IT Corporation
1921 Ringwood Avenue
San Jose, CA 95131-1721
Tel. 408.453.7300
Fax. 408.437.9526

A Member of The IT Group

Quarterly Groundwater Monitoring Report
Third Quarter 2000

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

STID 779

Prepared for

Mr. Michael Whelan
ARCO Products Company

November 9, 2000

REVIEWED 12/5/00 DC

Prepared by

IT Corporation
1921 Ringwood Avenue
San Jose, California 95131-1721

Project 809628

Shaw Garakani
Project Engineer

Andrew Lehane
Senior Engineer
RCE 55798

REGISTERED PROFESSIONAL ENGINEER
ANDREW D. LEHANE
55798
EXP. 12/31/00
CIVIL
STATE OF CALIFORNIA

Date: November 9, 2000
Quarter: 3Q00

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) – Shaw Garakani
Consultant Project No.:	809628
Primary Agency/Regulatory ID No.:	Alameda County Health Care Services Agency
Monitoring Events Performed to Date:	46

WORK PERFORMED THIS QUARTER (Third – 2000):

1. Submitted second quarter 2000 groundwater monitoring report.
2. IT performed third quarter 2000 groundwater monitoring event on September 19-20, 2000.
3. Prepared second quarter 2000 groundwater monitoring and remedial system performance evaluation report.
4. Continued monthly payments to homeowners for not using domestic irrigation wells.
5. Continued homeowner quarterly monitoring results notification program.
6. Continued operation and maintenance of the groundwater extraction and treatment (GWET) system.
7. Destruction of homeowner irrigation wells at 590 and 633 Hacienda.
8. Perform a one-time vacuum truck groundwater extraction event at wells MW-5, MW-8, and MW-10.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2000):

1. Prepare and submit third quarter 2000 groundwater monitoring and remedial system performance evaluation report.
2. IT will perform fourth quarter 2000 groundwater monitoring event.
3. Continue operation, maintenance and performance monitoring of GWET system.
4. Continue monthly payments to homeowners for not using domestic irrigation wells.
5. Continue homeowner quarterly monitoring results notification program.

Current Phase of Project:	Remediation/Monitoring	(Assmnt, Remed., etc.)
Frequency of Groundwater Sampling:	Quarterly-Annually	(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:	GWET	(SVE/Sparge/FP Removal, etc.)
Approximate Depth to Groundwater:	9.68 to 23.15	(Measure Feet)
Groundwater Gradient:	NA/NA	(Direction/Magnitude)
Period TPPH-g/Benzene/MtBE Removed:	0.13/ 0.002/ 0.05	(gallons)
Cumulative TPPH-g/Benzene/MtBE Removed:	0.93/ 0.04/ 0.05	(gallons)

DISCUSSION:

- Please refer to Pacific Environmental Group, Inc.'s *Quarterly Groundwater Monitoring Report – Fourth Quarter 1996* for additional historical groundwater elevation and analytical data.
- Based on concentrations of methyl tert-butyl ether (MtBE) during recent monitoring events, the existing GWET system was reactivated on June 5, 2000. Performance evaluation of the GWET system is presented as Attachment C.
- IT on behalf of ARCO Products Co. obtained written authorization from the property owners to destroy irrigation wells at 590 and 633 Hacienda. Well destruction was successfully completed on September 15, 2000. A well destruction summary is presented as Attachment E.

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 Map
- Figure 3 – TPPH-g/Benzene/MtBE Concentration Map
- Attachment A – Field and Laboratory Procedures
- Attachment B – Certified Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets
- Attachment C – Remedial System Performance Evaluation
- Attachment D – Certified Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets for Groundwater Extraction and Treatment System
- Attachment E – Well Destruction Summary

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	----------Destroyed----------				
633H	----------Destroyed----------				
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
	03/15/00		10.10	23.89	82.4	<0.50	0.710	<0.50	0.579	906	1.2
	03/15/00 a		--	--	--	--	--	--	--	1,230	--
	06/13/00 b		12.44	21.55	96.7	<0.50	<0.50	<0.50	<0.50	551	2.0
	9/19,20/2000		12.45	21.54	<50.0	<0.50	<0.50	<0.50	<0.50	51	2.2
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
	09/09,10/97 a		--	--	--	--	--	--	--	48	--
	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
	03/15/00		9.38	23.41	133	<0.50	3.44	<0.50	0.548	1,350	2.2
	03/15/00 a		--	--	--	--	--	--	--	1,980	--
	06/13/00 b		11.93	20.86	227	<0.50	<0.50	<0.50	<0.50	657	1.0
	9/19,20/2000		11.46	21.33	191	1.7	3.2	<0.50	1.2	160	1.0
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

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

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

Well Number	Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-9	03/31-04/01/97			9.95	22.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
(cont.)	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
	03/15/00			8.58	23.53	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	06/13/00	b		10.48	21.63	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	9/19,20/00			10.53	21.58	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
MW-10 ††	03/13,14/96		31.67	7.78	23.89	870	35	<5.0	5.2	7.0	NA	NM
	05/29/96			10.00	21.67	800	<1.0	<1.0	<1.0	<1.0	NA	NM
	08/28/96			10.93	20.74	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96			10.45	21.22	1,100	6.0	4.9	3.8	9.5	200	NM
	03/31/97	†		10.15	21.52	160	<0.50	<0.50	<0.50	<0.50	140	NM
	06/25/97			10.99	20.68	800	4.2	1.4	1.5	1.4	170	NM
	09/09,10/97			11.08	20.59	950	<1.2	3.3	2.5	3.7	240	2.0
	09/09,10/97	a		--	--	--	--	--	--	--	210	--
	11/24,25/97			10.85	20.82	920	5.7	6.7	<5.0	<5.0	160	2.4
	11/24,25/97			--	--	--	--	--	--	--	160	--
	03/19/98			8.78	22.89	330	1.7	<0.50	<0.50	<0.50	130	1.0
	06/04/98			9.59	22.08	680	<0.30	4.8	2.3	8.6	79	0.0
	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
	03/15/00			8.68	22.99	459	<1.0	<1.0	<1.0	<1.0	266	2.2
	03/15/00	a		--	--	--	--	--	--	--	342	--
	06/13/00	b		10.85	20.82	617	6.82	2.77	3.07	1.92	437	1.0
	9/19,20/00			10.70	20.97	527	<0.50	0.86	0.99	1.19	413	2.2
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
	03/15/00			9.32	23.22	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.7
	06/13/00	b		11.05	21.49	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	9/19,20/00			11.37	21.17	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
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

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

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

Well Number	Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
E-1A	11/25,26/96			11.18	21.88	4,300	13	<5.0	100	20	220	NM
(MW-12)	03/31/97	†		12.65	20.41	1,900	7.9	<2.0	62	3.5	140	NM
(con't)	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
	06/14,15/99			11.47	21.59	5,090	<5.0	<5.0	6.01	<5.0	234	1.4
	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
	03/15/00			9.52	23.54	4,430	26.1	<10.0	15.3	<10.0	786	1.8
	03/15/00	a		--	--	--	--	--	--	--	908	--
	06/13/00	b		22.31	10.75	262	9.52	0.584	0.535	<0.5	534	3.4
	9/19,20/00			23.15	9.91	143	1.01	<0.50	<0.50	<0.50	76	2.8
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						
	03/15/00			7.78	22.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.6
	06/13/00	b		9.45	21.01	Well Sampled Annually						
	9/19,20/00			9.68	20.78	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
	11/25/96			10.83	20.58	<50	<0.50	<0.50	<0.50	<0.50	12	NM
	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						

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

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

Well Number	Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-15	03/19/98			9.15	22.26	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.2
(con't)	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
	03/15/00			9.03	22.38	<50	<0.5	<0.5	<0.5	<0.5	82.1	1.5
	03/15/00	a		--	--	--	--	--	--	--	105	--
	06/13/00	b		10.96	20.45	<50	<0.5	0.703	<0.5	0.870	69.8	2.0
	9/19,20/00			11.10	20.31	<50	<0.5	<0.5	<0.5	<0.5	156.0	2.2
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
	03/15/00			9.55	21.84	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	06/13/00	b		11.64	19.75	<50	<0.50	0.517	<0.50	0.603	6.29	1.0
	9/19,20/00			11.64	19.75	<50	<0.50	<0.50	<0.50	<0.50	5.01	2.0
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
	06/25/97			10.94	18.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97			11.00	18.70	<50	<0.50	<0.50	<0.50	<0.50	<2.5	4.0
	11/24,25/97			10.65	19.05	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.4
	03/19/98			8.95	20.75	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	06/03/98			9.57	20.13	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.8
	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						
	03/15/00			8.80	20.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/13/00	b		10.60	19.10	Well Sampled Annually						
	9/19,20/00			10.63	19.07	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

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

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

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-19	09/09,10/97		10.47	18.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
(con't)	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
	09/21,22/98		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.4
	12/14/98		10.11	18.61	<50	<0.50	<0.50	<0.50	<0.50	<2.0	0.6
	03/15,16/99		9.10	19.62	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
	06/14,15/99		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						
	03/15/00		8.95	19.77	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.3
	06/13/00	b	10.97	17.75	Well Sampled Annually						
	9/19,20/00		10.66	18.06	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
	03/15/00		9.20	20.09	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.1
	06/13/00	b	11.06	18.23	<50	<0.50	<0.50	<0.50	<0.50	6.85	1.0
	9/19,20/00		11.12	18.17	<50	<0.50	<0.50	<0.50	<0.50	3.18	1.8
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

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

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

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-23	09/21,22/98		12.31	18.68	<50	<0.50	0.54	1.9	<0.50	<2.5	2.2
(con't)	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						
	09/15/99		12.48	18.51	Well Sampled Annually						
	12/08,09/99		12.29	18.70	Well Sampled Annually						
	03/15/00		10.04	20.95	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	06/13/00 b		11.95	19.04	Well Sampled Annually						
	9/19,20/00		12.15	18.84	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
	03/15/00		10.16	23.96	<50	<0.50	<0.50	<0.50	<0.50	154	1.0
	03/15/00 a		--	--	--	--	--	--	--	206	--
	06/13/00 b		11.72	22.40	<50	<0.50	<0.50	<0.50	<0.50	77.7	1.0
	9/19,20/00		12.08	22.04	<50	1	<0.50	<0.50	<0.50	102.0	1.2
MW-26	03/13,15/96	33.71	9.38	24.33	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		11.57	22.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		12.55	21.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		12.03	21.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		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						

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

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

Well Number	Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-26	12/08,09/99			12.57	21.14	---------- Well Sampled Annually ----------						
(con't)	03/15/00			10.50	23.21	<50	<0.50	<0.50	<0.50	<0.50	6.55	1.4
	06/13/00	b		12.20	21.51	---------- Well Sampled Annually ----------						
	9/19,20/00			12.38	21.33	---------- 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
Groundwater Analytical Data
Domestic Irrigation Wells
Total Purgeable Petroleum Hydrocarbons
(TPPH as Gasoline, BTEX Compounds, MtBE, and Dissolved Oxygen)

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

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)		Dissolved Oxygen (ppm)
590 H	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA		NM
	05/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA		NM
	08/29/96 a	NS	NS	NS	NS	NS	NA		NM
	11/26/96	NS	NS	NS	NS	NS	NS		NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5		NM
	06/25/97 a	NS	NS	NS	NS	NS	NS		NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5		2.0
	11/24/97 a	NS	NS	NS	NS	NS	NS		NM
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5		1.0
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50		3.8
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5		3.2
	12/14/98	<50	<0.50	<0.50	<0.50	<0.50	<2.0		2.2
	03/15/99 a	NS	NS	NS	NS	NS	NS		NM
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5		NM
	09/15/99 a	NS	NS	NS	NS	NS	NS		NM
	12/08/99 a	NS	NS	NS	NS	NS	NS		NM
	03/15/00 a	NS	NS	NS	NS	NS	NS		NM
	06/13/00 a	NS	NS	NS	NS	NS	NS		NM
	Well Destroyed								
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
	03/15/00	<50	<0.50	<0.50	<0.50	<0.50	17.5		1.2
	06/13/00	240	5.03	1.01	2.39	63.8	10.5		NM
	Well Destroyed								
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

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

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

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
634 H	06/03/98 e	NS	NS	NS	NS	NS	NS	NM
(cont.)	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
	03/15/00 e	NS	NS	NS	NS	NS	NS	NM
	06/13/00 e	NS	NS	NS	NS	NS	NS	NM
	09/19/00 e	NS	NS	NS	NS	NS	NS	NM
642 H	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	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
	03/15/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.8
	06/13/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/19/00 a	NS	NS	NS	NS	NS	NS	NM
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
	03/15/00 f	NS	NS	NS	NS	NS	NS	NM
	06/13/00 f	NS	NS	NS	NS	NS	NS	NM
	09/19/00 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

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

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

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17197 VM	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
(cont.)	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
	03/15/00 a	NS	NS	NS	NS	NS	NS	NM
	06/13/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/19/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	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						
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
	03/15/00 f	NS	NS	NS	NS	NS	NS	NM
	06/13/00 f	NS	NS	NS	NS	NS	NS	NM
	09/19/00 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

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

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

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)		Dissolved Oxygen (ppm)
17302 VM	12/14/98 f	NS	NS	NS	NS	NS	NS		NM
(cont.)	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
	12/08/99 f	NS	NS	NS	NS	NS	NS		NM
	03/15/00 f	NS	NS	NS	NS	NS	NS		NM
	06/13/00 f	NS	NS	NS	NS	NS	NS		NM
	09/19/00 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
	03/15/00 a	NS	NS	NS	NS	NS	NS		NM
	06/13/00 f	NS	NS	NS	NS	NS	NS		NM
	09/19/00 f	NS	NS	NS	NS	NS	NS		NM
17349 VM	03/15/96	1,700	<2.0	<2.0	2.5	13	NA		NM
	05/27/96	320	4.2	1.3	0.95	0.71	NA		NM
	08/29/96	410	7.5	<0.50	<0.50	1.1	NA		NM
	11/26/96	300	<1.0	1.7	<1.0	2.1	55	*	NM
	03/31/97	430	<1.0	2.7	<1.0	1.0	57	c	NM
	06/25/97 **	2,100	30	<5.0	<5.0	6.7	140		NM
	08/18/97	320	2.0	<0.5	<0.5	<0.5	34		NM
	08/18/97	–	–	–	–	–	31	c	NM
	09/09/97	380	6.0	1.4	0.98	<0.50	38		3.0
	09/09/97	–	–	–	–	–	34	c	NM
	11/24/97	240	<1.0	1.1	<1.0	1.4	53		2.4
	11/24/97	–	–	–	–	–	33	c†	NM
	03/19/98	1,300	14	<0.50	<0.50	1.2	250		1.0
	03/19/98	–	–	–	–	–	27	c	NM
	06/03/98	860	8.7	<0.50	0.7	8.0	38		4.9
	07/29/98	860	20	2.1	<1.2	<1.2	27		NM
	07/29/98	–	–	–	–	–	25	c	NM
	09/21/98	200	<0.50	<0.50	<0.50	14	14		5.2
	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

