PACIFIC
ENVIRONMENTAL
GROUP, INC.

Quarterly Groundwater Monitoring Report and Remedial System Performance Evaluation Fourth Quarter 1997

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

Prepared for

Mr. Michael Whelan
ARCO Products Company

March 10, 1998

Prepared by

Pacific Environmental Group, Inc.
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Project 330-006.2J

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GEOLOGIST
STATE OF CALIFORNIA

Date: March 10, 1998
Quarter: 4Q97

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

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

ARCO Environmental Engineer: Michael Whelan
Consulting Co./Contact Person: Pacific Environmental Group, Inc./Debra J. Moser
Consultant Project No.: 330-006.2J
Primary Agency/Regulatory ID No.: Alameda County Health Care Services Agency
Monitoring Events Performed to Date 36

WORK PERFORMED THIS QUARTER (Fourth - 1997):

1. Submitted third quarter 1997 quarterly monitoring report.
2. Performed fourth quarter 1997 groundwater monitoring event on November 24 and 25 1998.
3. Prepared fourth quarter 1997 groundwater monitoring report.
4. Continued quarterly payments to homeowners for not using domestic irrigation wells.
5. Continued homeowner quarterly monitoring results notification program.
6. Continued preparation of MtBE Risk Assessment.
7. Measured dissolved oxygen.

WORK PROPOSED FOR NEXT QUARTER (First - 1998):

1. Submit fourth quarter 1997 quarterly monitoring report.
2. Perform first quarter 1998 groundwater monitoring event.
3. Prepare first quarter 1998 groundwater monitoring report.
4. Continue quarterly payments to homeowners for not using domestic irrigation wells.
5. Continue homeowner quarterly monitoring results notification program.
6. Complete and submit MtBE Risk Assessment report to ACHCSA.
7. Prepare site closure summary request.

Current Phase of Project:	Monitoring	(Assmnt, Remed., etc.)
Frequency of Groundwater Sampling:	Quarterly	(Quarterly, etc.)
Frequency of Groundwater Monitoring:	Quarterly	(Monthly, etc.)
Is Free Product (FP) Present On-Site:	No	(Yes/No)
FP Recovered this Quarter:	None	(gallons)
Cumulative FP Recovered to Date:	None	(gallons)
Bulk Soil Removed This Quarter:	None	(cubic yards)
Bulk Soil Removed to Date:	200	(cubic yards)
Current Remediation Techniques:	Natural Attenuation	(SVE/Sparge/FP Removal, etc.)
Approximate Depth to Groundwater:	9.78 to 13.90	(Measure Feet)
Groundwater Gradient:	Southwest	(Direction)
	0.003	(Magnitude)
Period TPPH-g/Benzene Removed:	0.0/0.0	(gallons)
Cumulative TPPH-g/Benzene Removed:	0.8/0.04	(gallons)

DISCUSSION:

- TPPH-g and BTEX compounds concentrations are within historical levels.
- Please refer to PACIFIC's *Quarterly Groundwater Monitoring Report - Fourth Quarter 1996*, for historical groundwater elevation and analytical data.

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 - Groundwater Elevation Contour Map
- Figure 2 - TPPH-g/Benzene Concentration Map
- Attachment A - Field and Laboratory Procedures
- Attachment B - Certified Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets

cc: Ms. Madhulla Logan, M.S., Alameda County Health Care Services Agency
Mr. Ron Sykora/Mr. Robert L. Webster, David D. Bohannon Organization
Mr. Stephen Hill, Regional Water Quality Control Board - San Francisco Bay Region
Dr. Charles Lapin, ARCO Products Company

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	a	a	a	a	Quarterly
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	a	a	a	a	Quarterly
MW-14	a	a	a	a	Quarterly
MW-15	a	a	a	a	Quarterly
MW-16	a	a	a	a	Quarterly
MW-17	----------Destroyed----------				
MW-18	a	a	a	a	Quarterly
MW-19	a	a	a	a	Quarterly
MW-20	----------Destroyed----------				
MW-21	a	a	a	a	Quarterly
MW-22	a	a	a	a	Quarterly
MW-23	a	a	a	a	Quarterly
MW-24	a	a	a	a	Quarterly
MW-25	a	a	a	a	Quarterly
MW-26	a	a	a	a	Quarterly
Domestic Irrigation Wells					
590H	a	a	a	a	Quarterly
633H	a	a	a	a	Quarterly
634H	a	a	a	a	Quarterly
642H	a	a	a	a	Quarterly
675H	a	a	a	a	Quarterly
17197 VM	a	a	a	a	Quarterly

Table 1 (continued)
Groundwater Sampling Schedule

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

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

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

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

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	††	03/14/96	a	33.99	9.75	24.24	1,600	30	<10	13	<10	NA	NM
		05/29/96	b		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
		11/25/96	d		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
		09/10/97	g		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
MW-7		03/15/96	a	34.40	9.73	24.67	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
		05/29/96	b		11.60	22.80	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
		08/28/96	c		12.63	21.77	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
		11/25/96	d		12.10	22.30	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
		04/01/97	f		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
		09/10/97	g		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
MW-8		03/14/96	a	32.79	8.90	23.89	670	5.1	<2.0	<2.0	<2.0	NA	NM
		05/29/96	b		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
		04/01/97	f		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
		09/10/97	g		11.67	21.12	570	57	<1.0	2.1	1.7	57	2.0
		09/10/97	e		--	--	--	--	--	--	--	48	--
		11/24,25/97			11.50	21.29	530	3.0	1.7	1.9	1.5	26	2.0
MW-9		03/15/96	a	32.11	7.65	24.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
		05/28/96	b		9.67	22.44	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
		08/28/96	c		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
		04/01/97	f		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
		09/10/97	g		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

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

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

Well Number		Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-10	††	03/14/96	a	31.67	7.78	23.89	870	35	<5.0	5.2	7.0	NA	NM
		05/29/96	b		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
		11/25/96	d		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
		09/10/97	g		11.08	20.59	950	<1.2	3.3	2.5	3.7	240	2.0
		09/10/97	e		--	--	--	--	--	--	--	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	--
MW-11		03/14/96	a	32.54	8.60	23.94	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
		05/28/96	b		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
		04/01/97	f		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
		09/10/97	g		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
E-1A	††	03/14/96	a	33.06	10.35	22.71	2,700	38	<5.0	130	6.2	NA	NM
(MW-12)		05/29/96	b		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
		11/25/96	d		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
		09/10/97	g		11.85	21.21	3,200	9.0	<5.0	45	<5.0	85	2.0
		09/10/97	e		--	--	--	--	--	--	--	70	--
		11/24,25/97			11.75	21.31	2,000	10	<2.5	42	2.8	65	1.0
MW-13		03/15/96	a	35.42	10.90	24.52	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
		05/29/96	b		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
		04/01/97	f		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
		09/10/97	g		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

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

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	03/15/96	a	30.46	6.63	23.83	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		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
	09/10/97	g		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
MW-15	03/13/96	a	31.41	8.13	23.28	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/29/96	b		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
	04/01/97	f		10.45	20.58	<50	<0.50	<0.50	<0.50	<0.50	7.2	NM
	06/25/97			11.39	20.02	<50	<0.50	<0.50	<0.50	<0.50	7.0	NM
	09/09/97			11.50	19.91	---------- Well Inaccessible ----------						
	11/24,25/97			---------- Well Inaccessible ----------								
MW-16	03/13/96	a	31.39	8.62	22.77	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		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
	09/10/97	g		12.03	19.36	<50	<0.50	<0.50	<0.50	<0.50	63	3.0
	09/10/97	e		--	--	--	--	--	--	--	86	--
	11/24,25/97			11.76	19.63	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
MW-17	---------- Well Destroyed ----------											
MW-18	03/13/96	a	29.70	7.53	22.17	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		10.14	19.56	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97			10.94	18.76	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/10/97	g		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

