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Quarterly Groundwater Monitoring Report
Second Quarter 2001

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

AUG 31 2001

Prepared for

Mr. Paul Supple
ARCO Products Company

August 30, 2001

Prepared by

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

Project 821803 (330-006)

Shaw Garakani
Project Manager

Andrew Lehane
Senior Engineer
RCE 55798

REGISTERED PROFESSIONAL ENGINEER
ANDREW D. LEHANE
55798
EXP. 12/31/04
CIVIL
STATE OF CALIFORNIA

AUG 31 2001

Date: August 30, 2001
Quarter: 2Q01

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

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

ARCO Environmental Engineer: Paul Supple
Consulting Co./Contact Person: IT Corporation (IT) – Shaw Garakani
Consultant Project No.: 821803 (330-006)
Primary Agency/Regulatory ID No.: Alameda County Health Care Services Agency
Monitoring Events Performed to Date: 49

WORK PERFORMED THIS QUARTER (Second – 2001):

1. Submitted First quarter 2001 groundwater monitoring report.
2. IT performed second quarter 2001 groundwater monitoring event on June 14, 2001.
3. Prepared first quarter 2001 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. Performed soil sampling during product line replacement.
8. ARCO initiated expansion of the below-grade remedial system piping during the service station remodeling activities.

WORK PROPOSED FOR NEXT QUARTER (Third – 2001):

1. Prepare and submit second quarter 2001 groundwater monitoring and remedial system performance evaluation report.
2. IT will perform third quarter 2001 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.
6. Issue a report summarizing product line removal activities and findings.
7. Complete expansion of the below-grade remedial system piping during the service station remodeling activities.

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:	9.51 to 12.25	(Measure Feet)
Groundwater Gradient:	NA/NA	(Direction/Magnitude)
Period TPPH-g/Benzene/MtBE Removed:	0.03/ 0.00/ 0.01	(gallons)
Cumulative TPPH-g/Benzene/MtBE Removed:	1.03/ 0.04/ 0.14	(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 elevated concentrations of methyl tert-butyl ether (MtBE), the GWET system was reactivated on June 5, 2000. Performance evaluation of the GWET system is presented as Attachment C.

ATTACHMENTS:

- Table 1 - Groundwater Sampling Schedule
- Table 2 - Groundwater Elevation and Analytical Data – Groundwater Monitoring Wells
- Table 3 - Groundwater Analytical Data – Domestic Irrigation Wells
- Figure 1 – Site Map
- Figure 2 – Groundwater Elevation Contour Map – Second Quarter 2001
- Figure 3 – TPPH-g/Benzene/MtBE Concentration Map – Second Quarter 2001
- 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 the Groundwater Extraction and Treatment System

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

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
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

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
	9/19,20/00		12.45	21.54	<50.0	<0.50	<0.50	<0.50	<0.50	51	2.2
	12/14,15/00		12.03	21.96	152.0	1.33	0.56	<0.50	<0.50	<2.50	1.0
	3/8,9/01		10.81	23.18	<50.0	<0.50	<0.50	<0.50	<0.50	73.8	1.6
	06/14/01		12.25	21.74	<50.0	<0.50	<0.50	<0.50	<0.50	47.0	1.8
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	<	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
	12/14,15/00		10.97	21.82	243	<0.50	<0.50	<0.50	<0.50	243	2.0
	3/8,9/01		9.80	22.99	144	<0.50	<0.50	<0.50	<0.50	188	3.0
	06/14/01		11.22	21.57	150	3.2	0.75	<0.50	1.0	230	3.4

Table 2
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells

ARCO Service Station 0608
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San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-9	03/13,15/96	32.11	7.65	24.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.67	22.44	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28,29/96		10.78	21.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.24	21.87	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		9.95	22.16	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.85	21.26	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.87	21.24	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		10.70	21.41	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	03/19,20/98		8.63	23.48	<50	<0.50	<0.50	<0.50	<0.50	58	4.8
	06/04/98		9.35	22.76	<50	<0.30	<0.30	<0.30	<0.60	<10	2.0
	09/21,22/98		10.55	21.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	12/14,15/98		9.98	22.13	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	03/15,16/99		9.10	23.01	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.0
	06/14,15/99		10.32	21.79	<50	<0.50	<0.50	<0.50	<0.50	3.27	2.2
	09/15,16/99		10.83	21.28	<50	<0.50	<0.50	<0.50	<0.50	<5.0	3.2
	12/08,09/99		10.70	21.41	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
	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
	12/14,15/00		10.35	21.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	3/8,9/01		9.05	23.06	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	06/14/01		10.33	21.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
MW-10 ††	03/13,14/96	31.67	7.78	23.89	870	35	<5.0	5.2	7.0	NA	NM
	05/29/96		10.00	21.67	800	<1.0	<1.0	<1.0	<1.0	NA	NM
	08/28/96		10.93	20.74	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96		10.45	21.22	1,100	6.0	4.9	3.8	9.5	200	NM
	03/31/97 †		10.15	21.52	160	<0.50	<0.50	<0.50	<0.50	140	NM
	06/25/97		10.99	20.68	800	4.2	1.4	1.5	1.4	170	NM
	09/09,10/97		11.08	20.59	950	<1.2	3.3	2.5	3.7	240	2.0
	09/09,10/97 a		--	--	--	--	--	--	--	210	--
	11/24,25/97		10.85	20.82	920	5.7	6.7	<5.0	<5.0	160	2.4
	11/24,25/97		--	--	--	--	--	--	--	160	--
	03/19/98		8.78	22.89	330	1.7	<0.50	<0.50	<0.50	130	1.0
	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
	12/14,15/00		10.35	21.32	456	10.50	1.01	0.60	<0.50	145	4.0
	3/8,9/01		9.12	22.55	509	<0.50	21.90	3.16	3.55	161	3.2
	06/14/01		10.55	21.12	710	9.20	2.60	<0.50	1.50	290	3.0
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

Table 2
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells

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-11	06/14,15/99			11.25	21.29	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.4
(cont.)	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
	3/8,9/01			11.00	21.54	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.0
	3/8,9/01			9.78	22.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	06/14/01			11.23	21.31	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.4
E-1A ††	03/13,14/96		33.06	10.35	22.71	2,700	38	<5.0	130	6.2	NA	NM
(MW-12)	05/28,29/96			11.50	21.56	1,400	410	18	55	5.5	NA	NM
	08/28/96			11.70	21.36	NS	NS	NS	NS	NS	NS	NM
	11/25,26/96			11.18	21.88	4,300	13	<5.0	100	20	220	NM
	03/31/97	†		12.65	20.41	1,900	7.9	<2.0	62	3.5	140	NM
	06/25/97			11.82	21.24	4,900	21	<5.0	53	6.8	160	NM
	09/09,10/97			11.85	21.21	3,200	9.0	<5.0	45	<5.0	85	2.0
	09/09,10/97	a		--	--	--	--	--	--	--	70	--
	11/24,25/97			11.75	21.31	2,000	10	<2.5	42	2.8	65	1.0
	03/19,20/98			9.65	23.41	11,000	1,300	<0.50	550	380	220	6.2
	06/04/98	b		10.47	22.59	4,500	3.3	0.92	41	4.0	51	1.5
	09/21,22/98			11.60	21.46	3,300	1.7	<0.50	29	3.6	52	1.8
	12/14,15/98			11.10	21.96	3,100	21	6.7	28	<5.0	140	1.0
	03/15,16/99			10.25	22.81	3,900	24.5	<20	41.2	<20	296	1.0
	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
	12/14,15/00			NA	NA	181	<0.50	<0.50	0.789	<0.50	100	1.4
	3/8,9/01			23.80	9.26	370	1.78	<0.50	0.765	<0.50	76	1.6
	06/14/01			21.10	11.96	180	<0.50	<0.50	0.54	<0.50	100	2.6
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

Table 2
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells

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-14	06/14,15/99		9.54	20.92	---------- Well Sampled Annually ----------						
(cont.)	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 ----------						
	12/14,15/00		9.14	21.32	---------- Well Sampled Annually ----------						
	3/8,9/01		8.10	22.36	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	06/14/01		9.51	20.95	---------- 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 ----------						
	03/19/98		9.15	22.26	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.2
	06/04/98		NM		---------- Well Inaccessible ----------						
	09/21,22/98		NM		---------- 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		NM		---------- Well Inaccessible ----------						
	06/14,15/99		NM		---------- Well Inaccessible ----------						
	09/15, 16/99		NM		---------- 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
	12/14,15/00		NM	NA	---------- Well Inaccessible ----------						
	3/8,9/01		9.48	21.93	<50	<0.5	<0.5	<0.5	<0.5	63.8	2.6
	06/14/01		10.95	20.46	<50	<0.5	<0.5	<0.5	<0.5	26.0	3.0
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
	12/14,15/00		11.25	20.14	<50	<0.50	<0.50	<0.50	<0.50	6.14	2.0
	3/8,9/01		10.01	21.38	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	06/14/01		11.47	19.92	<50	<0.50	<0.50	<0.50	<0.50	2.5	2.6
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

Table 2
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ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-18	03/31-04/01/97		10.14	19.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
(cont.)	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						
	12/14,15/00		10.39	19.31	Well Sampled Annually						
	3/8,9/01		9.03	20.67	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.4
	06/14/01		10.40	19.30	Well Sampled Annually						
MW-19	03/13/96	29.02	7.06	21.96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		9.42	19.60	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.33	18.69	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		9.67	19.35	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		9.65	19.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.41	18.61	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.47	18.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24,25/97		10.35	18.67	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.6
	03/19/98		8.67	20.35	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/03/98		9.15	19.87	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2
	09/21,22/98		10.28	18.74	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	12/14/98		9.70	19.32	<50	<0.50	<0.50	0.588	0.647	<2.0	2.4
	03/15,16/99	Well Inaccessible									
	06/14,15/99	Removed From Gauging and Sampling Program									
MW-20		Well Destroyed									
MW-21	03/13/96	28.72	7.58	21.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28,29/96		9.85	18.87	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		10.75	17.97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		10.00	18.72	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		10.03	18.69	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		10.83	17.89	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		10.90	17.82	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		10.50	18.22	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98		9.08	19.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.08
	06/03/98		9.57	19.15	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.6
	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						
	12/14,15/00		10.30	18.42	Well Sampled Annually						
	3/8,9/01		9.00	19.72	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.4
	06/14/01		10.40	18.32	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

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Well Number	Date Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-22	03/31-04/01/97		10.56	18.73	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
(cont.)	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
	12/14,15/00		10.85	18.44	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	3/8,9/01		9.43	19.86	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.8
	06/14/01		10.98	18.31	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
MW-23	03/13/96	30.99	9.13	21.86	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96		11.37	19.62	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96		12.31	18.68	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	11/25/96		11.76	19.23	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31-04/01/97		11.56	19.43	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97		12.39	18.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09,10/97		12.53	18.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.0
	11/24,25/97		12.13	18.86	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98		10.22	20.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.4
	06/03/98		11.03	19.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.3
	09/21,22/98		12.31	18.68	<50	<0.50	0.54	1.9	<0.50	<2.5	2.2
	12/14/98		11.67	19.32	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.0
	03/15,16/99		10.82	20.17	<50	<0.50	<0.50	<0.50	<0.50	<5.0	2.6
	06/14,15/99		12.08	18.91	Well Sampled Annually						
	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						
	12/14,15/00		12.25	18.74	Well Sampled Annually						
	3/8,9/01		10.49	20.50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	06/14/01		11.97	19.02	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

Table 2
Groundwater Elevation and Analytical Data
Groundwater Monitoring Wells

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-25	09/09,10/97	a		--	--	--	--	--	--	--	79	--
(cont.)	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	192	1.2
	12/14,15/00			11.74	22.38	<50	<0.50	<0.50	<0.50	<0.50	134	4.0
	3/8,9/01			10.53	23.59	<50	<0.50	<0.50	<0.50	<0.50	140	2.6
	06/14/01			11.95	22.17	<50	<0.50	<0.50	<0.50	<0.50	150	2.6
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						
	12/08,09/99			12.57	21.14	Well Sampled Annually						
	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						
	12/14,15/00			11.88	21.83	Well Sampled Annually						
	3/8,9/01			10.78	22.93	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.6
	06/14/01			12.17	21.54	Well Sampled Annually						

MtBE er
MSL vel
TOB ox
ppb ion
ppm ion
< ht.
† g-
†† 95
y 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 fo gauging events.

Please see certified analytical reports for laboratory notes and definitions.

Table 3
Groundwater Analytical Data
Domestic Irrigation Wells

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
Groundwater Analytical Data
Domestic Irrigation Wells

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
	12/14/00 e	NS	NS	NS	NS	NS	NS	NM
	03/08/01 e	NS	NS	NS	NS	NS	NS	NM
	06/14/01 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
	12/14/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	03/08/01 a	NS	NS	NS	NS	NS	NS	NM
	06/14/01 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

Table 3
Groundwater Analytical Data
Domestic Irrigation Wells

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)
675 H	12/14/00 f	NS	NS	NS	NS	NS	NS	NM
(cont.)	03/08/01 f	NS	NS	NS	NS	NS	NS	NM
	06/14/01 f	NS	NS	NS	NS	NS	NS	NM
17197 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
	03/19/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.2
	06/03/98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.2
	09/21/98	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	12/14/98	<50	<0.50	<0.50	<0.50	<0.50	<2.0	2.4
	03/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.6
	06/14/99	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.8
	09/15/99	<50	<0.50	<0.50	<0.50	<0.50	<5.0	1.0
	12/08/99 a	NS	NS	NS	NS	NS	NS	NM
	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
	12/14/00 f	NS	NS	NS	NS	NS	NS	NM
	03/08/01 f	NS	NS	NS	NS	NS	NS	NM
	06/14/01 f	NS	NS	NS	NS	NS	NS	NM
17200 VM	03/15/96	730	<1.0	<1.0	1.5	1.7	NA	NM
	05/27/96	200	<0.50	<0.50	1.4	1.8	NA	NM
	08/29/96	Well Destroyed						
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
	12/14/00 f	NS	NS	NS	NS	NS	NS	NM
	03/08/01 f	NS	NS	NS	NS	NS	NS	NM
	06/14/01 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

Table 3
Groundwater Analytical Data
Domestic Irrigation Wells

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	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5		NM
(cont.)	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5		NM
	09/09/97 f	NS	NS	NS	NS	NS	NS		NM
	11/24/97 f	NS	NS	NS	NS	NS	NS		NM
	03/19/98 f	NS	NS	NS	NS	NS	NS		NM
	06/03/98 f	NS	NS	NS	NS	NS	NS		NM
	09/21/98 f	NS	NS	NS	NS	NS	NS		NM
	12/14/98 f	NS	NS	NS	NS	NS	NS		NM
	03/15/99 f	NS	NS	NS	NS	NS	NS		NM
	06/14/99 f	NS	NS	NS	NS	NS	NS		NM
	09/15/99 f	NS	NS	NS	NS	NS	NS		NM
	12/08/99 f	NS	NS	NS	NS	NS	NS		NM
	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
	12/14/00 f	NS	NS	NS	NS	NS	NS		NM
	03/08/01 f	NS	NS	NS	NS	NS	NS		NM
	06/14/01 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
	12/14/00 f	NS	NS	NS	NS	NS	NS		NM
	03/08/01 f	NS	NS	NS	NS	NS	NS		NM
	06/14/01 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