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

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

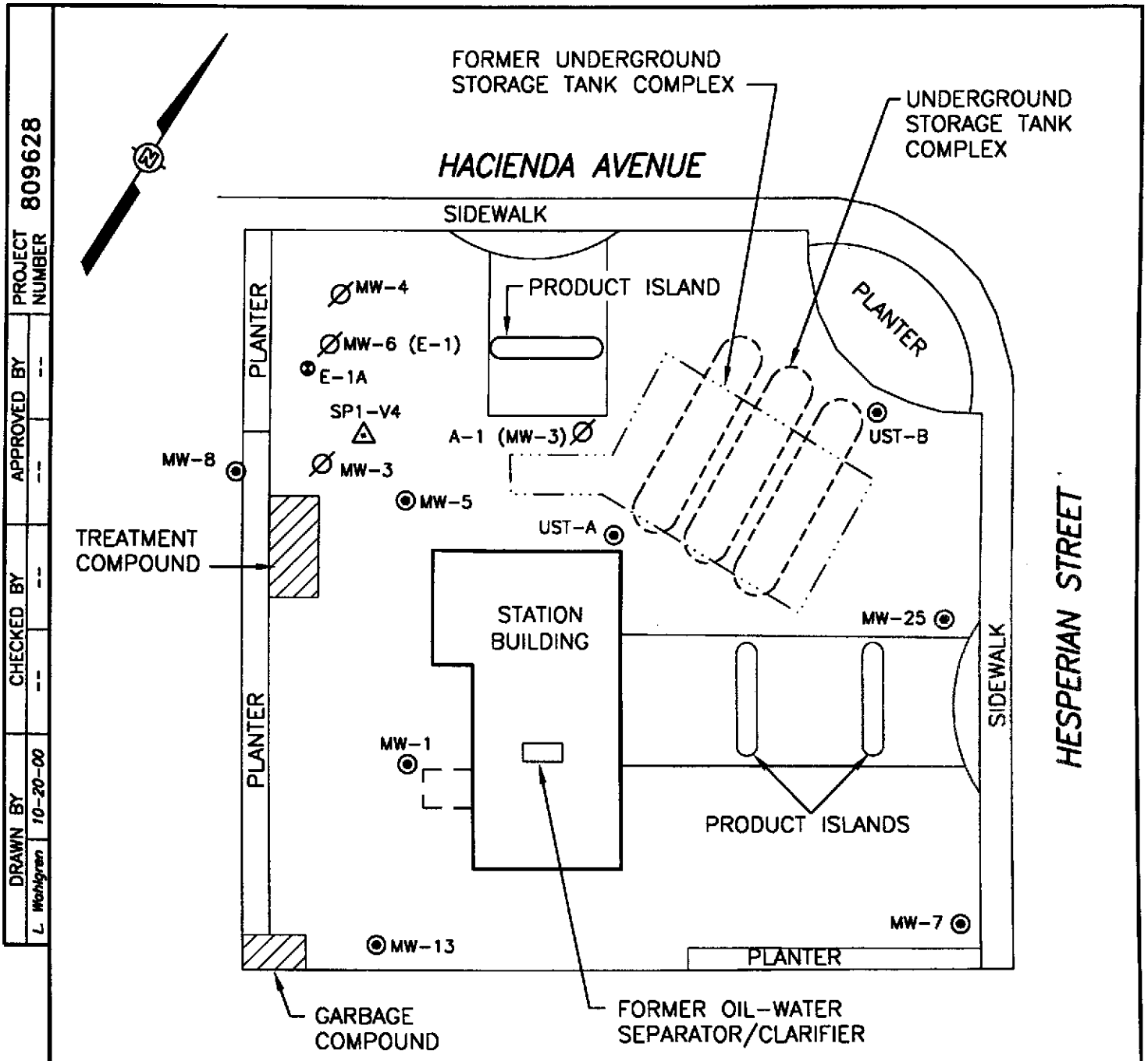
Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)		Dissolved Oxygen (ppm)
17349 VM	12/08/99	136	0.681	<0.50	<0.50	<0.50	267	c	2.4
(cont.)	03/15/00	<50	<0.50	<0.50	<0.50	<0.50	82.1	c	2.8
	06/13/00	319	5.28	<0.5	<0.50	<0.50	97.1		NM
	06/13/00	--	--	--	--	--	85.1	c	NM
	09/19/00	106	<0.50	2	<0.50	<0.50	204.0		NM
	09/19/00	--	--	--	--	--	84.0	c	NM
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
	03/15/00 f	NS	NS	NS	NS	NS	NS		NM
	06/13/00 f	NS	NS	NS	NS	NS	NS		NM
	09/19/00 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
	03/15/99	<50	<0.50	<0.50	<0.50	<0.50	6.66		4.6
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	3.33		4.0
	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
	03/15/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5		1.6
	06/13/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5		NM
	09/19/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5		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

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

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

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17393 VM (cont.)	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 809628

DRAWN BY	CHECKED BY	APPROVED BY
L Wahlgren 10-20-00	--	--

LEGEND

- ◉ GROUNDWATER MONITORING WELL
- ⊛ GROUNDWATER EXTRACTION WELL
- ∅ DESTROYED GROUNDWATER MONITORING WELL
- △ DUAL VAPOR EXTRACTION/SPARSE WELL

NOTE: UST-A AND UST-B ARE TANK-PIT OBSERVATION WELLS AND ARE NOT INCLUDED IN THE GROUNDWATER MONITORING PROGRAM

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\DWG\809628\Sitemap.dwg Wed, 08/Nov/00 07:20am kblack

PROJECT NUMBER 809628
APPROVED BY
CHECKED BY
DRAWN BY K. Black 11-8-00

VIA MANZANAS
POTRERO CT.
VIA MAGDALENA
VIA FLORES
VIA MEDIA
VIA ARRIBA
APARTMENTS
APARTMENTS
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
CHURCH AND SCHOOL
RESIDENTIAL
RESTAURANT
RESIDENTIAL
RESIDENTIAL
VIA ENCINAS COURT
HACIENDA AVENUE
VIA ALAMO
SHOPS

MW-20
MW-19 †
MW-18 (19.07)
MW-21 (18.06)
MW-22 (18.17)
MW-23 (18.84)
MW-16 (19.75)
MW-15 (20.31)
MW-14 (20.78)
MW-17
MW-24 †
MW-26 (21.33)
MW-9 (21.58)
E-1A (9.91)
MW-8 (21.33)
MW-5 (21.54)
MW-25 (22.04)
MW-7 †
MW-13 †
MW-10 (20.97)
SP-2/V-5
MW-11 (21.17)
SP-1/V-4

17200
17197
17203
17302
17372
633
17349
17371
17348
17393
634
642
675
590

19
20
21
22
21
17
13

LEGEND

- ⊙ GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ⌀ DESTROYED WELL
- ⊙ GROUNDWATER EXTRACTION WELL
- ▪ DOMESTIC IRRIGATION WELL
- (21.58) GROUNDWATER ELEVATION (FT.–MSL); MEASURED 9–20–00
- GROUNDWATER ELEVATION CONTOUR (FT.–MSL)
- † WELL REMOVED FROM MONITORING PROGRAM

APPROXIMATE DIRECTION OR GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.003

SCALE
0 150 300

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP
THIRD QUARTER 2000
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

N:\cad\DWG\809628\GWC.dwg Wed, 08/Nov/00 07:04am kblack

PROJECT NUMBER	APPROVED BY	CHECKED BY	DRAWN BY
809628		11-1-00	K. Block

VIA MANZANAS
VIA MEDIA
VIA FLORES
POTRERO COURT
VIA MAGDALENA
VIA ARRIBA
APARTMENTS
APARTMENTS
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
CHURCH AND SCHOOL
RESIDENTIAL
RESTAURANT
RESIDENTIAL
VIA ENCINAS COURT
HACIENDA AVENUE
VIA ALAMO
SHOPS

MW-20
MW-19 †
MW-21*
17197 <50 / <0.50 / <2.6
MW-18*
17200
MW-17
MW-14*
MW-24 †
MW-26*
MW-9 <50 / <0.50 / <2.5
17203 NS
17302 NS
17372 <50 / <0.50 / <2.5
MW-16 <50 / <0.50 / 5.01
633
MW-10 527 / <0.50 / 413
191 / 1.7 / 160
MW-8
E-1A 143 / 1.01 / 76
MW-25 <50 / 1 / 192
SP-2/V-5
SP-1/V-4
590
MW-5 <50.0 / <0.50 / 51
MW-7 †
MW-13 †
MW-22 <50 / <0.50 / 3.18
17349 106 / <0.50 / 204.0 (84.0)
MW-15 <50 / <0.5 / 156
MW-11 <50 / <0.50 / <2.5
17371 NS
17393
17348 NS
642 NS
634 NS
675 NS
MW-23*

LEGEND

- ⊙ GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ∅ DESTROYED WELL
- ⊗ GROUNDWATER EXTRACTION WELL
- ■ DOMESTIC IRRIGATION WELL
- 143 / 1.01 /76 TPPH-G/BENZENE/MtBE CONCENTRATIONS IN GROUNDWATER (PARTS PER BILLION); SAMPLED 9-20-00
- (84.0) MtBE CONCENTRATION CONFIRMED BY EPA METHOD 8260
- NS NOT SAMPLED
- * WELL SAMPLED ANNUALLY IN FIRST QUARTER
- † WELL REMOVED FROM SAMPLING PROGRAM

SCALE
0 150 300

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 3
TPPH-g/BENZENE/MtBE CONCENTRATION MAP
THIRD QUARTER 2000
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

N:\cad\DWG\809628\CHEM.dwg Wed, 01/Nov/00 01:27pm kblack

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

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

Sequoia Analytical

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

OCT 2 6 2000

13 October, 2000

Shaw Garakani
Pacific Environmental Group (Arco)
1921 Ringwood Avenue
San Jose, CA 95131

RE: Arco
Sequoia Report: MJI0507

Enclosed are the results of analyses for samples received by the laboratory on 09/21/00 09:21. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Wayne Stevenson
Client Services Manager

CA ELAP Certificate #1210

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-5	MJI0507-01	Water	09/20/00 12:35	09/21/00 09:21
MW-8	MJI0507-02	Water	09/20/00 11:25	09/21/00 09:21
MW-9	MJI0507-03	Water	09/20/00 11:05	09/21/00 09:21
MW-10	MJI0507-04	Water	09/20/00 11:40	09/21/00 09:21
MW-11	MJI0507-05	Water	09/20/00 10:35	09/21/00 09:21
MW-15	MJI0507-06	Water	09/20/00 10:20	09/21/00 09:21
MW-16	MJI0507-07	Water	09/20/00 10:05	09/21/00 09:21
MW-22	MJI0507-08	Water	09/20/00 09:50	09/21/00 09:21
MW-25	MJI0507-09	Water	09/20/00 11:55	09/21/00 09:21
EI-A	MJI0507-10	Water	09/20/00 12:45	09/21/00 09:21

Wayne Stevenson, Client Services Manager

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MJI0507-01) Water Sampled: 09/20/00 12:35 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I29003	09/29/00	09/29/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**50.8**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*90.5 %*		*70-130*	"	"	"	"	
MW-8 (MJI0507-02) Water Sampled: 09/20/00 11:25 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	**191**	50.0	ug/l	1	0I28001	09/28/00	09/28/00	DHS LUFT	P-01
Benzene	**1.72**	0.500	"	"	"	"	"	"	
Toluene	**3.23**	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	**1.18**	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**160**	2.50	"	"	"	"	"	"	Q-18
Surrogate: a,a,a-Trifluorotoluene		*108 %*		*70-130*	"	"	"	"	
MW-9 (MJI0507-03) Water Sampled: 09/20/00 11:05 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I28001	09/28/00	09/28/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.2 %*		*70-130*	"	"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10 (MJI0507-04) Water Sampled: 09/20/00 11:40 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	**527**	50.0	ug/l	1	0128003	09/28/00	09/28/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	**0.861**	0.500	"	"	"	"	"	"	
Ethylbenzene	**0.985**	0.500	"	"	"	"	"	"	
Xylenes (total)	**1.19**	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**413**	12.5	"	5	"	"	09/29/00	"	M-03
Surrogate: a,a,a-Trifluorotoluene		*95.1 %*	*70-130*		"	"	*09/28/00*	"	
MW-11 (MJI0507-05) Water Sampled: 09/20/00 10:35 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0128001	09/28/00	09/28/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.8 %*	*70-130*		"	"	"	"	
MW-15 (MJI0507-06) Water Sampled: 09/20/00 10:20 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0128001	09/28/00	09/28/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**156**	2.50	"	"	"	"	"	"	Q-18
Surrogate: a,a,a-Trifluorotoluene		*85.9 %*	*70-130*		"	"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16 (MJI0507-07) Water Sampled: 09/20/00 10:05 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I29003	09/29/00	09/29/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**5.01**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.3 %*		*70-130*	"	"	"	"	
MW-22 (MJI0507-08) Water Sampled: 09/20/00 09:50 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I29003	09/29/00	09/29/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.18**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.5 %*		*70-130*	"	"	"	"	
MW-25 (MJI0507-09) Water Sampled: 09/20/00 11:55 Received: 09/21/00 09:21									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I29002	09/29/00	09/29/00	DHS LUFT	
Benzene	**0.957**	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**192**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.9 %*		*70-130*	"	"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EI-A (MJI0507-10) Water **Sampled: 09/20/00 12:45** **Received: 09/21/00 09:21**									
Purgeable Hydrocarbons	**143**	50.0	ug/l	1	0J03003	10/03/00	10/03/00	DHS LUFT	P-03
Benzene	**1.01**	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**75.8**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.8 %*		*70-130*		"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I28001 - EPA 5030B [P/T]										
Blank (0I28001-BLK1)				Prepared & Analyzed: 09/28/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*8.52*		"	*10.0*		*85.2*	*70-130*			
LCS (0I28001-BS1)				Prepared & Analyzed: 09/28/00						
Benzene	8.52	0.500	ug/l	10.0		85.2	70-130			
Toluene	8.81	0.500	"	10.0		88.1	70-130			
Ethylbenzene	8.80	0.500	"	10.0		88.0	70-130			
Xylenes (total)	26.1	0.500	"	30.0		87.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*8.58*		"	*10.0*		*85.8*	*70-130*			
Matrix Spike (0I28001-MS1)	**Source: MJI0507-03**			Prepared & Analyzed: 09/28/00						
Benzene	8.58	0.500	ug/l	10.0	ND	85.8	60-140			
Toluene	8.82	0.500	"	10.0	ND	88.2	60-140			
Ethylbenzene	8.81	0.500	"	10.0	ND	88.1	60-140			
Xylenes (total)	26.0	0.500	"	30.0	ND	86.7	60-140			
Surrogate: a,a,a-Trifluorotoluene	*8.56*		"	*10.0*		*85.6*	*70-130*			
Matrix Spike Dup (0I28001-MSD1)	**Source: MJI0507-03**			Prepared & Analyzed: 09/28/00						
Benzene	8.67	0.500	ug/l	10.0	ND	86.7	60-140	1.04	25	
Toluene	8.89	0.500	"	10.0	ND	88.9	60-140	0.791	25	
Ethylbenzene	8.85	0.500	"	10.0	ND	88.5	60-140	0.453	25	
Xylenes (total)	26.5	0.500	"	30.0	ND	88.3	60-140	1.90	25	
Surrogate: a,a,a-Trifluorotoluene	*8.22*		"	*10.0*		*82.2*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I28003 - EPA 5030B [P/T]										
Blank (0I28003-BLK1)				Prepared & Analyzed: 09/28/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*8.81*		"	*10.0*		*88.1*	*70-130*			
LCS (0I28003-BS1)				Prepared & Analyzed: 09/28/00						
Benzene	9.49	0.500	ug/l	10.0		94.9	70-130			
Toluene	8.53	0.500	"	10.0		85.3	70-130			
Ethylbenzene	8.91	0.500	"	10.0		89.1	70-130			
Xylenes (total)	26.5	0.500	"	30.0		88.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.35*		"	*10.0*		*93.5*	*70-130*			
Matrix Spike (0I28003-MS1)	**Source: MJI0494-03**			Prepared & Analyzed: 09/28/00						
Benzene	9.51	0.500	ug/l	10.0	ND	95.1	60-140			
Toluene	8.11	0.500	"	10.0	ND	81.1	60-140			
Ethylbenzene	8.15	0.500	"	10.0	ND	81.5	60-140			
Xylenes (total)	26.3	0.500	"	30.0	ND	87.7	60-140			
Surrogate: a,a,a-Trifluorotoluene	*9.30*		"	*10.0*		*93.0*	*70-130*			
Matrix Spike Dup (0I28003-MSD1)	**Source: MJI0494-03**			Prepared & Analyzed: 09/28/00						
Benzene	9.12	0.500	ug/l	10.0	ND	91.2	60-140	4.19	25	
Toluene	8.51	0.500	"	10.0	ND	85.1	60-140	4.81	25	
Ethylbenzene	8.72	0.500	"	10.0	ND	87.2	60-140	6.76	25	
Xylenes (total)	25.8	0.500	"	30.0	ND	86.0	60-140	1.92	25	
Surrogate: a,a,a-Trifluorotoluene	*8.85*		"	*10.0*		*88.5*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I29002 - EPA 5030B [P/T]										
Blank (0I29002-BLK1)				Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*9.45*		"	*10.0*		*94.5*	*70-130*			
LCS (0I29002-BS1)				Prepared & Analyzed: 09/29/00						
Benzene	8.65	0.500	ug/l	10.0		86.5	70-130			
Toluene	8.38	0.500	"	10.0		83.8	70-130			
Ethylbenzene	8.23	0.500	"	10.0		82.3	70-130			
Xylenes (total)	24.8	0.500	"	30.0		82.7	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.34*		"	*10.0*		*93.4*	*70-130*			
LCS (0I29002-BS2)				Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	240	50.0	ug/l	250		96.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.0*		"	*10.0*		*100*	*70-130*			
Matrix Spike (0I29002-MS1)		**Source: MJI0637-02**		Prepared & Analyzed: 09/29/00						
Benzene	9.38	0.500	ug/l	10.0	ND	93.8	60-140			
Toluene	8.83	0.500	"	10.0	ND	88.3	60-140			
Ethylbenzene	8.28	0.500	"	10.0	ND	82.8	60-140			
Xylenes (total)	26.0	0.500	"	30.0	ND	86.7	60-140			
Surrogate: a,a,a-Trifluorotoluene	*9.94*		"	*10.0*		*99.4*	*70-130*			
Matrix Spike (0I29002-MS2)		**Source: MJI0637-01**		Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	239	50.0	ug/l	250	ND	95.6	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.4*		"	*10.0*		*104*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I29002 - EPA 5030B [P/T]										
Matrix Spike Dup (0I29002-MSD1)	**Source: MJI0637-02**			Prepared: 09/29/00 Analyzed: 09/30/00						
Benzene	9.19	0.500	ug/l	10.0	ND	91.9	60-140	2.05	25	
Toluene	8.96	0.500	"	10.0	ND	89.6	60-140	1.46	25	
Ethylbenzene	8.62	0.500	"	10.0	ND	86.2	60-140	4.02	25	
Xylenes (total)	26.0	0.500	"	30.0	ND	86.7	60-140	0	25	
Surrogate: a,a,a-Trifluorotoluene	*9.47*		"	*10.0*		*94.7*	*70-130*			
Matrix Spike Dup (0I29002-MSD2)	**Source: MJI0637-01**			Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	230	50.0	ug/l	250	ND	92.0	60-140	3.84	25	
Surrogate: a,a,a-Trifluorotoluene	*10.1*		"	*10.0*		*101*	*70-130*			
Batch 0I29003 - EPA 5030B [P/T]										
Blank (0I29003-BLK1)				Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*8.96*		"	*10.0*		*89.6*	*70-130*			
LCS (0I29003-BS1)				Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	251	50.0	ug/l	250		100	70-130			
Surrogate: a,a,a-Trifluorotoluene	*12.8*		"	*10.0*		*128*	*70-130*			
Matrix Spike (0I29003-MS1)	**Source: MJI0573-02**			Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	262	50.0	ug/l	250	ND	105	60-140			
Surrogate: a,a,a-Trifluorotoluene	*12.9*		"	*10.0*		*129*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I29003 - EPA 5030B [P/T]										
Matrix Spike Dup (0I29003-MSD1)	**Source: MJI0573-02**			Prepared & Analyzed: 09/29/00						
Purgeable Hydrocarbons	279	50.0	ug/l	250	ND	112	60-140	6.28	25	
Surrogate: a,a,a-Trifluorotoluene	*12.9*		"	*10.0*		*129*	*70-130*			
Batch 0J03003 - EPA 5030B [P/T]										
Blank (0J03003-BLK1)				Prepared & Analyzed: 10/03/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*8.77*		"	*10.0*		*87.7*	*70-130*			
LCS (0J03003-BS1)				Prepared & Analyzed: 10/03/00						
Purgeable Hydrocarbons	262	50.0	ug/l				70-130			
Surrogate: a,a,a-Trifluorotoluene	*12.8*		"	*10.0*		*128*	*70-130*			
Matrix Spike (0J03003-MS1)	**Source: MJI0719-01**			Prepared & Analyzed: 10/03/00						
Purgeable Hydrocarbons	281	50.0	ug/l		ND		60-140			
Surrogate: a,a,a-Trifluorotoluene	*13.2*		"	*10.0*		*132*	*70-130*			*S-02*
Matrix Spike Dup (0J03003-MSD1)	**Source: MJI0719-01**			Prepared & Analyzed: 10/03/00						
Purgeable Hydrocarbons	278	50.0	ug/l		ND		60-140	1.07	25	
Surrogate: a,a,a-Trifluorotoluene	*13.5*		"	*10.0*		*135*	*70-130*			*S-02*

