	Won't allow access.
SEP 18 98					Message 09/14-16/98. Unable to be contacted.
1Q99					Contacted 3/3. Okay to sample anytime.
2Q99					Okay to sample anytime

AUG 27 98	675 Hacienda	Mr. & Mrs. Roberts (510) 276-7389		non-operational	Okay to enter 1st shed on the right (must use entry gate @ right side of house) to obtain sample, if not home. PLEASE LOCK GATE ON YOUR WAY OUT!!!.
SEP 18 98					Message 09/14-16/98. Unable to be contacted.
1Q99					3/10 Message. Okay to sample anytime. PUMP. NOT OPERATIONAL. POWER TO MOTOR NEED. PIPING
2Q99					Okay to sample anytime

AUG 27 98	17348 Via Encinas	Mr. Luehrs (510)278-9059		non operational	Ok to enter backyard and grab bailer sample if resident not home; KNOCK FIRST.
SEP 18 98					Attempt to sample in the morning on Sep. 21st. Knock first so that the dog can be leashed
1Q99					3/10 message. Okay to sample before 11:30 on March 15. To pump Drop Bailer No Had Run Power Not Working
2Q99					Sample between 8 and 11 am in the morning. Knock first so that dog can be leashed.

AUG 27 98	17197 Via Magdalena	Mr. Schrag (510) 278-1904		operational	Grab sample off hose bib on front porch. Call him before heading to site to turn on hose bib to purge.
SEP 18 98					Ok to sample anytime.
1Q99					3/3. Okay to sample anytime.
2Q99					Okay to sample anytime

AUG 27 98	~~17200 Via Magdalena~~	Cavalry Church (510) 278-2555	not need call	non-operational	**Well destroyed. Has been built over with a classroom.**

AUG 27 98	17203 Via Magdalena	Mrs. Toles (510)276-6797		operational	AFTER 10AM ONLY!!! OK to enter back yard and sample if not home; KNOCK FIRST! Pump not working.
SEP 18 98					Okay to enter anytime. Pump not working 2Q98 possibly due to an obstruction. If pump does not work 3Q98, then let homeowner know so that she can get somebody to fix it.
1Q99					3/3. Okay to sample anytime.
2Q99					Sample after 10am. Pump Not working.

AUG 27 98	17302 Via Magdalena	Mr. & Mrs. Johanson (510) 278-5987		non-operational	Foot valve broken--no pressure & not holding it's prime. Call before next sampling to see if fixed.
SEP 18 98					Pump still non-operational. Foot valve is not the problem. Has not been fixed due to lack of funds.
1Q99					3/3. Owner said that the well is non-operational and needs a new pump. Has not had the money to replace it. Not authorized to enter property or sample.
2Q99					Well still broken. Do not sample. NO ACCESS

AUG 27 98	17349 Via Magdalena	Mr. Kast (510)278-1263		operational	OK to enter back yard and sample if not home; well shed in back yard; KNOCK FIRST!.
SEP 18 98					Ok to enter backyard and sample anytime
1Q99					3/3. Okay to sample anytime.
2Q99					Okay to sample anytime.

AUG 27 98	17371 Via Magdalena	Mr. Manry (510) 317-9724	Don't Call Not authorized	operational	Won't allow access.
SEP 18 98					won't allow access (past attempts). No answer, 9/14-16/98.
1Q99					3/3 No Answer. 3/9 No Answer. 3/12 No Answer. Won't allow access in past attempts.
2Q99					Unable to contact. Won't allow access in past attempts.

AUG 27 98	17372 Via Magdalena	Mr. Pimental (510) 278-6304		operational	Authorization to enter & start anytime. Sampled from hose bib in back yard; resident is usually using the hose when you get there. CALL FIRST!
SEP 18 98					Okay to sample anytime. Sampled from hose bib in backyard.
1Q99					3/3. Okay to sample anytime.
2Q99					Okay to sample anytime.

AUG 27 98	17393 Via Magdalena	Mr.James Whaley (510) 278-5576	Don't Call well cov'd over	non-operational	Pump disassembed & well covered over. No access due to new fence. WELL ABANDONED 7/97!