Table 3
Groundwater Analytical Data
Domestic Irrigation Wells

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	06/03/98	860	8.7	<0.50	0.7	8.0	38		4.9
(cont.)	07/29/98	860	20	2.1	<1.2	<1.2	27		NM
	07/29/98	--	--	--	--	--	25	c	NM
	09/21/98	200	<0.50	<0.50	<0.50	14	14		5.2
	12/14/98	254	<0.50	6.92	0.604	1.58	21.7		1.0
	03/15/99	172	1.35	<0.50	<0.50	<0.50	24.2		3.6
	06/14/99	91	<0.50	3.53	<0.50	<0.50	88.3		2.8
	09/15/99 a	133	<0.50	<0.50	<0.50	<0.50	184		2.2
	12/08/99	136	0.681	<0.50	<0.50	<0.50	267	c	2.4
	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
	12/14/00	65.9	0.61	<0.50	<0.50	<0.50	188.0		1.8
	12/14/00	--	--	--	--	--	197.0	c	NM
	03/08/01	<50	<0.50	<0.50	<0.50	<0.50	91.8		1.8
	03/08/01	--	--	--	--	--	98.3	c	NM
	06/14/01	<50	<0.50	<0.50	<0.50	<0.50	68.0		2.8
	06/14/01	--	--	--	--	--	99.0	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
	12/14/00 f	NS	NS	NS	NS	NS	NS		NM
	03/08/01 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

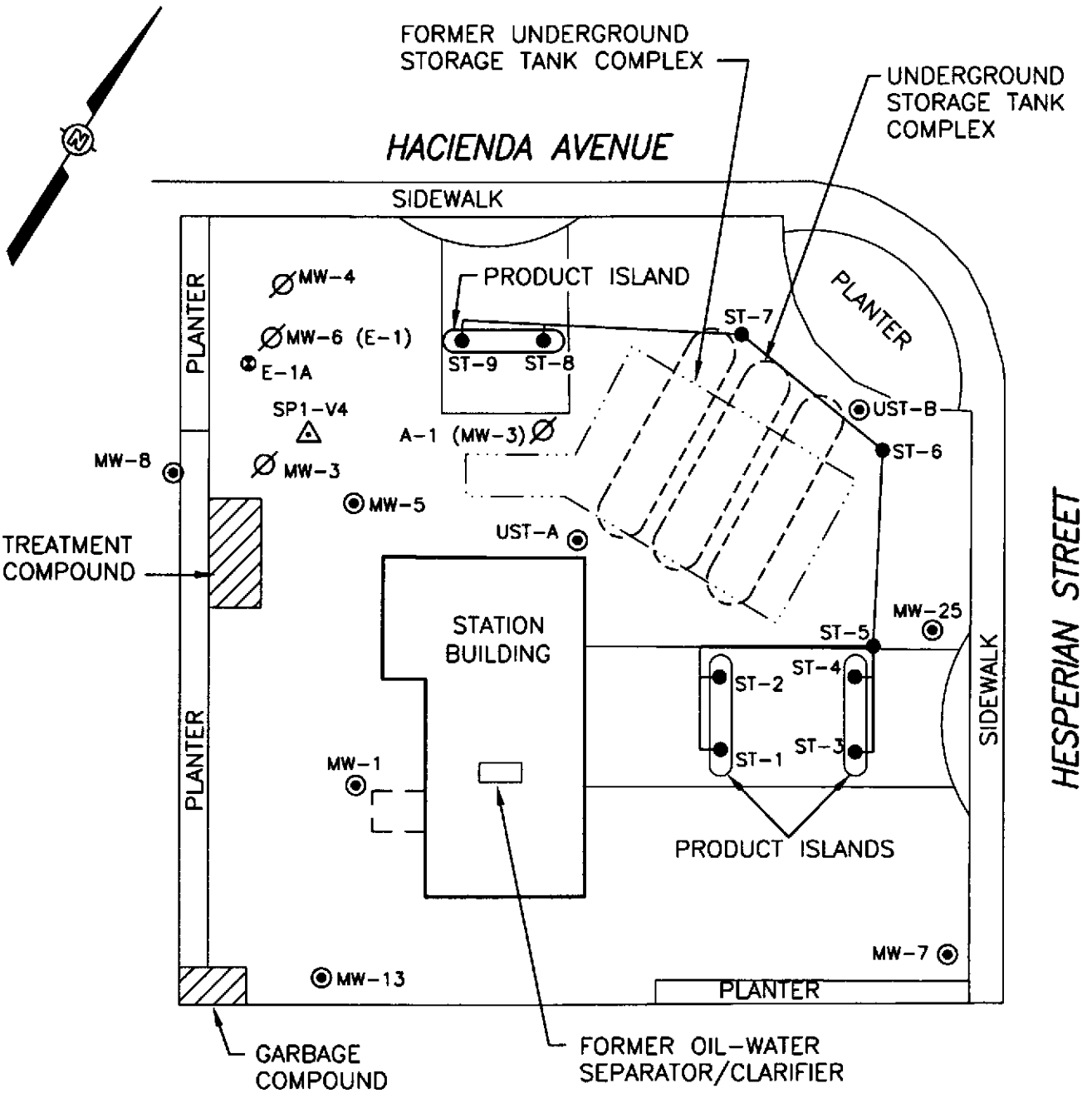
Table 3
Groundwater Analytical Data
Domestic Irrigation Wells

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

Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)		Dissolved Oxygen (ppm)
17372 VM	07/29/98	--	--	--	--	--	1,100	c	NM
(cont.)	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
	12/14/00	<50	<0.50	<0.50	<0.50	<0.50	<2.5		2.0
	03/08/01	<50	<0.50	<0.50	<0.50	<0.50	<2.5		2.4
	06/14/01	<50	<0.50	<0.50	<0.50	<0.50	<2.5		2.8
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
VM	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.

Notes:
Homeowners are contacted 1 week prior to sampling event.
Please see certified analytical reports for laboratory notes and definitions



PROJECT NUMBER	APPROVED BY	CHECKED BY	DRAWN BY
821803	--	--	L. Wahlgren 10-20-00

LEGEND

- ◉ GROUNDWATER MONITORING WELL
- ⊙ GROUNDWATER EXTRACTION WELL
- ∅ DESTROYED GROUNDWATER MONITORING WELL
- △ DUAL VAPOR EXTRACTION/SPARSE WELL
- ● SAMPLE LOCATIONS SAMPLED 6/19/01

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\Arco0608\Sitemap.dwg Tue, 28/Aug/01 01:23pm kblock

PROJECT NUMBER 821803
APPROVED BY
CHECKED BY
DRAWN BY K. Block 7-31-01

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

MW-20
MW-19†
MW-21 (18.32)
MW-18 (19.30)
MW-17
17200
MW-14 (20.95)
MW-24†
MW-26 (21.54)
MW-9 (21.78)
MW-10 (21.12)
E-1A (11.96)
MW-25 (22.17)
MW-8 (21.57)
MW-5 (21.74)
MW-7†
MW-16 (19.92)
SP-2/V-5
MW-15 (20.46)
MW-11 (21.31)
SP-1/V-4
MW-13†
MW-22 (18.31)
MW-23 (19.02)
17197
17203
17302
17372
633
17349
17371
17393
17348
675
642
634
590
12
19
20
21
22

LEGEND

- GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ∅ DESTROYED WELL
- GROUNDWATER EXTRACTION WELL
- ▪ DOMESTIC IRRIGATION WELL
- (21.78) GROUNDWATER ELEVATION (FT.–MSL); MEASURED 6–14–01
- 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
SECOND QUARTER 2001
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

/ N:\cad\DWG\Arco0608\GWC.dwg Tue, 28/Aug/01 01:26pm kblack

PROJECT NUMBER 821803
APPROVED BY
CHECKED BY
DRAWN BY K. Block 7-31-01

LEGEND

- ◉ GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ∅ DESTROYED WELL
- ⊛ GROUNDWATER EXTRACTION WELL
- ■ DOMESTIC IRRIGATION WELL
- 180 / <0.50 / 100 — TPPH-G/BENZENE/MtBE by EPA 8020 (MtBE by 8260) CONCENTRATIONS IN GROUNDWATER (PARTS PER BILLION); SAMPLED 6-14-01
- NS — NOT SAMPLED
- * — WELL SAMPLED ANNUALLY IN FIRST QUARTER
- † — WELL REMOVED FROM SAMPLING PROGRAM

VIA MANZANAS
POTRERO COURT
MW-20
MW-19 †
VIA MAGDALENA
VIA ARRIBA
APARTMENTS
APARTMENTS
SHOPS
HESPERIAN BOULEVARD
RESTAURANT
CHURCH AND SCHOOL
17200
MW-17
MW-18 *
MW-14 *
MW-24 †
RESIDENTIAL
MW-26 *
RESTAURANT
MW-9
<50 / <0.50 / <2.5
E-1A
180 / <0.50 / 100
MW-25
<50 / <0.50 / 150
MW-5
<50 / <0.50 / 47.0
MW-7 †
MW-13 †
VIA MEDIA
MW-21 *
VIA FLORES
17197 NS
17203 NS
17302 NS
17372 <50/<0.50/<2.5
MW-10
710 / 9.20 / 290
150 / 3.2 / 230
MW-8
SP-1/V-4
590
633
SP-2/V-5
MW-16
<50 / <0.50 / 2.5
RESIDENTIAL
MW-22
<50 / <0.50 / <2.5
17349
<50 / <0.50 / 68.0 (99.0)
MW-15
<50 / <0.50 / 26.0
MW-11
<50 / <0.50 / <2.5
17371 NS
VIA ENCINAS COURT
17393
17348 NS
642 NS
634 NS
RESIDENTIAL
SHOPS
675 NS
MW-23 *
HACIENDA AVENUE
VIA ALAMO

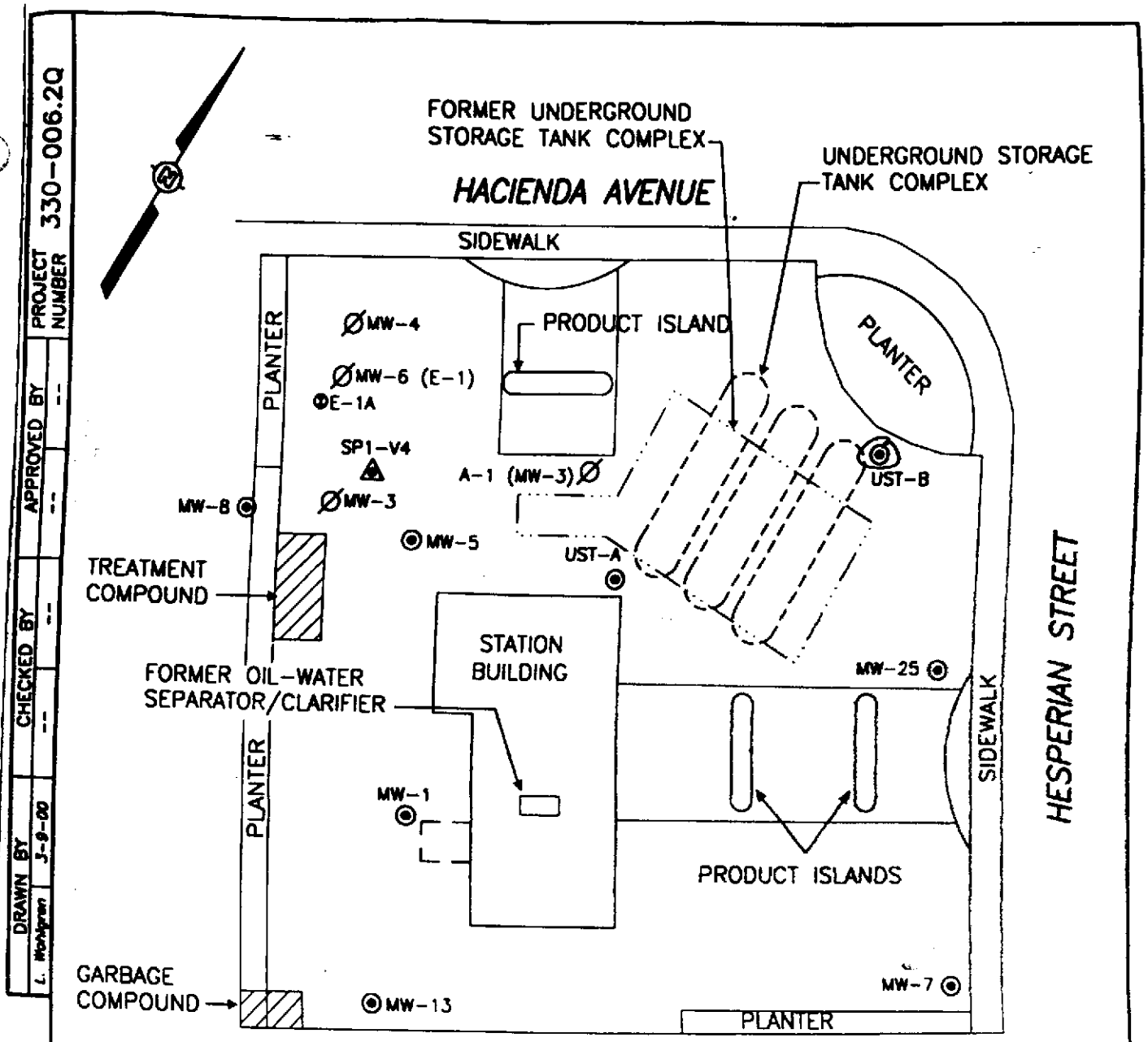
SCALE
0 150 300

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 3
TPPH-g/BENZENE/MtBE CONCENTRATION MAP
SECOND QUARTER 2001
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

/ N:\cad\DWG\Arco0608\CHEM.dwg Tue, 28/Aug/01 01:22pm kblack



LEGEND

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

SCALE

0 30 60 FEET

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 1
SITE MAP

17601 HESPERIAN BLVD AT HACIENDA AVE
SAN LORENZO, CALIFORNIA

PROJECT NUMBER	821803
APPROVED BY	
CHECKED BY	
DRAWN BY	K. Block 7-31-01

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

MW-20
MW-19†
MW-21 (18.32)
MW-18 (19.80)
MW-17
17200
17197
17203
17302
17372
19.30
MW-16 (19.92)
633
MW-22 (18.31)
17349
17371
MW-15 (20.46)
17303
17348
642
634
675
MW-23 (19.02)
MW-14 (20.95)
MW-24†
MW-26 (21.54)
(21.78)
MW-9
E-1A (11.96)
MW-10 (21.12)
SP-2/V-5
MW-8 (21.57)
590
MW-5 (21.74)
MW-25 (22.17)
MW-7†
MW-11 (21.31)
SP-1/V-4
MW-13†
19
20
21
22
12

LEGEND

- GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- ∅ DESTROYED WELL
- GROUNDWATER EXTRACTION WELL
- ▪ DOMESTIC IRRIGATION WELL
- (21.78) GROUNDWATER ELEVATION (FT.–MSL): MEASURED 6–14–01
- 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
SECOND QUARTER 2001
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

N:\cad\DWG\Arco0608\GWC.dwg Wed, 01/Aug/01 01:33pm kblock

PROJECT NUMBER 821803
APPROVED BY
CHECKED BY
DRAWN BY K. Black 7-31-01

VIA MANZANAS
VIA MEDIA
VIA FLORES
POTRERO COURT
VIA MAGDALENA
VIA ARRIBA
HESPERIAN BOULEVARD
HACIENDA AVENUE
VIA ENCINAS COURT
VIA ALAMO

APARTMENTS
APARTMENTS
CHURCH AND SCHOOL
SHOPS
RESTAURANT
RESIDENTIAL
RESTAURANT
RESIDENTIAL
RESIDENTIAL
SHOPS

MW-20
MW-19 †
MW-21 *
MW-18 *
MW-17
MW-14 *
MW-24 †
MW-26 *
MW-9
MW-10
MW-8
MW-25
MW-5
MW-7 †
MW-13 †
MW-16
MW-22
MW-15
MW-11 †
MW-23 *

