BROWN AND CALDWELL

ENVIRONMENTAL PROTECTION
97 MAY 13 PM 2:29

May 9, 1997

Mr. Brian Cobb
E-Z Serve Petroleum Marketing Company of California
2550 N. Loop West, Suite 600
Houston, Texas 77292-2021

41-5172-10

Subject: First Quarter 1997 Groundwater Monitoring Report
Former E-Z Serve Station #100877
525 West A Street, Hayward, California

Dear Mr. Cobb:

This letter report summarizes the first quarter groundwater monitoring activities conducted by Brown and Caldwell at 525 West A Street, Hayward, California (Site), on April 8 and 9, 1997. The work performed at the Site included collecting depth-to-water measurements and purging twelve wells, sampling eleven of the twelve wells, and submitting the groundwater samples to an analytical laboratory for analysis. Field work was performed following the procedures outlined in Attachment A.

Field and Analytical Methods

Initially, depth-to-water and free product measurements were collected from twelve wells by a Brown and Caldwell field technician using an oil-water interface probe. The wells were then purged of a minimum of three well volumes using a centrifugal pump or bailer dedicated to that well. After purging, eleven of the twelve monitoring wells were sampled by the Brown and Caldwell field technician using disposable bailers. Samples were then transferred to appropriate laboratory-supplied containers, placed in a cooler containing crushed ice, and submitted under appropriate chain of custody to V.O.C. Analytical Laboratories, Inc. (V.O.C.) for analysis of total petroleum hydrocarbons as gasoline (TPHg) following EPA Method 8015 Modified and benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tertiary-butyl ether (MTBE) following EPA Method 8020. V.O.C. is located in Concord, California and is certified by the State of California Department of Health Services for analysis of hazardous materials. Groundwater sample collection records and chain-of-custody documentation for this quarterly sampling event are included in Attachment A.

Environmental Engineering And Consulting • Analytical Services

P.O. Box 8045, Walnut Creek, CA 94596-1220
3480 Buskirk Avenue, Pleasant Hill, CA 94523-4342
(510) 937-9010 Fax (510) 937-9026

Quarterly Monitoring Results

On April 8, 1997, the free product measurement for well MW-1A detected a sheen. Following Brown and Caldwell's sampling protocol for wells containing product, this well was purged but not sampled.

Depth-to-water measurements and calculated groundwater elevations for April 8, 1997 are summarized in Table 1. Groundwater elevations and resulting flow direction are shown on Figure 1. Monitoring wells MW-8, MW-9 and MW-10 were inaccessible this quarter for static water level measurements and groundwater sampling. From the data collected on April 8, 1997, the groundwater flow direction was determined to be toward the west. The average hydraulic gradient across the Site was approximately 0.002 feet per foot (calculated between wells MW-6 and MW-11).

Analytical results of groundwater samples are summarized in Table 1 and illustrated on Figure 1. TPHg and BTEX constituents were not identified above the method detection limits in the samples collected from wells MW-12 and MW-13. TPHg was identified in 9 of the 11 samples collected at concentrations ranging from 2,100 µg/L to 24,000 µg/L. Benzene was detected in 8 of the 11 samples collected at concentrations ranging from 42 µg/L to 3,900 µg/L. The analytical laboratory report for the April 8, 1997 sampling event is included in Attachment A.

If you have any questions regarding this quarterly monitoring report, please contact me at (510) 210-2278.

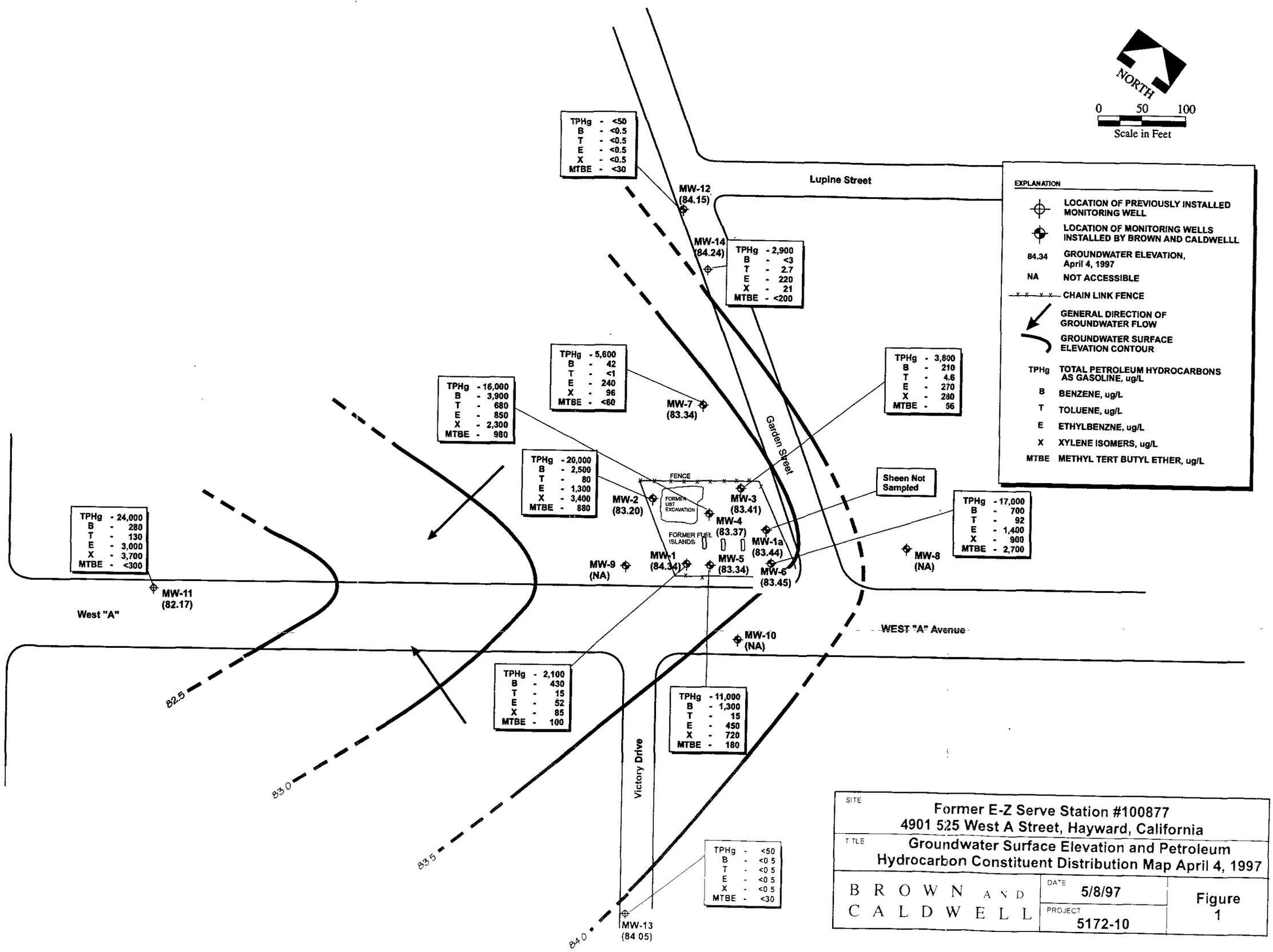
Sincerely,

BROWN AND CALDWELL

Todd Miller
California Registered Geologist No. 6328

TM:paa
Attachment

cc: John Reeves, Attorney At Law
Madhulla Logan, Alameda County Department of Environmental Health



SITE: Former E-Z Serve Station #100877
4901 525 West A Street, Hayward, California

TITLE: Groundwater Surface Elevation and Petroleum Hydrocarbon Constituent Distribution Map April 4, 1997

BROWN AND CALDWELL

DATE: 5/8/97

PROJECT: 5172-10

Figure 1

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
MW-1	5-Feb-92	99.91	20.82		79.09	46,000	76,000	23,000	2,400	6,500	NA
	11-Sep-92		20.08		79.83	48,000	9,000	1,200	1,800	4,600	NA
	22-Dec-92		19.79		80.12	84,000	22,000	1,600	4,800	17,000	NA
	3-Mar-93		16.23		83.68	54,000	16,000	1,600	1,900	4,300	NA
	23-Jun-93	96.73	16.86		79.87	30,000	18,000	1,100	1,400	3,700	NA
	30-Sep-93		18.04		78.69	33,000	10,000	440	940	1,700	NA
	6-Feb-94		18.15		78.58	64,000	18,000	1,600	4,700	12,000	NA
	2-May-94		17.26		79.47	7,200	2,100	29	490	520	NA
	1-Jul-94		17.60		79.13	13,000	3,700	150	550	12,000	NA
	20-Sep-94		20.59		76.14	10,000	3,100	75	440	870	NA
	5-Dec-94		17.83		78.90	8,700	3,700	87	520	950	NA
	10-Mar-95		14.67		82.06						
	15-Mar-95		14.43		82.30	290	56	2	12	47	NA
	16-Jun-95		14.56		82.17	2,000	530	12	90	160	NA
	22-Sep-95		16.05		80.68	1,600	1,400	9.0	75	110	NA
	11-Dec-95		16.74		79.99	6,330	1,700	<25	183	270	NA
	13-Feb-96		13.38		83.35	140	8.3	2.7	<1	10.6	NA
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	8-Apr-97		**13.25**		**84.34**	**2,100**	**430**	**15**	**52**	**85**	**100**
duplicate	8-Apr-97					1,800	430	9.2	46	79	110
MW-1A	23-Jun-93	97.59	17.80	0.21	80.00	Sample Not Analyzed					
	30-Sep-93			Not Recorded		Well Not Sampled					
	6-Feb-94		18.89		78.70	8,900	1,700	42	1,000	400	NA
	2-May-94		18.35	0.09	79.33	Well Not Sampled					
	1-Jul-94		18.45		79.14	12,000	1,100	<1	920	1,100	NA
	20-Sep-94		21.72	0.22	76.09	Well Not Sampled					
	5-Dec-94		18.87	0.07	78.79	Well Not Sampled					
	10-Mar-95		15.83		81.76	Well Not Sampled					
	14-Mar-95		15.55	0.05	82.09	Well Not Sampled					