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006.29 LOCATION: 17601 HESPERIAN DATE: 6.14.99

CLIENT/STATION NO.: ARCO/0608 FIELD TECHNICIAN: J.E. DAY OF WEEK: Mon

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ ____
- ☐ H_2O level indicator ____
- ☐ Other: ____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH	H_2O
	MW5	9:20	-	o	-	-	-		11.85 / 11.85	12.05 / 12.05											
	~~MW7~~																				
	MW8	9:27	-	-	-	-	-		10.35 / 10.35	11.17 / 11.17											
	MW9	9:37	-	-	-	-	-		9.80 / 9.80	10.32 / 10.32											
	MW10	10:16	-	-	-	-	-		9.95 / 9.95	10.57 / 10.57											
	MW11	10:19	-	-	-	-	-		10.83 / 10.83	11.26 / 11.26											
	~~MW13~~																				
	MW14	10:13	-	-	-	-	-		9.27 / 9.27	9.54 / 9.54											
	MW15																				

Comments: MW15 - VAN PARK ON top OF WELL 6.14.1999

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-0062.2P LOCATION: 1760 HESPERIAN BLVD SAN LEANDRO DATE: 6-14-99

CLIENT/STATION NO.: ARCO/0608 FIELD TECHNICIAN: RE DAY OF WEEK: Mon.

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ _____
- ☐ H_2O level indicator _____
- ☐ Other: _____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
	MW-16	10:09	-	-	-	-	-		11.16 / 11.13	11.53 / 11.55										
	~~MW-17~~																			
	MW-18	10:07	-	-	-	-	-		10.30 / 10.30	10.60 / 10.60										
	~~MW-19~~																			
	~~MW-20~~																			
	MW-21	10:03	-	-	-	-	-		10.07 / 10.09	10.58 / 10.58										
	MW-22	10:00	-	-	-	-	-		10.80 / 10.80	11.06 / 11.06										
	MW-23	9:40	-	-	-	-	-		11.80 / 11.80	12.08 / 12.08										
	EI-A	9:22							9.85 / 9.85	11.47 / 11.47										

Comments:

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006.2 LOCATION: 12601 HESPERIAN BLVD SAN LORENZO DATE: 6-14-99

CLIENT/STATION NO.: ARCO/1605 FIELD TECHNICIAN: JE DAY OF WEEK: Mon.

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ _____
- ☐ H_2O level indicator _____
- ☐ Other: _____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
	~~MW-2A~~																			
	MW-3	9:23	-	-	-	-	-		11.95 11.95	11.99 11.97										
	MW-2B	9:30	-	-	-	-	-		~~11.95~~ 11.95	~~12.19~~ 12.17										

Comments: _____

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager	Approval	Date/s	Laboratory:	Client Engineer:
330-006.2P	608	17601 Hesperian San Lorenzo	2Q99	Shaw Garakani			Sequoia 24152 00	Mike Whelan

Well Number	Ideal Sampling Order	Sample I.D.	Sampling Frequency	Analyses	TOB TOC	Well Depth	Casing Diameter	Top of Screen	Well goes Dry?	Comments
Mr/Mrs Silva		590 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					SEE ATTACHED CONTACT FORM.
Mr. Dahmann		633 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					SAMPLE HOMEOWNER WELLS ON
Mrs Albright		634 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					MONDAY, JUNE 14, 1999.
Ms. Corregedor		642 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mr/Mrs Roberts		675 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					**Instruct Sequoia to run 8260 MtBE
Mr Luehrs		17348 Via Encinas	QLY	GAS/BTEX/MtBE	TOB/TOC					confirmation on homeowner wells
Mr. Schrag		17197 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					with hits > 35 ppb.
Cavalry Church		17200 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					Well Paved Over
Mrs Toles		17203 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mr/Mrs Johanson		17302 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mr. Kast		17349 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mr. Manry		17371 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mr. Pimental		17372 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mr. Whaley		17393 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					Well Abandoned 7/97.