17197 NS
17203 NS
17302 NS
17372 <50/<0.50/<2.5
17200
17349 68.0 (98.3) 99.0
17371 NS
17348 NS
17393
675 NS
634 NS
642 NS
633
590

MW-16 <50 / <0.50 / 2.5
MW-22 <50 / <0.50 / <2.5
MW-15 <50 / <0.50 / 26.0
MW-11 † <50 / <0.50 / <2.5
MW-10 710 / 9.20 / 290
MW-9 <50 / <0.50 / <2.5
MW-8 150 / 3.2 / 230
E-1A 180 / <0.50 / 100
MW-25 <50 / <0.50 / 150
MW-5 <50 / <0.50 / 47.0
SP-2/V-5
SP-1/V-4

SCALE
0 150 300

LEGEND

- ◉ GROUNDWATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/ SOIL VAPOR EXTRATION WELL
- Ø DESTROYED WELL
- ⊕ GROUNDWATER EXTRACTION WELL
- ▪ DOMESTIC IRRIGATION WELL
- 180 / <0.50 / 100 (8020 (MTBE BY 8260)) TPPH-G/BENZENE/MtBE CONCENTRATIONS BY EPA IN GROUNDWATER (PARTS PER BILLION); SAMPLED 6-14-01
- NS NOT SAMPLED
- * WELL SAMPLED ANNUALLY IN FIRST QUARTER
- † WELL REMOVED FROM SAMPLING PROGRAM

IT CORPORATION

ARCO SERVICE STATION 0608

FIGURE 3
TPPH-g/BENZENE/MtBE CONCENTRATION MAP
SECOND QUARTER 2001
17601 HESPERIAN BLVD at HACIENDA AVE
SAN LORENZO, CALIFORNIA

/ N:\cad\DWG\Arco0608\CHFM.dwg Wed, 01/Aug/01 01:32pm 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

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

Sequoia Analytical

885 Jarvis Drive
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2 July, 2001

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

RE: Facility 0608, San Lorenzo
Sequoia Report: MKF0412

Enclosed are the results of analyses for samples received by the laboratory on 06/15/01 12:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Smyly
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-5	MKF0412-01	Water	06/14/01 13:40	06/15/01 12:15
MW-8	MKF0412-02	Water	06/14/01 12:35	06/15/01 12:15
MW-9	MKF0412-03	Water	06/14/01 12:55	06/15/01 12:15
MW-10	MKF0412-04	Water	06/14/01 13:15	06/15/01 12:15
MW-11	MKF0412-05	Water	06/14/01 12:15	06/15/01 12:15
MW-15	MKF0412-06	Water	06/14/01 11:15	06/15/01 12:15
MW-16	MKF0412-07	Water	06/14/01 12:00	06/15/01 12:15
MW-22	MKF0412-08	Water	06/14/01 10:55	06/15/01 12:15
MW-25	MKF0412-09	Water	06/14/01 10:20	06/15/01 12:15
E1-A	MKF0412-10	Water	06/14/01 14:00	06/15/01 12:15
17372VM	MKF0412-11	Water	06/14/01 11:20	06/15/01 12:15
17349VM	MKF0412-12	Water	06/14/01 11:45	06/15/01 12:15

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.

Jeff Smyly, Project Manager

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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 (MKF0412-01) Water Sampled: 06/14/01 13:40 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24002	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	47	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.2 %*		*70-130*	"	"	"	"	
MW-8 (MKF0412-02) Water Sampled: 06/14/01 12:35 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	**150**	50	ug/l	1	1F24002	06/25/01	06/25/01	DHS LUFT	P-03
Benzene	**3.2**	0.50	"	"	"	"	"	"	
Toluene	**0.75**	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	**1.0**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**230**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*102 %*		*70-130*	"	"	"	"	
MW-9 (MKF0412-03) Water Sampled: 06/14/01 12:55 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24002	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.2 %*		*70-130*	"	"	"	"	

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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 (MKF0412-04) Water Sampled: 06/14/01 13:15 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	**710**	50	ug/l	1	1F24002	06/25/01	06/25/01	DHS LUFT	P-01
Benzene	**9.2**	0.50	"	"	"	"	"	"	
Toluene	**2.6**	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	**1.5**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**290**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*148 %*	*70-130*		"	"	"	"	*S-02*
MW-11 (MKF0412-05) Water Sampled: 06/14/01 12:15 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24002	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.3 %*	*70-130*		"	"	"	"	
MW-15 (MKF0412-06) Water Sampled: 06/14/01 11:15 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24002	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**26**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.3 %*	*70-130*		"	"	"	"	

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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 (MKF0412-07) Water Sampled: 06/14/01 12:00 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24003	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**2.5**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.2 %*	*70-130*		"	"	"	"	
MW-22 (MKF0412-08) Water Sampled: 06/14/01 10:55 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F21005	06/21/01	06/21/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*103 %*	*70-130*		"	"	"	"	
MW-25 (MKF0412-09) Water Sampled: 06/14/01 10:20 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24003	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**150**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*70-130*		"	"	"	"	

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1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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
E1-A (MKF0412-10) Water Sampled: 06/14/01 14:00 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	**180**	50	ug/l	1	1F24003	06/25/01	06/25/01	DHS LUFT	P-03
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**0.54**	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	100	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.1 %*	*70-130*		"	"	"	"	
17372VM (MKF0412-11) Water Sampled: 06/14/01 11:20 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F21005	06/21/01	06/21/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*91.6 %*	*70-130*		"	"	"	"	
17349VM (MKF0412-12) Water Sampled: 06/14/01 11:45 Received: 06/15/01 12:15									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F24003	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	68	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*70-130*		"	"	"	"	

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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 1F21005 - EPA 5030B [P/T]										
Blank (1F21005-BLK1)				Prepared & Analyzed: 06/21/01						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*9.83*		"	*10.0*		*98.3*	*70-130*			
LCS (1F21005-BS1)				Prepared & Analyzed: 06/21/01						
Benzene	9.10	0.50	ug/l	10.0		91.0	70-130			
Toluene	9.57	0.50	"	10.0		95.7	70-130			
Ethylbenzene	9.85	0.50	"	10.0		98.5	70-130			
Xylenes (total)	28.2	0.50	"	30.0		94.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.48*		"	*10.0*		*94.8*	*70-130*			
Matrix Spike (1F2100S-MS1)		Source: MKF0408-07		Prepared & Analyzed: 06/21/01						
Benzene	10.5	0.50	ug/l	10.0	ND	105	60-140			
Toluene	11.1	0.50	"	10.0	ND	111	60-140			
Ethylbenzene	11.1	0.50	"	10.0	ND	111	60-140			
Xylenes (total)	32.3	0.50	"	30.0	ND	108	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.8*		"	*10.0*		*108*	*70-130*			
Matrix Spike Dup (1F2100S-MSD1)		Source: MKF0408-07		Prepared & Analyzed: 06/21/01						
Benzene	10.2	0.50	ug/l	10.0	ND	102	60-140	2.90	25	
Toluene	10.5	0.50	"	10.0	ND	105	60-140	5.56	25	
Ethylbenzene	10.7	0.50	"	10.0	ND	107	60-140	3.67	25	
Xylenes (total)	31.2	0.50	"	30.0	ND	104	60-140	3.46	25	
Surrogate: a,a,a-Trifluorotoluene	*10.8*		"	*10.0*		*108*	*70-130*			

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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 1F24002 - EPA 5030B [P/T]										
Blank (1F24002-BLK1)				Prepared & Analyzed: 06/25/01						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*9.23*		"	*10.0*		*92.3*	*70-130*			
LCS (1F24002-BS1)				Prepared & Analyzed: 06/25/01						
Benzene	9.33	0.50	ug/l	10.0		93.3	70-130			
Toluene	9.80	0.50	"	10.0		98.0	70-130			
Ethylbenzene	10.2	0.50	"	10.0		102	70-130			
Xylenes (total)	28.9	0.50	"	30.0		96.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.84*		"	*10.0*		*98.4*	*70-130*			
LCS (1F24002-BS2)				Prepared & Analyzed: 06/25/01						
Purgeable Hydrocarbons	219	50	ug/l	250		87.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.2*		"	*10.0*		*102*	*70-130*			
Matrix Spike (1F24002-MS1)		Source: MKF0412-05		Prepared & Analyzed: 06/25/01						
Benzene	10.1	0.50	ug/l	10.0	ND	101	60-140			
Toluene	10.5	0.50	"	10.0	ND	105	60-140			
Ethylbenzene	10.6	0.50	"	10.0	ND	106	60-140			
Xylenes (total)	30.9	0.50	"	30.0	ND	103	60-140			
Surrogate: a,a,a-Trifluorotoluene	*9.99*		"	*10.0*		*99.9*	*70-130*			
Matrix Spike Dup (1F24002-MSD1)		Source: MKF0412-05		Prepared & Analyzed: 06/25/01						
Benzene	9.91	0.50	ug/l	10.0	ND	99.1	60-140	1.90	25	
Toluene	10.6	0.50	"	10.0	ND	106	60-140	0.948	25	
Ethylbenzene	10.7	0.50	"	10.0	ND	107	60-140	0.939	25	
Xylenes (total)	30.9	0.50	"	30.0	ND	103	60-140	0.00	25	
Surrogate: a,a,a-Trifluorotoluene	*10.1*		"	*10.0*		*101*	*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: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

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 1F24003 - EPA 5030B [P/T]										
Blank (1F24003-BLK1)				Prepared & Analyzed: 06/25/01						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*9.99*		"	*10.0*		*99.9*	*70-130*			
LCS (1F24003-BS1)				Prepared & Analyzed: 06/25/01						
Benzene	9.75	0.50	ug/l	10.0		97.5	70-130			
Toluene	10.1	0.50	"	10.0		101	70-130			
Ethylbenzene	10.4	0.50	"	10.0		104	70-130			
Xylenes (total)	30.8	0.50	"	30.0		103	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.0*		"	*10.0*		*100*	*70-130*			
LCS (1F24003-BS2)				Prepared & Analyzed: 06/25/01						
Purgeable Hydrocarbons	237	50	ug/l	250		94.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	*14.1*		"	*10.0*		*141*	*70-130*			*S-02*
Matrix Spike (1F24003-MS1)		Source: MKF0516-03		Prepared & Analyzed: 06/25/01						
Purgeable Hydrocarbons	243	50	ug/l	250	ND	97.2	60-140			
Surrogate: a,a,a-Trifluorotoluene	*13.7*		"	*10.0*		*137*	*70-130*			*S-02*
Matrix Spike Dup (1F24003-MSD1)		Source: MKF0516-03		Prepared & Analyzed: 06/25/01						
Purgeable Hydrocarbons	219	50	ug/l	250	ND	87.6	60-140	10.4	25	
Surrogate: a,a,a-Trifluorotoluene	*13.0*		"	*10.0*		*130*	*70-130*			

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

MTBE Confirmation by EPA Method 8260A - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1F29026 - EPA 5030B P/T										
Blank (1F29026-BLK1)				Prepared: 06/28/01 Analyzed: 06/29/01						
Methyl tert-butyl ether	ND	1.0	ug/l							
Surrogate: 1,2-Dichloroethane-d4	*12.0*		"	*10.0*		*120*	*70-130*			
LCS (1F29026-BS1)				Prepared & Analyzed: 06/28/01						
Methyl tert-butyl ether	12.6	1.0	ug/l	10.0		126	70-130			
Surrogate: 1,2-Dichloroethane-d4	*12.5*		"	*10.0*		*125*	*70-130*			

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Pacific Environmental Group (Arco)	Project: Facility 0608, San Lorenzo	
1921 Ringwood Avenue	Project Number: Task # 821803	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	07/02/01 16:19

Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
P-03	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
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

ARCO Products Company

Division of AtlanticRichfieldCompany

821803 **Task Order No.** 24152.00

Chain of Custody

ARCO Facility no.	0608
City (Facility)	7601 Hesperian Blvd.
Project manager (Consultant)	Shaw Garakani
Laboratory name	Sequoia
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	San Lorenzo
Telephone no. (Consultant)	(408) 453-7300
Fax no. (Consultant)	(408) 437-9526
Contract number	
Consultant name	IT Group
Address (Consultant)	1921 Ringwood Ave. San Jose CA 95131
Method of shipment	

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH MTBE EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org/DHS ☐ Lead EPA 7420/7421 ☐		
MW5	01	3		W		Y	HCl	6/14/01	13:40		X											
MW8	02	↓		↓		↓	↓	↓	12:35		↓											
MW-9	03								10:55													
MW10	04								13:15													
MW11	05								12:15													
MW15	06								11:15													
MW-16	07								12:00													
MW22	08								10:55													
MW25	09								10:20													
E1-A	10								14:00													
*1737RW	11								11:20													
*1739RW	12	↓		↓		↓	↓	↓	10:45		↓											

Special detection Limit/reporting:

Special QA/QC:

Remarks: *Run 8260 MTBE confirmation on [illegible] wells with hits >35 ppb

Lab number: MKF0412

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler: [signature]	6/14/01	15:20	Received by: SEQ WHS	6-15	9:35
Relinquished by: WHS	6-15	1215	Received by: [signature]	6/15-01	1215
Relinquished by:			Received by laboratory:		

Turnaround time:

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

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

...(2-91)

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	**Station #**	**Project Name**	**SEQUENCE**	**Project Manager** **Approval**	**Date/s**	**Laboratory:**		**Client Engineer:**
821803	608	17601 Hesperian, San Lorenzo	2Q01	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	D.O. before purge on all wells
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	sample MW-15 early to avoid cars -
MW-16	6		QLY/QLY	MtBE/GAS/BTEX	TOB/TOC	23		3"	YES	may be inaccessible due to
MW-18	5		**QLY/ANNUAL 1Q**	MtBE/GAS/BTEX	TOB/TOC	22		3"	YES	Dahman's car (633 Hacienda)
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:
821803	608	17601 Hesperian San Lorenzo	2q01	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					Thursday, June 14
Ms. Corregedor		642 Hacienda	QLY	GAS/BTEX/MtBE	TOB/TOC	Removed from program				
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. Gordin		17197 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC	Removed from program				with hits > 35 ppb.
Cavalry Church		17200 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC	Well Paved Over				
Mrs. Gomez		17203 Via Magdalena	QLY	GAS/BTEX/MtBE	TOB/TOC	Removed from program				
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.				