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	10/13/00 16:41

Notes and Definitions

M-03	Sample was analyzed at a second dilution per clients request.
P-01	Chromatogram Pattern: Gasoline C6-C12
P-03	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
Q-18	The method blank contains analyte at a concentration above the MRL. This concentration is less than 10% of the sample result, which is negligible as stated in the method and our SOP.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Division of AtlanticRichfieldCompany

Chain of Custody

Task Order No. 809628

ARCO Facility no. 0608	City (Facility) 17601 Hesperian Blvd	Project manager (Consultant) Shaw Chaudhry	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO) San Lorenzo	Telephone no. (Consultant) (408) 453-7300	Fax no. (Consultant) (408) 437-9506
Consultant name FT Group	Address (Consultant) 1921 Ringwood Av. San Jose CA 95131		Contract number

Method of shipment: MV10507

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 8240/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐
MW5	01	3		W		4	HCl	9/20/00	12:35		X									
MW8	02								11:25											
MW9	03								11:05											
MW10	04								11:40											
MW11	05								10:35											
MW15	06								10:00											
MW16	07								10:05											
MW20	08								9:50											
MW25	09								11:55											
EB-A	10								12:45											

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

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

Condition of sample:		Temperature received:	
Relinquished by sampler	Date 9/20/00 Time 15:00	Received by	
Relinquished by	Date 9/21/00 Time	Received by	
Relinquished by	Date Time	Received by laboratory	Date 9/21/00 Time 9:21

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

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager	Approval	Date/s	Laboratory:	Client Engineer:
809623	608	17601 Hesperian, San Lorenzo	3Q00	Shaw Garakani			Sequoia 24152 00	Mike Whelan

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

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager Approval	Date/s	Laboratory:		Client Engineer:
809628	608	17601 Hesperian San Lorenzo	3Q00	Shaw Garakani		Sequoia	22340	Mike Whelan

Well Number	Ideal Sampling Order	Sample I.D.	Sampling Frequency	Analyses	TOB TOC	Well Depth	Casing Diameter	Top of Screen	Well goes Dry?	Comments
		590 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					well destroyed 9/15
		633 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					well destroyed 9/15
Mrs Albright		634 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					
Ms. Corregedor		642 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					NO ACCES DEL OWNER
Mr/Mrs Roberts		675 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					Pump is not working.
Mr Luehrs		17348 Via Encinas	QLY	GAS/BTEX/MtBE	TOB/TOC					Pump. Not working
Alex Gordin (?)		17197 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Cavalry Church		17200 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					
Mrs Toles		17203 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC					Pump not working.
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 SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager Approval	Date/s	Laboratory:		Client Engineer:
809628	608	17601 Hesperian San Lorenzo	3Q00	Shaw Garakani		Sequoia	24152 00	Mike Whelan

Well Number	Ideal Sampling Order	Sample I.D.	Sampling Frequency	Analyses	TOB TOC	Well Depth	Casing Diameter	Top of Screen	Well goes Dry?	Comments
		590 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC	well destroyed 9/15				SEE ATTACHED CONTACT FORM.
		633 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC	well destroyed 9/15				SAMPLE HOMEOWNER WELLS ON
Mrs Albright		634 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC					Tuesday, SEPTEMBER 19
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.: 809628 LOCATION: 17601 HESPERIAN DATE: 9-19-00

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

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-I Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons) SPH / H_2O
	MW5		✓	✓	✓	o	✓		12:03 / 12:03	12:45 / 12:45										
	MW7																			
	MW8		✓	✓	✓	✓	✓		10:56 / 10:56	11:16 / 11:16										
	MW9		✓	✓	✓	✓	✓		10.00 / 10.00	10:53 / 10:53										
	MW10		✓	✓	✓	✓	✓		10:08 / 10:08	10:70 / 10:70										
	MW11		✓	✓	✓	✓	✓		10:95 / 10:95	11:39 / 11:37										
	MW13																			
	MW14		✓	✓	✓	✓	✓		9:38 / 9:38	9:68 / 9:68										
	MW15		✓	✓	✓	✓	✓		10:64 / 10:64	11:10 / 11:10										

Comments: _____

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 809628 LOCATION: 1760 HESPERIAN BLVD. SAN LORENZO DATE: 9-19-00

CLIENT/STATION NO.: ARCO/0608 FIELD TECHNICIAN: RO DAY OF WEEK: TUE

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

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
	MW-16		–	–	–	–	–		11.22 11.00	11.64 11.64										
	MW-17																			
	MW-18		–	–	–	–	–		10.36 10.35	10.63 10.63										
	MW-19																			
	MW-20																			
	MW-21		–	–	–	–	–		10.10 10.10	10.68 10.68										
	MW-22		–	–	–	–	–		10.87 10.87	11.12 11.12										
	MW-23		–	–	–	–	–		11.37 11.37	12.15 12.15										
	EI-A		–	–	–	–	–			23.15 22.90		DRIED DOWN								

Comments: _____

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 809628 LOCATION: 1760 HESPERIAN BLVD DATE: 9-19-00
CLIENT/STATION NO.: ARCO/7605 FIELD TECHNICIAN: [illegible] DAY OF WEEK: TUE

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		/	/	/	/	/		11.50 11.56	12.08 12.00										
	MW-26		/	/	/	/	/		11.94 11.94	[illegible]										

Comments: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-5

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

WELL INFORMATION

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

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

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

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

TD 14.00 - DTW 10.03 = 1.97 x Gal/Linear Foot 0.66 = 1.30 x Number of Casings 3 = Calculated Purge 3.90

DATE PURGED: 9-20-00 START: 10:16 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 9-20-00 START: 10:35 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 2 5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
10:18	1.06	7.90	1410	74.5	Cloudy	Mod	FAINT
10:21	0.6	7.38	1410	74.4	Cloudy	Mod	FAINT

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

Pumped dry ☑ Yes ☐ No @ 0.6 Gal

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 16-9
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-6	9-20-00	10:35	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 0.2

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 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 21.82 DTW 10.06 11.06 Gal/Linear Foot 0.38 = 1.27 x Number of Casings 3 = Calculated Purge 3.83

DATE PURGED: 9-20-00 START: 11:11 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 9-20-00 START: 11:25 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:14	4.05	7.01	1340	71.4	Clear	Light	None
11:17	8.5	6.89	1310	70.9	Clear	Light, Mod	
11:20	12.75	6.71	1300	71.6	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: DISPOSABLE
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-8	9-20-00	11:25	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 1.0

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 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 18.41 - DTW 10.00 = 8.41 x Gal/Linear Foot 0.38 = 3.19 x Number of Casings 3 = Calculated Purge 9.58

DATE PURGED: 9-20-00 START: 10:53 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 9-20-00 START: 11:05 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
10:56	3	7.17	1450	74.7	Cloudy	Mod	None
10:59	6	7.63	1390	71.6	Cloudy	Clear	None
11:00	9	6.92	1370	73.6	Cloudy	Clear	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: D-5005
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-9	9-20-00	11:05	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 2.0

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 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 10289 DTW 10.08 10.81 x Gal/Linear Foot 0.38 = 1.80 x Number of Casings 3 = Calculated Purge 1/2/00

DATE PURGED: 9-20-00 START: 11:28 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 9-20-00 START: 11:40 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:31	4.75	7.01	1270	70.6	Clear	Mod	Mod
11:34	9.5	6.88	1250	71.4	Clear	Mod	Mod
11:37	14.25	6.78	1250	70.8	Clear	Mod	Mod

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: Disp. 005
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	9-20-00	11:40	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 2.2

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 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 19.01 - DTW 10.95 = 8.06 x Gal/Linear Foot 0.38 = 3.06 x Number of Casings 3 = Calculated Purge 9.18

DATE PURGED: 9-20-00 START: 10:23 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 9-20-00 START: 10:35 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
10:06	3	6.84	1320	69.6	Cloudy	Mod	None
10:29	6	6.84	1310	68.5	Cloudy	Mod	None
10:31	9	6.79	1310	67.9	Cloudy	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: Disp
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-11	9-20-00	10:35	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 2.0

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: Eud 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 _____ - DTW _____ = _____ x Gal/Linear Foot 0.38 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 9-20-00 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 9-20-00 START: 10:46 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 2.5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
					Cobalt 0-100 Clear Cloudy Yellow Brown	NTU 0-200 Heavy Moderate Light Trace	Strong Moderate Faint None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 7.00 1490 73.7 clear Place none

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
Eud A	9-20-00	12:46	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 2.8

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 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 23.68 DTW 10.64 = 13.04 x Gal/Linear Foot 0.38 = 4.96 x Number of Casings 3 = Calculated Purge 14.80

DATE PURGED: 9-20-00 START: 10:08 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 9-20-00 START: 10:20 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
10:11	5	6.91	1390	68.7	Cloudy	Light	None
10:14	10	6.72	1060	67.6	Cloudy	Light	None
10:17	15	6.67	1060	67.2	Cloudy	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: D35005
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-15	9-20-00	10:20	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 2.2

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-16

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 23.51 - DTW 11.02 = 11.88 x Gal/Linear Foot 0.38 = 4.51 x Number of Casings 3 = Calculated Purge 13.54

DATE PURGED: 9-20-00 START: 9:54 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 9-20-00 START: 10:05 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
9:57	4.5	6.80	1310	712	Cloudy	Mod	Mod
10:00	9	6.58	1280	705	Cloudy	Light	Mod
10:03	13.5	6.63	1270	702	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: D-3905
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-16	9-20-00	10:05	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 2.0

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-02

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 21.72 DTW 10.87 = 10.85 x Gal/Linear Foot 0.38 = 4.12 x Number of Casings 3 = Calculated Purge 12.36

DATE PURGED: 9-20-00 START: 9:40 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 9-20-00 START: 9:50 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
9:43	4	6.84	1220	67.3	Clear	light	none
9:46	8	6.79	1200	66.9	Clear	light	none
9:49	12	6.89	1210	66.9	Clear	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: _____
- ☐ Dedicated: _____
- ☒ Other: Disposos

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-02	9-20-00	9:50	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 1.8

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-25

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

WELL INFORMATION

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

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

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

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

TD 21.00 DTW 11.56 = 9.44 x Gal/Linear Foot 0.38 = 3.58 x Number of Casings 3 = Calculated Purge 10.76

DATE PURGED: 9-20-00 START: 11:44 END (2400 hr): _____ PURGED BY: PE
DATE SAMPLED: 9-20-00 START: 11:55 END (2400 hr): _____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:47	35	7.92	1340	72.8	Cloudy	Mod	None
11:50	7	7.50	1330	72.4	Cloudy	Mod	None
11:53	10.5	7.52	1320	71.6	Cloudy	Mod	None

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

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
☑ Bailer: 15-4
☐ Dedicated:
☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-25	9-20-00	11:55	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 1.2

PACIFIC ENVIRONMENTAL

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17609 HESPERIAN BLVD SAN LORENZO CA WELL ID #: 17392VM

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: 9.19.00 START: _____ END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 9.19.00 START: 1206 END (2400 hr): _____ SAMPLED BY: PE

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

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 7.18 1190 73.8 Clear light none

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17392VM	9.19.00	1206	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO: 1.8

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: 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: 9.19.00 START: 10:28 END (2400 hr): _____ PURGED BY: PE

DATE SAMPLED: 9.19.00 START: 10:46 END (2400 hr): _____ SAMPLED BY: PE

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

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 900 1330 71.7 CLEAR/GRAY ODOR

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17349VM	9.19.00	10:46	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO.00 Start 12:25 => 12:38
Pump 66 GAL.

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 809628 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: 17197VM

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: 9. 00 START: ______ END (2400 hr): ______ PURGED BY: PE

DATE SAMPLED: 9 19 00 START: 13:00 END (2400 hr): ______ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
					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 708 1360 73.5 Clear light none

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

SAMPLING EQUIPMENT/I.D. #
☑ Bailer: ______
☐ Dedicated: ______
☒ Other: Grab.

