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the igroup

Quarterly Groundwater Monitoring Report
Fourth Quarter 1999

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

Prepared for

Mr. Michael Whelan
ARCO Products Company

June 5, 2000

Prepared by

IT Corporation
1921 Ringwood Avenue
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Project 330-006.2P

Shaw Garakani
Project Engineer

Debra J. Moser
Senior Geologist
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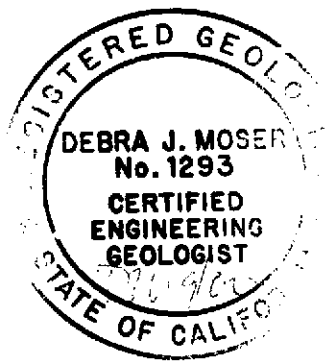

Date: June 5, 2000
Quarter: 4Q99

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: IT Corporation (IT)/formerly Pacific Environmental Group, Inc. (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: 43

WORK PERFORMED THIS QUARTER (Fourth – 1999):

1. Submitted third quarter 1999 groundwater monitoring report.
2. Performed fourth quarter 1999 groundwater monitoring event on December 8 and 9, 1999.
3. Prepared fourth 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 (First – 2000):

1. Submit fourth quarter 1999 groundwater monitoring report.
2. Perform first quarter 2000 groundwater monitoring event.
3. Prepare first quarter 2000 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:	Quarterly	(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:	9.84 to 12.57	(Measure Feet)
Groundwater Gradient:	West	(Direction)
	0.009	(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's *Quarterly Groundwater Monitoring Report – Fourth Quarter 1996* for historical groundwater elevation and analytical data.
- 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 Sampling Schedule
- Table 2 - Groundwater Elevation and Analytical Data – Groundwater Monitoring Wells
- Table 3 - Groundwater Analytical Data – Domestic Irrigation Wells
- Figure 1 – Site Map
- Figure 2 – Groundwater Elevation Contour Map
- Figure 3 - 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, 1131 Harbor Bay Parkway, Alameda, CA 94502
Mr. Ron Sykora/Mr. Robert L. Webster, David D. Bohannon Organization, 60 Hillsdale Mall, San Mateo, CA 94403
Mr. Chuck Headlee, Regional Water Quality Control Board - San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, CA 94612
Dr. Charles Lapin, ARCO Products Company, 444 South Flower Street, ALF 3470, Los Angeles, CA 90071

Table 1
Groundwater Sampling 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
MW-5	a	a	a	a	Quarterly
MW-7	----------Removed from Program----------				
MW-8	a	a	a	a	Quarterly
MW-9	a	a	a	a	Quarterly
MW-10	a	a	a	a	Quarterly
MW-11	a	a	a	a	Quarterly
E-1A	a	a	a	a	Quarterly
MW-13	----------Removed from Program----------				
MW-14	a				Annually
MW-15	a	a	a	a	Quarterly
MW-16	a	a	a	a	Quarterly
MW-17	----------Destroyed----------				
MW-18	a				Annually
MW-19	----------Removed from Program----------				
MW-20	----------Destroyed----------				
MW-21	a				Annually
MW-22	a	a	a	a	Quarterly
MW-23	a				Annually
MW-24	----------Removed from Program----------				
MW-25	a	a	a	a	Quarterly
MW-26	a				Annually
Domestic Irrigation Wells					
590H	a	a	a	a	Quarterly
633H	a	a	a	a	Quarterly
634H	a	a	a	a	Quarterly
642H	a	a	a	a	Quarterly
675H	a	a	a	a	Quarterly
17197 VM	a	a	a	a	Quarterly

Table 1 (continued)
Groundwater Sampling 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
	06/14,15/99		12.25	21.74	211	<0.50	<0.50	<0.50	<0.50	212	1.2
	09/15,16/99		12.70	21.29	139	<0.50	<0.50	<0.50	<0.50	184	2.4
	12/08,09/99		12.56	21.43	87.4	<0.50	<0.50	<0.50	<0.50	197	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
	03/31-04/01/97		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
	06/14,15/99		---------- Removed From Gauging and 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
	03/31-04/01/97		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 (contniued)
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
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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
	06/14,15/99		11.17	21.62	166	<0.50	<0.50	<0.50	<0.50	141	NM
	09/15,16/99		11.65	21.14	<500	<5.0	<5.0	<5.0	<5.0	2,380	2.4
	12/08,09/99		11.48	21.31	213	<0.50	<0.50	<0.50	<0.50	4,160	2.8
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
	03/31-04/01/97		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
	06/14,15/99		10.32	21.79	<50	<0.50	<0.50	<0.50	<0.50	3.27	2.2
	09/15,16/99		10.83	21.28	<50	<0.50	<0.50	<0.50	<0.50	<5.0	3.2
	12/08,09/99		10.70	21.41	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
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

Table 2 (contniued)
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-10	06/04/98		9.59	22.08	680	<0.30	4.8	2.3	8.6	79	0.0
(cont.)	09/21,22/98		10.77	20.90	650	<0.50	<0.50	3.5	1.3	99	0.0
	12/14/98		10.18	21.49	828	<1.0	<1.0	3.39	<1.0	152	0.4
	03/15,16/99		9.30	22.37	910	17.6	1.3	5.24	<1.0	268	0.0
	06/14,15/99		10.57	21.10	643	<0.50	0.761	1.13	1.35	232	NM
	09/15,16/99		11.03	20.64	655	<1.25	1.26	<1.25	<1.25	315	5.8
	12/08,09/99		10.88	20.79	898	5.7	1.29	<1.0	<1.0	236	5.6
MW-11	03/13,14/96	32.54	8.60	23.94	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		10.55	21.99	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		11.52	21.02	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		11.00	21.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		10.88	21.66	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		11.65	20.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		11.75	20.79	80	<0.50	<0.50	<0.50	0.65	<2.5	2.0
	11/24,25/97		11.50	21.04	<50	<0.50	<0.50	<0.50	<0.50	3.8	2.4
	03/19/98		9.43	23.11	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	06/03/98		10.27	22.27	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.8
	09/21,22/98		11.43	21.11	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	12/14/98		10.85	21.69	<50	<0.50	<0.50	<0.50	<0.50	<2.0	1.4
	03/15,16/99		10.05	22.49	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.2
	06/14,15/99		11.25	21.29	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.4
	09/15/99		11.68	20.86	<50	<0.50	<0.50	<0.50	<0.50	<5.0	3.4
	12/08,09/99		11.53	21.01	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
E-1A ††	03/13,14/96	33.06	10.35	22.71	2,700	38	<5.0	130	6.2	NA	NM
(MW-12)	05/28,29/96		11.50	21.56	1,400	410	18	55	5.5	NA	NM
	08/28/96		11.70	21.36	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96		11.18	21.88	4,300	13	<5.0	100	20	220	NM
	03/31/97 †		12.65	20.41	1,900	7.9	<2.0	62	3.5	140	NM
	06/25/97		11.82	21.24	4,900	21	<5.0	53	6.8	160	NM
	09/09,10/97		11.85	21.21	3,200	9.0	<5.0	45	<5.0	85	2.0
	09/09,10/97 a		--	--	--	--	--	--	--	70	--
	11/24,25/97		11.75	21.31	2,000	10	<2.5	42	2.8	65	1.0
	03/19,20/98		9.65	23.41	11,000	1,300	<0.50	550	380	220	6.2
	06/04/98 b		10.47	22.59	4,500	3.3	0.92	41	4.0	51	1.5
	09/21,22/98		11.60	21.46	3,300	1.7	<0.50	29	3.6	52	1.8
	12/14,15/98		11.10	21.96	3,100	21	6.7	28	<5.0	140	1.0
	03/15,16/99		10.25	22.81	3,900	24.5	<20	41.2	<20	296	1.0

Table 2 (contniued)
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)
E-1A	06/14,15/99		11.47	21.59	5,090	<5.0	<5.0	6.01	<5.0	234	1.4
(cont.)	09/15,16/99		11.90	21.16	2,200	7.93	<5.0	10.50	<5.0	142	3.2
	12/08,09/99		11.75	21.31	1,490	6.57	1.36	9.21	<1.25	364	NM
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
	03/31-04/01/97		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
	06/14,15/99		---------- Removed From Gauging and 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
	03/31-04/01/97		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
	06/14,15/99		9.54	20.92	---------- Well Sampled Annually ----------						
	09/15/99		9.98	20.48	---------- Well Sampled Annually ----------						
	12/08,09/99		9.84	20.62	---------- Well Sampled Annually ----------						
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