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager	Approval	Date/s	Laboratory:	Client Engineer:
330-006.2P	608	17601 Hesperian, San Lorenzo	2Q99	Shaw Garakani			Sequoia 24152 00	Mike Wheilan

Well Number	Sampling Order	Sample I.D.	Gauge/Sample Frequency	Analyses	TOB TOC	Well Depth	Top of Screen	Casing Diameter	Well goes Dry?	Comments
MW-5	16		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	14		4"	YES	Please repair or replace
MW-7	15		--	Removed from Program	--	19		3"	NO	missing or broken locks, j-plugs,
MW-8	17		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	22		3"	NO	slip caps, lid bolts ect. Please
MW-9	14		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	19		3"	YES	note any repairs performed or that
MW-10	18		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	22		3"	YES	need to be performed.
MW-11	10		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	19		3"	YES	
MW-13	9		--	Removed from Program	--	23.5		3"	YES	
MW-14	8		QLY/ANNUAL 1Q	MtBE/GAS/BTEX	TOB/TOC	24		3"	YES	
MW-15	7		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	24		3"	YES	
MW-16	6		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	23		3"	YES	
MW-18	5		QLY/ANNUAL 1Q	MtBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-19	4		--	Removed from Program	--	22		3"	YES	
MW-21	3		QLY/ANNUAL 1Q	MtBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-22	2		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-23	1		QLY/ANNUAL 1Q	MtBE/GAS/BTEX	TOB/TOC	22		3"	YES	
MW-24	11		--	Removed from Program	--	20		2"	YES	
MW-25	12		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	21		2"	YES	
MW-26	13		QLY/ANNUAL 1Q	MtBE/GAS/BTEX	TOB/TOC	20		2"	YES	
E-1A	19		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	26		?	YES	

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA. WELL ID #: MW-5

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other: _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other: _____

TD 14.00 DTW 11.85 = 2.15 x Gal/Linear Foot 0.66 = 1.41 x Number of Casings 3 = Calculated Purge 4.25

DATE PURGED: 6-15-99 START: 9:53 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-15-99 START: 10:00 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:50	1.0	6.80	1000	62.6	Cloudy	Mod	Faint
9:59	2	6.79	1012	62.7	Cloudy	Mod	Faint
10:00	3	6.85	1000	63.4	Cloudy	Mod	Faint

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-10
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-5	61599	1000	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: Bail 1000/slow Purge
20:12

PACIFIC ENVIRONMENTAL GROUP, INC

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA WELL ID #: MW-8

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other: _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other: _____

TD 22.00 DTW 10.35 = 11.65 x Gal/Linear Foot 0.38 = 4.42 x Number of Casings 3 = Calculated Purge 13.26

DATE PURGED: 6-15-99 START: 9:10 END (2400 hr): — PURGED BY: RE

DATE SAMPLED: 6-15-99 START: 9:20 END (2400 hr): — SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:13	4.5	7.40	1010	620	Clear	Light	None
9:15	9	7.45	1010	630	Clear	Light	None
9:18	13.5	7.47	1030	638	Clear	Light	None

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-11
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-8	61599	9:20	3	40ml	VOA	HCl	BTEX

REMARKS: DO: NR

PACIFIC ENVIRONMENTAL GROUP, INC

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-9

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD 1900 - DTW 980 = 92 x Gal/Linear Foot 0.38 = 3.49 x Number of Casings 3 = Calculated Purge 10.48

DATE PURGED: 6-15-99 START: 8:35 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-15-99 START: 8:45 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
8:37	3.5	7.17	1060	64.8	Cloudy	Mod	Mod
8:40	7	7.13	1080	63.0	Cloudy	Mod	Mod
8:43	10.5	7.01	1080	63.9	Cloudy	Mod	Mod

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 158
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-9	61599	8:45	3	40ml	VOA	HCl	BTEX

REMARKS: DO: 2.0

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-10

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other: _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other: _____

TD 22.00 DTW 9.95 = 12.05 x Gal/Linear Foot 0.38 = 4.57 x Number of Casings 3 = Calculated Purge 13.73