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

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

Well Number	Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-19	03/13/96	a	29.02	7.06	21.96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		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
	09/10/97	g		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
MW-20	---------- Well Destroyed ----------											
MW-21	03/13/96	a	28.72	7.58	21.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/29/96	b		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
	04/01/97	f		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
	09/10/97	g		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
MW-22	03/13/96	a	29.29	7.83	21.46	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		10.56	18.73	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97			11.51	17.78	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/10/97	g		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
MW-23	03/13/96	a	30.99	9.13	21.86	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		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
	09/10/97	g		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

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

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

Well Number	Date Sampled		Well Elevation (feet, MSL)	Depth to Water (feet, TOB)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
MW-24	01/15/96	a	34.38	10.10	24.28	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		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
	04/01/97	f		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
	09/10/97	g		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
MW-25	03/14/96	a	34.12	9.61	24.51	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/29/96	b		11.30	22.82	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96	c		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
	04/01/97	f		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
	09/10/97	g		12.45	21.67	<50	<0.50	<0.50	<0.50	<0.50	78	1.0
	09/10/97	e		--	--	--	--	--	--	--	79	--
	11/24,25/97			12.30	21.82	<50	<0.50	<0.50	<0.50	<0.50	130	0.0
MW-26	03/15/96	a	33.71	9.38	24.33	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/28/96	b		11.57	22.14	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/28/96	c		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
	04/01/97	f		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
	09/10/97	g		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

MtBE = Methyl tert-butyl ether
MSL = Mean sea level
TOB = Top of box
ppb = Parts per billion
ppm = Parts per million
a. All wells gauged on March 13, 1996.
b. All wells gauged on May 28, 1996.
c. Well sampled on August 29, 1996.
d. Well sampled on November 26, 1996.
e. MtBE result confirmed by EPA Method 8260.
f. Wells gauged on March 31, 1997.
g. Wells gauged on September 9, 1997.
< = Less than laboratory detection limit.
NA = Not analyzed
NM = Not measured
NS = Not sampled
† = Well sampled without purging.
†† = ORC program at well was initiated on September 21, 1995 and discontinued on May 15, 1997.

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

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
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	NA	NA	NA	NA	NA	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	NM
634 H	03/13/96 a	NS	NS	NS	NS	NS	NA	NM
	05/27/96 a	NS	NS	NS	NS	NS	NA	NM
	08/29/96 a	NS	NS	NS	NS	NS	NA	NM
	11/26/96	NS	NS	NS	NS	NS	NS	NM
	03/31/97	NS	NS	NS	NS	NS	NS	NM
	06/25/97 a	NS	NS	NS	NS	NS	NS	NM
	09/09/97 g	NS	NS	NS	NS	NS	NS	NM
	11/24/97 g	NS	NS	NS	NS	NS	NS	NM
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
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
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

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

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

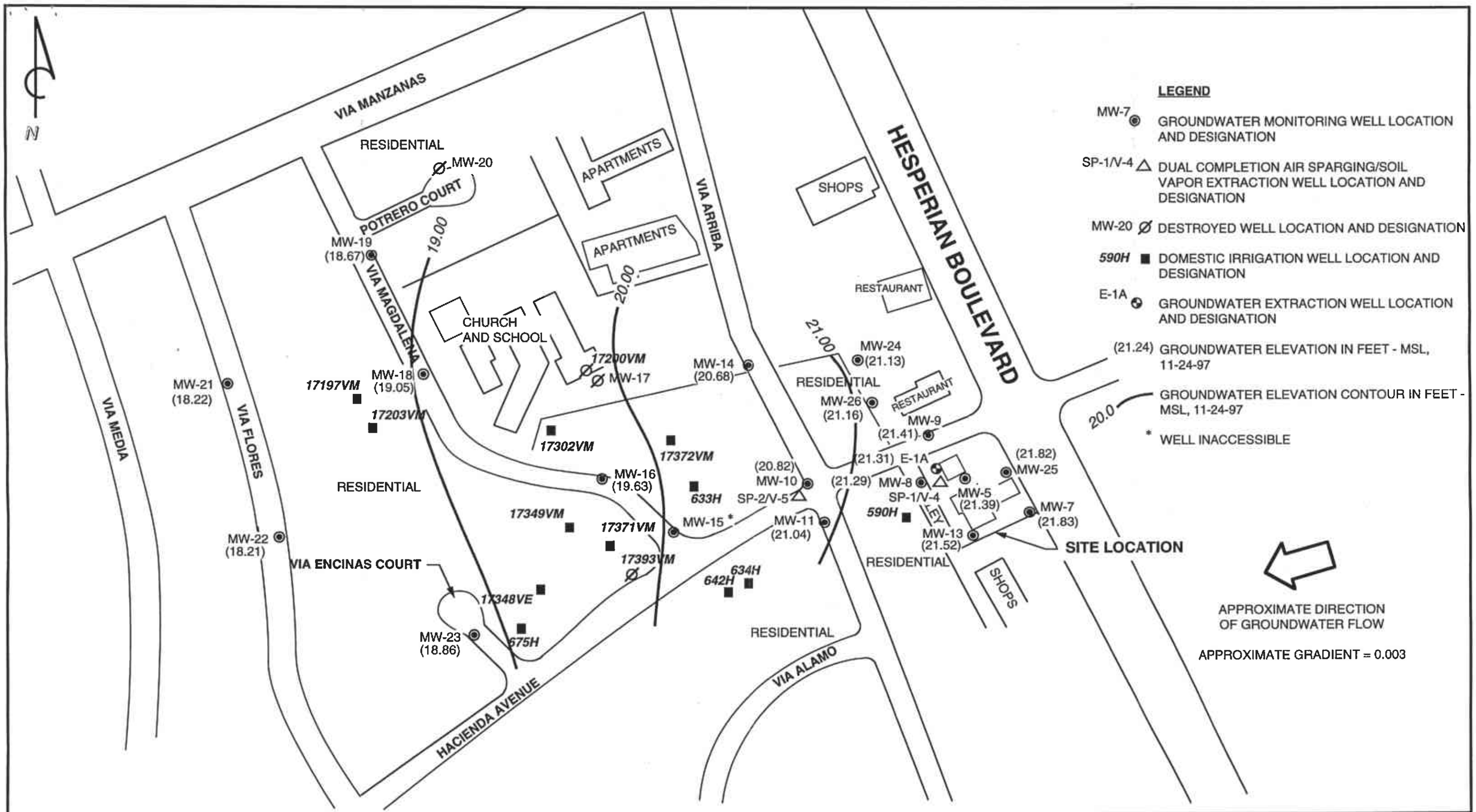
Well Address	Date Sampled	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	MtBE (ppb)	Dissolved Oxygen (ppm)
17197 VM (cont.)	06/25/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	09/09/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	3.0
	11/24/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	2.4
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
17302 VM	03/15/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	06/25/97 f	NS	NS	NS	NS	NS	NS	NM
	09/09/97 f	NS	NS	NS	NS	NS	NS	NM
	11/24/97 f	NS	NS	NS	NS	NS	NS	NM
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
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
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

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

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)
17371 VM (cont.)	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
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
17393 VM	03/14/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	05/27/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	08/29/96	<50	<0.50	<0.50	<0.50	<0.50	NA	NM
	11/26/96	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NM
	03/31/97 a	NS	NS	NS	NS	NS	NS	NM
	06/25/97	---------- Well Destroyed ----------						

TPPH = Total purgeable petroleum hydrocarbons
MtBE = Methyl tert-butyl ether
ppb = Parts ber billion
H = Hacienda Avenue
< = Less than laboratory detection limit stated at right.
NA = Not analyzed
NS = Not sampled
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.
VM = Via Magdalena
VE = Via Encinas
* = 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.
† = Sample analyzed past hold time.
Homeowners are contacted 1 week prior to sampling event.



PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE
0 150 300 FEET

ARCO SERVICE STATION 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

GROUNDWATER ELEVATION CONTOUR MAP - FOURTH QUARTER 1997

FIGURE:
1
PROJECT:
330-006.2J

N

VIA MANZANAS

RESIDENTIAL

MW-20 ∅

POTRERO COURT

APARTMENTS

APARTMENTS

VIA ARRIBA

SHOPS

HESPERIAN BOULEVARD

RESTAURANT

MW-19
ND/ND

VIA MAGDALENA

CHURCH
AND SCHOOL

17200VM ∅ MW-17

MW-14
ND/ND

MW-24
ND/ND

RESIDENTIAL

MW-26
ND/ND

RESTAURANT

MW-9
ND/ND

MW-21
ND/ND

VIA MEDIA

VIA FLORES

ND/ND
17197VM
17203VM
NS

MW-18
ND/ND

17302VM
NS

ND/ND
17372VM

2,000/10 E-1A

920/5.7

MW-16
ND/ND

RESIDENTIAL

110/2.0
633H

MW-10

SP-2/V-5

530/3.0 MW-8

SP-1/V-4

MW-25
ND/ND

MW-5
ND/0.9

590H
NS

ALLEY

MW-7
ND/ND

17349VM
240/ND

17371VM
NS

MW-15 *

MW-11
ND/ND

MW-22
ND/ND

VIA ENCINAS COURT

17393VM ∅

SITE LOCATION

MW-13
ND/ND

SHOPS

RESIDENTIAL

634H
642H
ND/ND
NS

17348VE
NS

675H
NS

HACIENDA AVENUE

MW-23
ND/ND

RESIDENTIAL

VIA ALAMO

APPROXIMATE DIRECTION
OF GROUNDWATER FLOW

LEGEND

MW-7 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

SP-1/V-4 △ DUAL COMPLETION AIR SPARGING/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION

MW-20 ∅ DESTROYED WELL LOCATION AND DESIGNATION

590H ■ DOMESTIC IRRIGATION WELL LOCATION AND DESIGNATION

E-1A ⊕ GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION

530/3.0 TPPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 11-24-97 AND 11-25-97

ND NOT DETECTED

NS NOT SAMPLED

* WELL INACCESSIBLE

PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE
0 150 300 FEET

ARCO SERVICE STATION 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

TPPH-g/BENZENE CONCENTRATION MAP - FOURTH QUARTER 1997

FIGURE:
2
PROJECT:
330-006.2J

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.

Laboratory Procedures

The groundwater samples were analyzed for the presence of total purgeable petroleum hydrocarbons calculated as gasoline, benzene, toluene, ethylbenzene, 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.

ATTACHMENT B

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Shaw Garakani

Project: 330-006.2K/0608,San Larenzo

Enclosed are the results from samples received at Sequoia Analytical on November 25, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9711F10 -01	LIQUID, MW-9	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -01	LIQUID, MW-9	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -02	LIQUID, MW-10	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -02	LIQUID, MW-10	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -03	LIQUID, MW-11	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -03	LIQUID, MW-11	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -04	LIQUID, MW-14	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -04	LIQUID, MW-14	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -05	LIQUID, MW-16	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -05	LIQUID, MW-16	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -06	LIQUID, MW-18	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -06	LIQUID, MW-18	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -07	LIQUID, MW-21	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -07	LIQUID, MW-21	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -08	LIQUID, MW-22	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -08	LIQUID, MW-22	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -09	LIQUID, MW-23	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -09	LIQUID, MW-23	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -10	LIQUID, 633H	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -10	LIQUID, 633H	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -11	LIQUID, 642H	11/24/97	CMTBEW Methyl t-Butyl Ethe

SEQUOIA ANALYTICAL

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SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9711F10 -11	LIQUID, 642H	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -12	LIQUID, 17197VM	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -12	LIQUID, 17197VM	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -13	LIQUID, 17349VM	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -13	LIQUID, 17349VM	11/24/97	CTPGBW Purgeable TPH / BTE
9711F10 -13	LIQUID, 17349VM	11/24/97	MTBEMW Methyl t-Butyl Ethe
9711F10 -14	LIQUID, 17372VM	11/24/97	CMTBEW Methyl t-Butyl Ethe
9711F10 -14	LIQUID, 17372VM	11/24/97	CTPGBW Purgeable TPH / BTE

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Quality Assurance Department

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-9
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-01

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.
Surrogates	**Control Limits %**	**% Recovery**
Trifluorotoluene	70 130	113

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-9
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-01

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	113

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-10
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-02

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/08/97
Reported: 01/15/98

QC Batch Number: GC120897BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	25	160

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	124

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-10	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/08/97
Attention: Shaw Garakani	Lab Number: 9711F10-02	Reported: 01/15/98

QC Batch Number: GC120897BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**920**
Benzene	**5.0**	**5.7**
Toluene	**5.0**	**6.7**
Ethyl Benzene	5.0	N.D.
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		**Gas**
Non Gas Mix		**>C8**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	124

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-10	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 12/10/97
Attention: Shaw Garakani	Lab Number: 9711F10-02	Reported: 01/06/98

QC Batch Number: MS121097MTBEF3A
Instrument ID: F3

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	160

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-11
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-03

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	3.8

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	120

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-11	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-03	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	120

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-14
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-04

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	**2.5**	**2.9**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	116

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-14
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-04

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	**Control Limits %**	**% Recovery**
Trifluorotoluene	70 130	116

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-16
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-05

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-16
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-05

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	**Control Limits %**	**% Recovery**
Trifluorotoluene	70 130	103

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-18
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-06

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	111

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-18	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-06	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	111

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-21	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-07	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	102

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-21	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-07	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	107

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-22	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-08	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	122

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-22	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-08	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	122

Analytes reported as N.D. were not present above the stated limit of detection.