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17197VM	9-19-00	1300	3	40ml	VOA	HCL	GAS/BTEX/MTBE

REMARKS: DO.6 HOME OWNER HOOK UP TO WELL USE WATER ON LAWN PRE PURGE

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

ARCO Products Company ◆ Division of AtlanticRichfieldCompany

807608 **Task Order No.**

Chain of Custody

ARCO Facility no. 0608	City (Facility) 1700 HESPERIAN BLVD	Project manager (Consultant) SUNIL GHARAKANI	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO) 510/675-6000	Telephone no. (Consultant) 408/453-7300	Fax no. (Consultant) 408/437-9526
Consultant name LT GROUP	Address (Consultant) 1921 RINGWOOD AVE SAN JOSE CA 95131		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH 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 ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
*17372	VM	3		W		Y	HCL	9-17-00	12:05		X											
*17197	VM	↓		↓		↓	↓	↓	13:00		↓											
*17349	VM	↓		↓		↓	↓	↓	12:45		↓											

Special detection Limit/reporting

Special QA/QC

Remarks

* RUN EPA 8260 ON THIS WELLS W/ MTBE GREATER THAN 35 ppb

Lab number

Condition of sample		Temperature received:	
Relinquished by sampler	Date 9-19-00 Time 15:00	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

809628 **Task Order No.**

Chain of Custody

ARCO Facility no. 0608	City (Facility) 17601 HESPERIAN BLVD	Project manager (Consultant) SHAWN CLARK	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO) 510/675-6000	Telephone no. (Consultant) (408) 453-7300	Fax no. (Consultant) (408) 437-9526
Consultant name FT GROUP	Address (Consultant) 1921 RINGWOOD AV. SAN JOSE CA 95131		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW5		3		W		Y	HCl	9/20/00	12:35		X											
MW8									11:25													
MW9									11:05													
MW10									11:40													
MW11									10:35													
MW15									10:00													
MW16									10:05													
MW22									9:50													
MW25									11:55													
EB-A									12:45													

Condition of sample:

Temperature received:

Relinquished by sampler	Date 9/20/00	Time 15:00	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

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 ☒

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

APC-3292 (2-91)

ATTACHMENT C

REMEDIAL SYSTEM PERFORMANCE EVALUATION

ATTACHMENT C
REMEDIAL SYSTEM PERFORMANCE EVALUATION

REMEDIAL SYSTEM PERFORMANCE EVALUATION

Remedial action consisting of groundwater extraction (GWE) and treatment was initiated at the site on September 26, 1991 and was deactivated on August 21, 1995 with approval from the Alameda County Health Care Services Agency (ACHCSA). The GWET system was reactivated June 5, 2000 to address elevated concentrations of metyl tert-butyl ether (MtBE). Remedial objectives from the GWET system at this site include: (1) migration control of the impacted groundwater plume and (2) MtBE mass reduction. To evaluate GWET system performance, IT monitored well water levels, instantaneous and average extraction flow rates. IT also sampled the influent between carbon vessels and the effluent of the treatment system for total purgeable petroleum hydrocarbons as gasoline (TPPH-g); benzene, toluene, ethylbenzene, xylene (BTEX compounds); and Methyl tert Butyl Ether (MtBE) on a monthly basis. Treatment system effluent is also analyzed for chemical oxygen demand, total suspended solids, and pH as requested by the Oro Loma Sanitary District. A brief description and a performance evaluation of the GWE system from July 8 to September 8, 2000 are presented below.

Description

The GWET system is comprised of an extraction well (E-1A) containing an electric submersible pump, and three 1,200-pound granular activated carbon (GAC) vessels to treat the influent groundwater stream before it is discharged into the sanitary sewer. The carbon vessels are arranged in a series, with valves to permit bed order rotation to maximize the useful life of the GAC. This allows for the rotation of the carbon vessels after the carbon in the primary vessel has been renewed. Sample ports are located at the treatment system influent, effluent, and the mid-points between the carbon vessels. Treatment system effluent is discharged into the sanitary sewer system in accordance with Permit No. SDP-037, issued by the Oro Loma Sanitary District on May 15, 2000. The permit will be effective through May 14, 2001.

Migration Control

Progress toward meeting the migration control objective is evaluated by a comparison of the groundwater elevation map (Figure 2) and the TPPH-g, benzene, and MtBE concentrations

map (Figure 3) from the current quarterly groundwater monitoring event with those from previous monitoring events. Based on the above, IT concludes that operation of the GWET system is influencing the migration of the impacted plume.

Mass Reduction

Progress toward meeting the mass reduction objective is determined by evaluating GWET system mass removal data and the concentration trends in nearby groundwater monitoring wells. GWE system operational data are collected monthly. The system flow and influent sample analysis data are used to estimate mass removal values. Mass removal data for the GWET system are presented in Table C-1. Treatment system certified analytical reports, chain-of-custody documentation, and field data sheets are presented as Attachment D. Progress toward site remediation is presented in the following table.

	Mass Removed			
	07/08/00 to 09/08/00		Cumulative	
Analyte	(lbs)	(gal)	(lbs)	(gal)
Groundwater Extraction				
TPPH-g	0.77	0.13	5.65	0.93
Benzene	0.013	0.002	0.30	0.04
MtBE*	0.36	0.05	0.37	0.05

lbs = Pounds
gal = Gallons
TPPH-g = Total purgeable petroleum hydrocarbons calculated as gasoline
* = MtBE was not calculated prior to 06/15/00

Graphs of TPPH-g and benzene mass removal rates and concentrations versus time are shown on Figures C-1 and C-3, respectively. Graphical presentations of MtBE mass removal rate and concentration versus time are shown on Figures C-2 and C-4, respectively.

Groundwater Extraction System Operational Data

The GWE system was 79 percent operational during the reporting period. During the reporting period, the GWE system discharged treated groundwater at an average operational flow rate of approximately 2.5 gallons per minute (gpm) for a period discharge of 174,740 gallons. The instantaneous groundwater system flow rate ranged from 2.0 to 4.0 gpm. Treatment system analytical data are presented in Table C-2.

During this quarter, the GWE system was in compliance with all conditions stipulated in the discharge permit, including pH, total suspended solids, and chemical oxygen demand. Operation and maintenance field data sheets and certified analytical reports are presented as Attachment D.

Vacuum Truck Groundwater Extraction

Dillard Environmental Services performed a one time vac-truck groundwater extraction on July 26, 2000. Dillard was contracted to use a vacuum truck to perform batch extractions from wells MW-5, MW-8 and MW-10. Each well was gauged, then pumped for two hours or until dry. The wells were regauged after the batch extraction to determine if they had recharged enough to extract more groundwater. A total of approximately 1,300 gallons of groundwater was removed from the three wells. Approximately 20 gallons were removed from MW-5, 500 gallons from MW-8, and 800 gallons from MW-10.

Table C-1
Groundwater Extraction System Performance Data

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

Influent Sample Date	Hour Meter Reading (hours)	System Down Time (%)	Volume Reading (gallons)	Net Volume (gallons)	Average Flow (gpm)	TPPH as Gasoline: Influent Concentration (µg/L)	TPPH as Gasoline: Net Removed (pounds)	TPPH as Gasoline: Removed To Date (pounds)	Benzene: Influent Concentration (µg/L)	Benzene: Net Removed (pounds)	Benzene: Removed To Date (pounds)	MtBE: Influent Concentration (µg/L)	MtBE: Net Removed (pounds)	MtBE: Removed To Date (pounds)	Primary Carbon Loading (%)
09/25/91	0	N/A	0	0	0.0	ND	N/A	0.00	N/A	0.000	0.00	N/A	N/A	N/A	0.0
10/22/91	26	96	12,844	11,700	7.6	ND	N/A	0.00	ND	0.000	0.00	N/A	N/A	N/A	0.0
12/19/91	322	62	122,540	70,008	4.8	ND	N/A	0.00	ND	0.000	0.00	N/A	N/A	N/A	0.0
02/19/92	1,809	0	485,200	201,911	4.1	370	0.31	0.31	14	0.012	0.01	N/A	N/A	N/A	0.4
04/15/92	3,150	1	851,100	188,253	4.6	200	0.28	0.99	11	0.023	0.06	N/A	N/A	N/A	1.2
06/19/92	4,712	0	1,229,960	199,874	3.9	ND	N/A	1.17	ND	0.001	0.07	N/A	N/A	N/A	1.5
08/18/92	N/A	N/A	1,410,018	118,817	N/A	ND	N/A	1.19	ND	0.012	0.09	N/A	N/A	N/A	1.5
10/16/92	7,012	4	1,651,623	115,983	2.7	ND	N/A	1.19	ND	0.000	0.09	N/A	N/A	N/A	1.5
12/17/92	8,502	0	1,864,300	96,224	2.3	96	0.04	1.23	7.7	0.003	0.09	N/A	N/A	N/A	1.5
02/22/93	9,607	0	2,096,930	181,765	3.7	480	0.44	1.71	36	0.037	0.13	N/A	N/A	N/A	2.1
04/09/93	10,517	33	2,298,770	92,937	3.8	140	0.17	2.25	11	0.015	0.18	N/A	N/A	N/A	2.8
06/04/93	11,734	1	2,543,500	94,340	3.0	170	0.28	2.94	5.2	0.013	0.21	N/A	N/A	N/A	3.7
08/16/93	13,219	0	2,791,366	101,669	2.6	150	0.15	3.32	4.9	0.007	0.23	N/A	N/A	N/A	4.1
10/08/93	14,485	1	2,951,737	67,001	1.9	ND	0.02	3.43	ND	0.001	0.24	N/A	N/A	N/A	4.3
12/21/93	16,260	0	3,113,565	77,533	1.7	73	0.02	3.45	3.5	0.001	0.24	N/A	N/A	N/A	4.3
02/17/94	17,658	0	3,273,720	82,820	1.9	ND	0.02	3.51	2.5	0.002	0.24	N/A	N/A	N/A	4.4
04/21/94	18,849	31	3,416,537	74,288	2.0	110	0.03	3.55	7.8	0.002	0.24	N/A	N/A	N/A	4.4

Table C-1 (continued)
Groundwater Extraction System Performance Data

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

Influent Sample Date	Hour Meter Reading (hours)	System Down Time (%)	Volume Reading (gallons)	Net Volume (gallons)	Average Flow (gpm)	TPPH as Gasoline: Influent Concentration (µg/L)	TPPH as Gasoline: Net Removed (pounds)	TPPH as Gasoline: Removed To Date (pounds)	Benzene: Influent Concentration (µg/L)	Benzene: Net Removed (pounds)	Benzene: Removed To Date (pounds)	MtBE: Influent Concentration (µg/L)	MtBE: Net Removed (pounds)	MtBE: Removed To Date (pounds)	Primary Carbon Loading (%)
06/14/94	19,680	57	3,518,608 a	39,698	2.0	230	0.08	3.71	12	0.003	0.25	N/A	N/A	N/A	4.6
08/17/94	20,920	5	51,260 c	91,580 c	2.0	ND	0.10	3.93	1.8	0.003	0.26	N/A	N/A	N/A	4.9
10/18/94	22,408	1	211,880	90,970	1.8	ND	0.00	3.90	ND	0.000	0.26	N/A	N/A	N/A	4.9
12/05/94	23,489	15	325,830	44,990	1.8	470	0.09	3.99	32	0.006	0.27	N/A	N/A	N/A	5.0
02/06/95	24,926	9	499,690	90,950	2.1	100	0.04	4.19	2.4	0.001	0.28	N/A	N/A	N/A	5.2
04/04/95	26,253	1	672,510	103,330	2.2	290	0.12	4.34	6.6	0.003	0.28	N/A	N/A	N/A	5.4
06/05/95	27,721	2	848,810	88,460	1.9	ND	0.09	4.62	ND	0.003	0.29	N/A	N/A	N/A	5.8 f
08/21/95 d	29,568	0	993,320	72,060	1.1	230	0.15	4.86	1.8	0.001	0.29	N/A	N/A	N/A	N/A g
06/05/00	29,593	0	979,800	3,200	53.3	700	0.02	4.88	7.2	0.000	0.29	361	0.01	0.01	N/A g
08/07/00	30,955	16	1,228,240	96,680	2.7	144	0.11	5.65	2.8	0.003	0.30	126	0.25	0.27	N/A g

TPPH = Total purgeable petroleum hydrocarbons
gpm = Gallons per minute
µg/L = Micrograms per liter
N/A = Not available or not applicable
ND = Not detected above detection limit
Densities: Gasoline = 6.1 lbs/gallon; Benzene = 7.34 lbs/gallon.
MtBE not quantified prior to 6/5/00

a. Totalizer broken; volume estimated from hourmeter and flow rate.
b. Volume estimated from hourmeter and instantaneous flow rate.
c. Sewer totalizer replaced July 28, 1994; volume discharged estimated between July 14 and 28, 1994 at 2.0 gpm.
d. GWE system temporarily shut down August 21, 1995.
e. GWE system restarted June 5, 2000.
f. Prior to June 5, 2000 primary carbon loading estimated using Isotherm of 8 percent by weight.
g. Unable to predict Primary carbon loading for MtBE, because the MtBE loading prior to 6/5/00 is unknown.

Table C-2
Treatment System Analytical Data
Total Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

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

Date Sampled	TPPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MtBE (µg/L)
INFL (influent to primary carbon)						
09/26/91	38	4.8	0.6	1.6	1.1	NS
11/22/91	<30	0.5	<0.3	<0.3	<0.3	NS
01/16/91	<30	<0.3	<0.3	<0.3	<0.3	NS
03/17/92	160	18	0.32	0.56	1.6	NS
05/14/92	45	1.4	<0.3	<0.3	<0.3	NS
07/14/92	97	25	<0.5	8.5	<0.5	NS
09/15/92	<50	<0.5	<0.5	<0.5	<0.5	NS
11/18/92	<50	<0.5	<0.5	<0.5	<0.5	NS
01/18/93	100	13	6.6	1.1	11	NS
03/15/93	310	29	14	4.9	55	NS
05/13/93	530	27	12	18	96	NS
07/20/93	200	12	0.91	8.2	29	NS
09/13/93	80	2.2	<0.5	<0.5	4.8	NS
11/19/93	<50	<0.5	<0.5	<0.5	<0.5	NS
01/18/94	60	3.1	<0.5	3.2	4.3	NS
03/15/94	<50	<0.5	<0.5	<0.5	<0.5	NS
05/13/94	230	8.3	<0.5	14	6.0	NS
07/14/94	270	6.9	<0.5	15	1.9	NS
09/12/94	<50	<0.5	<0.5	<0.5	<0.5	NS
11/05/94	<50	0.66	<0.5	2.6	<0.5	NS
01/04/95	<50	1.1	<0.50	1.4	<0.50	NS
03/02/95	<50	<0.50	<0.50	<0.50	<0.50	NS
05/02/95	240	7.1	<0.50	3.2	1.6	NS
07/06/95	270	2.4	<0.50	7.6	1.0	NS
06/05/00	700	7.2	<1.00	2.1	<1.0	361

Table C-2 (continued)
Treatment System Analytical Data
Total Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

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

Date Sampled	TPPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MtBE (µg/L)
INFL (influent to primary carbon) (cont.)						
08/10/00	144	2.8	<0.50	1.0	<0.50	126
MID-1 (between primary and secondary carbons)						
09/26/91	<30	<0.3	<0.3	<0.3	<0.3	NS
12/19/91	<30	<0.3	<0.3	<0.3	<0.3	NS
02/19/92	<30	<0.3	<0.3	<0.3	<0.3	NS
04/15/92	<30	<0.3	<0.3	<0.3	<0.3	NS
06/19/92	<30	<0.3	<0.3	<0.3	<0.3	NS
08/18/92	NS	NS	NS	NS	NS	NS
10/16/92	NS	NS	NS	NS	NS	NS
12/17/92	NS	NS	NS	NS	NS	NS
02/22/93	NS	NS	NS	NS	NS	NS
04/09/93	NS	NS	NS	NS	NS	NS
06/04/93	NS	NS	NS	NS	NS	NS
08/17/94	NS	NS	NS	NS	NS	NS
10/18/94	NS	NS	NS	NS	NS	NS
12/05/94	NS	NS	NS	NS	NS	NS
02/06/95	NS	NS	NS	NS	NS	NS
06/05/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
08/10/00	<50	<0.50	<0.50	<0.50	<0.50	<5.0
MID-2 (between secondary and teriary carbons)						
07/08/00	NS	NS	NS	NS	NS	NS
EFFL (effluent to sewer)						
09/26/91	<30	<0.3	<0.3	<0.3	<0.3	NS
11/22/91	<30	<0.3	<0.3	<0.3	<0.3	NS
01/16/91	<30	<0.3	<0.3	<0.3	<0.3	NS
03/17/92	<30	<0.3	<0.3	<0.3	<0.3	NS

Table C-2 (continued)
Treatment System Analytical Data
Total Petroleum Hydrocarbons
(TPPH as Gasoline and BTEX Compounds)