Arco Work Request

Second Quarter 2001

Project Number: 821803

Address	Contact	Quarter	PumpCondition	DateContacted	Notes
[redacted]		2Q01	non-operational		Do not sample
[redacted]		2Q01	non-operational		Do not sample
[redacted]		2Q01	non-operational	12-Jun-01	Well still broken - Do not sample
[redacted]		2Q01	non-operational	12-Jun-01	
[redacted]		2Q01	operational	12-Jun-01	
[redacted]		2Q01	operational	12-Jun-01	Do not sample
[redacted]		2Q01	operational	12-Jun-01	
[redacted]		2Q01	non-operational		Well abandoned 7/97
[redacted]		2Q01	operational		Well destroyed (9/15/00)
[redacted]		2Q01	operational		Well destroyed (9/15/00)

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FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 021803 LOCATION: 1700 Hesperian Blvd DATE: 6/11/01

CLIENT/STATION NO.: Arco FIELD TECHNICIAN: George E. Ruiz DAY OF WEEK: THU

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	SERARATE-PHASE HYDROCARBONS (SPH) SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	COLOR: Weathered	COLOR: Gas	COLOR: Oil	VISCOSITY: Lite	VISCOSITY: Medium	VISCOSITY: Heavy	LIQUID REMOVED (gallons) SPH / H_2O
	MW5		✓	–	–	–		14.00	11.86 / 11.88	12.05 / 12.06										/
	MW7								/	/										/
	MW8		✓	–	–	–	–	22.00	10.40 / 10.40	11.02 / 11.02										/
	MW9		–	–	–	–	–	19.00	9.81 / 9.81	10.53 / 10.33										/
	MW10		✓	–	–	–	–	22.00	9.91 / 9.91	10.56 / 10.66										/
	MW11		✓	–	–	–	–	19.00	10.80 / 10.80	11.03 / 11.03										/
	MW13								/	/										/
	MW14		✓	–	–	–	–	24.00	9.20 / 9.00	9.51 / 9.07										/
	MW15		✓	–	–	–	–	24.00	10.50 / 10.50	10.85 / 10.95										/

Comments: Total Water 189 gal

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FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 021803 LOCATION: 1760 Hospitality Blvd DATE: 6-14-01

CLIENT/STATION NO: Arco FIELD TECHNICIAN: Barbara DAY OF WEEK: Thu

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	SERARATE-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
	Mw16		-	-	-	-	-	23.00	11.05 / 11.05	11.47 / 11.47										/
	Mw18		-	-	-	-	-	22.00	10.10 / 10.10	10.46 / 10.46										/
	Mw19								/	/										/
	Mw21		-	-	-	-	-	22.00	9.90 / 9.90	10.40 / 10.40										/
	Mw22		-	-	-	-	-	22.00	10.66 / 10.66	10.98 / 10.98										/
	Mw23		-	-	-	-		22.00	11.78 / 11.70	11.97 / 11.97										/
	Mw24								/	/										/
	Mw25		-	-	-	-	-	21.00	11.44 / 11.44	11.96 / 11.95										/
	Mw26		-	-	-	-	-	20.00	11.74 / 11.74	12.17 / 12.17										/

Comments: .....

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 7601 HESPERIAN BLVD WELL ID #: MW-5

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

TD 14.00 DTW 11.88 = 2.12 x Gal/Linear Foot .66 = 1.39 x Number of Casings 3 = Calculated Purge 4.19

DATE PURGED: 6-14-01 START: 13:25 END (2400 hr): ——— PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 13:40 END (2400 hr): ——— SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
13:28	1.25	6.60	1090	71.3	Cloudy	Mod	Faint
13:31	2.5	6.64	1060	70.6	Cloudy	Mod	Faint

Pumped dry (Yes) No @ 2.5 Gal.

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

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: D3005
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-5	6-14-01	13:40	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: DO: 1.8 PURGE 2.5 Gal & Sample Before Dry out

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 7600 HESPERIAN BLVD WELL ID #: MW-8

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

TD 22.00 DTW 10.40 10.6 x Gal/Linear Foot .38 = 4.40 x Number of Casings 3 = Calculated Purge 13.32

DATE PURGED: 6-14-01 START: 12:25 END (2400 hr): ——— PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 12:35 END (2400 hr): ——— SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
12:28	4.6	6.71	1060	71.7	Clear	light	None
12:31	9	6.84	1010	72.9	Clear	light	None
12:34	13.5	6.90	1020	71.9	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: D-5003
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-8	6-14-01	12:35	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: DO: 3.4

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION: 1760 HESPERIAN Blvd WELL ID #: MW-9

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

TD 19.00 DTW 9.81 = 9.18 x Gal/Linear Foot .38 = 3.49 x Number of Casings 3 = Calculated Purge 10.47

DATE PURGED: 6-14-01 START: 12:43 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 12:56 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
12:46	35	6.95	1040	76.6	Cloudy	Mod	None
12:49	7	6.90	1000	73.2	Cloudy	Light	None
12:52	105	6.97	1010	72.4	Clear	Light	None

Pumped dry Yes (No)

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

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: D-3005
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-9	6-14-01	12:56	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: 13:26

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 1760 HESPERIAN Blvd WELL ID #: MW-10

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

TD 22.00 DTW 9.91 = 12.09 x Gal/Linear Foot .38 = 4.59 x Number of Casings 3 = Calculated Purge 13.78

DATE PURGED: 6-14-01 START: 13:00 END (2400 hr): ——— PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 13:15 END (2400 hr): ——— SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
13:03	4.75	6.53	1030	70.3	Cloudy	Mod	Mod
13:06	9.5	6.80	1040	70.2	Cloudy	Light	Mod
13:10	14.25	6.90	1020	71.4	Cloudy	Light	Mod

Pumped dry Yes / (No)

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

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-10	6-14-01	13:15	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: D.O. 3.8

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 7601 HESPERIAN BLVD WELL ID #: MW-11

CLIENT/STATION No.: ARCO - 608 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 17.00 DTW 10.80 x Gal/Linear Foot .38 = 3.11 x Number of Casings 3 = Calculated Purge 9.34

DATE PURGED: 6-14-01 START: 10:00 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 12:15 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
12:05	3.05	6.78	1000	74.0	Clear	Mod	None
12:08.05	6.80	6.80	1000	71.9	Clear	Faint	None
12:11	9.75	6.92	1010	70.6	Clear	Faint	None

Pumped dry Yes / No

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

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-5905
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-11	6-14-01	12:15	3	40ml	VOA	HCL	GAS-BTEX-MTBE

D.O.: 3.4

REMARKS: _____

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 1760 HESPERIAN Blvd WELL ID #: MW-15

CLIENT/STATION No.: ARCO - 608 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 2400 DTW 1060 = 135 x Gal/Linear Foot .38 = 5.13 x Number of Casings 3 = Calculated Purge 15.39

DATE PURGED: 6-14-01 START: 11000 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 11:15 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
11:03	5	6.91	1000	69.7	Clear	Light	None
11:06	10	6.98	1010	69.2	Clear	Light	None
11:09	15	7.02	1020	68.3	Clear	Light	None

Pumped dry Yes (No)

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

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: [illegible]
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-15	6-14-01	11:15	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: DO: 30

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 1760 HESPERIAN BLVD WELL ID #: MW-10

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

TD 23.00 DTW 11.06 = 11.96 x Gal/Linear Foot .38 = 4.54 x Number of Casings 3 = Calculated Purge 13.62

DATE PURGED: 6.14.01 START: 11:48 END (2400 hr): ——— PURGED BY: JE

DATE SAMPLED: 6.14.01 START: 12:00 END (2400 hr): ——— SAMPLED BY: JE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 2 5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
11:51	4.5	7.00	1010	73.8	Cloudy	Mod	Mod
11:54	9	6.99	1000	70.8	Cloudy	Mod	Mod
11:57	13.5	7.01	1000	69.6	Cloudy	Mod	Mod

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

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	6.14.01	12:00	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: D.O. = 2.60

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION: 7601 Hesperian Blvd WELL ID #: MW-22

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

TD 22.00 DTW 10.05 11.35 x Gal/Linear Foot .38 = 4.31 x Number of Casings 3 = Calculated Purge 12.93

DATE PURGED: 6.14.01 START: 10:40 END (2400 hr): ——— PURGED BY: PE

DATE SAMPLED: 6.14.01 START: 10:55 END (2400 hr): ——— SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
10:43	4.5	7.09	1020	69.1	Cloudy	Light	None
10:46	9	7.14	1040	67.9	Cloudy	Light	None
10:49	13.5	7.09	1020	67.0	Clear	Mod	None

Pumped dry Yes / (No)

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

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: DISPOS
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW22	6.14.01	10:55	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: DO: 2.2

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 7601 Hesperian Blvd WELL ID #: MW-25

CLIENT/STATION No.: Arco - 608 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 11.44 = 9.56 Gal/Linear Foot • 3 = 1.62 x Number of Casings 3 = Calculated Purge 4.87

DATE PURGED: 6-14-01 START: 10:05 END (2400 hr): ——— PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 10:20 END (2400 hr): ——— SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
10:08	1.75	6.90	1060	69.5	Cloudy	Mod	Mod
10:12	3.5	6.96	1020	69.2	Cloudy	Mod	Mod
10:15	5.25	6.98	1030	68.9	Cloudy	Mod	Mod

Pumped dry Yes (No)

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

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
MW25	6-14-01	10:20	3	40ml	VOA	HCL	Gas-BTEX-MTBE

REMARKS: DO: 2.0

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 1760 HESPERIAN BLVD WELL ID #: ~~MW~~ E1-A

CLIENT/STATION No.: ARCO - 608 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 21.10 TOB = ____ x Gal/Linear Foot .38 = ____ x Number of Casings 3 Calculated = Purge____

DATE PURGED: 6-14-01 START:____ END (2400 hr):____ PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 14:00 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
			1029				

Pumped dry Yes / No

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

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW:____ TOB/TOC 6.58 1290 7.93 Cloudy Mod Fa.Pet

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: D.S.003.
- ☐ Dedicated:____
- ☐ Other: GRA

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
~~MW~~ E1-A	6-14-01	14:00	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS:____

SIGNATURE:____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION: 7601 Hesperian Blvd WELL ID #: ~~MW~~-17370

CLIENT/STATION No.: Arco - 608 FIELD TECHNICIAN: Pedro E. Ruiz VM

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 .38 = _____ x Number of Casings 3 = Calculated Purge_____

DATE PURGED: 6-14-01 START:_____ END (2400 hr):_____ PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 1120 END (2400 hr):_____ SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
			10				

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 7.08 10.40 7.12 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
~~MW~~-17370 VM	6-14-01	1120	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: PO: 28

SIGNATURE: _____

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FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 821803 LOCATION 7601 HESPERIAN BLVD WELL ID #: ~~MW-5~~ 17349 VM

CLIENT/STATION No.: ARCO - 608 FIELD TECHNICIAN: PEDRO E. RUIZ

WELL INFORMATION

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

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

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

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

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

DATE PURGED: 6-14-01 START: _____ END (2400 hr): ~~_____~~ PURGED BY: PE

DATE SAMPLED: 6-14-01 START: 11:45 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

Pumped dry Yes / No

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

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 7.01 1040 72.5 Cloudy Light None

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
~~MW-5~~ 17349 VM	6-14-01	11:46	3	40ml	VOA	HCL	GAS-BTEX-MTBE

REMARKS: 0.28 start 11:35 ⇒ 11:44
Purge 600 ml

SIGNATURE: _____

the group

ARCO Products Company Division of AtlanticRichfieldCompany   821803   **Task Order No.** 2415200

Chain of Custody

ARCO Facility no.	0608
City (Facility)	7601 Hesperian Blvd
Project manager (Consultant)	Shaw Garakani
Laboratory name	Sequoia
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	San Lorenzo
Telephone no. (Consultant)	(408) 4537300
Fax no. (Consultant)	(408) 4379526
Contract number	
Consultant name	IT Group
Address (Consultant)	1921 Ringwood Ad. San Jose CA 95131

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH *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 ☐		
MW5		3		W		4	HCL	6-14-01	13:40		X											
MW8		↓		↓		↓	↓	↓	12:35		↓											
MW9		↓		↓		↓	↓	↓	12:55		↓											
MW10		↓		↓		↓	↓	↓	13:15		↓											
MW11		↓		↓		↓	↓	↓	12:15		↓											
MW15		↓		↓		↓	↓	↓	11:15		↓											
MW16		↓		↓		↓	↓	↓	10:00		↓											
MW22		↓		↓		↓	↓	↓	10:55		↓											
MW20		↓		↓		↓	↓	↓	10:20		↓											
EI-A		↓		↓		↓	↓	↓	14:00		↓											
*17372W		↓		↓		↓	↓	↓	11:20		↓											
*17594W		↓		↓		↓	↓	↓	11:45		↓											

Method of shipment:

Special detection Limit/reporting:

Special QA/QC:

Remarks: *Run 8260 MTBE Confirmation on Homeowner Wells with Hits >35ppb

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 sampler: [signature]	6-14-01	15:20	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory — Date — Time

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

ATTACHMENT C

REMEDIAL SYSTEM PERFORMANCE EVALUATION

ATTACHMENT C
REMEDIAL SYSTEM PERFORMANCE EVALUATION

REMEDIAL SYSTEM PERFORMANCE EVALUATION

Remedial action consisting of groundwater extraction and treatment (GWET) 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 March 24, 2001 to June 9, 2001 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, 2001. The permit will be effective through May 14, 2002.

Migration Control

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

concentrations map (Figure 3 of the report) from the current quarterly groundwater monitoring event with those from previous monitoring events. Upon completing the above comparisons, IT concludes that the operation of the GWET system influenced the migration of the impacted plume during the current quarter.

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. Performance data for the GWET system are presented in Table C-1. GWET system certified analytical reports, chain-of-custody documentation, and field data sheets are presented as Attachment D of this report. Progress toward site remediation is presented in the following table.

	Mass Removed			
Technology	3/24/01 to 6/09/01		Cumulative	
Analyte	(lbs)	(gal)	(lbs)	(gal)
Groundwater Extraction				
TPPH-g	0.15	0.03	6.25	1.03
Benzene	0.000	0.00	0.31	0.04
MtBE*	0.11	0.01	1.01	0.14

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

As shown above, due to low influent concentrations, small quantities of TPPH-g, benzene and MtBE were removed during the reporting period. Graphs of TPPH-g and benzene mass removal rates and concentrations versus time are shown on Figures C-1 and C-2, respectively. Graphical presentations of MtBE mass removal rate and concentration versus time are shown on Figures C-3 and C-4, respectively.

Groundwater Extraction System Operational Data

The GWET system was 75 percent operational during the reporting period. Down time was due to regular system maintenance, automatic system shut down resulting from excess sediment built up in the filter, and damage to the system resulting from the service station remodeling project. During the reporting period, the GWE system discharged treated groundwater at an average flow rate of approximately 1.9 gallons per minute (gpm) for a period discharge of 180,850 gallons. Treatment system analytical data are presented in Table C-2.

During the reporting period, IT continued the biologic growth control procedure, by adding

hydrogen peroxide to the extraction well on a monthly basis, and back-washing the GAC vessels on as needed basis.

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 of this report.

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 (%)
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
03/02/95	25,465	6	569,180	69,490	2.1	ND	0.03	4.22	ND	0.001	0.28	N/A	N/A	N/A	5.3
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
05/02/95	26,924	0	760,350	87,840	2.2	240	0.19	4.54	7.1	0.005	0.29	N/A	N/A	N/A	5.7
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
07/06/95	28,464	0	921,260	72,450	1.6	270	0.08	4.71	2.4	0.001	0.29	N/A	N/A	N/A	N/A g
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 e	29,592	N/A	976,600	N/A	N/A	700	N/A	4.86	7.2	N/A	0.29	361	N/A	0.00	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
07/08/00	30,352	4	1,131,560	151,760	3.3	133	0.53	5.40	5.1	0.008	0.30	272	0.40	0.41	N/A g
08/07/00	30,955	16	1,228,240	96,680	2.7	144	0.11	5.51	2.8	0.003	0.30	126	0.16	0.57	N/A g
09/08/00	31,528	25	1,306,300	78,060	2.3	261	0.13	5.65	2.7	0.002	0.30	120	0.08	0.65	N/A g
10/10/00	32,230	9	1,393,820	87,520	2.1	114	0.14	5.78	ND	0.001	0.31	ND	0.04	0.69	N/A g
11/07/00	32,880	3	1,472,930	79,110	2.0	128	0.08	5.86	ND	0.000	0.31	98.6	0.03	0.73	N/A g
12/05/00	33,516	5	1,548,840	75,910	2.0	167	0.09	5.96	0.775	0.000	0.31	104	0.06	0.79	N/A g
01/04/01	33,924	43	1,595,340	46,500	1.9	ND	0.03	5.99	ND	0.000	0.31	86.8	0.04	0.83	N/A g
02/06/01	34,556	20	1,672,330	76,990	2.0	203	0.07	6.05	0.572	0.000	0.31	80.5	0.05	0.88	N/A g
03/08/01	34,776	70	1,698,860	26,530	2.0	219	0.05	6.10	ND	0.000	0.31	81.0	0.02	0.90	N/A g
03/24/01	35,088	19	1,741,170	42,310	2.3	NS †	0.07	6.17	NS †	0.000	0.31	NS †	0.03	0.93	N/A g
04/18/01	35,335	59	1,770,860	29,690	2.0	74.5	0.03	6.20	ND	0.000	0.31	97.5	0.01	0.94	N/A g
05/04/01	35,716	1	1,812,690	41,830	1.8	63.3	0.01	6.21	ND	0.000	0.31	93.2	0.02	0.95	N/A g
06/09/01	36,469	13	1,879,710	67,020	1.5	64.0	0.04	6.25	ND	0.000	0.31	71.0	0.05	1.01	N/A g
REPORTING PERIOD:			3/24/01- 6/9/01												
TOTAL GALLONS EXTRACTED:			5,611,158												
PERIOD GALLONS EXTRACTED:			180,850												
AVERAGE PERIOD FLOW RATE (gpm):			1.9												
PERIOD PERCENT OPERATIONAL:			78%												
TOTAL POUNDS REMOVED:								6.25			0.31			1.01	
TOTAL GALLONS REMOVED:								1.03			0.04			0.14	
PERIOD POUNDS REMOVED:							0.16			0.000			0.11		
PERIOD GALLONS REMOVED:							0.03			0.000			0.01		

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
NS = Not sampled
† = Assume same concentration as prior sampling event
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.