Table 2 (contniued)
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	11/25/96		10.83	20.58	<50	<0.50	<0.50	<0.50	<0.50	12	NM
(cont.)	03/31-04/01/97		10.45	20.96	<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 ----------						
	11/24,25/97		---------- Well Inaccessible ----------								
	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 ----------								
	06/14,15/99		---------- Well Inaccessible ----------								
	09/15, 16/99		---------- Well Inaccessible ----------								
	12/08,09/99		11.28	20.13	<50	<0.5	<0.5	<0.5	<0.5	167.0	NM
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
	03/31-04/01/97		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
	06/14,15/99		11.55	19.84	<50	<0.50	<0.50	<0.50	<0.50	3.13	3.4
	09/15/99		11.99	19.40	<50	<0.50	<0.50	<0.50	<0.50	8.70	3.8
	12/08,09/99		11.80	19.59	<50	<0.50	<0.50	<0.50	<0.50	10.1	2.4
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
	03/31-04/01/97		10.14	19.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM

Table 2 (contniued)
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	06/25/97		10.94	18.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
(cont.)	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
	09/21,22/98		10.80	18.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	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
	06/14,15/99		10.60	19.10	---------- Well Sampled Annually ----------						
	09/15/99		10.96	18.74	---------- Well Sampled Annually ----------						
	12/08,09/99		10.79	18.91	---------- Well Sampled Annually ----------						
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
	03/31-04/01/97		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 ----------								
	06/14,15/99		---------- Removed From Gauging and 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
	03/31-04/01/97		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

Table 2 (contniued)
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-21	09/21,22/98		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
(cont.)	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
	06/14,15/99		10.58	18.14	---------- Well Sampled Annually ----------						
	09/15/99		10.93	17.79	---------- Well Sampled Annually ----------						
	12/08,09/99		10.70	18.02	---------- Well Sampled Annually ----------						
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
	03/31-04/01/97		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
	06/14,15/99		11.06	18.23	<50	<0.50	<0.50	<0.50	<0.50	5.05	1.0
	09/15/99	a	11.46	17.83	<50	<0.50	<0.50	<0.50	<0.50	49.2	1.2
	12/08,09/99		11.25	18.04	<50	<0.50	<0.50	<0.50	<0.50	17.9	1.4
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
	03/31-04/01/97		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
	06/14,15/99		12.08	18.91	---------- Well Sampled Annually ----------						

Table 2 (contniued)
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-23	09/15/99		12.48	18.51	---------- Well Sampled Annually ----------						
(cont.)	12/08,09/99		12.29	18.70	---------- Well Sampled Annually ----------						
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
	03/31-04/01/97		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
	09/09,10/97		13.46	20.92	<50	<0.50	<0.50	<0.50	<0.50	<2.5	5.0
	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
	06/14,15/99		---------- Removed From Gauging and 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
	03/31-04/01/97		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
	06/14,15/99		11.97	22.15	<50	<0.50	<0.50	<0.50	<0.50	98.9	2.2
	09/15,16/1999		12.34	21.78	<50	<0.50	<0.50	<0.50	<0.50	66.4	NM
	12/08,09/99		12.25	21.87	<50	<0.50	<0.50	<0.50	<0.50	55.5	0.0
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

Table 2 (contniued)
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	11/25/96		12.03	21.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
(cont.)	03/31-04/01/97		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
	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
	06/14,15/99		12.17	21.54	---------- Well Sampled Annually ----------						
	09/15/99		12.70	21.01	---------- Well Sampled Annually ----------						
	12/08,09/99		12.57	21.14	---------- Well Sampled Annually ----------						

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

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
	09/15/99 a	NS	NS	NS	NS	NS	NS	NM
	12/08/99 a	NS	NS	NS	NS	NS	NS	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
	09/15/99	<50	<0.50	<0.50	<0.50	<0.50	5.65	0.0
	12/08/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.4
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
	09/15/99 e	NS	NS	NS	NS	NS	NS	NM
	12/08/99 e	NS	NS	NS	NS	NS	NS	NM

Table 3 (continued)

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	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
	06/25/97	NS	NS	NS	NS	NS	NS	NM
	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
	09/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.2
	12/08/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.4
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
	09/15/99 f	NS	NS	NS	NS	NS	NS	NM
	12/08/99 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
	09/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
	12/08/99 a	NS	NS	NS	NS	NS	NS	NM
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						

Table 3 (continued)

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	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						
	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
	09/15/99 f	NS	NS	NS	NS	NS	NS	NM
	12/08/99 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
	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
	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
	09/15/99 f	NS	NS	NS	NS	NS	NS	NM
	12/08/99 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
	09/15/99 f	NS	NS	NS	NS	NS	NS	NM
	12/08/99 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

Table 3 (continued)

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	11/26/96	300	<1.0	1.7	<1.0	2.1	55 *	NM
(cont.)	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
	12/14/98	254	<0.50	6.92	0.604	1.58	21.7	1.0
	03/15/99	172	1.35	<0.50	<0.50	<0.50	24.2	3.6
	06/14/99	91	<0.50	3.53	<0.50	<0.50	88.3	2.8
	09/15/99 a	133	<0.50	<0.50	<0.50	<0.50	184	2.2
	12/08/99	136	0.681	<0.50	<0.50	<0.50	267 c	2.4
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
	09/15/99 e	NS	NS	NS	NS	NS	NS	NM
	12/08/99 f	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

Table 3 (continued)

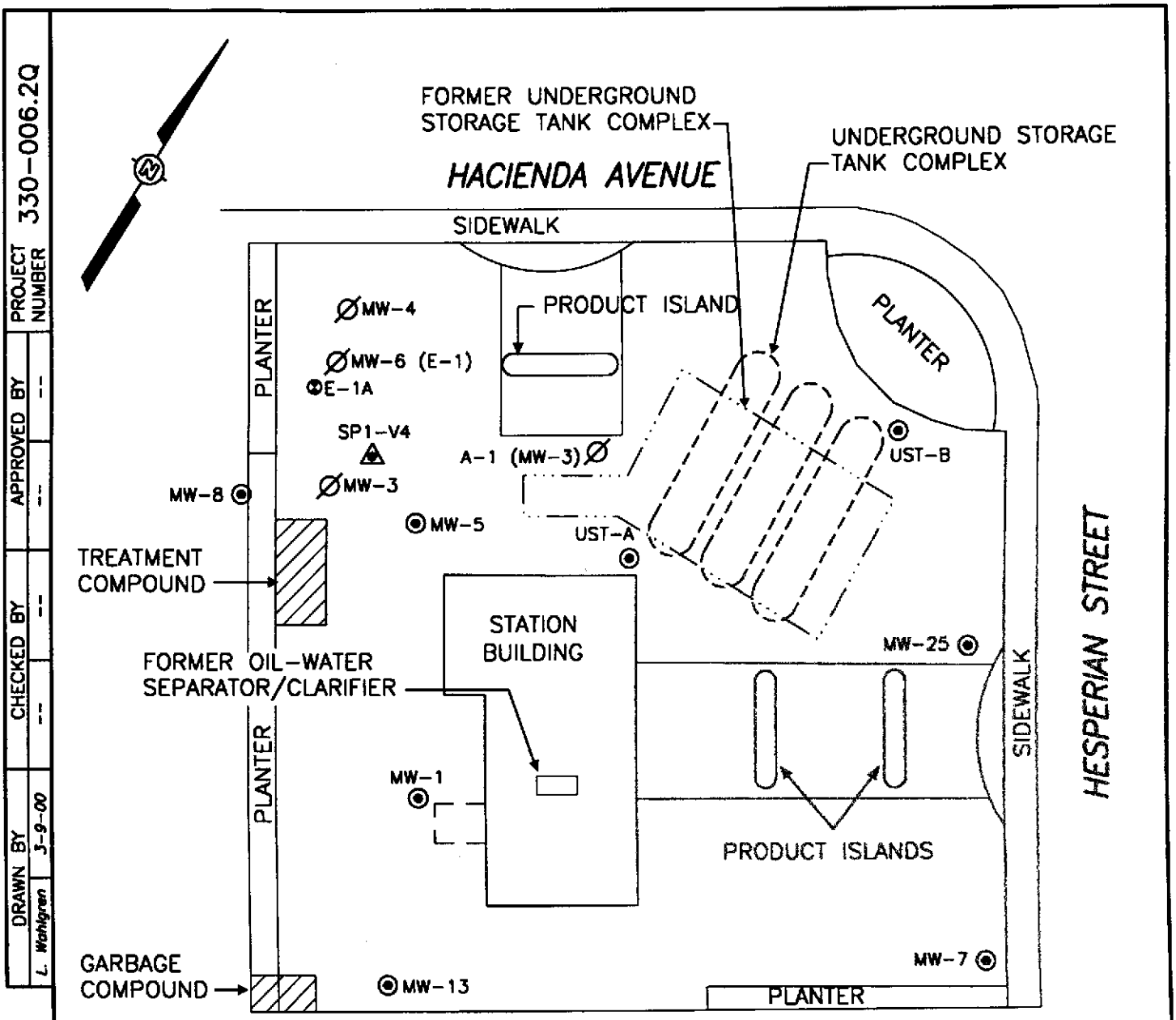
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