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

Date Sampled	TPPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MtBE (µg/L)
05/14/92	<30	<0.3	<0.3	<0.3	<0.3	NS
07/14/92	<50	<0.5	<0.5	<0.5	<0.5	NS
09/15/92	<50	<0.5	<0.5	<0.5	<0.5	NS
11/18/92	<50	<0.5	<0.5	<0.5	<0.5	NS
01/18/93	<50	<0.5	<0.5	<0.5	<0.5	NS
EFFL (effluent to sewer) (cont.)						
03/15/93	<50	<0.5	<0.5	<0.5	<0.5	NS
05/13/93	<50	<0.5	<0.5	<0.5	<0.5	NS
07/20/93	<50	<0.5	<0.5	<0.5	<0.5	NS
09/13/93	<50	<0.5	<0.5	<0.5	<0.5	NS
11/19/93	<50	<0.5	<0.5	<0.5	<0.5	NS
01/18/94	<50	<0.5	<0.5	<0.5	<0.5	NS
03/15/94	<50	<0.5	<0.5	<0.5	<0.5	NS
05/13/94	<50	<0.5	<0.5	<0.5	<0.5	NS
07/14/94	<50	<0.5	<0.5	<0.5	<0.5	NS
09/12/94	<50	<0.5	<0.5	<0.5	<0.5	NS
11/05/94	<50	<0.5	<0.5	<0.5	<0.5	NS
01/04/95	<50	<0.50	<0.50	<0.50	<0.50	NS
03/02/95	<50	<0.50	<0.50	<0.50	<0.50	NS
05/02/95	<50	<0.50	<0.50	<0.50	<0.50	NS
07/06/95	<50	<0.50	<0.50	<0.50	<0.50	NS
06/05/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/08/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5
09/08/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5

TPPH = Total purgeable petroleum hydrocarbons
MtBE = Methyl tert Butyl Ether
ppb = Parts per billion
< = Denotes minimum laboratory detection limit.
NS = Not sampled
ND = Not detected

Figure C-1

Mass Removal Trend for the Groundwater Extraction System
TPPH as Gasoline and Benzene

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

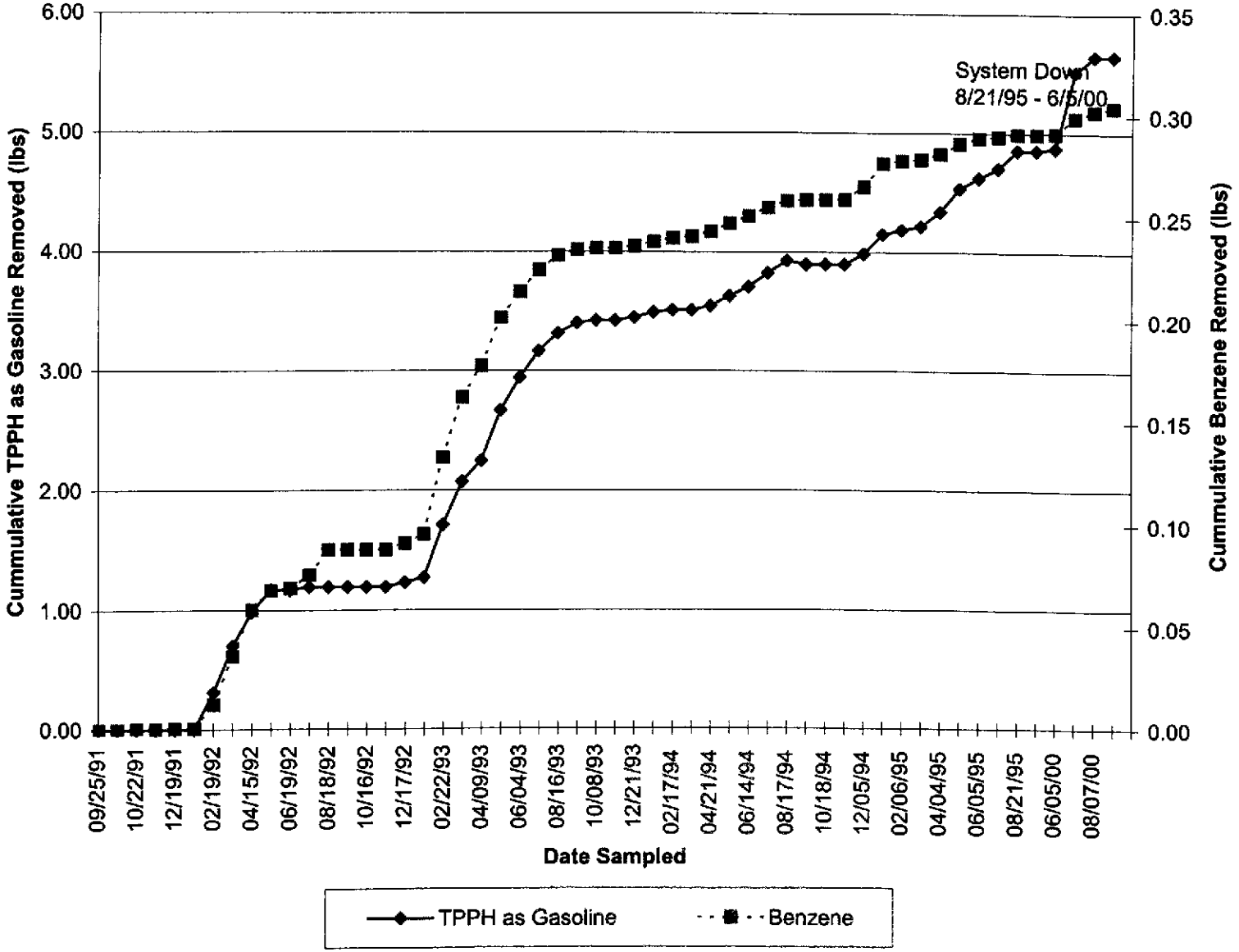


Figure C-2

Concentration Trends for the Groundwater Extraction System
TPPH as Gasoline and Benzene

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

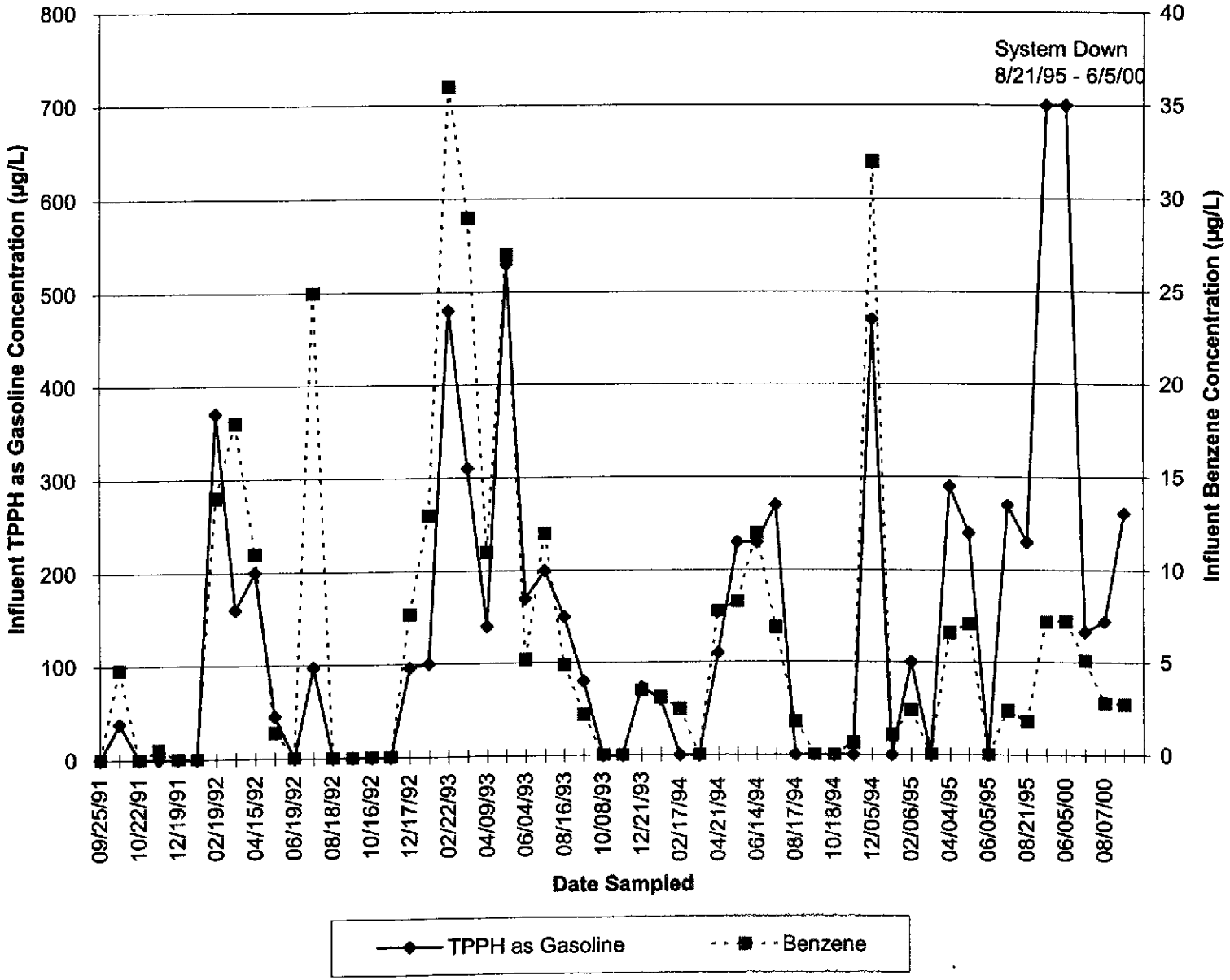


Figure C-3
Mass Removal Trends for the Groundwater Extraction System
MtBE

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

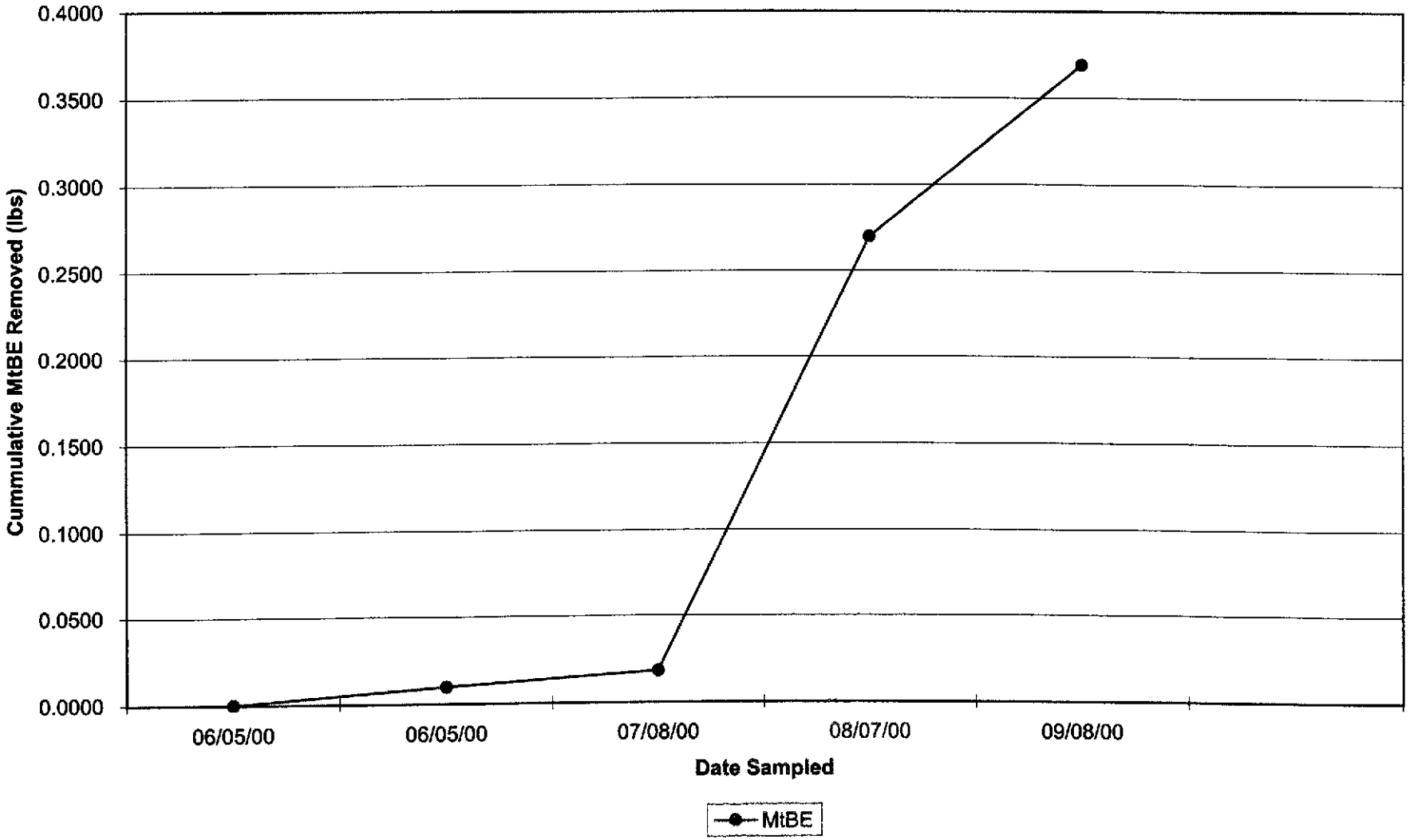
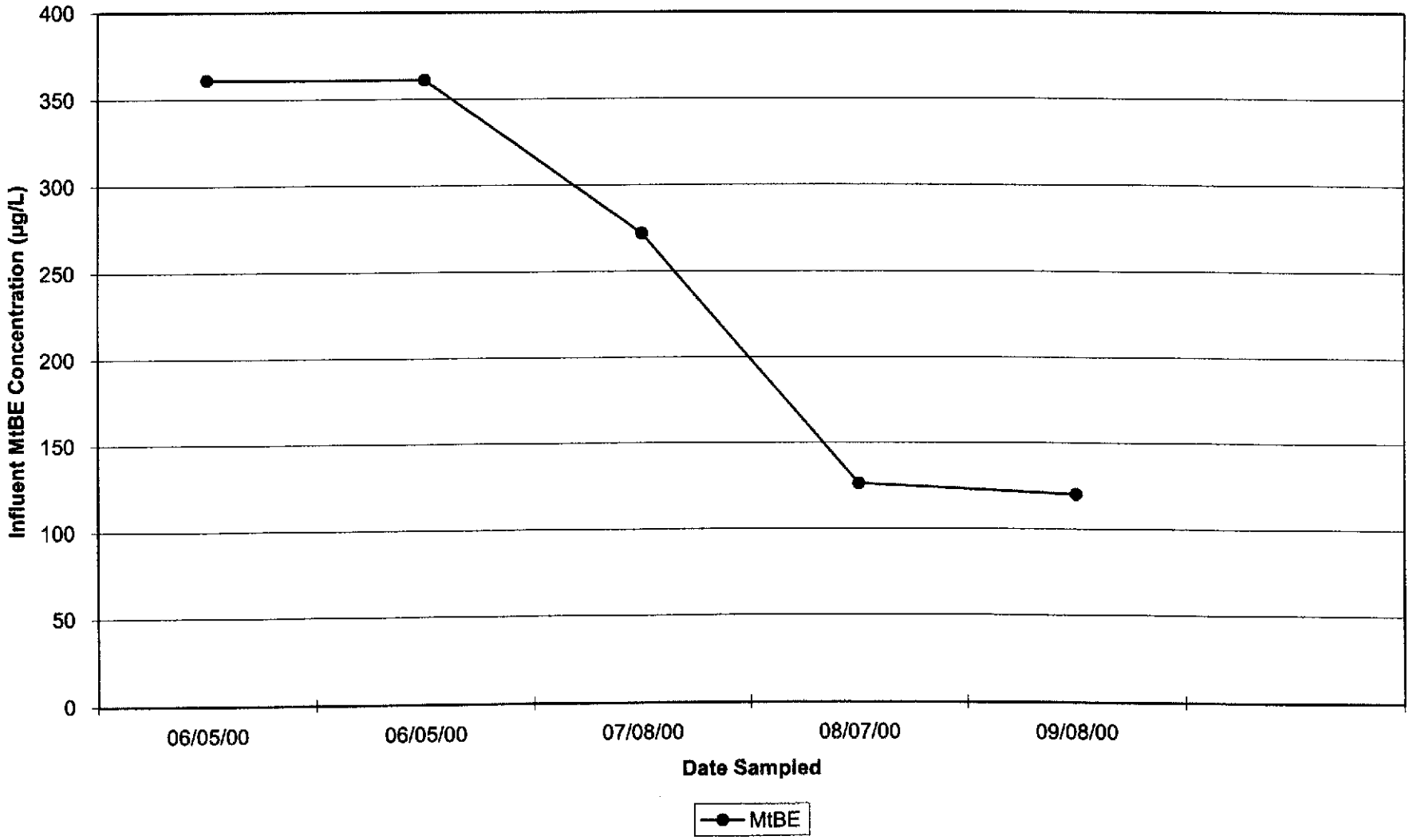