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	15-Jun-95		15.63	0.03	81.99	Well Not Sampled					
	22-Sep-95		17.05		80.54	2,000	180	9.2	130	310	NA
	11-Dec-95		15.72		81.87	10,100	310	26	350	850	NA
	13-Feb-96		14.35		83.24	20,700	830	70	730	2,300	NA
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	8-Apr-97		**14.15**	**Sheen**	**83.44**	**Well Not Sampled**					
MW-2	5-Feb-92	101.45	22.35		79.10	67,000	13,000	4,700	820	1,300	NA
	11-Sep-92		21.67		79.78	57,000	9,000	1,400	1,200	8,400	NA
	22-Dec-92		21.39		80.06	31,000	9,900	350	2,000	4,100	NA
	3-Mar-93		17.75		83.70	17,000	5,100	1,300	720	1,900	NA
	23-Jun-93	98.06	18.42		79.64	60,000	23,000	1,500	4,500	17,000	NA
	30-Sep-93		19.63		78.43	38,000	12,000	780	1,500	6,500	NA
	6-Feb-94		19.61		78.45	34,000	8,900	450	2,000	5,500	NA
	2-May-94		19.84		78.22	18,000	3,800	260	1,100	3,500	NA
	1-Jul-94		19.18		78.88	18,000	3,700	510	870	2,600	NA
	20-Sep-94		22.17		75.89	19,000	4,500	300	1,200	4,000	NA
	6-Dec-94		19.37		78.69	22,000	4,700	340	1,400	4,500	NA
	10-Mar-95		16.33		81.73	Well Not Sampled					
	15-Mar-95		16.89		81.17	29,000	5,600	350	1,900	6,300	NA
	16-Jun-95		16.79		81.27	27,000	4,400	270	1,600	4,700	NA
	22-Sep-95		17.54		80.52	3,700	6,700	390	1,800	6,400	NA
	11-Dec-95		17.33		80.73	35,400	3,500	190	1,500	3,700	NA
	13-Feb-96		14.89		83.17	30,500	4,800	190	1,100	3,500	NA
duplicate	13-Feb-96					21,700	4,900	200	1,100	3,500	NA
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	9-Apr-97		**14.86**		**83.20**	**20,000**	**2,500**	**80**	**1,300**	**3,400**	**880**
duplicate	9-Apr-97					21,000	2,600	90	1,300	3,300	910
MW-3	5-Feb-92	101.50	21.85		79.65	5,900	1,100	<1	<1	<1	NA
	11-Sep-92		21.13		80.37	9,400	1,200	180	550	1,100	NA

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	22-Dec-92		20.88		80.62	12,000	2,800	190	850	1,600	NA
	3-Mar-93		17.29		84.21	11,000	2,200	360	570	900	NA
	23-Jun-93	97.66	17.88		79.78	33,000	12,000	2,700	1,300	3,500	NA
	30-Sep-93		19.18		78.48	4,300	1,100	160	690	670	NA
	6-Feb-94		19.21		78.45	20,000	4,800	430	1,500	2,900	NA
	2-May-94		18.30		79.36	4,200	680	48	310	540	NA
	1-Jul-94		18.63		79.03	4,600	600	63	240	470	NA
	20-Sep-94		21.64		76.02	8,200	2,200	130	670	930	NA
	6-Dec-94		19.15		78.51	4,000	640	34	290	480	NA
	10-Mar-95		15.86		81.80	Well Not Sampled					
	15-Mar-95		16.61		81.05	4,300	980	47	370	780	NA
	16-Jun-95		16.58		81.08	3,300	520	20	280	430	NA
	22-Sep-95		17.02		80.64	3,800	2,100	< 100	840	1,600	NA
	11-Dec-95		17.79		79.87	6,920	610	22	350	550	NA
	13-Feb-96		14.38		83.28	28,900	1,000	33	500	870	NA
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	9-Apr-97		**14.25**		**83.41**	**3,800**	**210**	**4.6**	**270**	**280**	**56**
MW-4	5-Feb-92	100.50	21.31		79.19	16,000	2,700	410	< 1	3,400	NA
	11-Sep-92		20.62		79.88	43,000	7,600	1,600	1,400	4,100	NA
	22-Dec-92		20.37		80.13	29,000	8,800	1,200	1,500	3,700	NA
	3-Mar-93		16.78		83.72	17,000	5,000	1,500	680	1,700	NA
	23-Jun-93	97.10	17.45		79.65	5,700	3,000	120	560	790	NA
	30-Sep-93		18.64		78.46	21,000	7,000	2,100	970	2,600	NA
	6-Feb-94		18.59		78.51	24,000	7,200	1,600	990	3,200	NA
	2-May-94		17.81		79.29	10,000	2,200	440	470	1,200	NA
	1-Jul-94		18.13		78.97	8,200	2,000	370	350	930	NA
	20-Sep-94		21.13		75.97	7,200	2,000	360	380	1,000	NA
	6-Dec-94		18.36		78.74	9,000	2,300	400	440	1,100	NA
	10-Mar-95		15.25		81.85	Well Not Sampled					
	15-Mar-95		14.89		82.21	15,000	4,400	600	770	2,660	NA

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	16-Jun-95		14.68		82.42	19,000	5,600	490	890	2,300	NA
	22-Sep-95		16.60		80.50	3,600	9,300	1,000	1,200	3,600	NA
	11-Dec-95		17.27		79.83	6,720	1,600	57	390	510	NA
	13-Feb-96		13.88		83.22	11,700	7,200	500	650	2,000	NA
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	9-Apr-97		**13.73**		**83.37**	**16,000**	**3,900**	**680**	**850**	**2,300**	**980**
MW-5	5-Feb-92	100.48	20.93		79.55	78,000	7,900	5,000	2,900	1,800	NA
	11-Sep-92		20.27		80.21	49,000	4,700	400	1,400	4,100	NA
	22-Dec-92		19.99		80.49	34,000	8,600	340	2,200	4,800	NA
	3-Mar-93		16.49		83.99	22,000	7,500	640	1,300	3,400	NA
	23-Jun-93	96.73	17.02		79.71	15,000	5,800	120	1,100	2,100	NA
	30-Sep-93		18.25		78.48	25,000	7,600	410	1,000	4,400	NA
	6-Feb-94		18.26		78.47	23,000	6,000	180	2,000	5,900	NA
	2-May-94		17.50		79.23	8,000	1,300	29	440	770	NA
	1-Jul-94		17.79		78.94	10,000	1,700	97	600	1,400	NA
	20-Sep-94		20.77		75.96	8,400	1,600	54	650	1,400	NA
duplicate	20-Sep-94					9,300	1,700	56	670	1,600	NA
	5-Dec-94		18.02		78.71	10,000	1,800	<50	620	1,400	NA
	10-Mar-95		14.93		81.80	Well Not Sampled					
	15-Mar-95		14.70		82.03	5,300	1,100	11	180	320	NA
	16-Jun-95		14.82		81.91	5,300	1,400	11	180	310	NA
	22-Sep-95		16.19		80.54	4,000	2,800	<100	350	710	NA
	11-Dec-95		16.92		79.81	8,190	1,200	<10	270	360	NA
	13-Feb-96		13.57		83.16	1,200	680	<5	100	150	NA
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	8-Apr-97		**13.39**		**83.34**	**11,000**	**1,300**	**15**	**450**	**720**	**180**
MW-6	5-Feb-92	100.97	21.29		79.68	51,000	5,400	3,500	3,600	10,000	NA
	11-Sep-92		20.56		80.41	24,000	2,500	830	1,400	2,300	NA
	22-Dec-92		20.31		80.66	23,000	5,100	630	2,000	3,100	NA