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)
17372 VM	03/15/99	<50	<0.50	<0.50	<0.50	<0.50	6.66	4.6
(cont.)	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	3.33	4.0
	09/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.0
	12/08/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	NM
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
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	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
NS = Not sampled
ppb = Parts ber 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.



PROJECT NUMBER 330-006.2Q

DRAWN BY	CHECKED BY	APPROVED BY
L. Wahlgren 3-9-00	--	--

LEGEND

- GROUNDWATER MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- DESTROYED GROUNDWATER MONITORING WELL
- DUAL VAPOR EXTRACTION/SPARSE WELL

SCALE

0 30 60 FEET

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 1
SITE MAP

17601 HESPERIAN BLVD AT HACIENDA AVE
SAN LORENZO, CALIFORNIA

N:\cad\Drawings\330\006\Sitemap.dwg Fri, 19/May/00 03:46pm LWAHLGREN

PROJECT NUMBER 330-006.2Q
APPROVED BY
CHECKED BY
DRAWN BY K. Black 5-19-00

VIA MANZANAS
POTRERO COURT
MW-20
MW-19 *
VIA MAGDALENA
APARTMENTS
APARTMENTS
VIA ARRIBA
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
CHURCH AND SCHOOL
17200
MW-17
MW-14 (20.62)
MW-24 *
RESIDENTIAL
MW-26 (21.14)
RESTAURANT
MW-18 (18.91)
MW-21 (18.02)
VIA MEDIA
17197
17203
17302
17372
(20.79) MW-10
(21.41) MW-9
E-1A (21.31)
MW-25 (21.87)
MW-8 (21.31)
SP-1/V-4
590
MW-5 (21.43)
MW-7 *
MW-13 *
MW-16 (19.59)
633
SP-2/V-5
MW-11 (21.01)
MW-15 (20.13)
RESIDENTIAL
MW-22 (18.04)
17349
17371
VIA ENCINAS COURT
17348
17393
634
642
RESIDENTIAL
SHOPS
675
MW-23 (18.70)
HACIENDA AVENUE
VIA ALAMO
VIA FLORES
18.5
19.0
19.5
20.0
20.5
21.0
21.5

LEGEND

- ◉ GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ∅ DESTROYED WELL
- ⊗ GROUNDWATER EXTRACTION WELL
- ▪ DOMESTIC IRRIGATION WELL
- (21.14) GROUNDWATER ELEVATION (FT.–MSL); MEASURED 12/8/99
- GROUNDWATER ELEVATION CONTOUR (FT.–MSL)
- * WELL REMOVED FROM MONITORING PROGRAM

APPROXIMATE DIRECTION OR GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.009

SCALE
0 150 300

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP
FOURTH QUARTER 1999
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

/ N:\cad\Drawings\330\006\GWC.dwg Fri, 19/May/00 04:50pm LWAHLGREN

PROJECT NUMBER 330-006.2Q
APPROVED BY
CHECKED BY
DRAWN BY K. Block 5-19-00

VIA MANZANAS
POTRERO COURT
MW-20
MW-19 †
VIA MAGDALENA
APARTMENTS
APARTMENTS
VIA ARRIBA
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
CHURCH AND SCHOOL
17200
MW-17
MW-18 *
MW-14 *
MW-24 †
RESIDENTIAL
MW-26 *
RESTAURANT
<50 / <0.5
MW-9
VIA MEDIA
MW-21 *
VIA FLORES
NS
17197
17203
NS
17302
NS
<50 / <0.5
17372
MW-16
<50 / <0.5
633
<50 / <0.5
MW-10
898 / 5.7
213 / <0.5
MW-8
E-1A
1,490 / 6.57
MW-25
<50 / <0.5
SP-2/V-5
SP-1/V-4
MW-5
87.4 / <0.5
MW-7 †
590
NS
MW-13 †
RESIDENTIAL
SHOPS
MW-22
<50 / <0.5
17349
136 / 0.681
MW-15
<50 / <0.5
MW-11
<50 / <0.5
17371
NS
VIA ENCINAS COURT
17393
17348
NS
642
<50 / <0.5
634
NS
675
NS
MW-23*
HACIENDA AVENUE
VIA ALAMO

SCALE
0 150 300

LEGEND

- ◉ GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ⌀ DESTROYED WELL
- ⊙ GROUNDWATER EXTRACTION WELL
- ■ DOMESTIC IRRIGATION WELL
- 898 / 5.7 TPPH-G/BENZNE CONCENTRATIONS IN GROUNDWATER (PARTS PER BILLION); SAMPLED 12-8-99
- NS NOT SAMPLED
- * WELL SAMPLED ANNUALLY
- † WELL REMOVED FROM SAMPLING PROGRAM

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 3
TPPH-g/BENZENE CONCENTRATION MAP
FOURTH QUARTER 1999
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

/ N:\cad\Drawings\330\006\CHEM.dwg Fri, 19/May/00 04:51pm LWAHLGREN

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

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

JAN 03 2000

December 30, 1999

Shaw Garakani
Pacific Environmental Group/IT
1921 Ringwood Ave.
San Jose, CA 95131

RE:L912093

Dear Shaw Garakani:

Enclosed are the results of analyses for sample(s) received by the laboratory on December 10, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Tim Costello
Lab Director

CA ELAP Certificate Number I-2360

Sequoia Analytical

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

Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

ANALYTICAL REPORT FOR L912093

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW9	L912093-01	Water	12/8/99
MW10	L912093-02	Water	12/8/99
MW11	L912093-03	Water	12/8/99
MW15	L912093-04	Water	12/8/99
MW16	L912093-05	Water	12/8/99
MW22	L912093-06	Water	12/8/99
~~63314~~ 633 H	L912093-07	Water	12/8/99
~~64214~~ 642 H	L912093-08	Water	12/8/99
17349VM	L912093-09	Water	12/8/99
17372VM	L912093-10	Water	12/8/99

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: **MW9**
Laboratory Sample Number: **L912093-01**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120091	12/20/99	12/20/99		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	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*109*	%	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: **MW10**
Laboratory Sample Number: **L912093-02**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120098	12/21/99	12/22/99		100	**898**	ug/l	1
Benzene	"	"	"		1.00	**5.70**	"	
Toluene	"	"	"		1.00	**1.29**	"	
Ethylbenzene	"	"	"		1.00	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Methyl tert-butyl ether	"	"	"		10.0	**236**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*97.1*	%	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: **MW16**
Laboratory Sample Number: **L912093-05**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120085	12/17/99	12/17/99		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	"	"	"		5.00	**10.1**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*83.2*	*%*	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: **MW22**
Laboratory Sample Number: **L912093-06**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120099	12/21/99	12/22/99		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	"	"	"		5.00	**17.9**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*96.1*	%	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: ~~63314~~ 633 H
Laboratory Sample Number: ~~L912093-07~~