Figure C-4
Concentration Trend for the Groundwater Extraction System
MtBE

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



ATTACHMENT D

CERTIFIED ANALYTICAL REPORTS, CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD DATA SHEETS FOR GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification **Request Frequency:Monthly**

Project #	809628 (330-006)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	August 28, 2000
Laboratory:	Sequoia Analytical

Site Rémedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,F)	Semi-Monthly				
GWE (D,E)	Monthly†				
GWE (G)	Quarterly				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-monthly = twice a month on week 2 and 4

Field Technician Response:

Completed by: _____ Date: 9-8-00
Arrival time: _____ Departure time: _____
Sample this visit?: Y Engineer contacted? _____

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
August 28, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron

PART A: SYSTEM DATA (Semi-Monthly)

System on upon arrival? Down (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	29705	HOUR METER READING (hrs)	315284

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1306120	1306300
FILTER INLET PRESSURE (psig)		(ideal range: 8 to 12 psig) 10
CARBON #1 INLET PRESSURE (psig)		(ideal range: 5 to 9 psig) 8
CARBON #2 INLET PRESSURE (psig)		(ideal range: 1 to 4 psig) 4
DISCHARGE PRESSURE (psig)		(ideal range: 0 to 2 psig) 0

PART B: COMMENTS Rubber Gasket for 3" Union needed. INFL location. System was Down High Pressure on Filter Change Filter Let System Run for One Hour, Took Samples

PART C: WELL DATA (Semi-Monthly)

*** ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS**

WELL	DTW (TOP)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	1960 => 2390		35	NA

PART D: SAMPLING (Monthly)

SAMPLE	ANALYSIS		COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	9:00	Y
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	9:15	Y
MID 1	TPH-gasoline, BTEX compounds, MTBE	9:06	Y

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT (monthly)	COD, TSS, pH 500 H2SO4 1 L Plast. 250 250	YES

PART E: READINGS (Monthly)

	TEMP (^{0}F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	66.7	1080	6.82	0.8

PART F: SYSTEM MAINTENANCE I (Semi-Monthly)

NUMBER OF SPARE FILTERS ON SITE?	24	CHANGE FILTERS? (if necessary)	YES
PUMP AMP DRAW	5.7	H202 injection well EA-1 (if necessary)	NA
SWEEP ENCLOSURE	N/A		

PART G: SYSTEM MAINTENANCE II (Quarterly)

TEST ALARM SWITCHES	Y	BACKFLUSH CARBONS	N/A
CLEAN TOTALIZERS	YES ok		

ARCO Products Company Division of AtlanticRichfieldCompany — 809608 — Task Order No. 5

Chain of Custody

ARCO Facility no. 0608	City (Facility) 17601 Hesperian Blvd	Project manager (Consultant) SHAW GARAKANI	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO) SanBrenno	Telephone no. (Consultant) (408) 453-7300	Fax no. (Consultant) (408) 437-9506
Consultant name LT GROUP	Address (Consultant) 1921 Ringwood Av, San Jose CA 95131		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M8020/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	C.O.D.	T35
INFL		3		W		Y	HCl	9800	9:00		X											
MID		3		1		1	HCl H2SO4	1	9:05		1											
EFFL		7		1		1	H2SO4	1	9:15		1										X	X

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:

	Date	Time	
Relinquished by/sample	9800	1300	Received by
Relinquished by			Received by
Relinquished by			Received by laboratory

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

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification **Request Frequency:Monthly**

Project #	809628 (330-006)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	August 28, 2000
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,F)	Semi-Monthly				4
GWE (D,E)	Monthly†				
GWE (G)	Quarterly				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-monthly = twice a month on week 2 and 4

Field Technician Response:

Completed by:_____ Date: 8/29/00
Arrival time:_____ Departure time:_____
Sample this visit?:_____ Engineer contacted?_____

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
August 28, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron

PART A: SYSTEM DATA (Semi-Monthly)

System on upon arrival? Running (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	28663	HOUR METER READING (hrs)	313093

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1276470	1276650
FILTER INLET PRESSURE (psig)	10	(ideal range: 8 to 12 psig) 10
CARBON #1 INLET PRESSURE (psig)	6	(ideal range: 5 to 9 psig) 8
CARBON #2 INLET PRESSURE (psig)	5	(ideal range: 1 to 4 psig) 5
DISCHARGE PRESSURE (psig)	0	(ideal range: 0 to 2 psig) 0

PART B: COMMENTS H2O2 injection on well
Run Bio-Through Filter => Install
a new one in.

PART C: WELL DATA (Semi-Monthly)

*** ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS**

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	2060 ⇒ 2360		3 GPM	NONE

PART D: SAMPLING (Monthly)

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	
MID 1	TPH-gasoline, BTEX compounds, MTBE	

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT (monthly)	COD, TSS, pH 500 Hasch 1430 Plant.	

PART E: READINGS (Monthly)

	TEMP (°F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT				

PART F: SYSTEM MAINTENANCE I (Semi-Monthly)

NUMBER OF SPARE FILTERS ON SITE?	27	CHANGE FILTERS? (if necessary)	YES
PUMP AMP DRAW	6.7	H202 injection well EA-1 (if necessary)	YES
SWEEP ENCLOSURE	NA		

PART G: SYSTEM MAINTENANCE II (Quarterly)

TEST ALARM SWITCHES		BACKFLUSH CARBONS	
CLEAN TOTALIZERS			

Site Address:
Project # :

Table 1

	Befor hydrogen peroxide application, Date	Next day after hydrogen peroxide application, date
pH at well sample port, Well EA1	7.11	6.80
pH at well sample port, Well --------		
pH at well sample port, Well --------		
pH at holding tank		
pH at effluent from tertiary		
Biomass at well totalizer hosing (none/very light/light/medium/heavy)		

FIELD SERVICES REQUEST

SITE INFORMATION FORM

Identification

Project # (330-006.2Q) 309628

Station ID #0608

Site Address: 17601 Hesperian Blvd, Oakland

Lab: Sequoia

County: Alameda

Project Manager: Shaw Garakani

Requester: Don Watenpaugh

Client: ARCO

Client P.O.C: MIKE WHELAN

Date of Request: August 25, 2000

Project Type

- ☐ Operation & Maintenance
- ☐ Sampling
- ☐ 1st time visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☒ One time event
- ☐ Other:

Ideal field date: Next visit

Check Appropriate Category

X In Budget Site Visit

☐ Out of Budget Site Visit

Budget Hours: 1

Actual Hours:

Mob de Mob:

Site Safety Concerns

STANDARD

Field Tasks General Description

OBJECTIVE: Gauge monitoring wells MW-5, MW-8 and MW-10 for total depth.

Comments, remarks from field staff

TOC

MW-5 TD = 13.60

MW-8 TD = 20.90

MW-10 TD = 22.40

Completed By: [signature] Date:

Pacific Environmental Group, Inc.

FIELD SERVICES REQUEST

SITE INFORMATION FORM [redacted]

Identification

Project # (330-006.20) 309628

Station ID #0608

Site Address: 17601 Hesperian Blvd, Oakland

Lab: Sequoia

County: Alameda

Project Manager: Shaw Garakani

Requester: Don Watenpaugh

Client: ACDC

Client P.O.C: MIKE WHELAN

Date of Request: August 25, 2000

Project Type

- ☐ Operation & Maintenance
- ☐ Sampling
- ☐ 1st time visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☒ One time event
- ☐ Other:

Ideal field date: Next visit

Check Appropriate Category

X In Budget Site Visit

☐ Out of Budget Site Visit

Budget Hours: 1

Actual Hours:

Mob de Mob:

Site Safety Concerns

STANDARD

Field Tasks General Description

OBJECTIVE: Gauge monitoring wells MW-5, MW-8 and MW-10 for total depth.

Comments, remarks from field staff

TOC

MW-5 TD = 13.60 — 14.0 (1991) TD (1991)

MW-8 TD => 20.90 — TD 22.8' (1991) From Boring Log

MW-10 TD => 22.40 TD 23.0 (1991)

Completed By: [signature] Date: 8-29-00

Pacific Environmental Group, Inc.

Work Order #_____

— FIELD SERVICES / ROUTINE O&M REQUEST

Identification **Request Frequency:Monthly**

Project #	809628 (330-006)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	July 6,2000
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,D,E,F)	Monthly†				
GWE (G)	Quarterly†				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-annually = N/A

Field Technician Responsibilities:

Completed by: _____ Date: 8-16-17-00
Arrival time: _____ Departure time: _____
Sample this visit?: N Engineer contacted? YES

Site Address: 17601 HESPERIAN BLVD.
Project # : 809628

Table 1

	8.18.00 Befor hydrogen peroxide application, Date	8.17.00 Next day after hydrogen peroxide application, date
pH at well sample port, Well E-1A	6.83	6.73
pH at well sample port, Well --------		
pH at well sample port, Well --------		
pH at holding tank		
pH at effluent from tertiary		
Biomass at well totalizer hosing (none/very light/light/medium/heavy)		

Date:______________

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
July 6, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron

PART A: SYSTEM DATA

System on upon arrival? Down (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	28189	HOUR METER READING (hrs)	31002

MEASUREMENT	ON ARRIVAL 8.1600	ON DEPARTURE 8.1700
TOTALIZER (gallons)	123909(0)	123913(0)
FILTER INLET PRESSURE (psig)		(ideal range: 8 to 12 psig) 10
CARBON #1 INLET PRESSURE (psig)		(ideal range: 5 to 9 psig) 8
CARBON #2 INLET PRESSURE (psig)		(ideal range: 1 to 4 psig) 6
DISCHARGE PRESSURE (psig)		(ideal range: 0 to 2 psig) 0

PART B: COMMENTS H2O2 INJECTION 10 GAL. ON 8.16
TRY to RE-start SISTEM - KEEP tripING BREAKER
OFF. Pull pump out Brought BACK to WEARHOUSE
TESTED ON 8.17. Motor is Good Pump is not working
Install A USE FROM WE. 8.17 (1300PM @ 6.5AMP/6GPM @ 6AMP)
LET SISTEM RUN & CIRCULATE, CHANGE
Filter BEFORE LEAVE SITE.

PART C: WELL DATA

*** ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS**

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A 11.40 => 22270 => 21132				

PART D: SAMPLING

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	
MID 1	TPH-gasoline, BTEX compounds, MTBE	

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT **(monthly)**	COD, TSS, pH (Field) 500 14,NP Hosey Plant.	

PART E: READINGS

EFFLUENT	TEMP (^{O}F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)

PART F: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?		CHANGE FILTERS? (if necessary)	4
SWEEP ENCLOSURE		PUMP AMP DRAW	

PART G: SYSTEM MAINTENANCE II

TEST ALARM SWITCHES		BACKFLUSH CARBONS	
CLEAN TOTALIZERS			

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency:Monthly

Project #	809628 (330-006)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	July 6,2000
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,D,E,F)	Monthly†				
GWE (G)	Quarterly†				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-annually = N/A

Field Technician Response

Completed by: _____ Date: 8-7-00

Arrival time: _____ Departure time: _____

Sample this visit? _____ Engineer contacted? YES

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
July 6, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron

PART A: SYSTEM DATA

System on upon arrival? Down (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	28327	HOUR METER READING (hrs)	30955

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	122802	122804
FILTER INLET PRESSURE (psig)		(ideal range: 8 to 12 psig) 8
CARBON #1 INLET PRESSURE (psig)		(ideal range: 5 to 9 psig) 0
CARBON #2 INLET PRESSURE (psig)		(ideal range: 1 to 4 psig) 5
DISCHARGE PRESSURE (psig)		(ideal range: 0 to 2 psig) 0

PART B: COMMENTS 8.7 System Down High Press. on Filter. Change Bag Filter. Try to Restart System, Elect. Breaker Tripping System off Pull Check & Clean pump biomass present on House & pump, Install 3 new press gauges on Manifold.
8.10 Install a new Elect. Breaker at panel Re-Start System. Get it Run x 1 hr Took Samples

PART C: WELL DATA

*** ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS**

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	20.50 → 20.85	NA	3GPM	NONE

PART D: SAMPLING

SAMPLE	ANALYSIS		COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	9:45	RE
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	9:55	RE
MID 1	TPH-gasoline, BTEX compounds, MTBE	9:50	RE

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT (monthly)	COD, TSS, pH (field) 500 1LNP H2SO4 Plast.	RE

PART E: READINGS

	TEMP (°F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	64.3	1340	6.67	2.2

PART F: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?	30	CHANGE FILTERS? (if necessary)	YES
SWEEP ENCLOSURE	N/A	PUMP AMP DRAW	5.7

PART G: SYSTEM MAINTENANCE II

TEST ALARM SWITCHES	O/K	BACKFLUSH CARBONS	NA
CLEAN TOTALIZERS	YES		

Clean Flow Meter

ARCO Products Company Division of AtlanticRichfieldCompany

8096028 **Task Order No.**

Chain of Custody

ARCO Facility no. 0608	City (Facility) 17601 HESPERIAN BLVD	Project manager (Consultant) SHAW CARAWAN	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO) SW/BRENTD	Telephone no. (Consultant) (408) 453 7300	Fax no. (Consultant) (408) 453 9526
Consultant name IT GROUP	Address (Consultant) 1921 RINGWOOD AV SAN JOSE CA		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015 MTBE	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 301/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	COD	TSS
INFC		3		X		4	HCL	9:45	8:10 00		X											
MW1		3		↓		↓	HCL	9:50	↓		↓											
EFFC		5		↓		↓	HCL pH<2 H2SO4	9:55	↓		↓										X	X

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:

	Date	Time		Date	Time
Relinquished by sampler	8/10/00	10:30	Received by		
Relinquished by			Received by		
Relinquished by			Received by laboratory		

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

APC-3292 (2-91)

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification **Request Frequency:Monthly**

Project # 809628 (330-006)
Station # 0608
Site Address: 17601 Hesperian Blvd @ Hacienda Avenue
County: Alameda
Project Manager: Shaw Garakani
Requestor: Don Watenpaugh
Client: ARCO
Client P.O.C.: Mike Whelan
Revision Date: July 6,2000
Laboratory: Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,D,E.F)	Monthly†				
GWE (G)	Quarterly†				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-annually = N/A

Field Technician Response:

Completed by: RE Date: 7-26-00
Arrival time: 7:00 Departure time: _____
Sample this visit?: No. Engineer contacted? Y

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
July 6, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron 8-30-3p-2-C-B-5-B

PART A: SYSTEM DATA

System on upon arrival? Down (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	28258	HOUR METER READING (hrs)	30749

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1195140?	1196420?
FILTER INLET PRESSURE (psig)	10	(ideal range: 8 to 12 psig) 8
CARBON #1 INLET PRESSURE (psig)	6	(ideal range: 5 to 9 psig) 6
CARBON #2 INLET PRESSURE (psig)	6	(ideal range: 1 to 4 psig) 6
DISCHARGE PRESSURE (psig)	0	(ideal range: 0 to 2 psig) 0

PART B: COMMENTS

CHANGE BAG FILTER, ABOUT 1/16 TO 1/4 THICKNESS OF SLUGE ON FILTER
TEST AUTO DIALER

PART C: WELL DATA

*** ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS**

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	TOC 9.80 / TOB 11.15	2290 TOB	NA 3.4 GPM	

PART D: SAMPLING

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	N
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	N
MID 1	TPH-gasoline, BTEX compounds, MTBE	N

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT **(monthly)**	COD, TSS, pH (Field)	N

PART E: READINGS

	TEMP (^{o}F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	—	—	—	-

PART F: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?		CHANGE FILTERS? (if necessary)	YES
SWEEP ENCLOSURE	N/A	PUMP AMP DRAW	5.8

PART G: SYSTEM MAINTENANCE II

TEST ALARM SWITCHES	Y	BACKFLUSH CARBONS	NA
CLEAN TOTALIZERS	N/A		

FIELD SERVICES REQUEST

SITE INFORMATION FORM

Identification

Project # 330-006.2Q

Station ID #0608

Site Address: 17601 Hesperian Blvd, Oakland

Lab: Sequoia

County: Alameda

Project Manager: Shaw Garakani

Requester: Don Watenpaugh

Client: ARCO

Client P.O.C: MIKE WHELAN

Date of Request: July 12, 2000

Project Type

- ☐ Operation & Maintenance
- ☐ Sampling
- ☐ 1st time visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☒ One time event
- ☐ Other:

Ideal field date 7/26/2000

Check Appropriate Category

- X In Budget Site Visit
- ☐ Out of Budget Site Visit

Budget Hours: 8

Actual Hours:

Mob de Mob:

Site Safety Concerns

STANDARD

Field Tasks General Description

OBJECTIVE: Vac-Truck Event

1) Please schedule yourself to meet Dillard Trucking at the site Wed. July 26, 2000.
2) The tentative plan is to have them pump out of three wells (MW-5, MW-8 and MW-10)
3) I'll give you more details at a later date.