Equations: Net Dissolved TPH-g Removed [pounds] = TPH-g concentration, [ug/L] x net volume (gallon) x density of gasoline [pound/gallon]
(Net dissolved TPH-g removed is calculated by averaging influent concentrations)

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 (%)
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
09/26/91	N/A	N/A	1,144	1,144	N/A	38	0.00	0.00	4.8	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
11/22/91	77	93	52,532	39,688	13.0	ND	N/A	0.00	0.52	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
01/16/92	994	0	283,289	160,749	4.0	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
03/17/92	2,462	0	662,847	177,647	4.5	160	0.39	0.70	18	0.024	0.04	N/A	N/A	N/A	0.9
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
05/14/92	3,849	0	1,030,086	178,986	4.3	45	0.18	1.17	1.4	0.009	0.07	N/A	N/A	N/A	1.5
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
07/14/92	5,001	52	1,291,201	61,241	3.5	97	0.02	1.19	25.0	0.006	0.08	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
09/15/92	6,298	N/A	1,535,640	125,622	3.1	ND	N/A	1.19	ND	0.000	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
11/18/92	7,809	0	1,768,076	116,453	2.4	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
01/18/93	8,798	61	1,915,165	50,865	2.9	100	0.04	1.27	13	0.004	0.10	N/A	N/A	N/A	1.6
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
03/15/93	10,113	0	2,205,833	108,903	3.6	310	0.36	2.07	29	0.030	0.16	N/A	N/A	N/A	2.6
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
05/13/93	11,211	15	2,449,160	150,390	3.6	530	0.42	2.67	27	0.024	0.20	N/A	N/A	N/A	3.3
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
07/20/93	12,573	24	2,689,697	146,197	2.9	200	0.23	3.17	12	0.010	0.22	N/A	N/A	N/A	4.0
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
09/13/93	13,888	0	2,884,736	93,370	2.3	80	0.09	3.41	2.2	0.003	0.23	N/A	N/A	N/A	4.3
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
11/19/93	15,494	0	3,036,032	84,295	1.4	ND	0.00	3.43	ND	0.000	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
01/18/94	16,939	0	3,190,900	77,335	1.9	60	0.04	3.49	3.1	0.002	0.24	N/A	N/A	N/A	4.4
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
03/15/94	18,235	7	3,344,249	70,529	2.0	ND	0.00	3.51	ND	0.001	0.24	N/A	N/A	N/A	4.4
04/21/94	18,849	31	3,418,537	74,288	2.0	110	0.03	3.55	7.8	0.002	0.24	N/A	N/A	N/A	4.4
05/13/94	19,351	5	3,478,910	60,373	2.0	230	0.09	3.63	8.3	0.004	0.25	N/A	N/A	N/A	4.5
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
07/14/94	20,145	35	3,574,408 b	55,800	2.0	270	0.12	3.83	6.9	0.004	0.26	N/A	N/A	N/A	4.8
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
09/12/94	21,549	0	120,910	69,650	1.8	ND	0.00	3.90	ND	0.001	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
11/15/94	23,080	0	280,840	68,960	1.7	ND	0.00	3.90	0.66	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
01/04/95	24,205	1	408,740	82,910	1.9	ND	0.16	4.15	1.1	0.011	0.28	N/A	N/A	N/A	5.2

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)	COD (mg/L)	TSS (mg/L)	pH (units)
MID-1 (cont.)									
04/18/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
05/04/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
06/09/01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NS	NS	NA
MID-2 (between secondary and teriary carbons)									
06/05/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
07/08/00	NS	NS	NS	NS	NS	NS	NS	NS	NA
09/08/00	NS	NS	NS	NS	NS	NS	NS	NS	NA
10/10/00	NS	NS	NS	NS	NS	NS	NS	NS	NA
11/07/00	NS	NS	NS	NS	NS	NS	NS	NS	NA
12/05/00	NS	NS	NS	NS	NS	NS	NS	NS	NA
01/04/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
02/06/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
03/08/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
04/18/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
05/04/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	NA
06/09/01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NS	NS	NA
EFFL (effluent to sewer)									
09/26/91	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
10/22/91	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
11/22/91	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
12/19/91	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
01/16/91	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
02/19/92	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
03/17/92	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
04/15/92	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
05/14/92	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
06/19/92	<30	<0.3	<0.3	<0.3	<0.3	NS	NS	NS	NA
07/14/92	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
08/18/92	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
09/15/92	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
10/16/92	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
11/18/92	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
12/17/92	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
01/18/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
02/22/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
03/15/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
04/09/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
05/13/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
06/04/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
07/20/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
08/16/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
09/13/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
10/08/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
11/19/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
12/21/93	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
01/18/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
02/17/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
03/15/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
04/21/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
05/13/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA

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)	COD (mg/L)	TSS (mg/L)	pH (units)
EFFL (effluent to sewer) (cont.)									
06/14/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
07/14/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
08/17/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
09/12/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
10/18/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
11/05/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
12/05/94	<50	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NA
01/04/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
02/06/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
03/02/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
04/04/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
05/02/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
06/05/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
07/06/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
08/21/95	<50	<0.50	<0.50	<0.50	<0.50	NS	NS	NS	NA
06/05/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NS	NS	7.19
06/12/00	<50.0	NS	NS	NS	NS	NS	NS	NS	NA
07/08/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	32.1	<10.0	7.08
08/10/00	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	23.4	<10.0	6.67
09/08/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	29.2	<10.0	6.82
10/10/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<20.0	<10.0	7.25
11/07/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<20.0	<10.0	7.24
12/05/00	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	44.0	<10.0	7.48
01/04/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<20.0	<10.0	7.00
02/06/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<20.0	10.7	7.03
03/08/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<20.0	<10.0	7.04
04/18/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	28.5	<10.0	7.06
05/04/01	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<20.0	<10.0	7.31
06/09/01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	34	<10	7.05

TPPH = Total purgeable petroleum hydrocarbons
MtBE = Methyl tert Butyl Ether
COD = Chemical oxygen demand
TSS = Total suspended solids
ppb = Parts per billion
mg/L = Miligrams per liter
< = Denotes minimum laboratory detection limit.
NA = Not applicable or not available
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

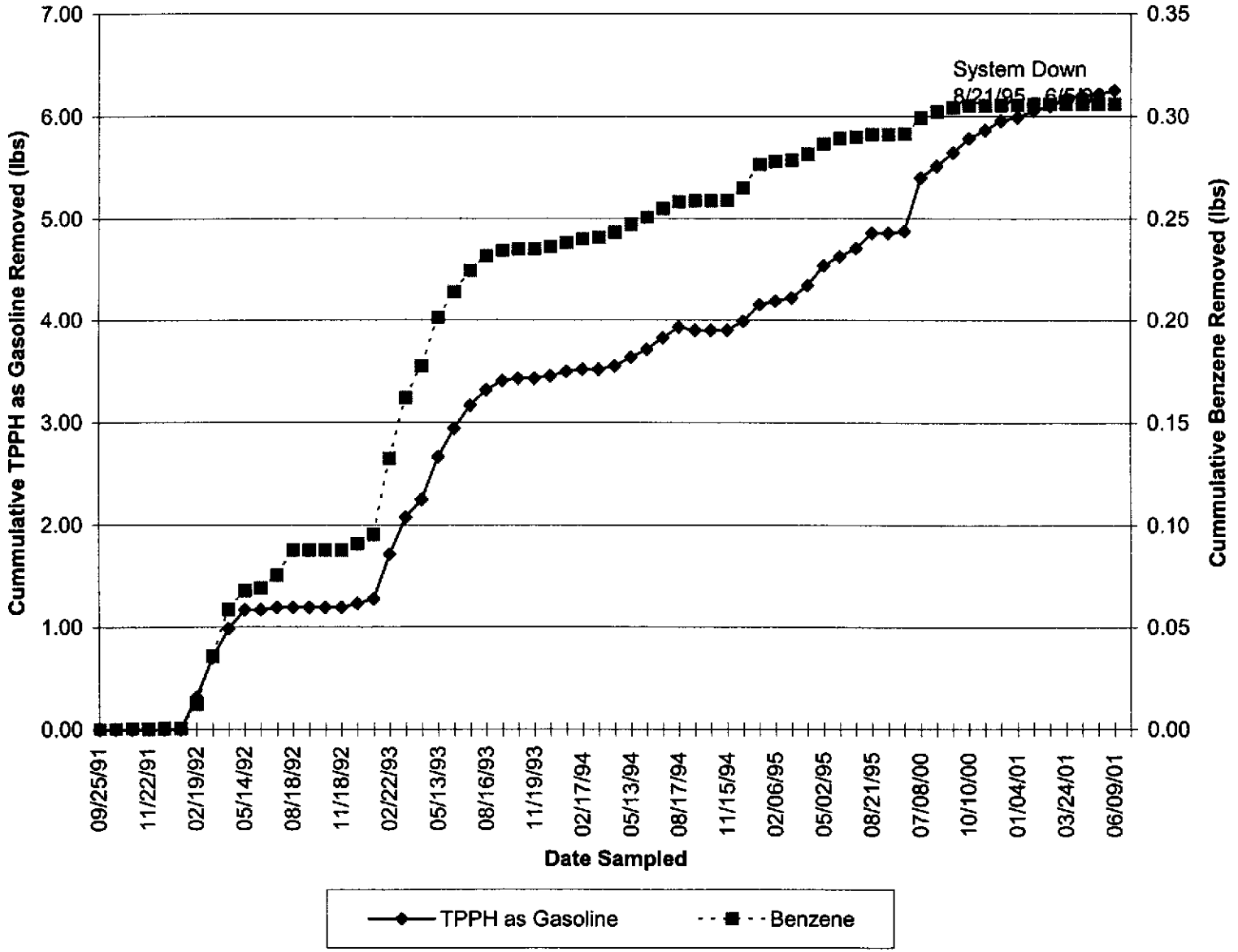


Figure C-2
Concentration Trends for the Groundwater Extraction System
TPPH as Gasoline and Benzene