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Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	3-Mar-93		16.83		84.14	18,000	4,400	820	1,400	2,400	NA
	23-Jun-93	97.09	17.30		79.79	18,000	4,600	850	2,700	3,400	NA
	30-Sep-93		19.05	0.03	78.07	Sample Not Analyzed					
	6-Feb-94		18.55		78.54	20,000	4,600	690	2,100	2,500	NA
	2-May-94		17.74		79.35	5,300	930	54	610	240	NA
	1-Jul-94		18.09		79.00	10,000	1,500	160	850	690	NA
	20-Sep-94		21.05		76.04	11,000	2,000	140	1,200	760	NA
	6-Dec-94		18.33		78.76	8,600	1,300	87	980	610	NA
	10-Mar-95		15.35		81.74	Well Not Sampled					
	15-Mar-95		14.91		82.18	9,800	1,600	110	1,000	1,000	NA
	16-Jun-95		15.11		81.98	9,200	1,100	78	1,000	550	NA
	22-Sep-95		16.44		80.65	3,000	1,700	110	1,200	760	NA
	11-Dec-95		17.20		79.89	13,200	990	110	1,000	520	NA
	13-Feb-96		13.89		83.20	12,500	1,100	48	750	560	NA
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	8-Apr-97		**13.64**		**83.45**	**17,000**	**700**	**92**	**1,400**	**900**	**2,700**
MW-7	23-Jun-93	97.44	17.87		79.57	29,000	4,200	71	4,400	5,600	NA
	30-Sep-93		18.94		78.50	30,000	3,200	71	2,800	3,400	NA
	6-Feb-94		19.11	0.06	78.39	Sample Not Analyzed					
	2-May-94		18.11		79.33	5,700	630	13	660	400	NA
	1-Jul-94		18.72		78.72	3,100	180	99	160	520	NA
	20-Sep-94		21.41		76.03	6,100	540	6	750	730	NA
	5-Dec-94		18.66		78.78	3,700	280	<10	430	350	NA
duplicate	5-Dec-94					3,900	310	<10	540	540	NA
	10-Mar-95		15.72		81.72	Well Not Sampled					
	14-Mar-95		15.23		82.21	1,900	290	4	26	296	NA
duplicate	14-Mar-95					1,000	330	5	30	339	NA
	15-Jun-95		15.17		82.27	5,800	380	5	360	540	NA
duplicate	15-Jun-95					4,800	330	<2.5	320	470	NA
	21-Sep-95		16.83		80.61	4,020	110	<1	220	220	NA

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
duplicate	21-Sep-95					4,480	140	<1	270	250	NA
	11-Dec-95		17.61		79.83	3,750	120	31	400	330	NA
duplicate	11-Dec-95					5,470	120	12	420	310	NA
	14-Feb-96		14.07		83.37	4,500	190	<5	190	280	NA
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	8-Apr-97		**14.10**		**83.34**	**5,600**	**42**	**<1**	**240**	**96**	**<60**
MW-8	23-Jun-93	97.61	17.64		79.97	350	43	9	35	67	NA
	30-Sep-93		18.85		78.76	2,700	190	340	170	720	NA
	6-Feb-94		18.91		78.70	<100	<1	1	1	2	NA
	2-May-94		18.11		79.50	<100	<1	3	<1	7	NA
	1-Jul-94		18.43		79.18	300	18	48	19	37	NA
	20-Sep-94		21.43		76.18	<100	<1	<1	<1	<1	NA
	5-Dec-94		18.72		78.89	<50	<0.5	<0.5	<0.5	<0.5	NA
	10-Mar-95		18.69		78.92	Well Not Sampled					
	14-Mar-95		14.83		82.78	<50	<0.5	<0.5	<0.5	1	NA
	15-Jun-95		14.92		82.69	<50	<0.5	<0.5	<0.5	<0.5	NA
	21-Sep-95		16.52		81.09	<100	2.3	1.3	2.7	9.0	NA
	11-Dec-95		17.52		80.09	<100	1.3	<1	<1	<3	NA
	14-Feb-96		14.27		83.34	<100	<1	<1	<1	<3	NA
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	8-Apr-97					**Cannot Locate Well**					
MW-9	23-Jun-93	95.41	15.94		79.47	45,000	14,000	1,200	2,800	12,000	NA
	30-Sep-93		17.05		78.36	86,000	22,000	1,100	3,300	15,000	NA
	6-Feb-94		17.07		78.34	43,000	10,000	460	2,100	7,500	NA
	2-May-94		16.24		79.17	17,000	5,400	270	1,300	4,700	NA
	1-Jul-94		16.59		78.82	10,000	2,100	120	450	1,300	NA
	20-Sep-94		19.61		75.80	7,500	2,200	97	400	1,200	NA
	5-Dec-94		16.85		78.56	10,000	2,700	130	530	1,600	NA
	10-Mar-95		NR			Well Not Sampled					

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	14-Mar-95		14.18		81.23	18,000	5,900	270	1,200	3,680	NA
	15-Jun-95		14.09		81.32	12,000	2,500	130	670	1,800	NA
	21-Sep-95		No Access			Well Not Sampled					
	11-Dec-95		15.58		79.83	12,200	2,100	140	550	1,600	NA
	14-Feb-96		No Access			Well Not Sampled					
	---		---		---	---	---	---	---	---	---
	8-Apr-97					**Cannot Locate Well**					
MW-10	23-Jun-93	97.11	17.39		79.72	35,000	980	640	3,500	12,000	NA
	30-Sep-93		18.58		78.53	4,000	230	12	100	680	NA
	6-Feb-94		18.61		78.50	2,000	69	12	220	120	NA
	2-May-94		17.83		79.28	710	16	6	85	62	NA
	1-Jul-94		18.17		78.94	2,000	52	43	120	210	NA
	20-Sep-94		21.15		75.96	2,800	34	16	270	560	NA
	5-Dec-94		18.43		78.68	2,700	30	13	260	430	NA
	10-Mar-95		15.37		81.74	Well Not Sampled					
	14-Mar-95		15.93		81.18	1,400	18	6	200	239	NA
	15-Jun-95		15.97		81.14	1,600	14	4	140	98	NA
	21-Sep-95		16.48		80.63	4,680	37	17	240	380	NA
	11-Dec-95		17.30		79.81	670	2.8	1.3	36	19	NA
	14-Feb-96		14.02		83.09	5,200	<5	<5	330	350	NA
	---		---		---	---	---	---	---	---	---
	8-Apr-97					**Well Destroyed**					
MW-11	10-Feb-95	92.68	11.80		80.88	7,000	140	22	600	1,000	NA
	10-Mar-95		11.58		81.10	Well Not Sampled					
	14-Mar-95		13.96		78.72	6,000	200	17	750	1,276	NA
	15-Jun-95		13.84		78.84	13,000	450	63	1,600	2,200	NA
	21-Sep-95		13.13		79.55	7,000	340	27	440	640	NA
	11-Dec-95		13.73		78.95	12,600	770	89	1,800	2,500	NA
	14-Feb-96		10.42		82.26	8,300	440	42	1,000	1,800	NA

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	---		---		---	---	---	---	---	---	---
	8-Apr-97		**10.51**		**82.17**	**24,000**	**280**	**130**	**3,000**	**3,700**	**<300**
MW-12	10-Feb-95	99.03	16.30		82.73	<50	<0.5	<0.5	<0.5	<0.5	NA
	10-Mar-95		16.37		82.66	Well Not Sampled					
	14-Mar-95		15.69		83.34	<50	<0.5	<0.5	<0.5	0.9	NA
	15-Jun-95		15.55		83.48	<50	<0.5	<0.5	<0.5	<0.5	NA
	21-Sep-95		17.58		81.45	<100	<1	<1	<1	<3	NA
	11-Dec-95		18.36		80.67	<100	1.0	1.0	1.5	<3	NA
	14-Feb-96		14.78		84.25	<100	<1	<1	<1	<3	NA
	---		---		---	---	---	---	---	---	---
	8-Apr-97		**14.88**		**84.15**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<30**
MW-13	10-Feb-95	96.80	14.45		82.35	<50	<0.5	<0.5	<0.5	<0.5	NA
	10-Mar-95		14.30		82.50	Well Not Sampled					
	14-Mar-95		15.81		80.99	<50	<0.5	<0.5	<0.5	1	NA
	15-Jun-95		15.79		81.01	<50	<0.5	<0.5	<0.5	<0.5	NA
	21-Sep-95		15.50		81.30	<100	2.6	2.2	<1	9.4	NA
	11-Dec-95		16.60		80.20	<100	<1	<1	1.0	<3	NA
	14-Feb-96		12.92		83.88	<100	<1	<1	<1	7.3	NA
	---		---		---	---	---	---	---	---	---
	8-Apr-97		**12.75**		**84.05**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<30**
MW-14	10-Feb-95	99.01	16.28		82.73	12,000	42	8	740	2,100	NA
duplicate	10-Feb-95					12,000	48	<10	800	2,300	NA
	10-Mar-95		16.33		82.68	Well Not Sampled					
	14-Mar-95		14.87		84.14	1,400	6	2	36	298	NA
	15-Jun-95		14.72		84.29	660	8	<0.5	6	26	NA
	21-Sep-95		17.61		81.40	4,430	25	15	280	310	NA
	11-Dec-95		18.30		80.71	1,330	6.8	1.0	120	150	NA
	14-Feb-96		14.87		84.14	<100	<1	<1	3.1	3.3	NA