Comments, remarks from field staff

Completed By: _____ Date: _____

Pacific Environmental Group, Inc.

ARCO Station # 0608
17601 Hesperian Blvd. @ Hacienda
San Lorenzo, CA

VacOps procedure:

We will be pumping from three wells. One well, MW-5 is on-site and the other two are off-site wells.

1. Gauge wells before pumping. (IT tech)
2. Start pumping from well MW-5. Pump for two hours are until well goes dry.
3. Proceed to well MW-8. Pump for two hours or until well goes dry.
4. Proceed to well MW-10. Pump for two hours or until well goes dry.
5. Gauge MW-5and MW-8 after finished pumping MW-10. If they have sufficiently recharged start pumping from them until they goes dry again.
6. Record amount of water pumped.

I'll let you know what time the drawer will be on site when I find out.

	DTW.
MW-5	11.98
MW-8	10.45
MW-10	10.00

- START ON MW-8 FROM 9:10 ⇒ 11:10
- START ON MW-5 FROM 11:10 ⇒ 12:30
- START ON MW-10 FROM 12:30 ⇒ 15:00
- START ON MW-8 FROM 15:00 ⇒ 16:30

GAGE WELLS MW-5 - MW-8 AFTER PUMPING MW-10

MW-5 ⇒ 12.15
MW-8 ⇒ 10.45

GAGE EACH WELL RIGHT AFTER TURNING PUMP OFF

MW-8 ⇒ 10.58
MW-10 ⇒ 10.25

GAGE WATER ON TANK — T.D(TOT) 55 3/4" — DTW(TOT) 38 5/8" — TOTAL

PACIFIC ENVIRONMENTAL GROUP, INC.	Project No: 809628	Figure No:	Date: 7.26.00
			Drawn By:
Title:			

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 00273

2. Page 1 of 1

5. Generator's Name and Mailing Address
ARCO PRODUCTS COMPANY
POB 5077
BUENA PARK, CA 90622
SITE: ARCO STATION #00608
17601 HESPERIAN BLVD.
SAN LORENZO, CA
ATTN: PAUL SUPPLE

4. Generator's Phone ((925) 299-8891

5. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SVCS.

6. US EPA ID Number: CAD981692809

A. State Transporter's ID

B. Transporter 1 Phone: (925) 634-6850

7. Transporter 2 Company Name: Consolidated Wast Sys

8. US EPA ID Number: CAD983668583

C. State Transporter's ID

D. Transporter 2 Phone: 510-638-1684

9. Designated Facility Name and Site Address
SEAPORT ENVIRONMENTAL
675 SEAPORT BLVD.
PORT OF REDWOOD CITY, CA 94063

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone: (650) 364-6154

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON HAZARDOUS WATER, (pf: 302-212)	001	T T	1300	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
11a. 302-212
11b.
11c.
11d.

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact (925) 634-6850 DILLARD ENV
JOB# 1007/197

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

"AT THE REQUEST OF ARCO PRODUCTS CO"

Printed/Typed Name: Melissa Kirn / Dillard Env. Svcs. Signature: [signature] Date: Month 7 Day 12 Year 00

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: TERRY GAINES Signature: [signature] Date: Month 7 Day 26 Year 00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Signature: Date: Month Day Year

GENERATOR

TRANSPORTER

FACILITY

CONSOLIDATED WASTE INDUSTRIES, INC.

1855 Adams Ave.
San Leandro, CA 94577
(510) 638-1684 • (800) 922-9984

10680 Silicon Ave.
Montclair, CA 91763
(909) 482-2267 • (800) 788-2167

O.E. _____

PAGE: _____ OF: _____

BILLING ADDRESS

SERVICE ADDRESS

ORDER DATE	CUSTOMER I.D.	ORDERED BY	TELEPHONE	CONTACT

DESCRIPTION OF WORK PERFORMED THIS DATE _____

DRIVER COMPLETE: _____ DATE COMPLETED _____ DRIVERS NAME _____

MANIFEST NUMBER: _____

LABOR*

NAME	TITLE	TIME FROM	TIME TO

EQUIPMENT*

TYPE	UNIT NO.	TIME FROM	TIME TO

It is the responsibility of the waste generator to correctly identify the chemical composition of each load. In the event a load is rejected by the disposal site because its chemical contents have been incorrectly identified, the law requires that it be returned to the generator. Consolidated Waste Industries, Inc. or a division providing service will impose freight charges for hauling the load to the disposal site and returning it to the generator. If you are not absolutely certain as to what chemicals are in your waste stream, have it tested by a State Certified Laboratory prior to disposal. Unless specifically assumed in writing by transporter given over a transporter solely for the purposes of transporting the waste to generator's designated TSDF.

In the event of any litigation arising out of this agreement or any transaction contemplated hereby, the prevailing party shall be entitled to reasonable attorney's fees, expenses and cost.

Terms: Amount due and payable, net (*5) days.
Past due accounts are subject to a service charge of 1.5% per month (annual rate of 18%) or the maximum allowed by law.

Date _____ Customer Signature _____

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Request Frequency:Monthly

Identification

Project #	809628 (330-006)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	July 6,2000
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,D,E,F)	Monthly†				
GWE (G)	Quarterly†				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-annually = N/A

Field Technician Response:

Completed by: RE Date: 7-26-00
Arrival time: 7:00 Departure time: _____
Sample this visit?: Y Engineer contacted? Y

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
July 6, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron 8-30-3p-2-C-B-5-B

PART A: SYSTEM DATA

System on upon arrival? Down (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	28258	HOUR METER READING (hrs)	30749

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	119514	119642
FILTER INLET PRESSURE (psig)	10	(ideal range: 8 to 12 psig) 8
CARBON #1 INLET PRESSURE (psig)	6	(ideal range: 5 to 9 psig) 6
CARBON #2 INLET PRESSURE (psig)	6	(ideal range: 1 to 4 psig) 6
DISCHARGE PRESSURE (psig)	0	(ideal range: 0 to 2 psig) 0

PART B: COMMENTS

CHANGE BAG FILTER, ABOUT 1/16 TO 1/4 THICKNESS OF SLUDGE ON FILTER
TEST auto DIALER

PART C: WELL DATA

* ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	TOC 9.80 TOB 11.15	~~2250~~ → 2290 TOB	NA	3.→ 4 GPM

PART D: SAMPLING

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	N
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	N
MID 1	TPH-gasoline, BTEX compounds, MTBE	N

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT (monthly)	COD, TSS, pH (field)	N

PART E: READINGS

	TEMP (°F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	—	—	—	

PART F: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?		CHANGE FILTERS? (if necessary)	YES
SWEEP ENCLOSURE	N/A	PUMP AMP DRAW	5.8

PART G: SYSTEM MAINTENANCE II

TEST ALARM SWITCHES	Y	BACKFLUSH CARBONS	NA
CLEAN TOTALIZERS	N/A		

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency:Monthly

Project #	809628 (330-006)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Waterpaugh
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	July 6,2000
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

Data Sheet Section(s) / Part(s)	To be Completed	Budgeted Hrs	Actual Hrs	Mob-de Mob	Completed
GWE (A,B,C,D,E,F)	Monthly†				
GWE (G)	Quarterly†				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 2
quarterly = on months 3,6,9,12
semi-annually = N/A

Field Technician Responsibilities:

Completed by:_____ Date: 7-08-00
Arrival time:_____ Departure time:_____
Sample this visit?:_____ Engineer contacted?_____

Date: 7-08-00

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
809628 (330-006.2Q)
July 6, 2000

System Description:

Groundwater Pumps

Well	Type	Size	Control	Set Depth (TOB)
E-1A	Electric	3"	panel	23.9'

Carbon Vessels: Three ASC-1,200
Filter: Rosedale P2 25 micron

PART A: SYSTEM DATA

System on upon arrival? Running (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	28845	HOUR METER READING (hrs)	303517

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1,13,32(0)	1,31,56(0)
FILTER INLET PRESSURE (psig)	11 psi	(ideal range: 8 to 12 psig) 9-10
CARBON #1 INLET PRESSURE (psig)	7 psi	(ideal range: 5 to 9 psig) 0
CARBON #2 INLET PRESSURE (psig)	7 psi	(ideal range: 1 to 4 psig) 0
DISCHARGE PRESSURE (psig)	0	(ideal range: 0 to 2 psig) 0

PART B: COMMENTS Change Filter. Replace Batt on Auto Dialer. Broken Fitting 2 1/2 ⇒ 3/4 or 1" To pump purge water through Carbon before filter at the Compound. Rubber Gasket on filter Could be Replace, Also Gasket on union at INFL point Could be Replace Test Auto Dialer NEED 3 Gage's 0⇒30 psi

PART C: WELL DATA

*** ALLOW SYSTEM TO RUN 1 HOUR BEFORE OBTAINING DTW READINGS**

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	20.95 - 21.80		2 ⇒ 4 GPM	none

PART D: SAMPLING

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MTBE	YES
EFFLUENT	TPH-gasoline, BTEX compounds, MTBE	YES
MID 1	TPH-gasoline, BTEX compounds, MTBE	YES

SAMPLE	ANALYSIS	COMPLETED
EFFLUENT (monthly)	COD, TSS, pH (field)	YES

PART E: READINGS

	TEMP (°F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	70.5	1350	7.08	4.4

PART F: SYSTEM MAINTENANCE I

NUMBER OF SPARE FILTERS ON SITE?	NEW BOX	CHANGE FILTERS? (if necessary)	YES
SWEEP ENCLOSURE	CLEAN	PUMP AMP DRAW	5.5

PART G: SYSTEM MAINTENANCE II

TEST ALARM SWITCHES		BACKFLUSH CARBONS	
CLEAN TOTALIZERS			

ARCO Pr[illegible]cts Company Div[illegible] of AtlanticRichfieldCompany 809628 **Task Order No.**

Chain [illegible] Custody

ARCO Facility no. 0608	City (Facility) 17601 HESPERIAN BLVD	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) 437-9526	Contract number
Consultant name IT GROUP	Address (Consultant) 1921 RINGWOOD AV. SAN JOSE CA			

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH 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 ☐	COD	TSS
WFL		3		W		Y	HCL	7-08-00	NA		X											
EFFL		6		↓		↓	H2SO4 HCL NP	↓	↓		↓										X	X
MID1		3		↓		↓	HCL	↓	↓		X											

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 ☒

Condition of sample:			Temperature received:			
Relinquished by sampler [signature]	Date 7-08-00	Time 16:00	Received by			
Relinquished by	Date	Time	Received by			
Relinquished by	Date	Time	Received by laboratory	Date	Time	

Sequoia Analytical

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

26 September, 2000

Shaw Garakani
Pacific Environmental Group (Arco)
1921 Ringwood Avenue
San Jose, CA 95131

RE: Arco
Sequoia Report: MJI0195

Enclosed are the results of analyses for samples received by the laboratory on 09/11/00 11:49. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Ted Terrasas
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	09/26/00 18:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INF	MJI0195-01	Water	09/08/00 09:00	09/11/00 11:49
MID	MJI0195-02	Water	09/08/00 09:05	09/11/00 11:49
EFF	MJI0195-03	Water	09/08/00 09:15	09/11/00 11:49

for
Ted Terrazas, Project Manager

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Gerakani	09/26/00 18:44

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
INF (MJI0195-01) Water Sampled: 09/08/00 09:00 Received: 09/11/00 11:49									
Purgeable Hydrocarbons	**261**	50.0	ug/l	1	0I21002	09/21/00	09/21/00	DHS LUFT	P-01
Benzene	**2.74**	0.500	"	"	"	"	"	"	
Toluene	**0.826**	0.500	"	"	"	"	"	"	
Ethylbenzene	**0.626**	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**120**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*124 %*	*70-130*		"	"	"	"	
MID (MJI0195-02) Water Sampled: 09/08/00 09:05 Received: 09/11/00 11:49									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I21002	09/21/00	09/21/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.7 %*	*70-130*		"	"	"	"	
EFF (MJI0195-03) Water Sampled: 09/08/00 09:15 Received: 09/11/00 11:49									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0I21002	09/21/00	09/21/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*96.8 %*	*70-130*		"	"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	09/26/00 18:44

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EFF (MJ10195-03) Water Sampled: 09/08/00 09:15 Received: 09/11/00 11:49									
Chemical Oxygen Demand	29.2	20.0	mg/l	1	0115011	09/14/00	09/14/00	EPA 410.4	
Total Suspended Solids	ND	10.0	"	"	0113007	09/12/00	09/12/00	EPA 160.2	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	09/26/00 18:44

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I21002 - EPA 5030B [P/T]										
Blank (0I21002-BLK1)				Prepared & Analyzed: 09/21/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*9.59*		"	*10.0*		*95.9*	*70-130*			
LCS (0I21002-BS1)				Prepared & Analyzed: 09/21/00						
Purgeable Hydrocarbons	248	50.0	ug/l	250		99.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.5*		"	*10.0*		*105*	*70-130*			
Matrix Spike (0I21002-MS1)	**Source: MJI0195-02**			Prepared & Analyzed: 09/21/00						
Purgeable Hydrocarbons	240	50.0	ug/l	250	ND	96.0	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.5*		"	*10.0*		*105*	*70-130*			
Matrix Spike Dup (0I21002-MSD1)	**Source: MJI0195-02**			Prepared & Analyzed: 09/21/00						
Purgeable Hydrocarbons	238	50.0	ug/l	250	ND	95.2	60-140	0.837	25	
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	09/26/00 18:44

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0I13007 - General Preparation										
Blank (0I13007-BLK1)				Prepared & Analyzed: 09/12/00						
Total Suspended Solids	ND	10.0	mg/l							
Duplicate (0I13007-DUP1)	Source: MJ10157-01			Prepared & Analyzed: 09/12/00						
Total Suspended Solids	ND	10.0	mg/l		30.0				20	
Batch 0I15011 - General Preparation										
Blank (0I15011-BLK1)				Prepared & Analyzed: 09/14/00						
Chemical Oxygen Demand	ND	20.0	mg/l							
LCS (0I15011-BS1)				Prepared & Analyzed: 09/14/00						
Chemical Oxygen Demand	99.2	20.0	mg/l	100		99.2	80-120			
Matrix Spike (0I15011-MS1)	Source: MJ10195-03			Prepared & Analyzed: 09/14/00						
Chemical Oxygen Demand	128	20.0	mg/l	100	29.2	98.8	75-125			
Matrix Spike Dup (0I15011-MSD1)	Source: MJ10195-03			Prepared & Analyzed: 09/14/00						
Chemical Oxygen Demand	131	20.0	mg/l	100	29.2	102	75-125	2.32	20	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	09/26/00 18:44

Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628/0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	09/26/00 18:44

Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ARCO Products Company — Chain of Custody

Division of AtlanticRichfieldCompany

809628 Task Order No. 5

ARCO Facility no.	0608
City (Facility)	17001 Hesperian Blvd
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	Southbay
Consultant name	IT Group
Address (Consultant)	1921 Ringwood Ave. San Jose CA 95131
Project manager (Consultant)	Shaw Qaraqali
Telephone no. (Consultant)	(408) 453 7300
Fax no. (Consultant)	(408) 437 9526
Laboratory name	Sequoia
Contract number	
Method of shipment	MSI0195

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 8020/EPA 8020	BTEX/TPH EPA 8020/8015/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 8240/8260	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	GAD	T130
INFL		3		W		Y	HCl	9/8/00	9:00		X								01			
MID1		3		↓		↓	HCl	↓	9:05		↓								02			
EFFL		7		↓		↓	HCl/HNO3	↓	9:15		↓								03		X	X

Special detection Limit/reporting: 11 | 49

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:

	Date	Time
Relinquished by sample:	9/8/00	1300
Relinquished by:		
Relinquished by:		

	Date	Time
Received by:		
Received by:		9/11 11:40
Received by laboratory:		

9/11 10:3

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

Rev. 4 (2-91)

SEP-27-2000 17:34 97% P.09

Sequoia Analytical

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

30 August, 2000

Shaw Garakani
Pacific Environmental Group (Arco)
1921 Ringwood Avenue
San Jose, CA 95131