DATE PURGED: 6.15.99 START: 9:25 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6.15.99 START: 9:35 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:28	4.5	7.69	956	60.7	Clear	Light	Mod
9:30	9	7.35	959	60.7	Clear	Light	Faint
9:33	13.5	7.15	962	63.1	Clear	Light	Faint

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes (NO)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 1549
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	61599	9:36	3	40ml	VOA	HCl	BTEX

REMARKS: DO: PE

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006-20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-11

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD 19.00 - DTW 10.83 = 8.17 x Gal/Linear Foot 0.38 = 3.10 x Number of Casings 3 = Calculated Purge 9.31

DATE PURGED: 6-15-99 START: 8:00 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 6-15-99 START: 8:30 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
8:03	3.25	6.87	1060	61.3	Cloudy	Mod	Mod
8:05	6.5	6.65	1050	60.2	Cloudy	Light	Mod
8:08	9.75	6.60	1050	60.9	Cloudy	Light	Mod

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-7
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-11	6-15-99	8:30	3	40ml	VOA	HCl	BASIETEX

REMARKS: DO: 1.4

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 1760 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-10

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD 23.00 DTW 11.16 = 11.84 x Gal/Linear Foot 0.38 = 4.50 x Number of Casings 3 = Calculated Purge 13.50

DATE PURGED: 6-14-99 START: 12:34 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-14-99 START: 12:46 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:37	4.5	7.59	906	65.8	Cloudy	Mod	None
12:40	9	7.27	914	65.7	Cloudy	Mod	None
12:43	13.5	6.96	892	65.4	Cloudy	Mod	None

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 153
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	6-14-99	12:45	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO 3.4

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-22

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD 0200 DTW 10.80 = 11.2 x Gal/Linear Foot 0.38 = 4.26 x Number of Casings 3 = Calculated Purge 12.76

DATE PURGED: 6.14.99 START: 12:18 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6.14.99 START: 12:30 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:21	4.25	7.38	1020	66.2	Cloudy	Mod	None
12:23	8.5	7.22	996	65.5	Cloudy	Mod	None
12:26	12.75	7.03	977	64.8	Cloudy	Mod	None

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 15-1
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-22	6.14.99	12:30	3	40ml	VOA	HCl	BASIETEX

REMARKS: D.O. 1.9

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-25

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other: _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other: _____

TD 21.00 DTW 11.45 = 9.55 x Gal/Linear Foot 0.17 = 1.62 x Number of Casings 3 = Calculated Purge 4.87

DATE PURGED: 6.15.99 START: 8:50 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6.15.99 START: 9.00 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
8:52	1.5	7.76	996	60.1	Cloudy	Mod	None
8:55	3	7.70	1020	61.5	Cloudy	Mod	None
8:57	4.5	7.71	1010	60.1	Cloudy	Mod	None

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-9
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-25	61599	9:00	3	40ml	VOA	HCl	BTEX

REMARKS: DO: 28.00

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: EW-1A

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☒ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD 20.00 DTW 9.85 = 10.15 x Gal/Linear Foot 0.38 = 3.92 x Number of Casings 3 = Calculated Purge 11.76

DATE PURGED: 6-15-99 START: 9:40 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 6-15-99 START: 10:15 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:50	4	7.12	1020	63.1	CLEAR	TRACE	FAINT
10:00	8	6.83	1050	65.0	CLEAR	TRACE	FAINT
10:08	12	6.74	1040	64.3	CLEAR	TRACE	FAINT

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-18
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
EW-1A	61599	10:15	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 1.4

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA WELL ID #: 590H

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☑	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 6-14-99 START: _____ END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 6-14-99 START: 9:15 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
			982				

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 7.39 982 63.7 CLEAR TRACE NONE

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-
- ☐ Dedicated: _____
- ☐ Other: GRAB

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
590H	6-14-99	9:15	3	40ml	VOA	HCl	BTEX

REMARKS: Start. at 9:05 - 9:14

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: ~~MW~~ 633H

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☑	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 6-14-99 START: _____ END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 6-14-99 START: 10:50 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 2.5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100 Clear Cloudy Yellow Brown | NTU 0-200 Heavy Moderate Light Trace | Strong Moderate Faint None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 8.38 1000 66.4 clear trace none