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

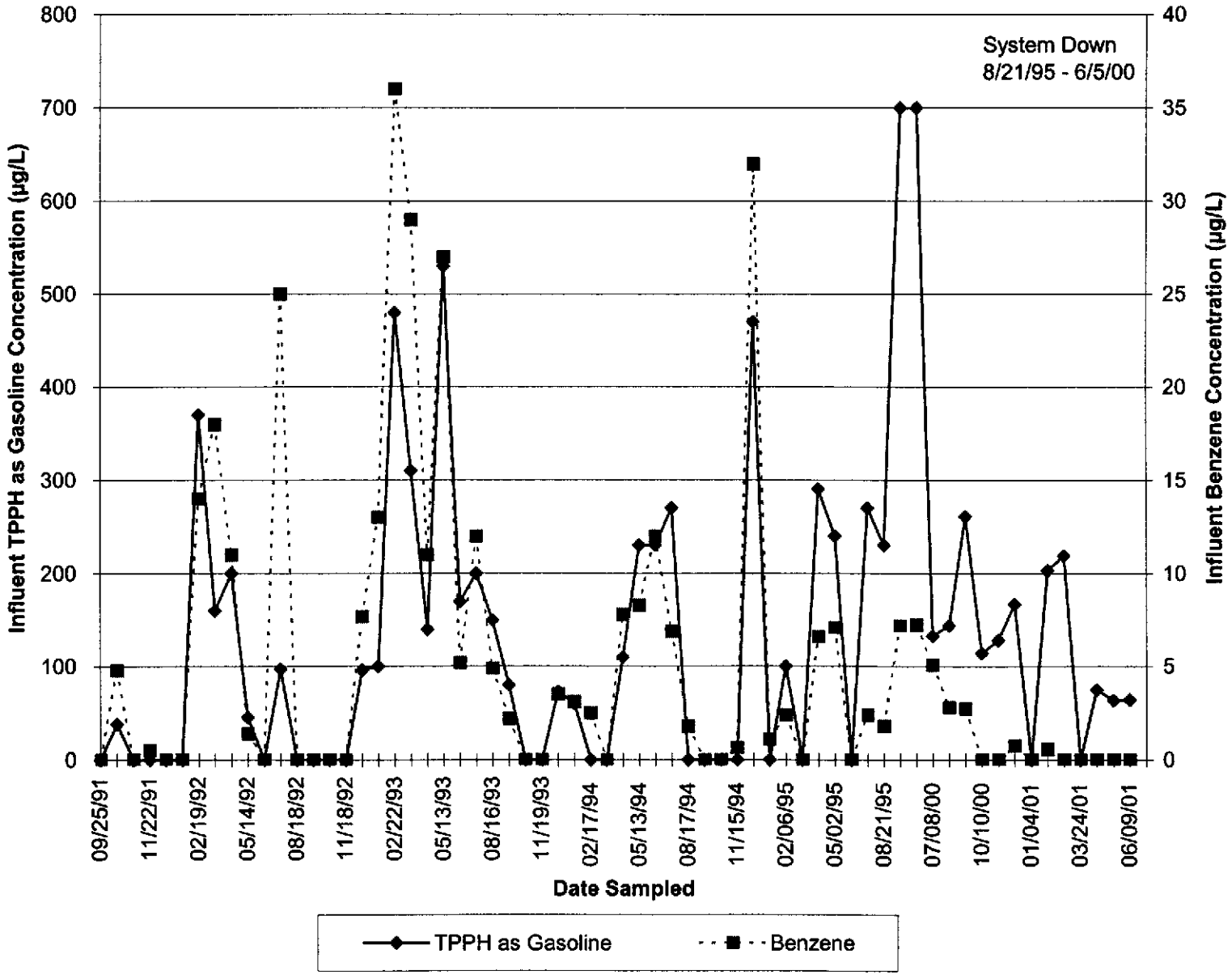


Figure C-3
Mass Removal Trends for the Groundwater Extraction System
MtBE

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

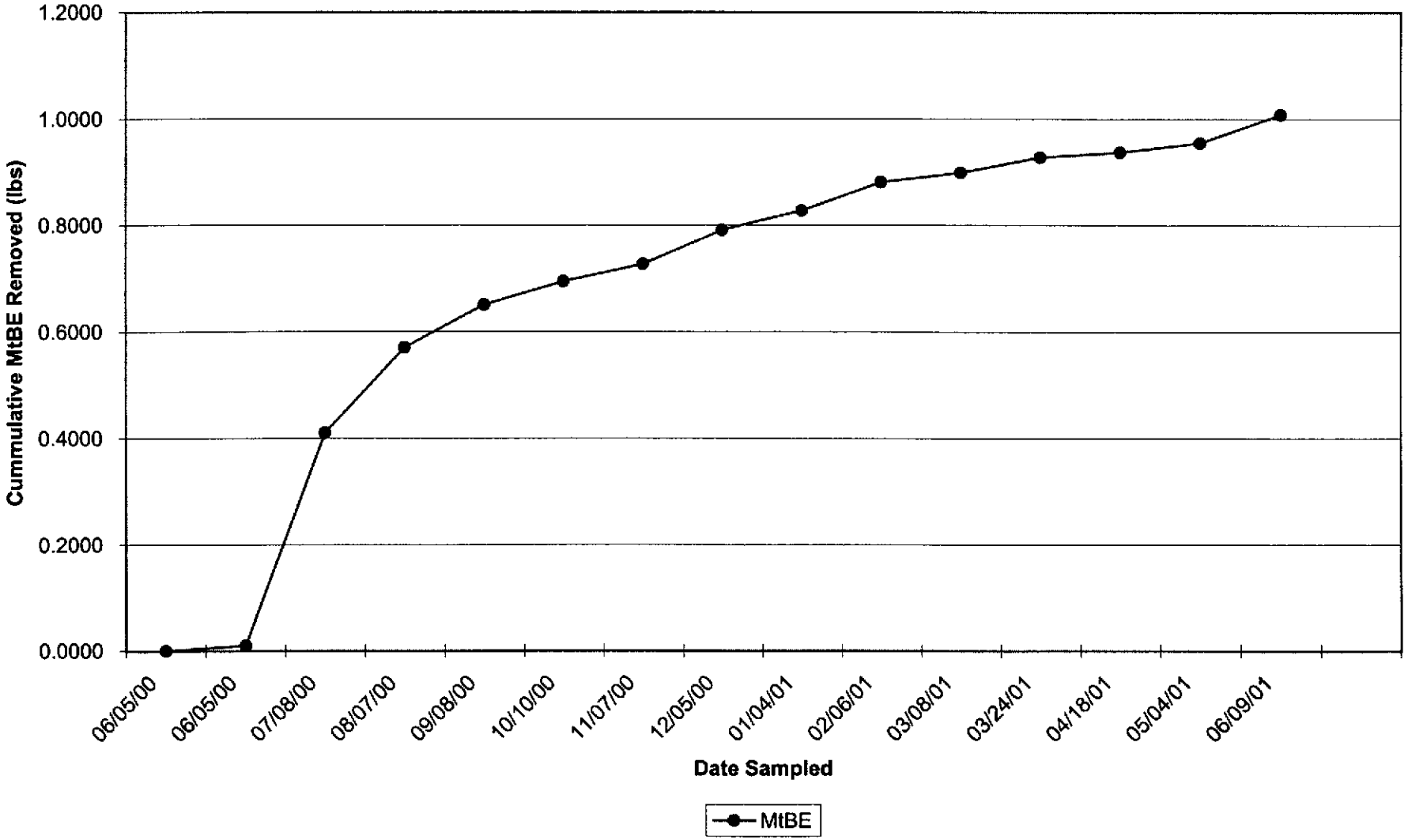
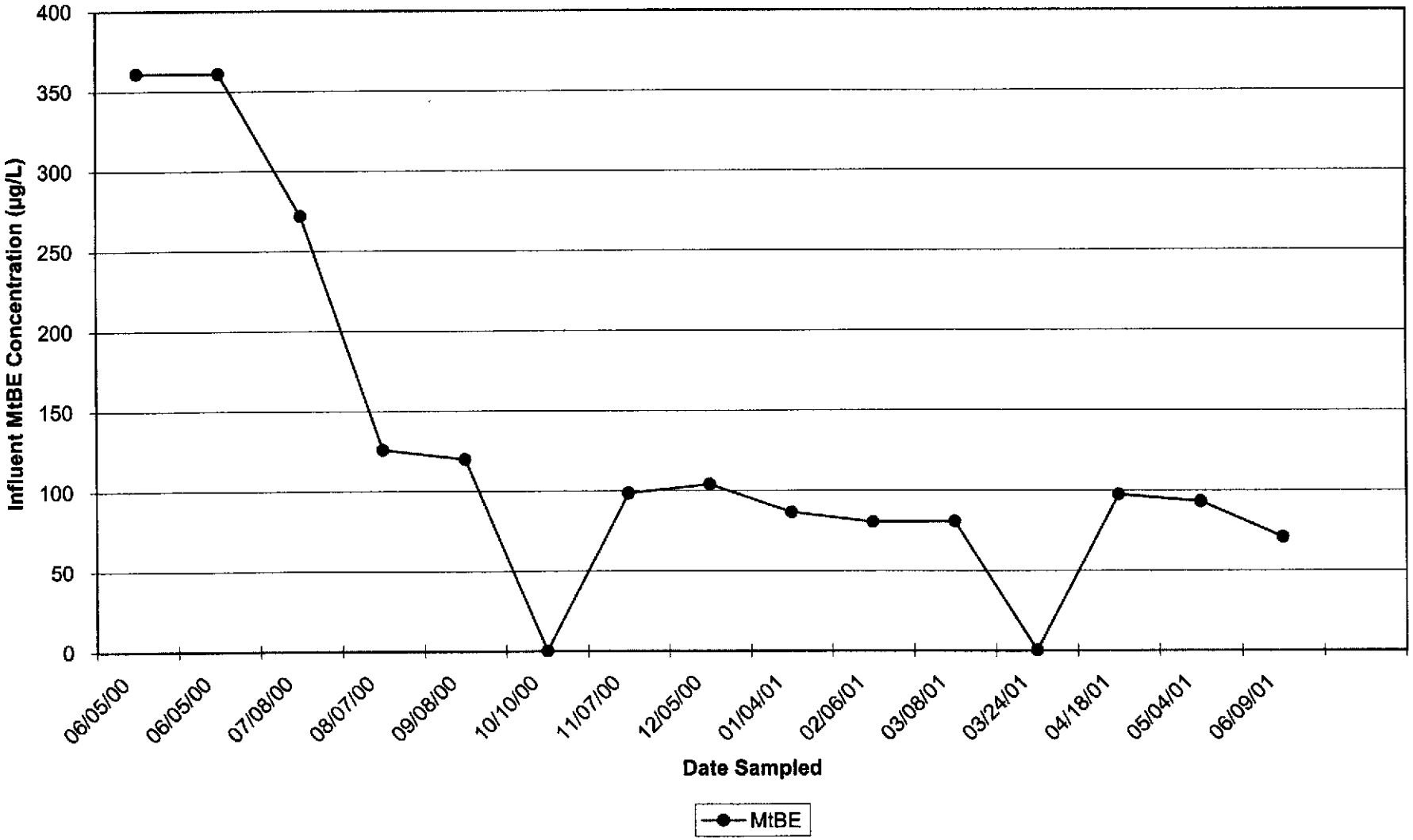


Figure C-4
Concentration Trend for the Groundwater Extraction System
MtBE

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

Sequoia Analytical

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28 June, 2001

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

RE: Arco
Sequoia Report: MKF0331

Enclosed are the results of analyses for samples received by the laboratory on 06/11/01 11:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Smyly
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: 821803 Project Manager: Shaw Garakani	**Reported:** 06/28/01 09:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
INFL	MKF0331-01	Water	06/09/01 09:40	06/11/01 11:05
MID-1	MKF0331-02	Water	06/09/01 09:45	06/11/01 11:05
MID-2	MKF0331-03	Water	06/09/01 09:50	06/11/01 11:05
EFFL	MKF0331-04	Water	06/09/01 10:00	06/11/01 11:05

Sequoia Analytical - Morgan Hill

Jeff Smyly, Project Manager

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.

Sequoia Analytical

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

Project: Arco
Project Number: 821803
Project Manager: Shaw Garakani

Reported:
06/28/01 09:21

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 (MKF0331-01) Water Sampled: 06/09/01 09:40 Received: 06/11/01 11:05									
Purgeable Hydrocarbons	64	50	ug/l	1	1F21006	06/21/01	06/21/01	DHS LUFT	P-03
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	71	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*70-130*		"	"	"	"	
MID-1 (MKF0331-02) Water Sampled: 06/09/01 09:45 Received: 06/11/01 11:05									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F19002	06/19/01	06/19/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*109 %*	*70-130*		"	"	"	"	
MID-2 (MKF0331-03) Water Sampled: 06/09/01 09:50 Received: 06/11/01 11:05									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F19002	06/19/01	06/19/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*70-130*		"	"	"	"	

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Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: 821803	
San Jose CA, 95131	Project Manager: Shaw Garakani	**Reported:** 06/28/01 09:21

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
EFFL (MKF0331-04) Water Sampled: 06/09/01 10:00 Received: 06/11/01 11:05									
Purgeable Hydrocarbons	ND	50	ug/l	1	1F19002	06/19/01	06/19/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*106 %*	*70-130*		"	"	"	"	

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

Project: Arco
Project Number: 821803
Project Manager: Shaw Garakani

Reported:
06/28/01 09:21

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
EFFL (MKF0331-04) Water Sampled: 06/09/01 10:00 Received: 06/11/01 11:05									
Chemical Oxygen Demand	34	20	mg/l	1	1F27030	06/25/01	06/25/01	EPA 410.4	
Total Suspended Solids	ND	10	"	"	1F22034	06/21/01	06/22/01	EPA 160.2	H-02

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

Project: Arco
Project Number: 821803
Project Manager: Shaw Garakani

Reported:
06/28/01 09:21

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 1F19002 - EPA 5030B [P/T]										
Blank (1F19002-BLK1)				Prepared & Analyzed: 06/19/01						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*10.6*		"	*10.0*		*106*	*70-130*			
LCS (1F19002-BS1)				Prepared & Analyzed: 06/19/01						
Purgeable Hydrocarbons	229	50	ug/l	250		91.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	*11.4*		"	*10.0*		*114*	*70-130*			
Matrix Spike (1F19002-MS1)		Source: MKF0331-02		Prepared & Analyzed: 06/19/01						
Purgeable Hydrocarbons	204	50	ug/l	250	ND	81.6	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.6*		"	*10.0*		*106*	*70-130*			
Matrix Spike Dup (1F19002-MSD1)		Source: MKF0331-02		Prepared & Analyzed: 06/19/01						
Purgeable Hydrocarbons	207	50	ug/l	250	ND	82.8	60-140	1.46	25	
Surrogate: a,a,a-Trifluorotoluene	*10.9*		"	*10.0*		*109*	*70-130*			
Batch 1F21006 - EPA 5030B [P/T]										
Blank (1F21006-BLK1)				Prepared & Analyzed: 06/21/01						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*7.81*		"	*10.0*		*78.1*	*70-130*			

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

Project: Arco
Project Number: 821803
Project Manager: Shaw Garakani

Reported:
06/28/01 09:21

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 1F21006 - EPA 5030B [P/T]										
LCS (1F21006-BS1)				Prepared & Analyzed: 06/21/01						
Purgeable Hydrocarbons	207	50	ug/l	250		82.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.4*		"	*10.0*		*104*	*70-130*			

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

Project: Arco
Project Number: 821803
Project Manager: Shaw Garakani

Reported:
06/28/01 09:21

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 1F22034 - General Preparation										
Blank (1F22034-BLK1)				Prepared: 06/21/01 Analyzed: 06/22/01						
Total Suspended Solids	ND	10	mg/l							
Duplicate (1F22034-DUP1)	Source: MKF0331-04			Prepared: 06/21/01 Analyzed: 06/22/01						
Total Suspended Solids	ND	10	mg/l		ND				20	
Batch 1F27030 - General Preparation										
Blank (1F27030-BLK1)				Prepared & Analyzed: 06/25/01						
Chemical Oxygen Demand	ND	20	mg/l							
LCS (1F27030-BS1)				Prepared & Analyzed: 06/25/01						
Chemical Oxygen Demand	109	20	mg/l	100		109	80-120			
Matrix Spike (1F27030-MS1)	Source: MKF0331-04			Prepared & Analyzed: 06/25/01						
Chemical Oxygen Demand	121	20	mg/l	100	34	87.0	75-125			
Matrix Spike Dup (1F27030-MSD1)	Source: MKF0331-04			Prepared & Analyzed: 06/25/01						
Chemical Oxygen Demand	115	20	mg/l	100	34	81.0	75-125	5.08	20	

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Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: 821803 Project Manager: Shaw Garakani	**Reported:** 06/28/01 09:21

Notes and Definitions

H-02	This sample was analyzed outside of EPA recommended hold time.
P-03	Chromatogram Pattern: Unidentified Hydrocarbons 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 AtlanticRichfieldCompany

Task Order No. 821803

Chain of Custody

ARCO Facility no. 0608	City (Facility) 7601 Hesperian Blvd
ARCO engineer Paul Supple	Telephone no. (ARCO) 510-567-8700
Consultant name LT Group	Address (Consultant) 1921 Ringwood Ave, San Jose CA
Project manager (Consultant) Shawn Conakowski	
Telephone no. (Consultant) (408) 453-7300	Fax no. (Consultant) (408) 437-9526
Laboratory name Sequoia	
Contract number	
Method of shipment	

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	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 ☐	COD	TDS
WFC	3			W		4	HCl	6/01	9:40		X											
MW-1	1								9:45													
MW-2	1								9:50													
EFFL	6						H2SO4		10:00												X	X

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number MKF0331

Turnaround time

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

Condition of sample:

Relinquished by sampler	Date 6-9-01	Time 14:20	Received by WIR SEQ 6-11 9:28
Relinquished by WIR	Date 6-11	Time 1105	Received by
	Date	Time	Received by laboratory 6/11/01 1105

Temperature received:

Date Time

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

Sequoia Analytical

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16 May, 2001

Sauraloh Dani
Pacific Environmental Group (Arco)
1921 Ringwood Avenue
San Jose, CA 95131

RE: Arco
Sequoia Report: MKE0133

Enclosed are the results of analyses for samples received by the laboratory on 05/07/01 10:02. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Smyly
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)
1921 Ringwood Avenue
San Jose CA, 95131

Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported:
05/16/01 10:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Infl	MKE0133-01	Water	05/04/01 08:30	05/07/01 10:02
Mid 1	MKE0133-02	Water	05/04/01 08:40	05/07/01 10:02
Mid 2	MKE0133-03	Water	05/04/01 08:45	05/07/01 10:02
Effluent	MKE0133-04	Water	05/04/01 08:50	05/07/01 10:02

Sequoia Analytical - Morgan Hill

Jeff Smyly, Project Manager

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.