RE: Arco
Sequoia Report: MJH0404

Enclosed are the results of analyses for samples received by the laboratory on 08/11/00 14:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ted Terrasas
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 17601 Hesperian Blvd./809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/30/00 11:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INFL	MJH0404-01	Water	08/10/00 09:45	08/11/00 14:25
MID-1	MJH0404-02	Water	08/10/00 09:50	08/11/00 14:25
EFFL	MJH0404-03	Water	08/10/00 09:55	08/11/00 14:25

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ted Terrasas, Project Manager

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 17601 Hesperian Blvd/809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/30/00 11:29

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

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
INFL (MJH0404-01) Water Sampled: 08/10/00 09:45 Received: 08/11/00 14:25									
Purgeable Hydrocarbons as Gasoline	**144**	50.0	ug/l	1	0080104	08/23/00	08/23/00	DHS LUFT	P-02
Benzene	**2.80**	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	**1.04**	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**126**	5.00	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*119 %*	*70.0-130*		"	"	"	"	
MID-1 (MJH0404-02) Water Sampled: 08/10/00 09:50 Received: 08/11/00 14:25									
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l	1	0080104	08/23/00	08/23/00	DHS LUFT	
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		*102 %*	*70.0-130*		"	"	"	"	
EFFL (MJH0404-03) Water Sampled: 08/10/00 09:55 Received: 08/11/00 14:25									
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l	1	0080104	08/23/00	08/23/00	DHS LUFT	
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		*99.4 %*	*70.0-130*		"	"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 17601 Hesperian Blvd./809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/30/00 11:29

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EFFL (MJH0404-03) Water Sampled: 08/10/00 09:55 Received: 08/11/00 14:25									
Chemical Oxygen Demand	**23.4**	20.0	mg/l	1	0H14034	08/14/00	08/14/00	EPA 410.4	
Total Suspended Solids	ND	10.0	"	"	0H14005	08/13/00	08/13/00	EPA 160.2	

Sequoia Analytical

895 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 17601 Hesperian Blvd./809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/30/00 11:29

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0H14005 - General Preparation										
Blank (0H14005-BLK1)				Prepared & Analyzed: 08/13/00						
Total Suspended Solids	ND	10.0	mg/l							
Duplicate (0H14005-DUP1)		Source: MJH0404-03		Prepared & Analyzed: 08/13/00						
Total Suspended Solids	ND	10.0	mg/l		ND				20	
Batch 0H14034 - General Preparation										
Blank (0H14034-BLK1)				Prepared & Analyzed: 08/14/00						
Chemical Oxygen Demand	ND	20.0	mg/l							
LCS (0H14034-BS1)				Prepared & Analyzed: 08/14/00						
Chemical Oxygen Demand	117	20.0	mg/l	100		117	80-120			
Matrix Spike (0H14034-MS1)		Source: MJH0404-03		Prepared & Analyzed: 08/14/00						
Chemical Oxygen Demand	117	20.0	mg/l	100	23.4	93.6	75-125			
Matrix Spike Dup (0H14034-MSD1)		Source: MJH0404-03		Prepared & Analyzed: 08/14/00						
Chemical Oxygen Demand	117	20.0	mg/l	100	23.4	93.6	75-125	0	20	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 17601 Hesperian Blvd./809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/30/00 11:29

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

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0080104 - EPA 5030B [P/T]										
Blank (0080104-BLK1)				Prepared & Analyzed: 08/23/00						
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
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	*11.6*		"	*10.0*		*116*	*70.0-130*			
LCS (0080104-BS1)				Prepared & Analyzed: 08/23/00						
Benzene	10.4	0.500	ug/l	10.0		104	70.0-130			
Toluene	9.80	0.500	"	10.0		98.0	70.0-130			
Ethylbenzene	9.69	0.500	"	10.0		96.9	70.0-130			
Xylenes (total)	29.5	0.500	"	30.0		98.3	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	*9.98*		"	*10.0*		*99.8*	*70.0-130*			
LCS (0080104-BS2)				Prepared & Analyzed: 08/23/00						
Purgeable Hydrocarbons as Gasoline	231	50.0	ug/l	250		92.4	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	*11.8*		"	*10.0*		*118*	*70.0-130*			
Matrix Spike (0080104-MS1)	Source: L008142-02			Prepared: 08/23/00 Analyzed: 08/24/00						
Benzene	9.87	0.500	ug/l	10.0	ND	98.7	60.0-140			
Toluene	9.26	0.500	"	10.0	ND	92.6	60.0-140			
Ethylbenzene	9.21	0.500	"	10.0	ND	92.1	60.0-140			
Xylenes (total)	27.9	0.500	"	30.0	ND	93.0	60.0-140			
Surrogate: a,a,a-Trifluorotoluene	*9.83*		"	*10.0*		*98.3*	*70.0-130*			
Matrix Spike Dup (0080104-MSD1)	Source: L008142-02			Prepared: 08/23/00 Analyzed: 08/24/00						
Benzene	8.61	0.500	ug/l	10.0	ND	86.1	60.0-140	13.6	25.0	
Toluene	8.14	0.500	"	10.0	ND	81.4	60.0-140	12.9	25.0	
Ethylbenzene	8.09	0.500	"	10.0	ND	80.9	60.0-140	12.9	25.0	
Xylenes (total)	24.6	0.500	"	30.0	ND	82.0	60.0-140	12.6	25.0	
Surrogate: a,a,a-Trifluorotoluene	*9.16*		"	*10.0*		*91.6*	*70.0-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 17601 Hesperian Blvd./809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/30/00 11:29

Notes and Definitions

P-02	Chromatogram Pattern: Weathered Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ARCO Products Company — Division of Atlantic Richfield Company

Task Order No. 809628

Chain of Custody

ARCO Facility no. 0608	City (Facility) 7601 HESPERIAN BLVD	Project manager (Consultant) SHAW CARAIGANI	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO) SAN LEANDRO	Telephone no. (Consultant) 408) 453 7300	Fax no. (Consultant) (408) 453 7506
Consultant name IT GROUP	Address (Consultant) 1991 RIVERWOOD AV. SAN JOSE CA		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA 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 ☐	COD	TDS
INFL		3		X		4	HCl	9:45	8:1000		X											
MID		3		↓		↓	HCl	9:50	↓		↓											
EFFL		5		↓		↓	HCl/H2SO4	9:55	↓		↓										X	X

Special detection Limit/reporting

Method of shipment MSH0404

Special QA/QC

Remarks

Lab number

Turnaround time

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

Condition of sample:		Temperature received:	
Relinquished by sampler	Date 8/10/00 Time 10:30	Received by	Date 8/11/00 Time 0945
Relinquished by	Date 8/11/00 Time	Received by	
Relinquished by	Date Time	Received by laboratory	Date 8/11/00 Time 1425

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

APC-3292 (2-91)

Sequoia Analytical

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

4 August, 2000

Shaw Garakani
Pacific Environmental Group (Arco)
1921 Ringwood Avenue
San Jose, CA 95131

RE: Arco
Sequoia Report: MJG0193

Enclosed are the results of analyses for samples received by the laboratory on 07/10/00 12:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ted Terrasas
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/04/00 10:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INFL	MJG0193-01	Water	07/08/00 00:00	07/10/00 12:15
EFFL	MJG0193-02	Water	07/08/00 00:00	07/10/00 12:15
MID 1	MJG0193-03	Water	07/08/00 00:00	07/10/00 12:15

Ted Terrasas, Project Manager

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/04/00 10:36

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
INFL (MJG0193-01) Water Sampled: 07/08/00 00:00 Received: 07/10/00 12:15									
Purgeable Hydrocarbons	**133**	50.0	ug/l	1	0G17002	07/17/00	07/17/00	DHS LUFT	P-01
Benzene	**5.09**	0.500	"	"	"	"	"	"	
Toluene	**0.598**	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	**272**	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*70-130*		"	"	"	"	
EFFL (MJG0193-02) Water Sampled: 07/08/00 00:00 Received: 07/10/00 12:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0G18002	07/18/00	07/18/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.1 %*	*70-130*		"	"	"	"	
MID 1 (MJG0193-03) Water Sampled: 07/08/00 00:00 Received: 07/10/00 12:15									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	0G17002	07/17/00	07/17/00	DHS LUFT	
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.1 %*	*70-130*		"	"	"	"	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/04/00 10:36

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EFFL (MJG0193-02) Water Sampled: 07/08/00 00:00 Received: 07/10/00 12:15									
Chemical Oxygen Demand	32.1	20.0	mg/l	1	0G14018	07/14/00	07/14/00	EPA 410.4	
Total Suspended Solids	ND	10.0	"	"	0G11018	07/10/00	07/10/00	EPA 160.2	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/04/00 10:36

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0G17002 - EPA 5030B [P/T]										
Blank (0G17002-BLK1)				Prepared & Analyzed: 07/17/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*9.90*		"	*10.0*		*99.0*	*70-130*			
LCS (0G17002-BS1)				Prepared & Analyzed: 07/17/00						
Purgeable Hydrocarbons	226	50.0	ug/l	250		90.4	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.6*		"	*10.0*		*106*	*70-130*			
Matrix Spike (0G17002-MS1)	Source: MJG0193-03			Prepared & Analyzed: 07/17/00						
Purgeable Hydrocarbons	240	50.0	ug/l	250	ND	96.0	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.6*		"	*10.0*		*106*	*70-130*			
Matrix Spike Dup (0G17002-MSD1)	Source: MJG0193-03			Prepared & Analyzed: 07/17/00						
Purgeable Hydrocarbons	234	50.0	ug/l	250	ND	93.6	60-140	2.53	25	
Surrogate: a,a,a-Trifluorotoluene	*10.4*		"	*10.0*		*104*	*70-130*			
Batch 0G18002 - EPA 5030B [P/T]										
Blank (0G18002-BLK1)				Prepared & Analyzed: 07/18/00						
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	2.50	"							
Surrogate: a,a,a-Trifluorotoluene	*10.3*		"	*10.0*		*103*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA. 95131	Project Manager: Shaw Garakani	08/04/00 10:36

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0G18002 - EPA 5030B [P/T]										
LCS (0G18002-BS1)				Prepared & Analyzed: 07/18/00						
Purgeable Hydrocarbons	251	50.0	ug/l				70-130			
Surrogate: a,a,a-Trifluorotoluene	*11.0*		"	*10.0*		*110*	*70-130*			

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	Reported:
San Jose CA, 95131	Project Manager: Shaw Garakani	08/04/00 10:36

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0G11018 - General Preparation										
Blank (0G11018-BLK1)				Prepared & Analyzed: 07/10/00						
Total Suspended Solids	ND	10.0	mg/l							
Duplicate (0G11018-DUP1)		Source: MJG0188-01		Prepared & Analyzed: 07/10/00						
Total Suspended Solids	ND	10.0	mg/l		ND				20	
Batch 0G14018 - General Preparation										
Blank (0G14018-BLK1)				Prepared & Analyzed: 07/14/00						
Chemical Oxygen Demand	ND	20.0	mg/l							
LCS (0G14018-BS1)				Prepared & Analyzed: 07/14/00						
Chemical Oxygen Demand	96.3	20.0	mg/l	100		96.3	80-120			
Matrix Spike (0G14018-MS1)		Source: MJG0193-02		Prepared & Analyzed: 07/14/00						
Chemical Oxygen Demand	111	20.0	mg/l	100	32.1	78.9	75-125			
Matrix Spike Dup (0G14018-MSD1)		Source: MJG0193-02		Prepared & Analyzed: 07/14/00						
Chemical Oxygen Demand	114	20.0	mg/l	100	32.1	81.9	75-125	2.67	20	

Sequoia Analytical

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

Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 809628	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	08/04/00 10:36

Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

ATTACHMENT E

HOMEOWNER WELL DESTRUCTION SUMMARY

November 3, 2000
Project 809628 (330-006)

Well Destruction at 590 and 633 Hacienda Ave.
ARCO Products Company
1760 Hesperian Boulevard
San Lorenzo, California
San Lorenzo, CA 94580

IT Corporation (IT) on behalf of ARCO Products Company established an agreement with the property owners at 590 and 633 Hacienda Ave San Lorenzo, California to destroy the shallow irrigation water supply wells at the locations referenced above. Below is a brief summary of the well destruction procedure.
IT applied for the necessary permits from the Alameda County Public Works Agency to destroy the above mentioned wells. Drilling permit numbers WOO-500 and WOO-501 and shallow well destruction requirements were issued to IT August 16, 2000. Copies of the permits are enclosed.

Gregg Drilling was contracted to perform the shallow well destruction according to the issued permits requirements. The work was performed on September 15, 2000. An IT staff was present and witnessed and documented the event. An IT technician disconnected the electrical wiring and removed the pumps and associated piping from the wells. The wells were gauged to determine total depth. The well at 590 Hacienda was 25 feet deep and the well at 633 Hacienda was 30 feet deep (measured from the top of the well casing.) The wells were also inspected for any obstructions, no obstruction was found. Soil was removed from around the well casings to approximately two feet below the grade. Subsequently, the well casings were cut off two feet below grade.

Gregg Drilling proceeded to destroy the wells by pumping a Portland cement based grouting compound into the casings with a tremie pipe to fill the casings from the bottom up. The casings were filled slowly and the grout was allowed to settle and be refilled as necessary. The grout was allowed to spill over the top of the casings to fill any annular space between the casing and soil. The grout was allowed adequete time to set before the hole was backfilled with the native soil to match the existing grade.

Upon completion of the well destruction, the property owners inspected the work and acknowledged their satisfaction in writing.

Enclosure: Drilling Permits

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5743
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 590 Hacienda Avenue
San Lorenzo, CA

CLIENT
Name Arco Corporation
Address 704 228th Ave NE 482 Phone
City Redmond, WA Zip 98053

APPLICANT
Name IT Corporation
Address 1921 Ringwood Avenue Fax 408-437-9521
City San Jose, CA Phone 408-350-5676
Zip 95131

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☒

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒ Pressure Grout		

DRILLER'S NAME Gregg Drilling

DRILLER'S LICENSE NO. C-57 485165

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter 4 in. Depth 32 ft.
Surface Seal Depth ____ ft. Owner's Well Number DOM 1

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

ESTIMATED STARTING DATE September 2000? 1 day project
ESTIMATED COMPLETION DATE September 2000

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68

APPLICANT'S SIGNATURE [signature] DATE 08/16/00

PLEASE PRINT NAME Ryan Ruiz

Rev.6-5-00

FOR OFFICE USE

PERMIT NUMBER W00-500
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

(A) GENERAL
(1) A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2) Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
(3) Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

(F) WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 8-16-00

TOTAL P.03

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5584 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 623 Hacienda Avenue
San Lorenzo, CA

CLIENT
Name Arco Corporation
Address 704 228th Ave NE 482 Phone
City Redmond, WA Zip 98053

APPLICANT
Name IT Corporation Fax 408-437-9526
Address 1921 Ringwood Avenue Phone 408-350-5676
City San Jose, CA Zip 95131

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	( )	General	( )
Water Supply	( )	Contamination	( )
Monitoring	( )	Well Destruction	(X)

PROPOSED WATER SUPPLY WELL USE

New Domestic	( )	Replacement Domestic	( )
Municipal	( )	Irrigation	( )
Industrial	( )	Other	(X)

DRILLING METHOD:

Mud Rotary	( )	Air Rotary	( )	Auger	( )
Cable	( )	Other	(X) Pressure Grout		

DRILLER'S NAME Gregg Drilling

DRILLER'S LICENSE NO C-57 455165

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter 4 in. Depth 32 ft.
Surface Seal Depth ____ ft. Owner's Well Number DOM 2

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

ESTIMATED STARTING DATE September 2000 2 1 day project
ESTIMATED COMPLETION DATE September 2000

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 08/16/00

PLEASE PRINT NAME Ryan Ruiz

Rev. 6-5-00

FOR OFFICE USE

PERMIT NUMBER W00-501
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie

(F.) WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 8-16-00

TOTAL P.03

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-5554 FAX (510) 782-1939

WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE
Destruction of Shallow Water Wells (Less than 45 feet in depth)

W00-500 & W00-501

Destruction Requirements:

1. Sound the well as deeply as practicable and record for your drillers well report.

2. Remove motor, pump column and bowel assembly, etc. as necessary. Overdrill or clean out to original depth.

3. Remove any casing(s) and annular seal to 2 feet below finished grade of original ground, whichever is the lower elevation.

4. Destroy well by grouting neat cement with a tremie pipe to the bottom of the well and by filling with neat cement to three (3) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

5. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

6. Permit is void if project not begun within 90 days of approval date.

7. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days.

8. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.