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 15"
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-633H	6-14-99	10:00	3	40ml	VOA	HCl	BTEX

REMARKS: start 10:35 ≠ 10:44
00. NA
Purge 00 Gal

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA. WELL ID #: MW-6&12H

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2	_____	0.17
☑ 3	_____	0.38
☐ 4	_____	0.66
☐ 4.5	_____	0.83
☐ 5	_____	1.02
☐ 6	_____	1.5
☐ 8	_____	2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 6-14-99 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-14-99 START: _____ END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 8.16 931 678 Clear Trace None

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-6&12H	6-14-99	12:05	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: 2.10 start 11:50 → 12:05

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA. WELL ID #: MW-17197UM

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 6-14-99 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-14-99 START: 11:45 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 8.23 9.25 65.9 Clear Light Faint

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 15
- ☐ Dedicated: _____
- ☒ Other: Grab.

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-17197UM	6-14-99	11:45	3	40ml	VOA	HCl	BASIETEX

REMARKS: DO. 10 Start at 11:28 @ 11:38 Purge 5 Gallons

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA WELL ID #: ~~MW~~-17349VM

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 6-14-99 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-14-99 START: 11:00 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 8.00 9.37 6.49 clear Trace Faint

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15
- ☐ Dedicated: _____
- ☒ Other: GRAB

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-17349VM	6/14/99	11:00	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: 0.38 Start 11:02 ⇒ 11:12 Purge 60 Gal.

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO, CA WELL ID #: ~~MW-2~~ MW-17372VM

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2		0.17
☑ 3		0.38
☐ 4		0.66
☐ 4.5		0.83
☐ 5		1.02
☐ 6		1.5
☐ 8		2.6

SAMPLE TYPE
- ☑ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 6-14-99 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 6-14-99 START: 10:30 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 800 913 609 CLEAR TRACE None

PURGING EQUIPMENT/I.D.
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.
- ☑ Bailer: 15-
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-17372VM	6/14/99	10:30	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: 00:40 POWER USING Water House

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

ARCO Products Company ◆ 3300602 ◆ Task Order No. 01150200 — **Chain of Custody**

Division of AtlanticRichfieldCompany

ARCO Facility no. 0608	City (Facility) 7601 Hesperian Blvd San Leandro	Project manager (Consultant) SHAW CHARKAS	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO)	Telephone no. (Consultant) 408/441-7500	Fax no. (Consultant) 408/441-7500
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway Place #440 San Jose CA		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015 MTBE	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	
*590H		3		W		Y	HCL	6-14-99	9:15		X										
*633H									10:50												
*642H									10:05												
*7197W4									11:45												
*7349W4									11:00												
*7372W4									10:30												
MW02									10:30												
MW10									10:45												

Special detection Limit/reporting

Special QA/QC

Remarks: *RUN EPA 8260 ON THIS WELLS W/ MTBE GRATER THAN 35PPB

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Method of shipment

Condition of sample		Temperature received:	
Relinquished by sample	Date 6/14/99 Time 14:45	Received by	
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by laboratory	Date Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APC-3292 (2-91)

ARCO Products Company Division of AtlanticRichfieldCompany — 3300066291 — **Task Order No.** 07152.00 — **Chain of Custody**

ARCO Facility no. 0608	City (Facility) 17601 E. 17th St. Bldg 5 Suite 200	Project manager (Consultant) SHAW GARAKANI	Laboratory name GEOCHEM
ARCO engineer Mike Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) 408/441-7500	Fax no. (Consultant) 408/441-7539
Consultant name PACIFIC ENVIRONMENTAL GROUP	Address (Consultant) 2025 GATEWAY PLACE #440 SAN JOSE CA		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW5		3		W		4	HCl	02/15/99	10:05		X											
MW8									9:00													
MW9									8:45													
MW10									9:35													
MW11									8:30													
MW25									9:00													
E.I.A									10:15													

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☑

Condition of sample:		Temperature received:	
Relinquished by sampler	Date 02.15.99 Time 1200	Received by	
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by laboratory	Date Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APC-3292 (2-91)