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)[1]	Depth to Water (feet)[2]	Product Thickness (feet)	Groundwater Elevation (feet)[1]	EPA Methods 8015 and 8020 Concentration (µg/L)					
						TPHg[3]	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE[4]
	---		---		---	---	---	---	---	---	---
	8-Apr-97		**14.77**		**84.24**	**2,900**	**<3**	**2.7**	**220**	**21**	**<200**
QA/QC											
Field Blank	20-Sep-94					<100	<1	<1	<1	<1	NA
Trip Blank	5-Dec-94					<50	<0.5	<0.5	<0.5	<0.5	NA
Field Blank	5-Dec-94					<50	<0.5	<0.5	<0.5	<0.5	NA
Trip Blank	10-Feb-95					<50	<0.5	<0.5	<0.5	<0.5	NA
Field Blank	10-Feb-95					<50	<0.5	<0.5	<0.5	<0.5	NA
Trip Blank	14-Mar-95					<50	<0.5	<0.5	<0.5	<0.5	NA
Field Blank	14-Mar-95					<50	<0.5	<0.5	<0.5	<0.5	NA
Trip Blank	15-Jun-95					<50	<0.5	<0.5	<0.5	<0.5	NA
Field Blank	15-Jun-95					<50	<0.5	<0.5	<0.5	<0.5	NA
Trip Blank	21-Sep-95					<100	4.6	<1	2.5	<3	NA
Field Blank	21-Sep-95					<100	<1	1.3	4.2	<3	NA
Trip Blank	11-Dec-95					<100	<1	<1	<1	<3	NA
Field Blank	11-Dec-95					<100	<1	<1	<1	<3	NA
Trip Blank	13-Feb-96					<100	<1	<1	<1	<3	NA
Field Blank	13-Feb-96					<100	<1	<1	<1	3.6	NA
---	---					---	---	---	---	---	---
Trip Blank	**8-Apr-97**					**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<30**
Field Blank	**8-Apr-97**					**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<30**
Field Blank	**9-Apr-97**					**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<30**

[1]Based on an arbituary 100 foot datum point.

[2]Below ground surface.

[3]Total Petroleum Hydrocarbons as gasoline.

[4]Methyl Tert Butyl Ether.

[5]NA = Not Analyzed.

ATTACHMENT A

FIELD SAMPLING PROCEDURES
GROUNDWATER SAMPLE COLLECTION RECORDS
ANALYTICAL LABORATORY DATA SHEETS

E-Z SERVE PETROLEUM MARKETING COMPANY OF CALIFORNIA
QUARTERLY GROUNDWATER MONITORING PROGRAM
SAMPLING AND ANALYSIS PLAN

The following sections describe the procedures and protocols followed during this quarterly groundwater monitoring event at the subject site.

Depth-To-Water Measurements

Prior to sampling the groundwater monitoring wells, the wells were opened to the atmosphere for approximately one-quarter of one hour, allowing the static water level well to adjust to the open barometric pressure. The depth-to-groundwater was then measured, using an oil-water interface probe. The interface probe was lowered slowly until free product or water was encountered. At that point, the mark on the interface probe wire was read to the nearest 0.01 feet at the permanent reference point on the top of the well casing. If free product was encountered, the probe was lowered until water was encountered. The difference between the two depths corresponded to the thickness of the free product. The total depth of the well was then measured using the same probe. If the presence of free product was questionable, a second check for free-product was make using a disposable bailer. The disposable bailer was lowered into the water to approximately one-half the bailer length. The bailer was then removed from the well and checked for the presence of free petroleum product or a product sheen.

In the event a dedicated bailer or purge tubing existed in the well, the dedicated equipment was removed prior to sampling, and temporarily stored in a clean plastic garbage bag.

The depth-to-water and total depth measurements, and the presence or absence of free product, were recorded on the field sampling forms. In addition, comments regarding the condition of the well and/or containment box were also noted on the field sampling sheet at that time. Wells observed to contain a product sheen or free product on top of the water column were purged but not sampled.

Groundwater Monitoring Well Purging

The depth-to-water and bottom of well measurements were used to calculate the volume of purge water contained in one well volume. The minimum purge volume was calculated to be three times the total well volume. Once the minimum purge volume had been calculated, purging was started. Purging was conducted using either a centrifugal pump connected to a dedicated Waterra® pump, a 2-inch diameter submersible pump, a bladder pump, or a disposable polyethylene bailer. The type of equipment used to purge each well was selected based on the depth to water, the anticipated purge rate, the amount of sediment expected to be contained in the well, and the historical sampling records for each well. The specific piece of equipment used was recorded on the Groundwater Sample Collection Record. Temperature, pH, and specific conductance of the purge water was monitored during the purging process at regular intervals. Purging was ceased when the monitored parameters stabilized (three consecutive reading not varying by more than 10-percent) and a minimum of three well volumes had been purged.

In the event a well dried out during purging, the well was allowed to recover to 80-percent of its original well volume, or for 8-hours, whichever was less, prior to collecting a groundwater sample.

Groundwater Monitoring Well Sampling

Once the well was successfully purged, a groundwater sample was collected using a disposable polyethylene bailer connected to clean nylon or polyethylene cord. The bailer was lowered slowly into the water to avoid agitation of the sample. A portion of the sample was place in a container and the monitoring parameters were recorded. The remaining portion of the sample was transferred from the bailer to the appropriate, laboratory supplied sampling bottles, using a bottom emptying device. The sample containers used for analysis of volatile compounds were filled completely, leaving a positive meniscus, so no airspace remained in the vial after sealing.

The sample bottles were labeled with the well identification number, date and time of the sample collection, the field technicians initials, job number, analyses to be performed, and other relevant information. Samples were immediately placed in an insulated cooler containing crushed ice. The samples were maintained at approximately 4 °C until reaching the analytical laboratory.

Samples were submitted to the analytical laboratory under appropriate chain-of-custody procedures. If necessary, samples were shipped from the field directly to the analytical laboratory to minimize the time the samples remained in an iced cooler. The analytical laboratory used and the analyses conducted on each sample are identified in the body of the report.

Quality Assurance/Quality Control Procedures

Instrument Calibration. Equipment used to monitor groundwater parameters was calibrated prior to beginning purging at the site. Monitoring equipment was calibrated following the manufactures instructions using laboratory grade standards.

Equipment Decontamination. Non-disposable and non-dedicated sampling equipment was cleaned prior to and between uses in each well. Downhole equipment was cleaned by washing with a non-phosphate soap solution and rinsing twice with distilled water.

Duplicate. One duplicate sample was collected from the site from a randomly selected monitoring well. The duplicate sample was collected at the same time as the original sample and was treated in the same manner. The duplicate sample was submitted to the laboratory for the same analyses as the original.

Field Blank. One field blank was prepared by the technician at the location where the duplicate sample was collected. The field blank was prepared, prior to sampling the well, by filling three 40-ml VOAs with distilled water. The field blank was submitted to the laboratory for analysis of TPHg and BTEX.

Trip Blank. A trip blank was prepared by the analytical laboratory and accompanied the sample bottles throughout the shipping and sampling events. The trip blank was submitted to the laboratory for analysis of TPHg and BTEX.