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120085	12/17/99	12/17/99		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	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*75.1*	*%*	

Sequoia Analytical

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Pacific Environmental Group/IT	Project: -	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number: 33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager: Shaw Garakani	Reported: 12/30/99

Sample Description: ~~64214~~ 6042 H
Laboratory Sample Number: L912093-08

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120086	12/17/99	12/17/99		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	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*91.1*	*%*	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: **17349VM**
Laboratory Sample Number: **L912093-09**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120099	12/21/99	12/22/99		50.0	**136**	ug/l	2
Benzene	"	"	"		0.500	**0.681**	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	**202**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*96.0*	%	
MTBE by EPA Method 8260A								
Methyl tert-butyl ether	9120144	12/29/99	12/30/99		4.00	**267**	ug/l	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	*76.0-114*		*103*	%	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Sample Description: **17372VM**
Laboratory Sample Number: **L912093-10**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120091	12/20/99	12/21/99		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	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*114*	*%*	

Sequoia Analytical

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

Pacific Environmental Group/IT	Project: -	Sampled:	12/8/99
1921 Ringwood Ave.	Project Number: 33000620	Received:	12/10/99
San Jose, CA 95131	Project Manager: Shaw Garakani	Reported:	12/30/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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: 9120085	**Date Prepared: 12/17/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120085-BLK2**									
Purgeable Hydrocarbons as Gasoline	12/17/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.52*	"	*70.0-130*	*95.2*			
LCS	**9120085-BS3**									
Benzene	12/17/99	10.0		8.27	ug/l	70.0-130	82.7			
Toluene	"	10.0		8.17	"	70.0-130	81.7			
Ethylbenzene	"	10.0		8.41	"	70.0-130	84.1			
Xylenes (total)	"	30.0		25.2	"	70.0-130	84.0			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.65*	"	*70.0-130*	*96.5*			
LCS	**9120085-BS4**									
Purgeable Hydrocarbons as Gasoline	12/17/99	250		263	ug/l	70.0-130	105			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.33*	"	*70.0-130*	*83.3*			
Matrix Spike	**9120085-MS1**	**L912093-05**								
Benzene	12/17/99	10.0	ND	8.04	ug/l	60.0-140	**80.4**			
Toluene	"	10.0	ND	7.89	"	60.0-140	**78.9**			
Ethylbenzene	"	10.0	ND	8.08	"	60.0-140	**80.8**			
Xylenes (total)	"	30.0	ND	24.2	"	60.0-140	**80.7**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*7.32*	"	*70.0-130*	*73.2*			
Matrix Spike Dup	**9120085-MSD1**	**L912093-05**								
Benzene	12/17/99	10.0	ND	7.64	ug/l	60.0-140	**76.4**	25.0	**5.10**	
Toluene	"	10.0	ND	7.54	"	60.0-140	**75.4**	25.0	**4.54**	
Ethylbenzene	"	10.0	ND	7.70	"	60.0-140	**77.0**	25.0	**4.82**	
Xylenes (total)	"	30.0	ND	23.2	"	60.0-140	**77.3**	25.0	**4.30**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*7.28*	"	*70.0-130*	*72.8*			
Batch: 9120086	**Date Prepared: 12/17/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120086-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/17/99			**ND**	ug/l	**50.0**				
Benzene	"			**ND**	"	**0.500**				
Toluene	"			**ND**	"	**0.500**				
Ethylbenzene	"			**ND**	"	**0.500**				
Xylenes (total)	"			**ND**	"	**0.500**				

Sequoia Analytical

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

Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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*
Blank (continued)	**9120086-BLK1**									
Methyl tert-butyl ether	12/17/99			**ND**	ug/l	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.86*	"	*70.0-130*	*88.6*			
LCS	**9120086-BS1**									
Benzene	12/17/99	10.0		8.95	ug/l	70.0-130	89.5			
Toluene	"	10.0		8.63	"	70.0-130	86.3			
Ethylbenzene	"	10.0		8.51	"	70.0-130	85.1			
Xylenes (total)	"	30.0		26.1	"	70.0-130	87.0			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.14*	"	*70.0-130*	*91.4*			
LCS	**9120086-BS2**									
Purgeable Hydrocarbons as Gasoline	12/17/99	250		274	ug/l	70.0-130	110			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*13.3*	"	*70.0-130*	*133*			*3*
Matrix Spike	**9120086-MS1**									
Benzene	12/17/99	10.0		8.24	ug/l	60.0-140				
Toluene	"	10.0		7.74	"	60.0-140				
Ethylbenzene	"	10.0		7.74	"	60.0-140				
Xylenes (total)	"	30.0		26.7	"	60.0-140				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.65*	"	*70.0-130*	*96.5*			
Matrix Spike Dup	**9120086-MSD1**									
Benzene	12/17/99	10.0		7.49	ug/l	60.0-140		25.0		
Toluene	"	10.0		7.03	"	60.0-140		25.0		
Ethylbenzene	"	10.0		7.03	"	60.0-140		25.0		
Xylenes (total)	"	30.0		24.5	"	60.0-140		25.0		
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.21*	"	*70.0-130*	*92.1*			
Batch: 9120091	**Date Prepared: 12/20/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120091-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/20/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*12.4*	"	*70.0-130*	*124*			
LCS	**9120091-BS1**									
Benzene	12/20/99	10.0		9.22	ug/l	70.0-130	92.2			
Toluene	"	10.0		9.05	"	70.0-130	90.5			

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Pacific Environmental Group/IT	Project: -	Sampled:	12/8/99
1921 Ringwood Ave.	Project Number: 33000620	Received:	12/10/99
San Jose, CA 95131	Project Manager: Shaw Garakani	Reported:	12/30/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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*
LCS (continued)	**9120091-BS1**									
Ethylbenzene	12/20/99	10.0		9.28	ug/l	70.0-130	92.8			
Xylenes (total)	"	30.0		26.9	"	70.0-130	89.7			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*12.8*	"	*70.0-130*	*128*			
LCS	**9120091-BS2**									
Purgeable Hydrocarbons as Gasoline	12/20/99	250		277	ug/l	70.0-130	111			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.7*	"	*70.0-130*	*107*			
Matrix Spike	**9120091-MS1**	**L912093-01**								
Purgeable Hydrocarbons as Gasoline	12/20/99	250	ND	285	ug/l	60.0-140	**114**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.43*	"	*70.0-130*	*94.3*			
Matrix Spike Dup	**9120091-MSD1**	**L912093-01**								
Purgeable Hydrocarbons as Gasoline	12/20/99	250	ND	288	ug/l	60.0-140	**115**	25.0	**0.873**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.1*	"	*70.0-130*	*101*			
Batch: 9120098	**Date Prepared: 12/21/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120098-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/21/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.35*	"	*70.0-130*	*93.5*			
LCS	**9120098-BS1**									
Benzene	12/21/99	10.0		8.80	ug/l	70.0-130	88.0			
Toluene	"	10.0		8.81	"	70.0-130	88.1			
Ethylbenzene	"	10.0		8.91	"	70.0-130	89.1			
Xylenes (total)	"	30.0		26.8	"	70.0-130	89.3			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.0*	"	*70.0-130*	*100*			
LCS	**9120098-BS2**									
Purgeable Hydrocarbons as Gasoline	12/21/99	250		267	ug/l	70.0-130	107			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*7.74*	"	*70.0-130*	*77.4*			
Matrix Spike	**9120098-MS1**	**L912092-05**								
Benzene	12/21/99	10.0	ND	9.22	ug/l	60.0-140	**92.2**			
Toluene	"	10.0	ND	9.04	"	60.0-140	**90.4**			
Ethylbenzene	"	10.0	ND	9.37	"	60.0-140	**93.7**			