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

Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported:
05/16/01 10:25

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 (MKE0133-01) Water Sampled: 05/04/01 08:30 Received: 05/07/01 10:02									
Purgeable Hydrocarbons	63.3	50.0	ug/l	1	1E09003	05/09/01	05/09/01	DHS LUFT	P-03
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	93.2	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.4 %*	*70-130*		"	"	"	"	
Mid 1 (MKE0133-02) Water Sampled: 05/04/01 08:40 Received: 05/07/01 10:02									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1E08002	05/08/01	05/08/01	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		*101 %*	*70-130*		"	"	"	"	
Mid 2 (MKE0133-03) Water Sampled: 05/04/01 08:45 Received: 05/07/01 10:02									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1E08002	05/08/01	05/08/01	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		*97.9 %*	*70-130*		"	"	"	"	

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Pacific Environmental Group (Arco)
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San Jose CA, 95131

Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported:
05/16/01 10:25

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
Effluent (MKE0133-04) Water Sampled: 05/04/01 08:50 Received: 05/07/01 10:02									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1E08002	05/08/01	05/08/01	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		*99.0 %*	*70-130*		"	"	"	"	

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San Jose CA, 95131

Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported:
05/16/01 10:25

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Effluent (MKE0133-04) Water Sampled: 05/04/01 08:50 Received: 05/07/01 10:02									
Chemical Oxygen Demand	ND	20.0	mg/l	1	1E15035	05/14/01	05/14/01	EPA 410.4	
Total Suspended Solids	ND	10.0	"	"	1E15032	05/11/01	05/11/01	EPA 160.2	

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Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported: 05/16/01 10:25

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 1E08002 - EPA 5030B [P/T]										
Blank (1E08002-BLK1)				Prepared & Analyzed: 05/08/01						
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	*9.54*		"	*10.0*		*95.4*	*70-130*			
LCS (1E08002-BS1)				Prepared & Analyzed: 05/08/01						
Benzene	9.91	0.500	ug/l	10.0		99.1	70-130			
Toluene	9.43	0.500	"	10.0		94.3	70-130			
Ethylbenzene	9.45	0.500	"	10.0		94.5	70-130			
Xylenes (total)	28.9	0.500	"	30.0		96.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*9.70*		"	*10.0*		*97.0*	*70-130*			
Matrix Spike (1E08002-MS1)		Source: MKE0133-04		Prepared & Analyzed: 05/08/01						
Benzene	10.5	0.500	ug/l	10.0	ND	105	60-140			
Toluene	10.3	0.500	"	10.0	ND	103	60-140			
Ethylbenzene	10.5	0.500	"	10.0	ND	105	60-140			
Xylenes (total)	31.1	0.500	"	30.0	ND	104	60-140			
Surrogate: a,a,a-Trifluorotoluene	*9.93*		"	*10.0*		*99.3*	*70-130*			
Matrix Spike Dup (1E08002-MSD1)		Source: MKE0133-04		Prepared & Analyzed: 05/08/01						
Benzene	12.1	0.500	ug/l	10.0	ND	121	60-140	14.2	25	
Toluene	12.0	0.500	"	10.0	ND	120	60-140	15.2	25	
Ethylbenzene	12.2	0.500	"	10.0	ND	122	60-140	15.0	25	
Xylenes (total)	36.0	0.500	"	30.0	ND	120	60-140	14.6	25	
Surrogate: a,a,a-Trifluorotoluene	*11.7*		"	*10.0*		*117*	*70-130*			

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

Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported:
05/16/01 10:25

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 1E09003 - EPA 5030B [P/T]										
Blank (1E09003-BLK1)				Prepared & Analyzed: 05/09/01						
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	*8.93*		"	*10.0*		*89.3*	*70-130*			
LCS (1E09003-BS1)				Prepared & Analyzed: 05/09/01						
Benzene	9.10	0.500	ug/l	10.0		91.0	70-130			
Toluene	8.53	0.500	"	10.0		85.3	70-130			
Ethylbenzene	8.57	0.500	"	10.0		85.7	70-130			
Xylenes (total)	25.6	0.500	"	30.0		85.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*8.56*		"	*10.0*		*85.6*	*70-130*			
Matrix Spike (1E09003-MS1)			Source: MKE0167-01	Prepared & Analyzed: 05/09/01						
Benzene	8.90	0.500	ug/l	10.0	ND	89.0	60-140			
Toluene	8.35	0.500	"	10.0	ND	83.5	60-140			
Ethylbenzene	8.40	0.500	"	10.0	ND	84.0	60-140			
Xylenes (total)	25.0	0.500	"	30.0	ND	83.3	60-140			
Surrogate: a,a,a-Trifluorotoluene	*8.59*		"	*10.0*		*85.9*	*70-130*			
Matrix Spike Dup (1E09003-MSD1)			Source: MKE0167-01	Prepared & Analyzed: 05/09/01						
Benzene	9.12	0.500	ug/l	10.0	ND	91.2	60-140	2.44	25	
Toluene	8.55	0.500	"	10.0	ND	85.5	60-140	2.37	25	
Ethylbenzene	8.56	0.500	"	10.0	ND	85.6	60-140	1.89	25	
Xylenes (total)	25.5	0.500	"	30.0	ND	85.0	60-140	1.98	25	
Surrogate: a,a,a-Trifluorotoluene	*8.46*		"	*10.0*		*84.6*	*70-130*			

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

Project: Arco
Project Number: Arco # 0608
Project Manager: Sauraloh Dani

Reported: 05/16/01 10:25

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 1E15032 - General Preparation										
Blank (1E15032-BLK1)				Prepared & Analyzed: 05/11/01						
Total Suspended Solids	ND	10.0	mg/l							
Duplicate (1E15032-DUP1)				Source: MKE0133-04	Prepared & Analyzed: 05/11/01					
Total Suspended Solids	ND	10.0	mg/l		ND				20	
Batch 1E15035 - General Preparation										
Blank (1E15035-BLK1)				Prepared & Analyzed: 05/14/01						
Chemical Oxygen Demand	ND	20.0	mg/l							
LCS (1E15035-BS1)				Prepared & Analyzed: 05/14/01						
Chemical Oxygen Demand	100	20.0	mg/l	100		100	80-120			
Matrix Spike (1E15035-MS1)				Source: MKE0133-04	Prepared & Analyzed: 05/14/01					
Chemical Oxygen Demand	100	20.0	mg/l	100	ND	100	75-125			
Matrix Spike Dup (1E15035-MSD1)				Source: MKE0133-04	Prepared & Analyzed: 05/14/01					
Chemical Oxygen Demand	94.2	20.0	mg/l	100	ND	94.2	75-125	5.97	20	

Sequoia Analytical

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Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: Arco # 0608 Project Manager: Sauraloh Dani	**Reported:** 05/16/01 10:25

Notes and Definitions

P-03	Chromatogram Pattern: Unidentified Hydrocarbons 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 AtlanticRichfieldCompany

Chain of Custody

ARCO Facility no. 0608	Task Order No. 801803	Project manager (Consultant) SAURABH DAVE	Laboratory name SEQUOIA
City (Facility) 17601 HESPERIAN BLVD		Contract number MKE0133	
ARCO engineer Paul Supple	Telephone no. (ARCO) SAN LEANDRO	Telephone no. (Consultant) 408/453-7300	Fax no. (Consultant) 408/573-7755
Consultant name II GROUP	Address (Consultant) 1921 RINGWOOD AV. SAN JOSE		

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 ☐	COD	T33
INFL	01	3		W		4	HCl	5/4/01	8:30		X											
MW-1	02	↓		↓		↓	↓	↓	8:40		↓											
MW-2	03	↓		↓		↓	↓	↓	8:45		↓											
EFFL	04	6		↓		↓	H2SO4 HCl	↓	8:50		↓										X	X

Condition of sample:

Relinquished by sampler — Date 5-4-01 Time 13:30

Relinquished by — Date 5/5 Time 1002

Relinquished by — Date — Time

Temperature received:

Received by — Date — Time

Received by — Date — Time

Received by laboratory H Shelley — Date 5/7/01 Time

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

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

MAY. 16. 2001 12:36PM NO. 8367 P. 11/11

MAY-16-2001 14:21 P.11 97%

Sequoia Analytical

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4 May, 2001

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

RE: Arco
Sequoia Report: MKD0545

Enclosed are the results of analyses for samples received by the laboratory on 04/19/01 10:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for
Jeff Smyly
Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: Arco# 0608 Project Manager: Shaw Garakani	**Reported:** 05/04/01 13:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Infl	MKD0545-01	Water	04/18/01 09:30	04/19/01 10:50
Mid-1	MKD0545-02	Water	04/18/01 09:40	04/19/01 10:50
Mid-2	MKD0545-03	Water	04/18/01 09:50	04/19/01 10:50
Effl	MKD0545-04	Water	04/18/01 10:00	04/19/01 10:50

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.

for

Jeff Smyly, Project Manager

Sequoia Analytical

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Pacific Environmental Group (Arco)	Project: Arco	**Reported:**
1921 Ringwood Avenue	Project Number: Arco# 0608	05/04/01 13:22
San Jose CA, 95131	Project Manager: Shaw Garakani	

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 (MKD0545-01) Water Sampled: 04/18/01 09:30 Received: 04/19/01 10:50									
Purgeable Hydrocarbons	74.5	50.0	ug/l	1	1D23001	04/23/01	04/23/01	DHS LUFT	P-03
Benzene	ND	0.500	"	"	"	"	"	"	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	0.500	"	"	"	"	"	"	
Methyl tert-butyl ether	97.5	2.50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*104 %*		*70-130*		"	"	"	
Mid-1 (MKD0545-02) Water Sampled: 04/18/01 09:40 Received: 04/19/01 10:50									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1D23001	04/23/01	04/23/01	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		*104 %*		*70-130*		"	"	"	
Mid-2 (MKD0545-03) Water Sampled: 04/18/01 09:50 Received: 04/19/01 10:50									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1D23001	04/23/01	04/23/01	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		*102 %*		*70-130*		"	"	"	

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Pacific Environmental Group (Arco)	Project: Arco	
1921 Ringwood Avenue	Project Number: Arco# 0608	**Reported:**
San Jose CA, 95131	Project Manager: Shaw Garakani	05/04/01 13:22

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
Effl (MKD0545-04) Water Sampled: 04/18/01 10:00 Received: 04/19/01 10:50									
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1D23001	04/23/01	04/23/01	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		*104 %*		*70-130*		"	"	"	

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Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: Arco# 0608 Project Manager: Shaw Garakani	**Reported:** 05/04/01 13:22

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Eff (MKD0545-04) Water	**Sampled: 04/18/01 10:00**	**Received: 04/19/01 10:50**							
Chemical Oxygen Demand	**28.5**	20.0	mg/l	1	1E03027	05/03/01	05/03/01	EPA 410.4	
Total Suspended Solids	ND	10.0	"	"	1D24036	04/23/01	04/23/01	EPA 160.2	

Sequoia Analytical

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Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: Arco# 0608 Project Manager: Shaw Garakani	**Reported:** 05/04/01 13:22

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 1D23001 - EPA 5030B [P/T]										
Blank (1D23001-BLK1)				Prepared & Analyzed: 04/23/01						
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	*10.1*		"	*10.0*		*101*	*70-130*			
LCS (1D23001-BS1)				Prepared & Analyzed: 04/23/01						
Benzene	10.7	0.500	ug/l	10.0		107	70-130			
Toluene	10.4	0.500	"	10.0		104	70-130			
Ethylbenzene	10.2	0.500	"	10.0		102	70-130			
Xylenes (total)	31.2	0.500	"	30.0		104	70-130			
Surrogate: a,a,a-Trifluorotoluene	*10.5*		"	*10.0*		*105*	*70-130*			
Matrix Spike (1D23001-MS1)	Source: MKD0545-04			Prepared & Analyzed: 04/23/01						
Benzene	11.3	0.500	ug/l	10.0	ND	113	60-140			
Toluene	11.0	0.500	"	10.0	ND	110	60-140			
Ethylbenzene	10.6	0.500	"	10.0	ND	106	60-140			
Xylenes (total)	32.4	0.500	"	30.0	ND	108	60-140			
Surrogate: a,a,a-Trifluorotoluene	*10.7*		"	*10.0*		*107*	*70-130*			
Matrix Spike Dup (1D23001-MSD1)	Source: MKD0545-04			Prepared & Analyzed: 04/23/01						
Benzene	11.0	0.500	ug/l	10.0	ND	110	60-140	2.69	25	
Toluene	10.6	0.500	"	10.0	ND	106	60-140	3.70	25	
Ethylbenzene	10.3	0.500	"	10.0	ND	103	60-140	2.87	25	
Xylenes (total)	31.3	0.500	"	30.0	ND	104	60-140	3.45	25	
Surrogate: a,a,a-Trifluorotoluene	*10.6*		"	*10.0*		*106*	*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)
1921 Ringwood Avenue
San Jose CA, 95131

Project: Arco
Project Number: Arco# 0608
Project Manager: Shaw Garakani

Reported:
05/04/01 13:22

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 1D24036 - General Preparation										
Blank (1D24036-BLK1)				Prepared & Analyzed: 04/23/01						
Total Suspended Solids	ND	10.0	mg/l							
Duplicate (1D24036-DUP1)			Source: MKD0562-01	Prepared & Analyzed: 04/23/01						
Total Suspended Solids	45.3	10.0	mg/l		47.3			4.32	20	
Batch 1E03027 - General Preparation										
Blank (1E03027-BLK1)				Prepared & Analyzed: 05/03/01						
Chemical Oxygen Demand	ND	20.0	mg/l							
LCS (1E03027-BS1)				Prepared & Analyzed: 05/03/01						
Chemical Oxygen Demand	94.2	20.0	mg/l	100		94.2	80-120			
Matrix Spike (1E03027-MS1)			Source: MKD0620-03	Prepared & Analyzed: 05/03/01						
Chemical Oxygen Demand	252	20.0	mg/l	100	127	125	75-125			
Matrix Spike Dup (1E03027-MSD1)			Source: MKD0620-03	Prepared & Analyzed: 05/03/01						
Chemical Oxygen Demand	243	20.0	mg/l	100	127	116	75-125	3.64	20	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
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www.sequoialabs.com

Pacific Environmental Group (Arco) 1921 Ringwood Avenue San Jose CA, 95131	Project: Arco Project Number: Arco# 0608 Project Manager: Shaw Garakani	**Reported:** 05/04/01 13:22

Notes and Definitions

P-03	Chromatogram Pattern: Unidentified Hydrocarbons 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 AtlanticRichfieldCompany

Chain of Custody

Task Order No. 021803

ARCO Facility no. 0608	City (Facility) 7601 Hesperian Blvd	Project manager (Consultant) SHAW GARAKANI	Laboratory name SEQUOIA
ARCO engineer MIKE WHELAN	Telephone no. (ARCO) 510 [illegible]	Telephone no. (Consultant) 408/4537300	Fax no. (Consultant) 408/4372526
Consultant name IT GROUP	Address (Consultant) 1921 RINGWOOD AV. SAN JOSE CA		Contract number MK00545

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 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 ☐		
INFL	01	3		W		4	HCl	4-18-01	9:30		X										G&O	1335
MW-1	02	↓		↓		↓	↓		9:40		↓											
MW-2	03	↓		↓		↓	↓		9:50		↓											
EFFL	04	5		↓		↓	HCl pH<2 H2SO4	↓	10:00		↓										X	X

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number [illegible]

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	4-18-01	15:30	Received by	WKB	4-19 9:30
Relinquished by	4-19	1050	Received by	MH	
Relinquished by			Received by laboratory		

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

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification **Request Frequency:Semi-Monthly**

Project #	821803 (00008000)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Technician:	Pedro Ruiz
Client:	ARCO
Client P.O.C.:	Paul Supple
Revision Date:	June 14, 2001
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

GWE (A, B)	Semi-Monthly				
GWE (C, D, E, F)	Monthly †				
GWE (G)	Quarterly				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 1
quarterly = on months 3, 6, 9, 12
semi-monthly = twice a month on week 1 and 3

Field Technician Response:

Completed by: _____ Date: 6-28-01
Arrival time: _____ Departure time: _____
Sample this visit?: _____ Engineer contacted? yes

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
821803 (00008000)
June 14, 2001

System Description:

Groundwater Pumps

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)	22821	HOUR METER READING (hrs)	364693

TOTALIZER (gallons)	1892280	
FILTER INLET PRESSURE (psig)	18 psi	(ideal range: 8 to 12 psig)
CARBON #1 INLET PRESSURE (psig)	8 psi	(ideal range: 5 to 9 psig)
CARBON #2 INLET PRESSURE (psig)	7 psi	(ideal range: 1 to 4 psig)
DISCHARGE PRESSURE (psig)	0	(ideal range: 0 to 2 psig)

PART B: COMMENTS System was Down Due to Construction & Cut on Main Sewer line Talk to Construction Foreman: Bill Hayes Got verbal that the sewerline was Cut 5 days ago / and system Bill Hayes 9/6) 8050332