Brown and Caldwell

BROWN & CALDWELL
WELL INFORMATION DATA

DATE: 4/8/97

JOB NAME: E2 Sewer Hayward

JOB #: 5172-10

B&C PERSONNEL: J. LaPlante

LOCK TYPE: _____

WEATHER: Sunny

LID TYPE: _____

INSTRUMENT: ORS Oil/Water Interface Probe

WELL ID	SWL	TD	DIA	TIME	COMMENTS
MW-13	12.75'	30.80'	2"		Supply 2402 Master lock
MW-12	14.88'	30.00'	2"		Supply 2402 Master Lock
MW-14	14.77'	30.00'	2"		Supply 2402 Master Lock
MW-9	—	—	—		Cant find well - Newer sidewalk
MW-11	10.51'	25.00'	2"		Supply 2402 Master Lock
MW-8	—	—	—		Unable to find well - Newer Sidewalk
MW-10	—	—	—		Well destroyed in road replacement
MW-1	13.25'	32.10'	4"		Supply 2402 lock & locking cap
MW-5	13.39'	32.48'	4"		
MW-6	13.64'	32.10'	4"		
MW-1A	14.15'	28.40'	2"		Supply 2402 lock & locking cap / Sheen on bailer
MW-3	14.25'	32.10'	4"		
MW-4	13.73'	32.11'	4"		
MW-2	14.86'	32.30'	4"		Supply 2402 lock & locking cap
MW-7	14.10'	30.06'	2"		

Redgwick - Hayward CA

Well No. MW-1

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Sewer Hayward Job No.: 5172-10 Date: 4/8/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. Lefkowitz

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft) = 13.25'

b. Total Well Depth = 32.10'

c. Length of Water Column = 18.85' (b - a)

d. Casing Volume = 12.25 [c x (gal/ft casing)]

e. Length of sand pack = —

f. Gallon per ft. of sand pack = — [gal/ft borehole-gal/ft casing) x 0.35]

g. Sand pack volume = — (e x f)

h. **TOTAL WELL VOLUME** = 12.25 (d + g)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4"

Borehole Dia. 10"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Trash Pump w/ Waterra Tubing

b. Required Purge Volume (@ 12.25 x 3 gallons per well volume) = 36.75 gallons

c. Field Testing; Equipment Used pH, Temp + SC (YSI 3500)

d. Pump Rate 2 gpm

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
Purge	13:25							
12	13:31	20.4	7.54	990	—	Clear	—	20'
25	13:36	20.2	7.42	980	—	Clear	—	20'
37	13:41	20.2	7.36	980	—	Clear	—	20'
Sampled	13:45	19.0	7.29	960	—	Clear	—	

3. SAMPLE COLLECTION: Method Disposable Bailer Container 6 VOA's Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

Collect duplicate (100877-MW-1-D) + Field Blank (100877-MW-1-FB)

Well No. MW-1A

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Serve Hayward Job No.: 5172-10 Date: 4/9/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. Infante

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft) = 14.15'

b. Total Well Depth = 28.40'

c. Length of Water Column = 14.25' (b - a)

d. Casing Volume = 2.28 [c x (gal/ft casing)]

e. Length of sand pack = -

f. Gallon per ft. of sand pack = - [gal/ft borehole-gal/ft casing) x 0.35]

g. Sand pack volume = - (e x f)

h. **TOTAL WELL VOLUME** = 2.28 (d + g)

TOC Elevation (from LS)

Water Table Elev.

Tape Corr. (TC)

Well Dia. 2"

Borehole Dia. 8"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Disposable Bailer

b. Required Purge Volume (@ 2.28 x 3 gallons per well volume) = 6.84 gallons

c. Field Testing; Equipment Used pH, Temp + SC (YSI 3500)

d. Pump Rate

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
9 Bail	08:40							
2.5	09:45	19.6	7.12	920	-	Cloudy / Sheen	-	-
5.0	09:52	19.5	6.97	920	-	Cloudy / Sheen	-	-
7.0	09:54	19.7	7.00	920	-	Cloudy / Sheen	-	-
	No	sample	collected -	Sheen	in	well.		

3. SAMPLE COLLECTION: Method - Container Preservation

Analysis

COMMENTS, REMARKS

Well No. MW-2

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Serve Hayward Job No.: 5172-10 Date: 4/9/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. LaPlante

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 14.86'		
b. Total Well Depth	= 32.30'		
c. Length of Water Column	= 17.44	(b - a)	
d. Casing Volume	= 11.34	[c x (gal/ft casing)]	
e. Length of sand pack	= —		
f. Gallon per ft. of sand pack	= —	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= —	(e x f)	
h. **TOTAL WELL VOLUME**	= 11.34	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4"

Borehole Dia. 10"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Trash Pump w/ Waterra Tubing

b. Required Purge Volume (@ 11.34 x 3 gallons per well volume) = 34.02 gallons

c. Field Testing; Equipment Used pH, Temp + SC (YSI 3500)

d. Pump Rate 2 gpm

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
@ Pump	10:40							
12	10:46	17.7	7.12	1030	—	Clear	—	20'
24	10:52	19.1	7.17	1010	—	Clear	—	20'
35	10:58	19.3	7.10	990	—	Clear	—	20'
Sampled	11:03	18.1	7.07	980	—	Clear	—	

3. SAMPLE COLLECTION: Method Disposable Bailer Container 6 VOAs Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

Collect duplicate (100877-MW-2-D) & Field Blank (100877-MW-2-FB)

Well No. MW-3

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-Serve Hayward Job No.: 5172-10 Date: 4/9/97

Location: Station # 100977 523 A Street Hayward, CA

Samplers Name: J. LaPlante

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 14.25'		
b. Total Well Depth	= 32.10'		
c. Length of Water Column	= 17.85'	(b - a)	
d. Casing Volume	= 11.60	[c x (gal/ft casing)]	
e. Length of sand pack	= -		
f. Gallon per ft. of sand pack	= -	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= -	(e x f)	
h. **TOTAL WELL VOLUME**	= 11.60'	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4"

Borehole Dia. 10"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Trash Pump w/ Waterra Tubing

b. Required Purge Volume (@ 11.60 gallons per well volume) = 34.80 gallons

c. Field Testing; Equipment Used pH, Temp & SC (YSI 3500)

d. Pump Rate ~ 2 spm

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
@ Purge	09:15							
12	09:21	20.5	7.00	950	-	Brown / Cloudy	-	20'
24	09:27	20.5	6.93	940	-	Slightly Cloudy	-	20'
36	09:33	20.0	6.87	940	-	Clear	-	20'
Sampled @	09:39	19.6	6.91	920	-	Clear	-	-

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH-5 / BTEX / MTBE

COMMENTS, REMARKS

Well No. MW-4

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ serve Hayward Job No.: 5172-10 Date: 4/9/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. LaMonte

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 13.73'	TOC Elevation (from LS)	
b. Total Well Depth	= 32.11	Water Table Elev.	
c. Length of Water Column	= 18.38' (b - a)	Tape Corr. (TC)	
d. Casing Volume	= 11.95 [c x (gal/ft casing)]	Well Dia.	4"
e. Length of sand pack	= —	Borehole Dia.	10"
f. Gallon per ft. of sand pack	= — [gal/ft borehole-gal/ft casing) x 0.35]		
g. Sand pack volume	= — (e x f)		
h. **TOTAL WELL VOLUME**	= 11.95 (d + g)		

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Trash Pump w/ Waterra Tubing

b. Required Purge Volume (@ 11.95 x 3 gallons per well volume) = 35.85 gallons

c. Field Testing; Equipment Used pH, Temp + SC (YSI 3500)

d. Pump Rate 2 gpm

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
6 Purge	09:55							
12	10:01	19.3	7.15	1000	—	Clear	—	20'
24	10:07	20.2	7.03	990	—	Clear	—	20'
36	10:13	19.4	6.95	990	—	Clear	—	20'
Sample	10:20	19.4	6.97	980	—	Clear	—	

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH-g/BTEX / MTBE

COMMENTS, REMARKS

Well No. MW-5

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ Serv. Hayward Job No.: 5172-10 Date: 4/8/97

Location: Station # 100977 523 A Street Hayward, CA

Samplers Name: J. LaPlante

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 13.39'		
b. Total Well Depth	= 32.48'		
c. Length of Water Column	= 19.09'	(b - a)	
d. Casing Volume	= 12.41	[c x (gal/ft casing)]	
e. Length of sand pack	= -		
f. Gallon per ft. of sand pack	= -	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= -	(e x f)	
h. **TOTAL WELL VOLUME**	= 12.41	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4"

Borehole Dia. 10"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Trash Pump w/ Waterra Tubing

b. Required Purge Volume (@ 12.41 x 3 gallons per well volume) = 37.23 gallons

c. Field Testing; Equipment Used pH, Temp + SC (YSI 3500)

d. Pump Rate ~ 2 gpm

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
~ Purge	14:05							
13	14:13	20.6	7.44	1010	-	Clear	-	20'
26	14:18	21.2	7.31	990	-	Clear	-	20'
38	14:24	21.6	7.24	990	-	Clear	-	20'
Sampled	14:30	20.0	7.19	960	-	Clear		

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

Well No. MW-6

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Serve Hayward Job No.: 5172-10 Date: 4/8/97
Location: Station #100872 523 A Street Hayward, CA
Samplers Name: J. LaPlante
Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)
a. Depth to water (ft) = 13.64'
b. Total Well Depth = 32.10'
c. Length of Water Column = 18.46' (b - a)
d. Casing Volume = 12.00 [c x (gal/ft casing)]
e. Length of sand pack = –
f. Gallon per ft. of sand pack = – [gal/ft borehole-gal/ft casing) x 0.35]
g. Sand pack volume = – (e x f)
h. **TOTAL WELL VOLUME** = 12.00 (d + g)