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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*
Matrix Spike (continued)	**9120098-MS1**		**L912092-05**							
Xylenes (total)	12/21/99	30.0	ND	27.7	ug/l	60.0-140	**92.3**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*7.98*	"	*70.0-130*	*79.8*			
Matrix Spike Dup	**9120098-MSD1**		**L912092-05**							
Benzene	12/21/99	10.0	ND	9.49	ug/l	60.0-140	**94.9**	25.0	**2.89**	
Toluene	"	10.0	ND	9.21	"	60.0-140	**92.1**	25.0	**1.86**	
Ethylbenzene	"	10.0	ND	9.42	"	60.0-140	**94.2**	25.0	**0.532**	
Xylenes (total)	"	30.0	ND	28.1	"	60.0-140	**93.7**	25.0	**1.51**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*8.01*	"	*70.0-130*	*80.1*			
Batch: 9120099	**Date Prepared: 12/21/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120099-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/21/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.3*	"	*70.0-130*	*103*			
LCS	**9120099-BS1**									
Benzene	12/21/99	10.0		10.8	ug/l	70.0-130	108			
Toluene	"	10.0		10.7	"	70.0-130	107			
Ethylbenzene	"	10.0		11.0	"	70.0-130	110			
Xylenes (total)	"	30.0		32.3	"	70.0-130	108			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.7*	"	*70.0-130*	*107*			
LCS	**9120099-BS2**									
Purgeable Hydrocarbons as Gasoline	12/21/99	250		273	ug/l	70.0-130	109			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*12.8*	"	*70.0-130*	*128*			
Matrix Spike	**9120099-MS1**		**L912093-06**							
Benzene	12/21/99	10.0	ND	10.0	ug/l	60.0-140	**100**			
Toluene	"	10.0	ND	9.91	"	60.0-140	**99.1**			
Ethylbenzene	"	10.0	ND	10.1	"	60.0-140	**101**			
Xylenes (total)	"	30.0	ND	29.7	"	60.0-140	**99.0**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*11.1*	"	*70.0-130*	*111*			
Matrix Spike Dup	**9120099-MSD1**		**L912093-06**							
Benzene	12/21/99	10.0	ND	9.93	ug/l	60.0-140	**99.3**	25.0	**0.702**	
Toluene	"	10.0	ND	9.90	"	60.0-140	**99.0**	25.0	**0.101**	

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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*
Matrix Spike Dup (continued)	**9120099-MSD1**		**L912093-06**							
Ethylbenzene	12/21/99	10.0	ND	10.1	ug/l	60.0-140	**101**	25.0	**0**	
Xylenes (total)	"	30.0	ND	30.0	"	60.0-140	**100**	25.0	**1.01**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.82*	"	*70.0-130*	*98.2*			

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

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: 9120144	**Date Prepared: 12/29/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120144-BLK1**									
Methyl tert-butyl ether	12/29/99			**ND**	ug/l	**2.00**				
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*50.1*	"	*76.0-114*	*100*			
LCS	**9120144-BS1**									
Methyl tert-butyl ether	12/29/99	50.0		45.0	ug/l	70.0-130	90.0			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*51.2*	"	*76.0-114*	*102*			
Matrix Spike	**9120144-MS1**		**L912224-04**							
Methyl tert-butyl ether	12/30/99	50.0	ND	52.0	ug/l	60.0-140	**104**			
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*52.6*	"	*76.0-114*	*105*			
Matrix Spike Dup	**9120144-MSD1**		**L912224-04**							
Methyl tert-butyl ether	12/30/99	50.0	ND	50.5	ug/l	60.0-140	**101**	25.0	**2.93**	
Surrogate: 1,2-Dichloroethane-d4	"	*50.0*		*52.1*	"	*76.0-114*	*104*			

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	-	Sampled: 12/8/99
1921 Ringwood Ave.	Project Number:	33000620	Received: 12/10/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/30/99

Notes and Definitions

#	Note
	Chromatogram Pattern: Weathered Gasoline C6-C12
2	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
	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

ARCO Products Company Division of AtlanticRichfieldCompany 33000620 **Task Order No.** 24150200 L912093

Chain of Custody

ARCO Facility no. 0608 | City (Facility) 170 Hesperian Blvd San Lorenzo | Project manager (Consultant) Shaoi Garakani

ARCO engineer Mike Whelan | Telephone no. (ARCO) | Telephone no. (Consultant) (408) 453-7300 | Fax no. (Consultant) (408) 453-0452

Consultant name Pacific Environmental Group ET | Address (Consultant) 1921 Ringwood Av. San Jose CA 95131

Laboratory name: Sequoia

Contract number:

Method of shipment:

Special detection Limit/reporting:

Special QA/QC:

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 MTBE 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 ☐
MW9		3		W		y	HCL	12899	10:45		X									
MW10		↓		↓		↓	↓	↓	13:00		↓									
MW11									12:25											
MW15									10:10											
MW16									11:50											
MW22									11:35											
*633H									10:05											
*642H									11:05											
*17349W									10:55											
*17332W									10:30											

SC

9 12 35

Remarks: * Run EPA 8260 on this homeowner well w/ MTBE greater than 35 ppb

Lab number:

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler: [signature]	12899	10:10	Received by: [signature]	12-9-99	954
Relinquished by: [signature]			Received by: [signature]		
Relinquished by: [signature]	12/9	1815	Received by laboratory: Noelle Lau	12/10/99	1030

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

APPC-3292 (2-91)

CLIENT NAME: PEG
REC. BY (PRINT): Docile

WORKORDER: L9120933
DATE OF LOG-IN: 12/10/99

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / Absent / Intact / Broken*
2. Custody Seal #: Put in Remarks Section
3. Chain-of-Custody: Present / Absent*
4. Traffic Reports or Packing List: Present / Absent
5. Airbill: Airbill / Sticker Present / Absent
6. Airbill #:
7. Sample Tags: Present / Absent
   Sample Tags #s: Listed / Not Listed on Chain-of-Custody
8. Sample Condition: Intact / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? Yes / No*
10. Proper Preservatives used: Yes / No*
11. Date Rec. at Lab: 12/10/99
12. Time Rec. at Lab: 1030
13. Temp Rec. at Lab: 3.5°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
		MW9	3x HCl VOA	L	12/8/99	
		10	"	"	"	
		11				
		15				
		16				
		D 22				
		633H				
		642H				
		17349 VM				
		17372 VM	"	"	"	Headspace in 1 VOA
				NL	12/10/99	

...cled, contact Project Manager and attach record of resolution.

Revision 6/18/97
CFORMS.XLS

Sequoia Analytical

1551 Industrial Road
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December 28, 1999

Shaw Garakani
Pacific Environmental Group/IT
1921 Ringwood Ave.
San Jose, CA 95131

RE: Arco(1)/L912116

Dear Shaw Garakani:

Enclosed are the results of analyses for sample(s) received by the laboratory on December 13, 1999. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Tim Costello
Lab Director

CA ELAP Certificate Number I-2360

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

ANALYTICAL REPORT FOR L912116

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW5	L912116-01	Water	12/9/99
MW8	L912116-02	Water	12/9/99
MW25	L912116-03	Water	12/9/99
E1A	L912116-04	Water	12/9/99

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Sample Description: **MW5**
Laboratory Sample Number: **L912116-01**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120118	12/23/99	12/23/99		50.0	**87.4**	ug/l	1
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	**197**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*110*	%	

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Sample Description: **MW8**
Laboratory Sample Number: **L912116-02**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120106	12/22/99	12/22/99		50.0	**213**	ug/l	I
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		500	**4160**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*106*	%	

Sequoia Analytical

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Sample Description: **MW25**
Laboratory Sample Number: **L912116-03**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120106	12/22/99	12/22/99		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	"	"	"		5.00	**55.5**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*99.5*	%	

Sequoia Analytical

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

Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Sample Description: **E1A**
Laboratory Sample Number: **L912116-04**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT								
Purgeable Hydrocarbons as Gasoline	9120116	12/23/99	12/23/99		125	**1490**	ug/l	2
Benzene	"	"	"		1.25	**6.57**	"	
Toluene	"	"	"		1.25	**1.36**	"	
Ethylbenzene	"	"	"		1.25	**9.21**	"	
Xylenes (total)	"	"	"		1.25	ND	"	
Methyl tert-butyl ether	"	"	"		12.5	**364**	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	*70.0-130*		*136*	*%*	*3*