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

Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: MW-23	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-09	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: MW-23
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-09

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	**Control Limits %**	**% Recovery**
Trifluorotoluene	70 130	112

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 633H
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-10

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	125

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 633H
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-10

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	110
Benzene	0.50	2.0
Toluene	0.50	2.1
Ethyl Benzene	0.50	1.0
Xylenes (Total)	0.50	4.2
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 642H
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-11

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	125

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 642H
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-11

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	**Control Limits %**	**% Recovery**
Trifluorotoluene	70 130	125

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 17197VM
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-12

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	120

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 17197VM
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711F10-12

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Surrogates	**Control Limits %**	**% Recovery**
Trifluorotoluene	70 130	124

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: 17349VM	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-13	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	5.0	53

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

Sequoia Analytical

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

Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Shaw Garakani	Client Proj. ID: 330-006.2K/0608,San Larenzo Sample Descript: 17349VM Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9711F10-13	Sampled: 11/24/97 Received: 11/25/97 Analyzed: 12/06/97 Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**240**
Benzene	1.0	N.D.
Toluene	**1.0**	**1.1**
Ethyl Benzene	1.0	N.D.
Xylenes (Total)	**1.0**	**1.4**
Gas & Non Gas Mix		**<C7**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: 17349VM	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 01/03/98
Attention: Shaw Garakani	Lab Number: 9711F10-13	Reported: 01/15/98

QC Batch Number: MS0113988260S2A
Instrument ID: GCMS-2

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	33

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	100

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Sample Descript: 17372VM
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711F10-14

Sampled: 11/24/97
Received: 11/25/97

Analyzed: 12/06/97
Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	124

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
Project Manager

Sequoia Analytical

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608,San Larenzo	Sampled: 11/24/97
2025 Gateway Place, Suite 440	Sample Descript: 17372VM	Received: 11/25/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711F10-14	Reported: 01/15/98

QC Batch Number: GC120697BTEX05A
Instrument ID: HP5

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	120

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher
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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608,San Larenzo
Lab Proj. ID: 9711F10

Received: 11/25/97
Reported: 01/15/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 39 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Shaw Garakani

Client Project ID: 330-006.2K/0608, San Lorenzo
Matrix: Liquid
Work Order #: 9711F10 01-14
Reported: Jan 15, 1998

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS011398826052A
Analy. Method:	EPA 8260
Prep. Method:	EPA 5030
Analyst:	N. Nelson
MS/MSD #:	LCS-LCSD
Sample Conc.:	N.D.
Prepared Date:	1/13/98
Analyzed Date:	1/13/98
Instrument I.D.#:	MS2
Conc. Spiked:	50 µg/L
Result:	49
MS % Recovery:	98
Dup. Result:	51
MSD % Recov.:	102
RPD:	4.1
RPD Limit:	0-25

LCS #:	
Prepared Date:	
Analyzed Date:	
Instrument I.D.#:	
Conc. Spiked:	
LCS Result:	
LCS % Recov.:	

MS/MSD	60-140
LCS	65-135
Control Limits	

SEQUOIA ANALYTICAL
ELAP #1271

Tod Granicher
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

ARCO Products Company Division of AtlanticRichfieldCompany 330006RK **Task Order No.** 2133400 **Chain of Custody**

ARCO Facility no.: 0608
City (Facility): 17601 Hesperian Blvd San Leandro
Project manager (Consultant): Shawn Garakani
Laboratory name: Sequoia
ARCO engineer: Mike Whelan
Telephone no. (ARCO):
Telephone no. (Consultant): (408) 441-7500
Fax no. (Consultant): (408) 441-7539
Contract number:
Consultant name: Pacific Environmental Group
Address (Consultant): 2025 Gateway Place #440 San Jose CA 95110

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH MTBE EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW9	1	3		W		4	HCL	11/24/97	13:30		X											
MW10	2								13:45													
MW11	3								13:15													
MW14	4								13:00													
MW16	5								10:45													
MW18	6								12:30													
MW21	7								12:15													
MW22	8								12:05													
MW23	9								11:45													
*633H	10								10:45													
*642H	11								10:55													
*17197WM	12								11:05													
*17349WM	13								11:15													
*17372WM	14	↓		↓		↓	↓	↓	11:05		↓											

Method of shipment:

Special detection Limit/reporting:

Special QA/QC:

Remarks: *Homeowner wells Run EPA 8260 with MTBE greater than 35 ppb

Lab number: 9711F10

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

Condition of sample:
Temperature received:

Relinquished by	Date	Time	Received by	Date	Time
Relinquished by sampler: [signature]	11-24-97	15:00	Received by: Krissy Fleisman		
Relinquished by: Krissy Fleisman	11/25/97	10:40 AM	Received by: Steve Tan		
Relinquished by: Steve Tan	11/25		Received by laboratory: J. Downs	11/25/97	1225

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

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

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

WORKORDER: 9711F10
DATE OF LOG-IN: 11/26/97

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s): Present / (Absent) Intact / Broken*
2. Custody Seal #: Put in Remarks Section
3. Chain-of-Custody: (Present) / Absent*
4. Traffic Reports or Packing List: Present / (Absent)
5. Airbill: Airbill / Sticker Present / (Absent)
6. Airbill #: —
7. Sample Tags: (Present) / Absent
   Sample Tags #s: (Listed) / Not Listed on Chain-of-Custody
8. Sample Condition: (Intact) / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? (Yes) / No*
10. Proper Preservatives used: (Yes) / No*
11. Date Rec. at Lab: 11.25.97
12. Time Rec. at Lab: 1225
13. Temp Rec. at Lab: 8°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A-C	MW-9	3 x VOA	LIQ	11/24	
2	|	MW-10	|	|	|	
3	|	MW-11				
4	|	MW-14				
5	|	MW-16				
6	|	MW-18				
7	|	MW-21				
8	|	MW-22				
9	|	MW-23				
10	|	633 H				
11	|	642 H				
12	|	17197VM				
13	|	17349VM				
14	↓	17372VM	↓	↓	↓	

11.25.97 semi

*If Circled, contact Project Manager and attach record of resolution.

Revision 6/18/97
RCPTLOG.XLS

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Shaw Garakani

Project: 330-006.2K/0608, San Lorenzo

Enclosed are the results from samples received at Sequoia Analytical on November 26, 1997. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9711G38 -01	LIQUID, MW5	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -01	LIQUID, MW5	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -02	LIQUID, MW7	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -02	LIQUID, MW7	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -03	LIQUID, MW8	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -03	LIQUID, MW8	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -04	LIQUID, MW13	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -04	LIQUID, MW13	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -05	LIQUID, MW19	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -05	LIQUID, MW19	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -06	LIQUID, MW24	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -06	LIQUID, MW24	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -07	LIQUID, MW25	11/25/97	MTBE_W Methyl t-Butyl Ethe

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SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9711G38 -07	LIQUID, MW25	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -08	LIQUID, MW26	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -08	LIQUID, MW26	11/25/97	TPHGBW Purgeable TPH/BTEX
9711G38 -09	LIQUID, E1A	11/25/97	MTBE_W Methyl t-Butyl Ethe
9711G38 -09	LIQUID, E1A	11/25/97	TPHGBW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Project Manager

Quality Assurance Department

Sequoia Analytical

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608, San Lorenzo
Sample Descript: MW5
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711G38-01

Sampled: 11/25/97
Received: 11/26/97

Analyzed: 12/06/97
Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	23

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	82

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW5	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-01	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	**0.50**	**0.90**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	82

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608, San Lorenzo
Sample Descript: MW7
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711G38-02

Sampled: 11/25/97
Received: 11/26/97

Analyzed: 12/06/97
Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	79

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW7	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-02	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	79

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608, San Lorenzo
Sample Descript: MW8
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711G38-03

Sampled: 11/25/97
Received: 11/26/97

Analyzed: 12/06/97
Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	26

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	116

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW8	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-03	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	530
Benzene	0.50	3.0
Toluene	0.50	1.7
Ethyl Benzene	0.50	1.9
Xylenes (Total)	0.50	1.5
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	116