N:Projects/IT/ARCO/809628/O&MDataSheetGWE

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Identification **Request Frequency:Semi-Monthly**

Project #	821803 (00008000)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Saurabh Dani
Technician:	Pedro Ruiz
Client:	ARCO
Client P.O.C.:	Paul Supple
Revision Date:	April 5, 2001
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

GWE (A, B)	Semi-Monthly				
GWE (C, D, E, F)	Monthly †				
GWE (G)	Quarterly				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 1
quarterly = on months 3, 6, 9, 12
semi-monthly = twice a month on week 1 and 3

Field Technician Response:

Completed by:_____ Date: 6-9-01
Arrival time:_____ Departure time:_____
Sample this visit?:_____ Engineer contacted?_____

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
821803 (00008000)
April 5, 2001

System Description:

Groundwater Pumps

Well ID	Type	# Size	Control	Sch 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)	22744	HOUR METER READING (hrs)	363451

	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1879570	1879710
FILTER INLET PRESSURE (psig)	12	(ideal range: 8 to 12 psig) 8
CARBON #1 INLET PRESSURE (psig)	10	(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 Open up on Carbon #1 Inspect Bio-Build up, Remove 1/4" Foam Top, Back wash Vessel #1 Pump & treat water throughout system

PART C: WELL DATA (Monthly)

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

E-1A	22.60 ToB 20.15 ToB — Draw Down			
UST-A	ToB 11.35 DRY	N/A	N/A	
UST-B	ToB 11.89 DRY	N/A	N/A	
SP1-V4	SP1 11.40 ToC 11.95 ToB / 12.50 TD	N/A	N/A	
	V-4 11.40 ToC 12.10 ToB / 20.30 TD			

PART D: SAMPLING (Monthly)

INFLUENT	TPH-gasoline, BTEX compounds, MtBE	9:40 RE
EFFLUENT	TPH-gasoline, BTEX compounds, MtBE COD, TSS	10:00 RE
MID-1	TPH-gasoline, BTEX compounds, MtBE	9:45 RE
MID-2	TPH-gasoline, BTEX compounds, MtBE	9:50 RE

PART E: READINGS (Monthly)

	TEMP (°F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	64.7	1020	7.05	0.0

PART F: SYSTEM MAINTENANCE I (Monthly)

NUMBER OF SPARE FILTERS ON SITE?	0	CHANGE FILTERS? (if necessary)	YES
PUMP AMP DRAW	6.3 Start up 5.4 amps	H202 injection well EA-1 (if necessary)	YES
SWEEP ENCLOSURE	YES		

PART G: SYSTEM MAINTENANCE II (Quarterly)

TEST ALARM SWITCHES	YES	BACKFLUSH CARBONS	YES
CLEAN TOTALIZERS	YES		

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Request Frequency:Semi-Monthly

Identification

Project #	821803 (00008000)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Saurabh Dani
Technician:	Pedro Ruiz
Client:	ARCO
Client P.O.C.:	Paul Supple
Revision Date:	April 5, 2001
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE) [X]

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

GWE (A, B)	Semi-Monthly				
GWE (C, D, E, F)	Monthly †				
GWE (G)	Quarterly				

† = sampling to be performed

Drive By 5.1401
Totalizer 18/3250
KWHS 21401

Definition of frequencies:
weekly = N/A
monthly = once a month on week 1
quarterly = on months 3, 6, 9, 12
semi-monthly = twice a month on week 1 and 3

Field Technician Response:

Completed by:_____ Date: 5.30.01
Arrival time:_____ Departure time:_____
Sample this visit?:_____ Engineer contacted?_____

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Request Frequency:Semi-Monthly

Identification

Project #	821803 (00008000)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Saurabh Dani
Technician:	Pedro Ruiz
Client:	ARCO
Client P.O.C.:	Paul Supple
Revision Date:	April 5, 2001
Laboratory:	Sequoia Analytical

Site Remedial Technologies:

Groundwater Extraction (GWE)	X

Complete attached Data Sheets as prescribed in the following table:

Scheduling Table

GWE (A, B)	Semi-Monthly				
GWE (C, D, E, F)	Monthly †				
GWE (G)	Quarterly				

† = sampling to be performed

Definition of frequencies:
weekly = N/A
monthly = once a month on week 1
quarterly = on months 3, 6, 9, 12
semi-monthly = twice a month on week 1 and 3

Field Technician Response:

Completed by:_____ Date: 5-04-01
Arrival time:_____ Departure time:_____
Sample this visit?:_____ Engineer contacted?_____

Date:______________

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
821803 (00008000)
April 5, 2001

System Description:

Groundwater Pumps

[illegible]	Type	[illegible]	Controls	[illegible] 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)	21466	HOUR METER READING (hrs)	357155

[illegible]	ON [illegible]	ON DEPARTURE
TOTALIZER (gallons)	1812500	1812690
FILTER INLET PRESSURE (psig)	10	(ideal range: 8 to 12 psig) 8
CARBON #1 INLET PRESSURE (psig)	9	(ideal range: 5 to 9 psig) 8
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

Hard [illegible] on E-1A [illegible] Hard [illegible] on well for about 1 Hr. Turn system on, there was no water Flowing from Pump in to Filter. Pull pump out inspected. was Running Good. Drop Pump in to well Try to Re-start System on = Pump was not pumping any water in to the system. Pull Pump out Brought it Back To Warehouse. Troubleshoot it Running OK. Re install on well 5-05-01 System Running OK.

PART C: WELL DATA (Monthly)

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

	TOTAL DEPTH			COMMENTS/ ADJUSTMENTS
E-1A	18.85 / 21.35			
UST-A	11.35 Dry	N/A	N/A	
UST-B	DTW - TD 11.76 / 11.86	N/A	N/A	
SP1 SW4	11.77 11.65	N/A	N/A	

PART D: SAMPLING (Monthly)

INFLUENT	TPH-gasoline, BTEX compounds, MtBE	8:30 RE
EFFLUENT	TPH-gasoline, BTEX compounds, MtBE COD, TSS	8:50 RE
MID-1	TPH-gasoline, BTEX compounds, MtBE	8:40 RE
MID-2	TPH-gasoline, BTEX compounds, MtBE	8:45 RE

PART E: READINGS (Monthly)

	TEMP (°F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	635	1320	7.31	1.2 ppm

PART F: SYSTEM MAINTENANCE I (Monthly)

NUMBER OF SPARE FILTERS ON SITE?	9	CHANGE FILTERS? (if necessary)	YES
PUMP AMP DRAW	5.7	H202 injection well EA-1 (if necessary)	YES
SWEEP ENCLOSURE	YES		

PART G: SYSTEM MAINTENANCE II (Quarterly)

TEST ALARM SWITCHES	ON High Press. Δ Filter 34psi	BACKFLUSH CARBONS	
CLEAN TOTALIZERS			

Work Order #_____

FIELD SERVICES / ROUTINE O&M REQUEST

Request Frequency:Monthly

Identification

Project #	821803 (00008000)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Technician:	Pedro Ruiz
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	March 27, 2001
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 1
quarterly = on months 3,6,9,12
semi-monthly = twice a month on week 2 and 4

Field Technician Response:

Completed by:_____ Date: 4-05-01 / 4-18 01
Arrival time:_____ Departure time:_____
Sample this visit?: yes Engineer contacted? yes.

Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
821803 (00008000)
March 27, 2001

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 (Monthly)

System on upon arrival? Down / 4-18 Running (if no, specify reason in comments)

ELECTRIC METER READING (kw hrs)	21116 / 4-18 21121	HOUR METER READING (hrs)	4-18 353101 / 353346

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1767530 / 4-18 1770440 ⇒ 1770860	
FILTER INLET PRESSURE (psig)	4-18 10	(ideal range: 8 to 12 psig) 10
CARBON #1 INLET PRESSURE (psig)	8	(ideal range: 5 to 9 psig) 8
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 No Power to Electrical Panel, Check Volts at Breaker Box Confirm No power Coming To Main Braker From Elect. Meter.
4-18 Set High pressure switch start = High pressure at Filter 24 ⇒ 26 PSI ON auto, Turn pump to manual ~~pump~~ System off at 24 PSI High Pump pressure up to 70 ⇒ 80 PSI SET High pressure switch at 34 PSI pump Draw 6.4 at start up ⇒ 5.7 amp Draw Normal

PART C: WELL DATA (Monthly)

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

[illegible]	[illegible]	[illegible]	FLOWRATE	COMMENTS/ ADJUSTMENTS
E-1A	9.33 TOB READINGS 10.92 TOC	AT => Pump Not Running		
UST-B	TOC 11.14 - 11.76 TOB TOC 11.23 TD	N/A	N/A	
UST-A	TOC 11.17 T.D TOB 11.32 TO Dry	N/A	N/A	
SP1-V4	TOC TOB SP1 10.90 / 11.40	N/A V.4 TOC 10.78 / 11.40	N/A TOB / 4·18 SP·1 V·4 11.62	DTW·TOB 11.50 - 13.05 TD

4·18 20.95 TO 21.60·

PART D: SAMPLING (Monthly)

[illegible]	[illegible]	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MtBE 9:30	RE
EFFLUENT	TPH-gasoline, BTEX compounds, MtBE COD, TSS 10:00	RE
MID-1	TPH-gasoline, BTEX compounds, MtBE 9:40	RE
MID-2	TPH-gasoline, BTEX compounds, MtBE 9:50	RE

PART E: READINGS (Monthly)

	TEMP (^{0}F)	CONDUCTIVITY (umhos)	pH (units)	DISSOLVED OXYGEN (ppm)
EFFLUENT	64.0	1120	7.06	1.2

PART F: SYSTEM MAINTENANCE I (Monthly)

NUMBER OF SPARE FILTERS ON SITE?	8 25Micron	CHANGE FILTERS? (if necessary)	YES
PUMP AMP DRAW	6.0 AMP	H202 injection well EA-1 (if necessary)	YES 3 H2O / 2 H2O2
SWEEP ENCLOSURE	YES		

PART G: SYSTEM MAINTENANCE II (Quarterly)

TEST ALARM SWITCHES	YES	BACKFLUSH CARBONS	
CLEAN TOTALIZERS			

FIELD SERVICES / O&M REQUEST

Work Order # 6852

SITE INFORMATION FORM

Identification

Project # 821806 (0000800)

Station # ARCO 608

Site Address: 17601 Hesperian
San Lorenzo CA

County:

Project Manager: Stew G

Requestor: Don W

Client: ARCO

Project Type

- ☐ 1st Time Visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Client P.O.C.: Paul Supple

Date of Request 3/30/01

Ideal field date(s): Next visit

Check Appropriate Category

Budget Hrs.

Actual Hrs.

Mob de Mob

Field Tasks: For General Description

circle one:
Priority: 1. (emergency, must be done within 24 hrs); 2. (next visit); 3. (when available)

Adjust bag filter switch, increase set point so system can run longer with changing bag filter.

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

Adjust High Pressure Switch & High Pressure at Filter was 24 & 26 psi Reset Switch up to 34 psi

☐ Samples taken ☐ Samples not required ☐ Soil Vapor ☐ Groundwater

☐ Weekly ☐ Semi-Monthly ☐ Monthly ☐ Quarterly ☐ Semi-Annual

PACIFIC ENVIRONMENTAL GROUP, INC.

Completed by: [signature] Date: 4/18/01

Checked by:

White Copy - Originator Yellow Copy - O & M Tech Pink Copy - File

FIELD SERVICES / O&M REQUEST

Work Order # 6839

SITE INFORMATION FORM

Identification

Project # 821803 (0000800)

Station # ARCO 608

Site Address: 17601 Hesperian Blvd
San Lorenzo, CA

County:

Project Manager: Shaw G

Requestor: Don W

Client: ARCO

Project Type

- ☐ 1st Time Visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☒ One time event
- ☐ Other:

Client P.O.C.: Paul Supple

Date of Request ~~Next visit~~ 3/15/01

Ideal field date(s): Next Visit

Check Appropriate Category

Budget Hrs.

Actual Hrs.

Mob de Mob

Field Tasks: For General Description

circle one:
Priority: 1. (emergency, must be done within 24 hrs); 2. (next visit); 3. (when available)

1) Purchase Combo lock. Set Combo to 0608
Place on gate of treatment Compound.

2) Replace support Cable on pump (use Stainless Steel)

3) Check Auto dialer operation

4) Continue Biogrowth abatement with H_2O_2

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

Task Completed

☐ Samples taken ☐ Samples not required ☐ Soil Vapor ☐ Groundwater

☐ Weekly ☐ Semi-Monthly ☐ Monthly ☐ Quarterly ☐ Semi-Annual

Completed by: [signature] Date: 3/05/18:01

PACIFIC ENVIRONMENTAL GROUP, INC.

Checked by:

Yellow Copy - O & M Tech

Pink Copy - File

Work Order #____________

FIELD SERVICES / ROUTINE O&M REQUEST

Identification

Request Frequency:Monthly

Project #	821803 (00008000)
Station #	0608
Site Address:	17601 Hesperian Blvd @ Hacienda Avenue
County:	Alameda
Project Manager:	Shaw Garakani
Requestor:	Don Watenpaugh
Technician:	Pedro Ruiz
Client:	ARCO
Client P.O.C.:	Mike Whelan
Revision Date:	March 27, 2001
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) [illegible]	[illegible] 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 1
quarterly = on months 3,6,9,12
semi-monthly = twice a month on week 2 and 4

Field Technician Response:

Completed by:____________________ Date:____________________
Arrival time:____________________ Departure time:________________
Sample this visit?:________________ Engineer contacted?______________

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Date:_____

Groundwater Extraction & Treatment System
ARCO Service Station 0608
17601 Hesperian Boulevard
821803 (00008000)
March 27, 2001

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 (Monthly)

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

ELECTRIC METER READING (kw hrs)	21116	HOUR METER READING (hrs)	353101

MEASUREMENT	ON ARRIVAL	ON DEPARTURE
TOTALIZER (gallons)	1767530	
FILTER INLET PRESSURE (psig)		(ideal range: 8 to 12 psig)
CARBON #1 INLET PRESSURE (psig)		(ideal range: 5 to 9 psig)
CARBON #2 INLET PRESSURE (psig)		(ideal range: 1 to 4 psig)
DISCHARGE PRESSURE (psig)		(ideal range: 0 to 2 psig)

PART B: COMMENTS No Power to Electrical Panel, Check Volts at Braker Box Confirm No power Going To Main Braker From Elect. Meter.

PART C: WELL DATA (Monthly)

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

WELL	DTW (TOB)	TOTALIZER (gallons)	FLOWRATE (gpm)	COMMENTS/ ADJUSTMENTS
E-1A	933 TOB Readings 10.92 TOC AT ⇒ Pump not Running			
UST-B	TOC 11.14 - 11.76 TOB TOC 11.23 TD	N/A	N/A	
UST-A	TOC 11.17 T.D TOB 11.32 TD Dry	N/A	N/A	
SP1-V4	TOC TOB SP1 1090 / 11.40	N/A V.4 TOC 1078 / 11.42	N/A TOB	

PART D: SAMPLING (Monthly)

SAMPLE	ANALYSIS	COMPLETED
INFLUENT	TPH-gasoline, BTEX compounds, MtBE	
EFFLUENT	TPH-gasoline, BTEX compounds, MtBE COD, TSS	
MID-1	TPH-gasoline, BTEX compounds, MtBE	
MID-2	TPH-gasoline, BTEX compounds, MtBE	

PART E: READINGS (Monthly)

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

PART F: SYSTEM MAINTENANCE I (Monthly)

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

PART G: SYSTEM MAINTENANCE II (Quarterly)

TEST ALARM SWITCHES		BACKFLUSH CARBONS	
CLEAN TOTALIZERS			