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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: 9120106	**Date Prepared: 12/22/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120106-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/22/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*11.1*	"	*70.0-130*	*111*			
LCS	**9120106-BS1**									
Benzene	12/22/99	10.0		7.38	ug/l	70.0-130	73.8			
Toluene	"	10.0		7.47	"	70.0-130	74.7			
Ethylbenzene	"	10.0		7.51	"	70.0-130	75.1			
Xylenes (total)	"	30.0		22.3	"	70.0-130	74.3			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*11.1*	"	*70.0-130*	*111*			
LCS	**9120106-BS2**									
Purgeable Hydrocarbons as Gasoline	12/22/99	250		275	ug/l	70.0-130	110			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.89*	"	*70.0-130*	*98.9*			
Matrix Spike	**9120106-MS1**		**L912116-03**							
Purgeable Hydrocarbons as Gasoline	12/22/99	250	ND	287	ug/l	60.0-140	**115**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.78*	"	*70.0-130*	*97.8*			
Matrix Spike Dup	**9120106-MSD1**		**L912116-03**							
Purgeable Hydrocarbons as Gasoline	12/22/99	250	ND	276	ug/l	60.0-140	**110**	25.0	**4.44**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.78*	"	*70.0-130*	*97.8*			
Batch: 9120116	**Date Prepared: 12/23/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120116-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/23/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.6*	"	*70.0-130*	*106*			
LCS	**9120116-BS1**									
Benzene	12/23/99	10.0		7.87	ug/l	70.0-130	78.7			
Toluene	"	10.0		7.66	"	70.0-130	76.6			

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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*
LCS (continued)	**9120116-BS1**									
Ethylbenzene	12/23/99	10.0		8.03	ug/l	70.0-130	80.3			
Xylenes (total)	"	30.0		23.9	"	70.0-130	79.7			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.22*	"	*70.0-130*	*92.2*			
LCS	**9120116-BS2**									
Purgeable Hydrocarbons as Gasoline	12/23/99	250		274	ug/l	70.0-130	110			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.4*	"	*70.0-130*	*104*			
Matrix Spike	**9120116-MS1**		**L912106-13**							
Benzene	12/23/99	10.0	ND	8.61	ug/l	60.0-140	**86.1**			
Toluene	"	10.0	ND	8.67	"	60.0-140	**86.7**			
Ethylbenzene	"	10.0	ND	8.90	"	60.0-140	**89.0**			
Xylenes (total)	"	30.0	ND	26.2	"	60.0-140	**87.3**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.9*	"	*70.0-130*	*109*			
Matrix Spike Dup	**9120116-MSD1**		**L912106-13**							
Benzene	12/23/99	10.0	ND	9.25	ug/l	60.0-140	**92.5**	25.0	**7.17**	
Toluene	"	10.0	ND	9.00	"	60.0-140	**90.0**	25.0	**3.74**	
Ethylbenzene	"	10.0	ND	9.29	"	60.0-140	**92.9**	25.0	**4.29**	
Xylenes (total)	"	30.0	ND	27.5	"	60.0-140	**91.7**	25.0	**4.92**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*11.4*	"	*70.0-130*	*114*			
Batch: 9120118	**Date Prepared: 12/23/99**					**Extraction Method: EPA 5030B [P/T]**				
Blank	**9120118-BLK1**									
Purgeable Hydrocarbons as Gasoline	12/23/99			**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**	"	**5.00**				
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.4*	"	*70.0-130*	*104*			
LCS	**9120118-BS1**									
Benzene	12/23/99	10.0		9.83	ug/l	70.0-130	98.3			
Toluene	"	10.0		9.73	"	70.0-130	97.3			
Ethylbenzene	"	10.0		9.71	"	70.0-130	97.1			
Xylenes (total)	"	30.0		29.1	"	70.0-130	97.0			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*10.4*	"	*70.0-130*	*104*			
LCS	**9120118-BS2**									
Purgeable Hydrocarbons as Gasoline	12/23/99	250		263	ug/l	70.0-130	105			

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled: 12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received: 12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported: 12/28/99

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/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*
LCS (continued)	**9120118-BS2**									
Surrogate: a,a,a-Trifluorotoluene	*12/23/99*	*10.0*		*12.1*	*ug/l*	*70.0-130*	*121*			
Matrix Spike	**9120118-MS1**		**L912106-14**							
Benzene	12/24/99	10.0	ND	10.6	ug/l	60.0-140	**106**			
Toluene	"	10.0	ND	10.4	"	60.0-140	**104**			
Ethylbenzene	"	10.0	ND	10.7	"	60.0-140	**107**			
Xylenes (total)	"	30.0	ND	31.8	"	60.0-140	**106**			
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.95*	"	*70.0-130*	*99.5*			
Matrix Spike Dup	**9120118-MSD1**		**L912106-14**							
Benzene	12/24/99	10.0	ND	9.86	ug/l	60.0-140	**98.6**	25.0	**7.23**	
Toluene	"	10.0	ND	9.68	"	60.0-140	**96.8**	25.0	**7.17**	
Ethylbenzene	"	10.0	ND	9.87	"	60.0-140	**98.7**	25.0	**8.07**	
Xylenes (total)	"	30.0	ND	29.1	"	60.0-140	**97.0**	25.0	**8.87**	
Surrogate: a,a,a-Trifluorotoluene	"	*10.0*		*9.80*	"	*70.0-130*	*98.0*			

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Pacific Environmental Group/IT	Project:	Arco(1)	Sampled:	12/9/99
1921 Ringwood Ave.	Project Number:	Arco #0608	Received:	12/13/99
San Jose, CA 95131	Project Manager:	Shaw Garakani	Reported:	12/28/99

Notes and Definitions

#	Note
1	Chromatogram Pattern: Unidentified Hydrocarbons 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 SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT): K Cross

WORKORDER: 9912116
DATE OF LOG-IN: 12/14/99

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / Absent — Intact / Broken*
2. Custody Seal #: Put in Remarks Section
3. Chain-of-Custody: Present / Absent*
4. Traffic Reports or Packing List: Present / Absent
5. Airbill: Airbill / Sticker Present / Absent
6. Airbill #:
7. Sample Tags: Present / Absent
   Sample Tags #s: Listed / Not Listed on Chain-of-Custody
8. Sample Condition: Intact / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? Yes / No*
10. Proper Preservatives used: Yes / No*
11. Date Rec. at Lab: 12/13/99
12. Time Rec. at Lab: 1400
13. Temp Rec. at Lab: 5.0

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
		MW 5	3x40ml HCL	L	12/9/99	
		8	↓	↓	↓	
		25				
		EB				

K Cross 12/13/99

circled, contact Project Manager and attach record of resolution.

Revision 6/18/97

ARCO Products Company Division of AtlanticRichfieldCompany 33000600 **Task Order No.** 245200 L912116

Chain of Custody

ARCO Facility no.	0608
City (Facility)	17801 Hesperian Blvd San Lorenzo
Project manager (Consultant)	Stan Ghadakani
Laboratory name	Sequoia
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	
Telephone no. (Consultant)	(408) 453-7300
Fax no. (Consultant)	(408) 453-0452
Contract number	
Consultant name	Pacific Environmental Group
Address (Consultant)	2021 Ringwood Ave San Jose CA 95131

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 ☐		
MW5	-	3		W		Y	HCL	12.9.99	10:40		X											
MW8	-	↓		↓		↓	↓	↓	10:00		↓											
MW25	-	↓		↓		↓	↓	↓	9:40		↓											
E1A	-	↓		↓		↓	↓	↓	10:25		↓											

Method of shipment

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 ☑

4

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler [signature]	12.9.99	14:00	Received by [signature]		
Relinquished by [signature]	12/10/99		Received by TJT (MH)		
Relinquished by TJT (MH)	~~12-10-99~~	~~15:15~~	Received by laboratory [signature]	12/13/99	1400

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

-91 12.13 0945

FIELD SERVICES / O & M REQUEST

SITE INFORMATION FORM

Project #: 330-006.2P	☐ **1st time visit**	
Station #: 0608	☐ **1st** ☐ **2nd** ☐ **3rd** ☒ **4th**	**Date of Request: 4Q99**
Site Address: 17601 Hesperian Blvd. San Lorenzo, California	☐ **Monthly**	**Ideal Field Date: 12/8,9**
	☐ **Semi-Monthly**	**Purge water**_____
County: Alameda	☐ **Weekly**	**Budget Hrs.**_____
Project Manager: Shaw Garakani	☐ **One time Event**	**Actual Hrs.**_____
Requestor: Kurt Lueneburger	☐ **Other.**_____	**Mob de Mob**_____
Client: Arco	**Client P.O.C.:** M. Whelan.	**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 **December 8, 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 See Attach Protocol

H2O purge Brought to Lab

Completed by: _____ Date: 12-8-99

Checked by: _____

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	4Q99	Shaw Garakani	9-Dec	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		7	YES	

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.
3Q99					9/9- No answer, Message left that we would try to contact them about sampling on Wednesday 9/8,10,13- No answer
4Q99					11/29, 11/30, 12/2, 12/3, 12/4, 12/5 - No answer DOMINGUEZ

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.
3Q99					9/8,9,10,13- No answer
4Q99					Okay to sample anytime. (shut gate when done)

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
3Q99					Okay to sample anytime
4Q99					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.
2Q99					Okay to sample anytime
3Q99					Okay to sample anytime
4Q99					Okay to sample anytime Pump not working.