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW13	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-04	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW13	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-04	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW19	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-05	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608, San Lorenzo
Sample Descript: MW19
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9711G38-05

Sampled: 11/25/97
Received: 11/26/97

Analyzed: 12/06/97
Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608, San Lorenzo
Sample Descript: MW24
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711G38-06

Sampled: 11/25/97
Received: 11/26/97

Analyzed: 12/06/97
Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW24	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-06	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW25	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/09/97
Attention: Shaw Garakani	Lab Number: 9711G38-07	Reported: 12/16/97

QC Batch Number: GC120997BTEX01A
Instrument ID: GCHP1

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	130

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	118

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW25	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/09/97
Attention: Shaw Garakani	Lab Number: 9711G38-07	Reported: 12/16/97

QC Batch Number: GC120997BTEX01A
Instrument ID: GCHP1

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	118

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110

Attention: Shaw Garakani

Client Proj. ID: 330-006.2K/0608, San Lorenzo
Sample Descript: MW26
Matrix: LIQUID
Analysis Method: EPA 8020
Lab Number: 9711G38-08

Sampled: 11/25/97
Received: 11/26/97

Analyzed: 12/06/97
Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: MW26	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/06/97
Attention: Shaw Garakani	Lab Number: 9711G38-08	Reported: 12/16/97

QC Batch Number: GC120697BTEX18A
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: E1A	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: EPA 8020	Analyzed: 12/09/97
Attention: Shaw Garakani	Lab Number: 9711G38-09	Reported: 12/16/97

QC Batch Number: GC120997BTEX06A
Instrument ID: GCHP6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	12	65

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

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Pacific Environmental Group	Client Proj. ID: 330-006.2K/0608, San Lorenzo	Sampled: 11/25/97
2025 Gateway Place, Suite 440	Sample Descript: E1A	Received: 11/26/97
San Jose, CA 95110	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/09/97
Attention: Shaw Garakani	Lab Number: 9711G38-09	Reported: 12/16/97

QC Batch Number: GC120997BTEX06A
Instrument ID: GCHP6

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**250**	**2000**
Benzene	**2.5**	**10**
Toluene	2.5	N.D.
Ethyl Benzene	**2.5**	**42**
Xylenes (Total)	**2.5**	**2.8**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	83

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Pacific Environmental Group
2025 Gateway Place, Suite 440
San Jose, CA 95110
Attention: Shaw Garakani

Client Project ID: 330-006.2K/0608, San Lorenzo
Matrix: LIQUID
Work Order #: 9711G38 01-09
Reported: Dec 17, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC120997BTEX01A	GC120997BTEX01A	GC120997BTEX01A	GC120997BTEX01A	GC120997BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini
MS/MSD #:	9711G1907	9711G1907	9711G1907	9711G1907	9711G1907
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Analyzed Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.7	11	12	35	67
MS % Recovery:	97	110	120	117	112
Dup. Result:	8.9	9.9	11	33	63
MSD % Recov.:	89	99	110	11	105
RPD:	8.6	11	8.7	5.9	6.2
RPD Limit:	0-25	0-25	0-25	0-25	0.25
LCS #:	BLK120997	BLK120997	BLK120997	BLK120997	BLK120997
Prepared Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Analyzed Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Instrument I.D.#:	GCHP1	GCHP1	GCHP1	GCHP1	GCHP1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.4	9.2	9.9	31	59
LCS % Recov.:	84	92	99	103	98
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

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Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC120997BTEX06A	GC120997BTEX06A	GC120997BTEX06A	GC120997BTEX06A	GC120997BTEX01A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini	C. DeMartini
MS/MSD #:	971245201	971245201	971245201	971245201	971245201
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Analyzed Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	9.0	9.8	11	32	56
MS % Recovery:	90	98	110	107	93
Dup. Result:	10	11	12	35	63
MSD % Recov.:	100	110	120	117	105
RPD:	11	12	8.7	9.0	12
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK120997	BLK120997	BLK120997	BLK120997	BLK120997
Prepared Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Analyzed Date:	12/9/97	12/9/97	12/9/97	12/9/97	12/9/97
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	10	11	12	37	66
LCS % Recov.:	100	110	120	123	110
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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Please Note:
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Pacific Environmental Group 2025 Gateway Place, Suite 440 San Jose, CA 95110 Attention: Shaw Garakani	Client Proj. ID: 330-006.2K/0608, San Lorenzo Lab Proj. ID: 9711G38	Received: 11/26/97 Reported: 12/16/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 25 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: PEG
REC. BY (PRINT) ABAD

WORKORDER: 9711638
DATE OF LOG-IN: 11/01/97

CIRCLE THE APPROPRIATE RESPONSE

1. Custody Seal(s) — Present / Absent; Intact / Broken*
2. Custody Seal #: — Put in Remarks Section
3. Chain-of-Custody — Present / Absent*
4. Traffic Reports or Packing List: — Present / Absent
5. Airbill: — Airbill / Sticker Present / Absent
6. Airbill #:
7. Sample Tags: — Present / Absent
   Sample Tags #s: — Listed / Not Listed on Chain-of-Custody
8. Sample Condition: — Intact / Broken* / Leaking*
9. Does information on custody reports, traffic reports and sample tags agree? — Yes / No*
10. Proper Preservatives used: — Yes / No*
11. Date Rec. at Lab: 11/26/97
12. Time Rec. at Lab: 1325
13. Temp Rec. at Lab: 9°C

LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP.	REMARKS: CONDITION (ETC.)
1	A-C	MW5	3xVOA	L	11/25/97	
2		7				
3		8				
4		13				
6		14				
6		24				
7		25				
8		26				
9		EIA				
—						

11/26/97

*If Circled, contact Project Manager and attach record of resolution.

Revision 6/18/97

ARCO Products Company Division of AtlanticRichfieldCompany 33000021 **Task Order No.** 21334-00

Chain of Custody

ARCO Facility no.	6008
City (Facility)	17601 Hesperian Blvd San Lorenzo
Project manager (Consultant)	Shaw Garakani
Laboratory name	Sequoia
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	
Telephone no. (Consultant)	408) 441-7500
Fax no. (Consultant)	408) 441-7539
Contract number	
Consultant name	Pacific Environmental Group
Address (Consultant)	2025 Gateway Place #440 San Jose CA

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015 MTBE	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW5		3		W		Y	ALL	11-25-97	11:00		X											
MW7		↓		↓		↓	↓	↓	10:35		↓											
MW8		↓		↓		↓	↓	↓	11:20		↓											
MW13		↓		↓		↓	↓	↓	9:10		↓											
MW19		↓		↓		↓	↓	↓	9:25		↓											
MW24		↓		↓		↓	↓	↓	9:50		↓											
MW25		↓		↓		↓	↓	↓	10:20		↓											
MW26		↓		↓		↓	↓	↓	10:05		↓											
ELA		↓		↓		↓	↓	↓	11:45		↓											

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

9711638

26 1 25

Lab number

Turnaround time

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

Condition of sample:			Temperature received:
Relinquished by sampler [signature]	Date 11-25-97	Time 11:00	Received by Kristy Feliciano
Relinquished by Kristy Feliciano	Date 11/26/97	Time 1035	Received by [signature]
Relinquished by [signature]	Date 11/26/97	Time	Received by laboratory [signature] · Date 11/26/97 · Time 1325