TOC Elevation (from LS)
Water Table Elev.
Tape Corr. (TC)
Well Dia. 4"
Borehole Dia. 10"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:
a. Purge Method Trash Pump w/ Waterra Tubing
b. Required Purge Volume (@ 12x3 gallons per well volume) = 36.00 gallons
c. Field Testing; Equipment Used pH, Temp & SC (YSI 3500)
d. Pump Rate ~2gpm
e. Method of GW Disposal Drum
f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
✓ Begin	14:45							
12	14:53	21.4	7.26	970	–	Clear	–	20'
24	14:58	21.5	7.14	970	–	Clear	–	20'
36	15:04	21.3	7.09	970	–	Clear	–	20'
Sample	15:10	20.6	7.11	950	–	clear	–	

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl
Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

04/04/97\E:\MEMOS\9011\9011-22\GSCR3.WP5
HPLaserIII

Well No. MW-7

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ Serve Hayward Job No.: 5172-10 Date: 4/6/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. Ledante

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 14.10		
b. Total Well Depth	= 30.06		
c. Length of Water Column	= 15.96	(b - a)	
d. Casing Volume	= 2.55	[c x (gal/ft casing)]	
e. Length of sand pack	= —		
f. Gallon per ft. of sand pack	= —	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= —	(e x f)	
h. **TOTAL WELL VOLUME**	= 2.55	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2"

Borehole Dia. 8"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Disposable Bailer

b. Required Purge Volume (@ 2.55 x 3 gallons per well volume) = 7.65 gallons

c. Field Testing; Equipment Used pH, Temp + SC

d. Pump Rate —

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
∅ Bail								
2.5	10:28	18.7	7.51	910	—	Brown / Cloudy	—	—
5.0	10:35	18.6	7.38	930	—	Brown / Cloudy	—	—
8.0	10:42	18.6	7.35	930	—	Brown / Cloudy	—	—
Sampled @	10:47	17.8	7.36	910	—	Brown / Cloudy	—	—

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH g / BTEX / MTBE

COMMENTS, REMARKS

04/04/97\E:\MEMOS\9011\9011-22\GSCR3 WP5
HPLaserIII

Well No. MW-11

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ Serve Hayward Job No.: 5172-10 Date: 4/8/97

Location: Station # 100877 523 A Street Hayward CA

Samplers Name: J. LaPlante

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 10.51'		
b. Total Well Depth	= 25.00'		
c. Length of Water Column	= 14.49'	(b - a)	
d. Casing Volume	= 2.32	[c x (gal/ft casing)]	
e. Length of sand pack	= —		
f. Gallon per ft. of sand pack	= —	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= —	(e x f)	
h. **TOTAL WELL VOLUME**	= 2.32	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2"

Borehole Dia. 8"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Disposable Bailer

b. Required Purge Volume (@ 2.32x3 gallons per well volume) = 6.97 gallons

c. Field Testing: Equipment Used pH, Temp & SC (YSI 3500)

d. Pump Rate —

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
~ Bail	11:25							
2.5	11:20	19.7	7.53	910	—	Brown / Cloudy	—	—
5.0	11:24	18.6	7.35	910	—	Brown / Cloudy	—	—
7.0	11:28	19.1	7.25	910	—	Brown / Cloudy	—	—
Sample	11:32	19.3	7.25	930	—	Brown / Cloudy	—	—

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2-VOA's Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

04/04/97\E:\MEMOS\9011\9011-22\GSCR3.WP5
HPLaserIII

Well No. MW-12

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Save Hayward Job No.: 5172-10 Date: 4/8/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. Hylkema

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 14.88'		
b. Total Well Depth	= 30.00		
c. Length of Water Column	= 15.12'	(b - a)	
d. Casing Volume	= 2.42	[c x (gal/ft casing)]	
e. Length of sand pack	= -		
f. Gallon per ft. of sand pack	= -	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= -	(e x f)	
h. **TOTAL WELL VOLUME**	= 2.42	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2"

Borehole Dia. 8"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Disposable Bailer

b. Required Purge Volume (@ 2.42 x 3 gallons per well volume) = 7.26 gallons

c. Field Testing; Equipment Used pH, Temp & SC (YSI, 3500)

d. Pump Rate —

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
@ Bail	09:00							
2.5	09:04	17.7	7.50	650	—	Brown / Cloudy	—	—
5.0	09:09	17.9	7.44	660	—	Brown / Cloudy	—	—
7.5	09:14	17.9	7.39	670	—	Brown / Cloudy	—	—
Sampled	09:20	17.8	7.39	670	—	Brown / Cloudy	—	

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

Well No. MW-13

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Sewer Hayward Job No.: 5172-10 Date: 4/8/97

Location: Station # 100877 523 A street Hayward, CA

Samplers Name: J. Lockett

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft) = 12.75'

b. Total Well Depth = 30.00'

c. Length of Water Column = 17.25' (b - a)

d. Casing Volume = 2.76 [c x (gal/ft casing)]

e. Length of sand pack = -

f. Gallon per ft. of sand pack = - [gal/ft borehole-gal/ft casing) x 0.35]

g. Sand pack volume = - (e x f)

h. **TOTAL WELL VOLUME** = 2.76 (d + g)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2"

Borehole Dia. 8"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Trash Pump w/ Waterra Tubing

b. Required Purge Volume (@ 3 gallons per well volume) = 8.28 gallons

c. Field Testing; Equipment Used pH, Temp + SC (YSI 3500)

d. Pump Rate 1.5 gpm

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
@ Purge	08:15							
3.0	08:17	17.1	6.73	840	-	Brown / Cloudy	-	25'
6.0	08:19	16.8	6.73	820	-	Brown / Cloudy	-	25'
9.0	08:21	18.4	6.71	860	-	Brown / Cloudy	-	25
Sample	08:25	16.5	6.80	840	-	Slightly Cloudy	-	

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

Well No. MW-14

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: E2 Serve Hayward Job No.: 5172-10 Date: 4/9/97

Location: Station # 100877 523 A Street Hayward, CA

Samplers Name: J. Ledbetter

Weather Conditions: Sunny

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 14.77'		
b. Total Well Depth	= 30.00'		
c. Length of Water Column	= 15.23'	(b - a)	
d. Casing Volume	= 2.44	[c x (gal/ft casing)]	
e. Length of sand pack	= —		
f. Gallon per ft. of sand pack	= —	[gal/ft borehole-gal/ft casing) x 0.35]	
g. Sand pack volume	= —	(e x f)	
h. **TOTAL WELL VOLUME**	= 2.44	(d + g)	

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2"

Borehole Dia. 8"

2-in. casing/borehole	= 0.16 gal/ft
4-in. casing/borehole	= 0.65 gal/ft
6-in. casing/borehole	= 1.47 gal/ft
6.5-in. casing/borehole	= 1.7 gal/ft
8-in. casing/borehole	= 2.60 gal/ft
10-in. casing/borehole	= 4.1 gal/ft
12-in. casing/borehole	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method Disposable Bailer

b. Required Purge Volume (@ 2.44x3 gallons per well volume) = 7.32 gallons

c. Field Testing; Equipment Used pH, Temp + SC (3500 YSI)

d. Pump Rate —

e. Method of GW Disposal Drum

f. Recovery Rate: Slow (90%>60 min), Medium (90% 30-60 min), Fast (90%<10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
Ø Bail	09:41							
2.5	09:45	19.1	7.27	750	—	Brown / Cloudy	—	—
5.0	09:50	19.2	7.29	730	—	Brown / Cloudy	—	—
7.5	09:56	17.9	7.30	730	—	Brown / Cloudy	—	—
Sample	10:00	17.7	7.31	790	—	Brown / Cloudy	—	—

3. SAMPLE COLLECTION: Method Disposable Bailer Container 2 VOAs Preservation HCl

Analysis TPH-g / BTEX / MTBE

COMMENTS, REMARKS

Our Quality Control Is Your Quality Assurance

SUMMARY REPORT OF ANALYTICAL RESULTS

Project : 5172
EZ SERVE
Date Sampled : 04-08-97
Matrix : GW 100877
Lab Order # G97-04-221

LAB ID	WELL ID	TPHG	BEN	TOL	ETHY	XLY	MTBE
04-221-1	MW-13	<50	<0.5	<0.5	<0.5	<0.5	<30
04-221-2	MW-12	<50	<0.5	<0.5	<0.5	<0.5	<30
04-221-3	MW-14	2900	<3.0	2.7	220	21	<200
04-221-4	MW-7	5600	42	<1	240	96	<60
04-221-5	MW-11	24000	280	130	3000	3700	<300
04-221-6	MW-1	2100	430	15	52	85	100
04-221-7	MW-1D	1800	430	9.2	46	79	110
04-221-8	MW-1-FB	<50	<0.5	<0.5	<0.5	<0.5	<30
04-221-9	MW-5	11000	1300	15	450	720	180
4-221-10	MW-6	17000	700	92	1400	900	2700
4-221-11	MW-3	3800	210	4.6	270	280	56
4-221-12	MW-4	16000	3900	680	850	2300	980
4-221-13	MW-2	20000	2500	80	1300	3400	880
4-221-14	MW-2D	21000	2600	90	1300	3300	910
4-221-15	MW-2FB	<50	<0.5	<0.5	<0.5	<0.5	<30
4-221-16	TB	<50	<0.5	<0.5	<0.5	<0.5	<30