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.
2Q99					Sample between 8 and 11 am in the morning. Knock first so that dog can be leashed.
3Q99					Sample between 8 and 11 am in the morning. Knock first so that dog can be leashed.
4Q99					11/29, 11/30, 12/2, 12/3, 12/4 – No answer ~~PUMP~~ NO ANSWER Pump not operation

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
3Q99					Okay to sample anytime
4Q99					**Recently died. DO NOT SAMPLE**

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~~.
3Q99					Sample anytime
4Q99					Sample anytime 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.
3Q99					Well still broken. Do not sample.
4Q99					Well still broken. Do not sample.

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.
3Q99					Okay to sample anytime.
4Q99					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.
3Q99					Don't sample. Well not working
4Q99					Don't sample. Well not working

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.
3Q99					Okay to sample anytime.
4Q99					~~Refuses access. Do Not Sample~~

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	4Q99	Shaw Garakani		8-Dec	Sequoia 24152 00	Mike Wheilan

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					WEDNESDAY, DECEMBER 8
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.

FIELD REPORT

EPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-0062 LOCATION: 17601 HESPERIAN DATE: 12-8-99

CLIENT/STATION NO.: ARCO/0608 FIELD TECHNICIAN: Pedro E. Ruiz DAY OF WEEK: WED.

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		-	/	/	-	/		12.15 / 12.15	12.56 / 12.56										/
	~~MW6~~								/	/										/
	MW8		-	/	/	/	/		10.65 / 10.65	11.18 / 11.18										/
	MW9		/	/	/	/	/		10.20 / 10.20	10.70 / 10.70										/
	MW10		-	/	/	/	/		10.20 / 10.20	10.88 / 10.88										/
	MW11		/	/	/	/	/		11.13 / 11.13	11.53 / 11.53										/
	~~MW12~~								/	/										/
	MW14		-	/	/	/	/		9.55 / 9.55	9.84 / 9.84										/
	MW15		-	/	/	/	/		10.83 / 10.83	11.28 / 11.28										/

Comments: _____

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006.2Q LOCATION: 7601 HESPERIAN BLVD DATE: 12-8-99

CLIENT/STATION NO.: ARCO/10608 FIELD TECHNICIAN: [illegible] DAY OF WEEK: WED.

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	SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	Color: Fresh	Color: Weathered	Color: Gas	Color: Oil	Viscosity: Lite	Viscosity: Medium	Viscosity: Heavy	Liquid Removed (gallons) SPH / H_2O
	MW-16		✓	✓	✓	✓	✓		11.37 / 11.37	11.80 / 11.80										
	~~MW-17~~																			
	MW-18		✓	✓	✓	✓	✓		10.50 / 10.50	10.79 / 10.79										
	~~MW-19~~																			
	~~MW-20~~																			
	MW-21		✓	✓	✓	✓	✓		10.20 / 10.20	10.70 / 10.70										
	MW-22		✓	✓	✓	✓	✓		10.95 / 10.95	11.20 / 11.25										
	MW-23		✓	✓	✓	✓	✓		12.00 / 12.00	12.04 / 12.04										
	EI-A		✓	✓	✓	✓	✓		10.15 / 10.15	11.75 / 11.75										

Comments:

FIELD REPORT

ːPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No. : 330-006.2 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO DATE: 10 8 99

CLIENT/STATION NO. : ARCO/0608 FIELD TECHNICIAN: D CORONERZ DAY OF WEEK: WED

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	SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	SEPARATE-PHASE HYDROCARBONS (SPH) COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons) SPH / H_2O
	MW-24								/	/										
	MW-25		/	/	/	/	/		11.70 / 11.70	10.25 / 10.26										
	MW-26		/	/	/	/	/		10.15 / 10.15	10.57 / 10.57										

Comments: ______

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P 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 1400 DTW 1215 = 185 x Gal/Linear Foot .038 = 7.0 x Number of Casings 3 = Calculated Purge 21.0

DATE PURGED: 12 9 99 START: 1028 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 9 99 START: 1040 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
1031	50	7.13	1080	62.4	Cloudy	Mod	Faint
1034	1	7.08	1110	63.4	Cloudy	Mod	Faint
1037	16	7.17	1170	63.5	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: _____
- ☒ Centrifugal Pump: _____
- ☐ Other: _____
- ☐ Airlift Pump: _____
- ☐ Dedicated: _____

SAMPLING EQUIPMENT/I.D.
- ☑ Bailer: 15-13
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-5	12-9-99	1040	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: 21.0 Slow Purge Hand Bail

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P 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 2200 DTW 1065 = 1135 x Gal/Linear Foot 0.38 = 431 x Number of Casings 3 = Calculated Purge 1293

DATE PURGED: 12 9 99 START: 9:46 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 9 99 START: 10:00 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:49	4.25	7.41	1140	61.1	Cloudy	Mod	None
9:52	8.5	7.09	1170	638	Clear	Mod	None
9:56	12.75	6.93	1180	659	Clear	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: 15-16
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-8	12-9-99	1000	3	40ml	VOA	HCl	BTEX

REMARKS: 2.90

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P 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 19.00 DTW 10.80 = 8.2 x Gal/Linear Foot 0.38 = 3.11 x Number of Casings 3 = Calculated Purge 9.33

DATE PURGED: 12 8 99 START: 12:30 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 12:45 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:33	3.25	7.58	1360	63.9	Cloudy	Mod	Mod
12:36	6.5	7.30	1390	65.1	Cloudy	Mod	Mod
12:39	9.75	9.17	1400	66.8	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: _____
- ☒ Centrifugal Pump: _____
- ☐ Other: _____
- ☐ Airlift Pump: _____
- ☐ Dedicated: _____

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-9	12-8-99	12:45	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: D.O.: 2.0

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P 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 10.25 = 11.75 x Gal/Linear Foot 0.38 = 4.46 x Number of Casings 3 = Calculated Purge 13.39

DATE PURGED: 12 8 99 START: 12:48 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 13:00 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
12:51	45	7.07	1240	64.2	Clear	Mod	Mod
12:54	9	7.18	1230	65.2	Clear	Mod	Mod
12:57	135	7.09	1240	65.8	Clear	Mod	Mod

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: 15-12
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	12899	13:00	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO-5.5P

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P 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 11.13 = 7.87 x Gal/Linear Foot 0.38 = 2.99 x Number of Casings 3 = Calculated Purge 8.97

DATE PURGED: 12 8 99 START: 10:13 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 12:25 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:16	3	7.62	1290	66.7	Cloudy	Mod	Low
12:19	6	7.50	1290	66.8	Cloudy	Mod	Low
12:22	9	7.02	1310	66.2	Cloudy	Mod	Low

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-11	12899	1225	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: D.O. 10

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-15

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 10.85 = 13.17 x Gal/Linear Foot 0.38 = 5.00 x Number of Casings 3 = Calculated Purge 15.00

DATE PURGED: 12 8 99 START: 11:53 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12899 START: 12:10 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:56	5	7.51	1200	68	Cloudy	Mod	Low
11:59	10	7.36	1280	69.7	Cloudy	Mod	Low
12:02	15	7.18	1280	69.7	Clear	Light	Low

Pumped dry Yes / (No) Pump. 200ml.