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

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager	Approval	Date/s	Laboratory:	Client Engineer:
330-006.2k	608	17601 Hesperian San Lorenzo	4Q97	Shaw Garakani			Sequoia 21334 00	Mike Whelan

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

WELL SAMPLING REQUEST

SAMPLING PROTOCOL								
Project No.	Station #	Project Name	SEQUENCE	Project Manager	Approval	Date/s	Laboratory:	Client Engineer:
330-006.2k	608	17601 Hesperian San Lorenzo	4Q97	Shaw Garakani			Sequoia 21334 00	Mike Wheilan

Well Number	Ideal Sampling Order	Sample I.D.	Sampling Frequency	Analyses NO MTBE!!	TOB TOC	Well Depth	Casing Diameter	Top of Screen	Well goes Dry?	Comments
Mr/Mrs Silva	NO ACCESS	590 Hacienda	QLY	GAS/BTEX	TOB/TOC					Sample homeowner wells on
Mr. Dahmann		633 Hacienda	QLY	GAS/BTEX	TOB/TOC					November 24, 1997.
Mrs Albright		634 Hacienda	QLY	GAS/BTEX	TOB/TOC					Not authorized to enter backyard
Ms. Corregedor		642 Hacienda	QLY	GAS/BTEX	TOB/TOC					Not authorized to enter backyard
Mr/Mrs Roberts	Inoperational	675 Hacienda	QLY	GAS/BTEX	TOB/TOC					Dedicated pump inoperable
Mr Luehrs	NO operational	17348 Via Encinas	QLY	GAS/BTEX	TOB/TOC					Sample between 7:30AM and 11 AM
Mr Scrag		17197 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					
Cavalry Church	NA	17200 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					
Mrs Toles	NO RESPONSE	17203 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					
Mr/Mrs Johanson	NO ACCESS	172302 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					
Mr. Kast		17349 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					
Mr. Manry	NO ACCESS	17371 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					Not authorized to enter backyard
Mr. Pimental		17372 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					
Mr. Hull	NO ACCESS	17393 Via Magdalena	QLY	GAS/BTEX	TOB/TOC					

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN DATE: 11-24-97

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

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

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	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	10:08	-	⊙	-	-		14.00	12.20 / 12.20	12.60 / 12.60										/
	MW7	10:05	-	-	-	-		19.00	12.10 / 12.10	12.57 / 12.57										/
	MW8	10:11	-	-	-	-	-	22.00	10.20 / 10.20	11.50 / 11.50										/
	MW9	9:49	-	-	-	-	-	19.00	10.18 / 10.18	10.70 / 10.70										/
	MW10	9:44	-	-	-	-	-	22.00	10.20 / 10.20	10.85 / 10.85										/
	MW11	9:46	-	-	-	-	-	19.00	11.10 / 11.10	11.50 / 11.50										/
	MW13	9:55	-	-	-	-	-	23.5	13.00 / 13.00	13.90 / 13.90										/
	MW14	9:39	-	-	-	-	-	21.00	9.50 / 9.50	9.78 / 9.78										/
	MW15							21.00	/	/										/

Comments: MW15 COVER W/ CAR 9:37 11-24-97 @ 14.00
CHECK MW5 ON 11-25-97 9:00 @ 12.00

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-0062.1 LOCATION: 1760 HESPERIAN BLVD DATE: 11/21-97

CLIENT/STATION NO.: ARCO/0608 FIELD TECHNICIAN: SANTOS VEGA DAY OF WEEK: MON

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

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	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
	MW-16	9:30	-	-	-	-	-	23.00	11.30 / 11.30	11.76 / 11.76										/
	MW-17								/	/										/
	MW-18	9:33	-	-	-	-	-	22.00	10.35 / 10.35	10.65 / 10.65										/
	MW-19	9:31	-	-	-	-	-	19.00	10.26 / 10.20	10.35 / 10.35										/
	~~MW-20~~								/	/										/
	MW-21	9:29	-	-	-	-	-	22.00	10.00 / 10.00	10.50 / 10.50										/
	MW-22	9:26	-	-	-	-	-	22.00	10.80 / 10.80	11.08 / 11.08										/
	MW-23	9:23	-	-	-	-	-	22.00	11.85 / 11.85	12.13 / 12.13										/
	EI-A	10.15	-	/	-	-	/	20-20	10.10 / 10.10	11.75 / 11.75										/

Comments: _____

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-006.2214 LOCATION: 1760 HESPERIAN BLVD SAN LORENZO DATE: 11/24/97

CLIENT/STATION NO.: ARCO/1605 FIELD TECHNICIAN: [illegible] DAY OF WEEK: MON

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

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	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
	MW-24	9:58	✓	✓	✓	✓	✓	20.00	12.95 / 12.90	13.75 / 13.20										
	MW-25	10:03	✓	✓	✓	✓	✓	21.00	11.75 / 11.75	12.30 / 12.30										
	MW-26	10:00	✓	✓	✓	✓	✓	20.00	12.10 / 12.10	12.55 / 12.55										

Comments: _____

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-5

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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 11.00 - DTW 9.82 = 1.18 x Gal/Linear Foot 0.66 = 1.18 x Number of Casings 3 = Calculated Purge 3.56

DATE PURGED: 11-25-97 START: 10:45 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 11-25-97 START: 11:00 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
10:49	1	7.06	1400	68.8	BRN	HEAVY	Mod

Pumped dry (Yes) No at 10M

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			COLOR	TURBIDITY	ODOR
	9.89	14.30	69.3	BRN	HEAVY	Mod

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 151a
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-5	11-25-97	11:00	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO 1.0

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-7

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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 12.10 = 6.9 x Gal/Linear Foot 0.38 = 2.62 x Number of Casings 3 = Calculated Purge 7.86

DATE PURGED: 11-25-97 START: 10:23 END (2400 hr): _____ PURGED BY: VE

DATE SAMPLED: 11-26-97 START: 10:35 END (2400 hr): _____ SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 2 5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
10:26	2.75	7.79	1170	66.7	Cloudy	Mod	None
10:29	5.5	7.80	1160	66.8	Cloudy	Mod	None
10:32	8.25	7.63	1180	67.5	Clear	Mod	None

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-7	11-25-97	10:35	3	40ml	VOA	HCl	8015/BTEX

REMARKS: DUP

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-8

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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 10.70 = 11.3 x Gal/Linear Foot .038 = 4.29 x Number of Casings 3 = Calculated Purge 12.88

DATE PURGED: 11-26-97 START: 1108 END (2400 hr): — PURGED BY: JE

DATE SAMPLED: 11-26-97 START: 1120 END (2400 hr): — SAMPLED BY: JE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
1111	4.25	7.15	1410	69.9	Clear	Mod	Faint
1114	8.5	6.81	1230	70.6	Clear	Mod.	Faint
1117	12.75	6.73	1220	70.7	Clear	Mod	Faint

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW8	11-26-97	1120	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DUP @ 1

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-9

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO R.O.P.