BCA—Division of V.O.C. Analytical Laboratories, Inc.
1085 Shary Circle, Concord, CA 94518 • Phone: (510) 825-3894 • Fax: (510) 825-3924

ANALYTICAL REPORT

Our Quality Control Is Your Quality Assurance

LOG NO: G97-04-221

Received: 09 APR 97

Mailed: APR 30 1997

Mr. Todd Miller
Brown and Caldwell
3480 Buskirk Avenue
Pleasant Hill, CA 94523

Purchase Order: 5172-10

Requisition: EZ.SERVE
Project: 100877

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
04-221-1	100877-MW-13	08 APR 97
04-221-2	100877-MW-12	08 APR 97
04-221-3	100877-MW-14	08 APR 97
04-221-4	100877-MW-7	08 APR 97
04-221-5	100877-MW-11	08 APR 97

PARAMETER	04-221-1	04-221-2	04-221-3	04-221-4	04-221-5
GRO (8015M.TX)					
Date Analyzed	04/18/97	04/18/97	04/18/97	04/18/97	04/18/97
Dilution Factor, Times	1	1	5	2	10
Benzene, ug/L	<0.5	<0.5	<3	42	280
Toluene, ug/L	<0.5	<0.5	2.7	<1	130
Ethylbenzene, ug/L	<0.5	<0.5	220	240	3000
Methyl-tert-butylether, ug/L	<30	<30	<200	<60	<300
Total Xylene Isomers, ug/L	<0.5	<0.5	21	96	3700
Carbon Range, .	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	<50	<50	2900	5600	24000
Surrogates **					
a,a,a-Trifluorotoluene Rep., ug/L	47.9	48.1	210	62.5	497
a,a,a-Trifluorotoluene Th., ug/L	50.0	50.0	250	100	500

LOG NO: G97-04-221

Received: 09 APR 97

Mr. Todd Miller
Brown and Caldwell
3480 Buskirk Avenue
Pleasant Hill, CA 94523

Purchase Order: 5172-10

Requisition: EZ.SERVE
Project: 100877

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
04-221-6	100877-MW-1	08 APR 97
04-221-7	100877-MW-1-D	08 APR 97
04-221-8	100877-MW-1-FB	08 APR 97
04-221-9	100877-MW-5	08 APR 97
04-221-10	100877-MW-6	08 APR 97

PARAMETER	04-221-6	04-221-7	04-221-8	04-221-9	04-221-10
GRO (8015M.TX)					
Date Analyzed	04/19/97	04/22/97	04/22/97	04/19/97	04/22/97
Dilution Factor, Times	1	2	1	5	5
Benzene, ug/L	430	430	<0.5	1300	700
Toluene, ug/L	15	9.2	<0.5	15	92
Ethylbenzene, ug/L	52	46	<0.5	450	1400
Methyl-tert-butylether, ug/L	100	110	<30	180	2700
Total Xylene Isomers, ug/L	85	79	<0.5	720	900
Carbon Range, .	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	2100	1800	<50	11000	17000
Surrogates **					
a,a,a-Trifluorotoluene Rep., ug/L	57.7	91.6	45.8	193	278
a,a,a-Trifluorotoluene Th., ug/L	50.0	100	50.0	250	250

Our Quality Control Is Your Quality Assurance

LOG NO: G97-04-221

Received: 09 APR 97

Mr. Todd Miller
Brown and Caldwell
3480 Buskirk Avenue
Pleasant Hill, CA 94523

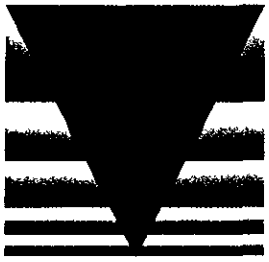
Purchase Order: 5172-10

Requisition: EZ.SERVE
Project: 100877

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
04-221-11	100877-MW-3	09 APR 97
04-221-12	100877-MW-4	09 APR 97
04-221-13	100877-MW-2	09 APR 97
04-221-14	100877-MW-2-D	09 APR 97
04-221-15	100877-MW-2-FB	09 APR 97

PARAMETER	04-221-11	04-221-12	04-221-13	04-221-14	04-221-15
GRO (8015M.TX)					
Date Analyzed	04/22/97	04/22/97	04/22/97	04/21/97	04/18/97
Dilution Factor, Times	2	20	20	10	1
Benzene, ug/L	210	3900	2500	2600	<0.5
Toluene, ug/L	4.6	680	80	90	<0.5
Ethylbenzene, ug/L	270	850	1300	1300	<0.5
Methyl-tert-butylether, ug/L	56	980	880	910	<30
Total Xylene Isomers, ug/L	280	2300	3400	3300	<0.5
Carbon Range, .	C6-C12	C6-C12	C6-C12	C6-C12	C6-C12
TPH (Gasoline Range), ug/L	3800	16000	20000	21000	<50
Surrogates **					
a,a,a-Trifluorotoluene Rep., ug/L	75.6	946	894	513	47.2
a,a,a-Trifluorotoluene Th., ug/L	100	1000	1000	500	50.0



Our Quality Control Is Your Quality Assurance

LOG NO: G97-04-221

Received: 09 APR 97

Mr. Todd Miller
Brown and Caldwell
3480 Buskirk Avenue
Pleasant Hill, CA 94523

Purchase Order: 5172-10

Requisition: EZ.SERVE
Project: 100877

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, AQUEOUS SAMPLES	DATE SAMPLED
04-221-16	100877-Trip Blank	08 APR 97

PARAMETER	04-221-16
GRO (8015M.TX)	
Date Analyzed	04/18/97
Dilution Factor, Times	1
Benzene, ug/L	<0.5
Toluene, ug/L	<0.5
Ethylbenzene, ug/L	<0.5
Methyl-tert-butylether, ug/L	<30
Total Xylene Isomers, ug/L	<0.5
Carbon Range, .	C6-C12
TPH (Gasoline Range), ug/L	<50
Surrogates **	
a,a,a-Trifluorotoluene Rep., ug/L	47.8
a,a,a-Trifluorotoluene Th., ug/L	50.0

Our Quality Control Is Your Quality Assurance

LOG NO: G97-04-221

Received: 09 APR 97

Mr. Todd Miller
Brown and Caldwell
3480 Buskirk Avenue
Pleasant Hill, CA 94523

Purchase Order: 5172-10

Requisition: EZ.SERVE
Project: 100877

REPORT OF ANALYTICAL RESULTS

Greta Galoustian, Laboratory Director

The analytical results within this report relate only to the specific compounds and samples investigated and may not necessarily reflect other apparently similar material from the same or a similar location.

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: ORDER PLACED FOR CLIENT: Brown and Caldwell 9704221 :
: VOC ANALYTICAL : GLEN LAB : 12:23:02 29 APR 1997 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9704221*1	100877-MW-13	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-21	976027	7424
9704221*2	100877-MW-12	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-21	976027	7424
9704221*3	100877-MW-14	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-21	976027	7424
9704221*4	100877-MW-7	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-21	976027	7424
9704221*5	100877-MW-11	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-35	977038	6843
9704221*6	100877-MW-1	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-35	977038	1012
9704221*7	100877-MW-1-D	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-23	975058	7424
9704221*8	100877-MW-1-FB	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-23	975058	7424
9704221*9	100877-MW-5	GAS.MTBE.TESNC	04.19.97	8015M.TX	536-23	975056	7424
9704221*10	100877-MW-6	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-23	975058	7424
9704221*11	100877-MW-3	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-23	975058	7424
9704221*12	100877-MW-4	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-23	975058	7424
9704221*13	100877-MW-2	GAS.MTBE.TESNC	04.22.97	8015M.TX	536-23	975058	7424
9704221*14	100877-MW-2-D	GAS.MTBE.TESNC	04.21.97		536-35	977040	1012
9704221*15	100877-MW-2-FB	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-36	974069	1012
9704221*16	100877-Trip Blank	GAS.MTBE.TESNC	04.18.97	8015M.TX	536-36	974069	1012

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Notes: Equipment = VOC Analytical identification number for a particular piece of analytical equipment.

ID.NO = VOC Analytical employee identification number of analyst.