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

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

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

SAMPLING EQUIPMENT/I.D.

- ☑ Bailer: 15-8
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-15	12899	12:10	3	40ml	VOA	HCl	BTEX

REMARKS: DO: NA Too cloudy

PACIFIC ENVIRONMENTAL

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 23.00 DTW 11.37 = 11.63 x Gal/Linear Foot 0.38 = 4.41 x Number of Casings 3 = Calculated Purge 13.25

DATE PURGED: 12 8 99 START: 11:37 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 11:50 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:40	5	7.54	1080	62.1	Cloudy	Mod	None
11:43	9	7.05	1070	63.9	Cloudy	Mod	None
11:46	13.5	6.96	1030	64.7	Cloudy	Light	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: 15-9
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	12899	11:50	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 2.1

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-2D

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 2100 - DTW 10.96 = 1105 x Gal/Linear Foot 0.38 = 4.19 x Number of Casings 3 = Calculated Purge 12.59

DATE PURGED: 12 8 99 START: 11:00 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 11:35 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
11:23	4.05	7.07	1230	608	Cloudy	Light	None
11:26	8.5	7.12	1230	600	Cloudy	Light	None
11:29	12.75	6.93	1230	606	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: 1.5-2
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-2D	12899	11:35	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO 1.9

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-05

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 11.75 = 9.25 x Gal/Linear Foot 0.17 = 1.57 x Number of Casings 3 = Calculated Purge 4.71

DATE PURGED: 12 9 99 START: 9:29 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 9 99 START: 9:40 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:32	16	7.16	1180	626	Cloudy	Mod	Mod
9:35	3	7.06	1190	632	Cloudy	Light	Mod
9:38	16	7.04	1190	638	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: 15-13
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW05	12-9-99	9:40	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 0 mg/L

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: ~~MW~~-E1-A

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 2600 DTW 10.16 = 1586 x Gal/Linear Foot 0.15 = 237.7 x Number of Casings 3 = Calculated Purge 713.2

DATE PURGED: 12 9 99 START: 10:03 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 9 99 START: 1005 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
1009	0.375	7.03	1190	66.7	Cloudy	Mod	Faint
10:15	7.5	7.00	1200	67.5	Cloudy	Mod	Faint
1020	7.125	6.94	1230	67.0	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: 1.5-18
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
~~MW~~-E1-A	12-9-99	1005	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: NA

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: ~~AMW~~ 033H

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: 12 8 99 START: _____ END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 0:25 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°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 7.30 1050 5.79 CLEAR TRACE ODOR

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
~~AMW~~ 033H	12899	1025	3	40ml	VOA	HCl	BTEX

REMARKS: DTW Start: 0:11 ⇒ 10:03 PURGE 50 GAL

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: 6404H

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: 12 99 START: ______ END (2400 hr): ——— PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 1105 END (2400 hr): ——— SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°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 7.61 1270 61.6 CLEAR LIGHT NONE

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
6404H	12899	1105	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 2.4

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2P LOCATION: 1760 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: ~~AR00~~ 17349 VM

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: 12 99 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 12 8 99 START: 1055 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°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 7.30 1190 598 CLEAR Light Odor

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
~~AR00~~ 17349 VM	12-8-99	1055	3	40ml	VOA	HCL	GAS/BTEX

REMARKS: DO: 2.4 Start 10:10 End 10:50

PURGE 55 GAL.

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET .

PROJECT No. : 330-006.20 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-17370 VM

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: 12 99 START:_____ END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 128 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
					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 7.47 992 61.9 CLEAR LIGHT NONE

PURGING EQUIPMENT/I.D. #

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

SAMPLING EQUIPMENT/I.D. #

- ☑ Bailer: 1.5"
- ☐ Dedicated:_____
- ☐ Other: Grato

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-17370 VM	12-8-99	10:30	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: HOME OWNER PRE-PURGE BEFORE SAMPLE

PACIFIC ENVIRONMENTAL

BILL OF LADING

EMCON IT Group

Date 10-9-99 page 1 of 1

ARCO Facility No.	ARCO Facility Location (City)	ARCO Engineer
0608	1760 Hesperian Blvd San Lorenzo	Mike Whelan
Consultant Name	**Consultant Address**	
Pacific Environmental IT Group	1921 Ringwood Ave. San Jose CA 95131	
Project Manager (Consultant)	**Telephone** (Consultant)	**Fax No.** (Consultant)
Shaul Barakat	(408) 453-7300	(408) 437-9026

Description of material

NON-HAZARDOUS WATER

Date material contained

Amount of material (gallons)

100 Gal.

Material contained by (Signature) Date 10-9-99 Time	Printed name Pedro E. Ruiz	Truck / Trailer # T-1 #15
Transferred to tank by (Signature) Date Time	Printed name	# of Drums
Removed from tank by (Signature) Date Time	Transport company	Transported to

White - Project file Yellow - Transporter Pink - Disposal site Form Z-4 Revised 1/07/1992

BILL OF LADING

EMCON LT GROUP

Date 12.8.99 page 1 of 1

ARCO Facility No.	ARCO Facility Location (City)	ARCO Engineer
0008	760 Hesperian Blvd San Lorenzo	Mike O'Neil
Consultant Name	**Consultant Address**	
Pacific Environmental LT.	1921 Ringwood Av. San Jose CA 95131	
Project Manager (Consultant)	**Telephone (Consultant)**	**Fax No. (Consultant)**
Shaw Sarakani	(408) 453-7300	(408) 437-9026

Description of material

NON HAZARDOUS WATER

Date material contained

12.08.99

Amount of material (gallons)

250 Gal.

Material contained by (Signature) Date 12.8.99 Time	Printed name Pedro Cruz	Truck / Trailer # #15 / Td
Transferred to tank by (Signature) Date Time	Printed name	# of Drums
Removed from tank by (Signature) Date Time	Transport company	Transported to

White - Project file Yellow - Transporter Pink - Disposal site Form Z-4 Revised 1/07/1992

ARCO Products Company Division of AtlanticRichfieldCompany 33000620 **Task Order No.** 24152.00

Chain of Custody

ARCO Facility no.	0608
City (Facility)	17601 Hesperian Blvd San Lorenzo
Project manager (Consultant)	Shaw Garakani
Laboratory name	SEQUOIA
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	
Telephone no. (Consultant)	(408) 453-7300
Fax no. (Consultant)	(408) 453-0452
Contract number	
Consultant name	Pacific Environmental Group Inc
Address (Consultant)	1921 Ringwood Av. San Jose CA 95131
Method of shipment	

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 MTBE 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 ☐		
MW9		3		W		4	HCL	12899	10:45		X											
MW10									13:00													
MW11									12:25													
MW15									12:10													
MW16									11:50													
MW22									11:35													
*633H									10:05													
*642H									11:05													
*17349W									10:55													
*17372W									10:30													

Special detection Limit/reporting

Special QA/QC

Remarks: * RUN EPA 8260 ON THIS HOMEOWNER WE W/ MTBE GRATER THAN 35 ppb

Lab number

Condition of sample:

Temperature received:

Relinquished by sampler	Date 12899	Time 15:10	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)

ARCO Products Company Division of AtlanticRichfieldCompany 33000690 **Task Order No.** 245200

Chain of Custody

ARCO Facility no. 0608 | City (Facility) 17601 Hesperian Blvd SW | Project manager (Consultant) Brewster Shaw Garakani

ARCO engineer Mike Whelan | Telephone no. (ARCO) | Telephone no. (Consultant) (408) 453-7300 | Fax no. (Consultant) (408) 453-0452

Consultant name Pacific Environmental Group | Address (Consultant) 2025 Gateway Pl San Jose CA 95131

Laboratory name: Sequoia

Contract number:

Method of shipment:

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 ☐		
MW7		3		W		Y	HCL	12-9-99	10:10		X											
MW8		↓		↓		↓	↓	↓	10:00		↓											
MW25		↓		↓		↓	↓	↓	9:40		↓											
E1A		↓		↓		↓	↓	↓	10:25		↓											

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 [signature]	Date 12-9-99	Time 14:00	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

[redacted] 3292 [redacted]