WELL INFORMATION

Depth to Liquid:____ TOB____ TOC
Depth to water:____ TOB____ TOC
Total depth:____ TOB____ TOC
Date:____ Time (2400):____

Probe Type and I.D. #
- ☐ Oil/Water interface____
- ☐ Electronic indicator____
- ☐ Other;____

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

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

TD 19.00 - DTW 10.18 = 8.82 x Gal/Linear Foot 0.38 = 3.35 x Number of Casings 3 = Calculated Purge 10.04

DATE PURGED: 11-24-97 START: 13:18 END (2400 hr): — PURGED BY: JE

DATE SAMPLED: 11-24-97 START: 13:30 END (2400 hr): — SAMPLED BY: JE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
13:21	3.25	7.23	1150	68.8	Clear	Mod	Low
13:24	6.5	7.19	1130	68.3	Clear	Mod	Low
13:27	9.75	7.05	1140	68.2	Clear	Mod	Low

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: 15.17
- ☐ Dedicated:____
- ☐ Other:____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-9	11-24-97	13:30	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 2.60

SIGNATURE: ____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-10

CLIENT/STATION No.: ARCO/ 0608 FIELD TECHNICIAN: PEDRO R.O.P.

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 10.20 = 11.8 x Gal/Linear Foot 0.38 = 4.48 x Number of Casings 3 = Calculated Purge 13.45

DATE PURGED: 11-24-97 START: 13:35 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-24-97 START: 13:46 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 2 5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
13:38	4.5	7.03	1090	68.2	CLEAR	Light	Mod
13:41	9	7.09	1030	69.8	Clear	Light	Mod
13:44	13.5	7.03	1040	69.3	Clear	Light	Mod

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

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW:____ TOB/TOC

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15.18
- ☐ Dedicated:____
- ☐ Other:____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	11-24-97	13:46	3	40ml	VOA	HCL	GAS/BTEX

REMARKS: 10:24

SIGNATURE:____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-11

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

WELL INFORMATION

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

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

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

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

TD 19.00 DTW 11.10 = 7.9 x Gal/Linear Foot .038 = 3.00 x Number of Casings 3 = Calculated Purge 9.00

DATE PURGED: 11-21-97 START: 13:04 END (2400 hr): — PURGED BY: RE

DATE SAMPLED: 11-21-97 START: 13:15 END (2400 hr): — SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
13:07	3		1283	67.4	Cloudy	Mod	None
13:10	6	7.02	1320	67.6	Cloudy	Mod	None
13:13	9	7.03	1220	67.8	Cloudy	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: 15-15
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-11	11-21-97	13:15	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO.24

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-13

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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 23.5 - DTW 13.60 = 9.9 x Gal/Linear Foot 0.38 = 3.76 x Number of Casings 3 = Calculated Purge 11.28

DATE PURGED: 11-25-97 START: 9:30 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-26-97 START: 9:40 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:33	3.75	7.31	1200	65.9	Cloudy	Light	None
9:36	7.5	6.89	1230	68.1	Cloudy	Light	None
9:39	11.25	6.79	1220	67.9	Cloudy	Light	None

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-3
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-13	11-26-97	9:40	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO 2

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-19

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO 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 24.00 DTW 9.50 = 14.6 x Gal/Linear Foot 0.38 = 5.51 x Number of Casings 3 = Calculated Purge 16.53

DATE PURGED: 11-24-97 START: 12:18 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-24-97 START: 13:00 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
12:51	5.5	7.09	1250	67.5	Cloudy	Mod	None
12:54	11	7.03	2030	67.3	Cloudy	Mod	None
12:58	16.5	6.98	198	66.2	Cloudy	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: 15-#3
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-19	11/24/97	13:00	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO NO

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-16

CLIENT/STATION No.: ARCO/ 0608 FIELD TECHNICIAN: PEDRO 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 11.30 = 11.7 x Gal/Linear Foot 0.38 = 4.44 x Number of Casings 3 = Calculated Purge 13.33

DATE PURGED: 11-24-97 START: 12:33 END (2400 hr): _____ PURGED BY: RE

DATE SAMPLED: 11-24-97 START: 12:45 END (2400 hr): _____ SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
12:36	4.5	7.14	1190	69.4	Cloudy	Mod	Low
12:39	9	6.99	1210	69.0	Cloudy	Mod	Low
12:42	13.5	6.89	1200	69.0	Cloudy	Mod	Low

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: 15-17
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-16	11-24-97	12:45	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: (9)

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-1B

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO R.

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 1035 = 1365 x Gal/Linear Foot 0.38 = 11.02 x Number of Casings 3 = Calculated Purge 1328

DATE PURGED: 11-24-97 START: 12:17 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-24-97 START: 12:30 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
1220	4.5	7.09	1270	69.0	CLEAR	Mod	NONE
1223	9	6.97	1260	69.1	CLEAR	Mod	NONE
1226	13.5	6.88	1270	69.5	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: 15-3
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-1B	11-24-97	12:30	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: 20:34

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-19

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

WELL INFORMATION

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

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

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

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

TD 1900 - DTW 10.20 = 8.8 x Gal/Linear Foot .038 = 3.34 x Number of Casings 3 = Calculated Purge 1003

DATE PURGED: 11-25-97 START: 9:13 END (2400 hr): — PURGED BY: KE

DATE SAMPLED: 11-25-97 START: 9:25 END (2400 hr): — SAMPLED BY: KE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:15	3.25	7.36	1100	64.3	Cloudy	Mod	Mod
9:18	6.5	7.11	1030	65.1	Cloudy	Mod	Mod
9:20	9.75	7.08	1030	65.2	Cloudy	Light	Mod

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-1
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW19	11-25-97	9:25	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: 10:30

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-01

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO 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 10.00 = 12 x Gal/Linear Foot 0.38 = 4.56 x Number of Casings 3 = Calculated Purge 13.68

DATE PURGED: 11-24-97 START: 12:07 END (2400 hr): — PURGED BY: JE

DATE SAMPLED: 11-24-97 START: 12:25 END (2400 hr): — SAMPLED BY: JE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:09	5	7.06	1210	67.6	Clear	Mod	None
12:12	9	6.83	1250	67.8	Clear	Mod	None
12:15	13.5	6.72	1240	68.1	Clear	Mod	None

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 _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 1560
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-01	11/24/97	12:15	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 2.1 mg/l

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

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

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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 10.80 = 11.2 x Gal/Linear Foot 0.38 = 4.25 x Number of Casings 3 = Calculated Purge 12.76

DATE PURGED: 11-24-97 START: 11:55 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-24-97 START: 12:06 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:58	4.25	7.13	1250	68.8	Cloudy	Mod	Dist
12:00	8.5	6.95	1230	67.9	Cloudy	Mod	Dist
12:03	12.75	6.92	1240	67.8	Cloudy	Mod	Dist

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW2	11-24-97	1205	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 1.6

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-23

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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 11.85 = 10.15 x Gal/Linear Foot 0.38 = 8.12 x Number of Casings 3 = Calculated Purge 24.36

DATE PURGED: 11-24-97 START: 11:35 END (2400 hr): — PURGED BY: RE

DATE SAMPLED: 11-24-97 START: 11:45 END (2400 hr): — SAMPLED BY: RE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
11:39	8	7.18	1270	67.4	Clear	Mod	Low
11:42	16	7.14	1280	67.5	Clear	Mod	Low
11:45	24	6.98	1290	67.1	Clear	Mod	Low

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

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 15-8
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-23	11-24-97	11:45	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: 2.1

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-24

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO R.O.T.

WELL INFORMATION

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

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

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

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

TD 20.00 DTW 12.96 = 7.05 x Gal/Linear Foot 0.17 = 1.19 x Number of Casings 3 = Calculated Purge 3.59

DATE PURGED: 11-26-97 START: 9:13 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-26-97 START: 9:50 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 2 5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
9:15	1.25	7.09	1310	68.1	BRN	Mod	None
9:17	2.5	7.19	1290	67.7	BRN	Mod	None
9:19	3.75	7.11	1280	67.3	BRN	Mod	None

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

SAMPLING EQUIPMENT/I.D. #
- ☑ Bailer: 156
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-24	11-26-97	9:50	3	40ml	VOA	HCL	GAS/BTEX

REMARKS: DO: NA

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-05

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO R.J.

WELL INFORMATION

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

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

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

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

TD 21.00 DTW 11.75 = 9.25 x Gal/Linear Foot 0.17 = 1.57 x Number of Casings 3 = Calculated Purge 4.71

DATE PURGED: 11-25-97 START: 10:10 END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-25-97 START: 10:20 END (2400 hr): — SAMPLED BY: VE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
10:13	1.5	7.93	1230	66.3	CLEAR	Mod	None
10:16	3	7.33	1210	65.8	Clear	Mod	None
10:19	4.5	7.21	1210	67.6	Clear	Mod	None

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-05	11-25-97	10:20	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO.O

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-26

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

WELL INFORMATION

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

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

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

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

TD 20.00 DTW 10.10 = 7.9 x Gal/Linear Foot 0.38 = 1.34 x Number of Casings 3 = Calculated Purge 4.02

DATE PURGED: 11-25-97 START: 9:53 END (2400 hr): — PURGED BY: JE

DATE SAMPLED: 11-25-97 START: 10:05 END (2400 hr): — SAMPLED BY: JE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:56	1.25	7.38	1200	66.7	Cloudy	Mod	None
9:59	2.5	7.30	1170	66.4	Cloudy	Mod	None
10:02	3.75	7.00	1220	67.3	Cloudy	Mod	None

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW26	11-25-97	10:05	3	40ml	VOA	HCl	8015/BTEX

REMARKS: 20:30

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-1A

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO 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 16.20 DTW 10.40 = 16.1 x Gal/Linear Foot 0.15 = 2.415 x Number of Casings 3 = Calculated Purge 7.245

DATE PURGED: 11-25-97 START: 11:26 END (2400 hr): — PURGED BY: PE

DATE SAMPLED: 11-25-97 START: 11:45 END (2400 hr): — SAMPLED BY: PE

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
11:30	2.4	7.28	6.76	69.8	CLEAR	Mod	Faint
11:35	4.8	6.80	1110	69.2	CLEAR	Mod	Faint
11:40	7.2	6.79	1060	69.8	CLEAR	Mod	Faint

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

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-1A	11-25-97	11:45	3	40ml	VOA	HCl	8015/BTEX

REMARKS: 100 (2)

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-633H

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO R.

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: 11- -97 START: _____ END (2400 hr): — PURGED BY: RE

DATE SAMPLED: 11-24-97 START: 10:45 END (2400 hr): — SAMPLED BY: RE

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

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	7.01	1130	62.4	CLEAR	Mod	Mod

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-633H	11-24-97	10:45	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO: NA

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA. WELL ID #: MW-6NH

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO R.

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: 11-24-97 START: _____ END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11-24-97 START: 10:55 END (2400 hr): — SAMPLED BY: VE

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

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				COLOR	TURBIDITY	ODOR
	TOB/TOC	7.03	1120	66.7	CLEAR	Light	None

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-6NH	11-24-97	10:55	3	40ml	VOA	HCl	GAS/BTEX

REMARKS: DO-NA

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-17197UM

CLIENT/STATION No.: ARCO/0608 FIELD TECHNICIAN: PEDRO 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: 11-__-97 START: _____ END (2400 hr): — PURGED BY: JE

DATE SAMPLED: 11-24-97 START: 11:25 END (2400 hr): — SAMPLED BY: JE

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

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:

	TOB/TOC						
DTW: _____	7.11	1250	6.92		Clear	Light	None

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-	11-24-97	1125	3	40ml	VOA	HCl	GAS/BTEX
17197UM							

REMARKS: DO 24

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.24 LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-1739904

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO 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: 11-__-97 START: _____ END (2400 hr): — PURGED BY: VE

DATE SAMPLED: 11/24-97 START: 11:15 END (2400 hr): — SAMPLED BY: VE

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

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

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC 7.12 1.70 68.3 Clear Mod 1000

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-	11/24/97	11:15	3	40ml	VOA	HCl	GAS/BTEX
1739904							

REMARKS: DO: 2.1

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-006.2K LOCATION: 17601 HESPERIAN BLVD SAN LORENZO CA WELL ID #: MW-1737-2UM

CLIENT/STATION No.: ARCO / 0608 FIELD TECHNICIAN: PEDRO R.

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 .038 = _____ x Number of Casings 3 = Calculated Purge _____

DATE PURGED: 11-__-97 START: _____ END (2400 hr): — PURGED BY: JE

DATE SAMPLED: 11-24-97 START: 1105 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

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 7.57 1240 670 clear light none

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

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

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-	11-24-97	1105	3	40ml	VOA	HCl	GAS/BTEX
1737-2UM							

REMARKS: DUP

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

ARCO Products Company ◈ 330006RA Task Order No. 2133400 **Chain of Custody**
Division of AtlanticRichfieldCompany

ARCO Facility no. 0608	City (Facility) 17601 Hesperian Blvd San Leandro	Project manager (Consultant) Shaw Garakani	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) (408) 441-7500 / Fax no. (Consultant) (408) 441-7539	Contract number
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway Place #440 San Jose CA 95110		

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH MTBE EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW9		3		W		4	HCL	11-24-97	13:30		X											
MW10		↓		↓		↓	↓	↓	13:45		↓											
MW11									13:15													
MW14									13:00													
MW16									12:45													
MW18									12:30													
MW21									12:15													
MW22									12:00													
MW23									11:45													
*333H									10:45													
*642H									10:55													
*17197W									11:05													
*17349W									11:15													
*17372W									11:05													

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks
*Homeowner wells
Run EPA 8020 with MTBE greater than 35 ppb

Lab number

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

Condition of sample:		Temperature received:
Relinquished by sampler [signature]	Date 11-24-97 Time 15:00	Received by
Relinquished by	Date Time	Received by
Relinquished by	Date Time	Received by laboratory / Date / Time

ARCO Products Company Division of AtlanticRichfieldCompany 3?000?2? **Task Order No.** 2133400

Chain of Custody

ARCO Facility no.	6608
City (Facility)	17601 Hesperian Blvd San Lorenzo
Project manager (Consultant)	Shaw Garakani
Laboratory name	Sequoia
ARCO engineer	Mike Whelan
Telephone no. (ARCO)	
Telephone no. (Consultant)	(408) 441-7500
Fax no. (Consultant)	(408) 441-7539
Contract number	
Consultant name	Pacific Environmental Group
Address (Consultant)	2025 Gateway Place #440 San Jose CA
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		3		W		Y	HCL	112597	11:00		X											
MW7		↓		↓		↓	↓	↓	10:35		↓											
MW8									11:20													
MW13									9:45													
MW19									9:25													
MW24									9:50													
MW25									10:20													
MW26									10:05													
EIA									11:45													

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Condition of sample:

Temperature received:

	Date	Time		
Relinquished by sampler	112597	1100	Received by	
Relinquished by			Received by	
Relinquished by			Received by laboratory	Date Time

Turnaround time

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

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

APPC-3292 (2-91)