AQUEOUS SAMPLES	METHOD BLANK				LAB CONTROL									MATRIX QC								
					LCS		LCSD					RPD	RPD	MS		MSD				RPD	RPD	
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: GAS*977040 Method: -																						
Benzene	-	0	-	-	94	-	-	-	-	-	-	-	-	110	-	126	-	-	-	14	-	-
Toluene	-	0	-	-	91	-	-	-	-	-	-	-	-	105	-	115	-	-	-	9	-	-
Ethylbenzene	-	0	-	-	91	-	-	-	-	-	-	-	-	84	-	90	-	-	-	6	-	-
Methyl-tert-butylether	-	0	-	-	101	-	-	-	-	-	-	-	-	89	-	102	-	-	-	14	-	-
Total Xylene Isomers	-	0	-	-	89	-	-	-	-	-	-	-	-	79	-	84	-	-	-	7	-	-
TPH (Gasoline Range)	-	0	-	-	104	-	-	-	-	-	-	-	-	105	-	107	-	-	-	3	-	-
[a,a,a-Trifluorotoluene]	Percent	99	-	-	96	-	-	-	-	-	-	-	-	126	-	142	-	-	-	-	-	-
Batch: GAS*974069 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	99	-	-	-	76	155	-	-	-	116	-	117	-	70	153	1	25	-
Toluene	ug/L	0	0.5	-	98	-	-	-	72	121	-	-	-	89	-	88	-	69	119	1	25	-
Ethylbenzene	ug/L	0	0.5	-	100	-	-	-	72	115	-	-	-	79	-	80	-	68	116	1	25	-
Methyl-tert-butylether	ug/L	0	30	-	111	-	-	-	62	159	-	-	-	101	-	101	-	80	176	0	25	-
Total Xylene Isomers	ug/L	0	0.5	-	98	-	-	-	68	115	-	-	-	78	-	78	-	61	118	0	25	-
TPH (Gasoline Range)	ug/L	0	50	-	98	-	-	-	85	120	-	-	-	98	-	103	-	78	124	5	25	-
[a,a,a-Trifluorotoluene]	Percent	105	-	-	102	-	-	-	85	118	-	-	-	97	-	98	-	85	118	-	-	-
Batch: GAS*975056 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	109	-	-	-	76	155	-	-	-	99	-	109	-	70	153	9	25	-
Toluene	ug/L	0	0.5	-	110	-	-	-	72	121	-	-	-	96	-	95	-	69	119	1	25	-
Ethylbenzene	ug/L	0	0.5	-	112	-	-	-	72	115	-	-	-	102	-	99	-	68	116	3	25	-
Methyl-tert-butylether	ug/L	0	30	-	104	-	-	-	62	159	-	-	-	139	-	156	-	80	176	12	25	-
Total Xylene Isomers	ug/L	0	0.5	-	112	-	-	-	68	115	-	-	-	100	-	93	-	61	118	7	25	-
TPH (Gasoline Range)	ug/L	0	50	-	93	-	-	-	85	120	-	-	-	90	-	89	-	78	124	2	25	-
[a,a,a-Trifluorotoluene]	Percent	108	-	-	100	-	-	-	85	118	-	-	-	93	-	89	-	85	118	-	-	-
Batch: GAS*975058 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	100	-	-	-	76	155	-	-	-	101	-	86	-	70	153	16	25	-
Toluene	ug/L	0	0.5	-	100	-	-	-	72	121	-	-	-	86	-	91	-	69	119	5	25	-
Ethylbenzene	ug/L	0	0.5	-	103	-	-	-	72	115	-	-	-	86	-	88	-	68	116	2	25	-
Methyl-tert-butylether	ug/L	0	30	-	125	-	-	-	62	159	-	-	-	131	-	128	-	80	176	3	25	-
Total Xylene Isomers	ug/L	0	0.5	-	103	-	-	-	68	115	-	-	-	87	-	89	-	61	118	2	25	-
TPH (Gasoline Range)	ug/L	0	50	-	91	-	-	-	85	120	-	-	-	91	-	95	-	78	124	4	25	-
[a,a,a-Trifluorotoluene]	Percent	110	-	-	97	-	-	-	85	118	-	-	-	88	-	90	-	85	118	-	-	-

AQUEOUS SAMPLES	METHOD BLANK				LAB CONTROL									MATRIX QC								
					LCS		LCSD					RPD	RPD	MS		MSD					RPD	RPD
	UNITS	RESULT	RDL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG	%REC	FLG	%REC	FLG	LCL	UCL	RPD	UCL	FLG
Batch: GAS*976027 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	110	-	-	-	76	155	-	-	-	107	-	113	-	70	153	5	25	-
Toluene	ug/L	0.18	0.5	-	105	-	-	-	72	121	-	-	-	90	-	96	-	69	119	6	25	-
Ethylbenzene	ug/L	0.17	0.5	-	104	-	-	-	72	115	-	-	-	93	-	95	-	68	116	2	25	-
Methyl-tert-butylether	ug/L	0	30	-	80	-	-	-	62	159	-	-	-	113	-	102	-	80	176	10	25	-
Total Xylene Isomers	ug/L	0.16	0.5	-	101	-	-	-	68	115	-	-	-	87	-	91	-	61	118	4	25	-
TPH (Gasoline Range)	ug/L	0	50	-	92	-	-	-	85	120	-	-	-	92	-	94	-	78	124	2	25	-
[a,a,a-Trifluorotoluene]	Percent	107	-	-	110	-	-	-	85	118	-	-	-	102	-	110	-	85	118	-	-	-
Batch: GAS*977038 Method: 8015M.TX - Modified 8015																						
Benzene	ug/L	0	0.5	-	102	-	99	-	76	155	3	-	-	127	-	172	Q	70	153	30	25	Q
Toluene	ug/L	0.11	0.5	-	99	-	96	-	72	121	3	-	-	103	-	108	-	69	119	5	25	-
Ethylbenzene	ug/L	0	0.5	-	100	-	97	-	72	115	3	-	-	85	-	90	-	68	116	6	25	-
Methyl-tert-butylether	ug/L	0	30	-	92	-	104	-	62	159	12	-	-	91	-	104	-	80	176	14	25	-
Total Xylene Isomers	ug/L	0	0.5	-	97	-	95	-	68	115	3	-	-	76	-	79	-	61	118	4	25	-
TPH (Gasoline Range)	ug/L	0	50	-	100	-	103	-	85	120	3	-	-	72	Q	83	-	78	124	13	25	-
[a,a,a-Trifluorotoluene]	Percent	104	-	-	99	-	103	-	85	118	-	-	-	118	-	125	Q	85	118	-	-	-

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 12:23:54 29 APR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9704221*1							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	47.9	50.0	96	
9704221*2							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	48.1	50.0	96	
9704221*3							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	210	250	84	
9704221*4							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	62.5	100	63	
9704221*5							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	497	500	99	
9704221*6							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/22/97	57.7	50.0	115	
9704221*7							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/22/97	91.6	100	92	
9704221*8							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/22/97	45.8	50.0	92	
9704221*9							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/19/97	193	250	77	
9704221*10							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/22/97	278	250	111	
9704221*11							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/22/97	75.6	100	76	
9704221*12							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/22/97	946	1000	95	
9704221*13							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/22/97	894	1000	89	
9704221*14							
	a,a,a-Trifluorotoluene	Re977040	04/21/97	513	500	103	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 12:23:54 29 APR 1997 - P. 2 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9704221*15							
8015M.TX	a,a,a-Trifluorotoluene	Re974069	04/18/97	47.2	50.0	94	
9704221*16							
8015M.TX	a,a,a-Trifluorotoluene	Re974069	04/18/97	47.8	50.0	96	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 12:24:01 29 APR 1997 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9704215*10*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	44.3	50.0	89	
9704215*10*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	46.7	50.0	93	
9704215*10*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	44.7	50.0	89	
9704215*10*T							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	50.0	50.0	100	
9704218*6*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	46.6	50.0	93	
9704218*6*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	51.1	50.0	102	
9704218*6*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	54.8	50.0	110	
9704218*6*T							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	50.0	50.0	100	
9704219*1*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	45.6	50.0	91	
9704219*1*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	59.2	50.0	118	
9704219*1*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	62.4	50.0	125	
9704219*1*T							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	50.0	50.0	100	
9704314*7*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	44.4	50.0	89	
9704314*7*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	43.8	50.0	88	

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9704314*7*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	44.9	50.0	90	
9704314*7*T							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	50.0	50.0	100	
9704358*2*R1							
8015M.TX	a,a,a-Trifluorotoluene	Re977040	04/21/97	50.9	50.0	102	
9704358*2*S1							
8015M.TX	a,a,a-Trifluorotoluene	Re977040	04/21/97	63.0	50.0	126	
9704358*2*S2							
8015M.TX	a,a,a-Trifluorotoluene	Re977040	04/21/97	71.2	50.0	142	
9704358*2*T							
8015M.TX	a,a,a-Trifluorotoluene	Re977040	04/21/97	50.0	50.0	100	
9704374*2*R1							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	46.3	50.0	93	
9704374*2*S1							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	48.6	50.0	97	
9704374*2*S2							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	49.0	50.0	98	
9704374*2*T							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	50.0	50.0	100	
B7041413*1*MB							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	54.1	50.0	108	
B7041414*1*MB							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	52.3	50.0	105	
B7041430*1*MB							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	53.4	50.0	107	
B7041438*1*MB							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	51.9	50.0	104	

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
B7041575*1*MB							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	55.0	50.0	110	
B7041587*1*MB							
8015M	a,a,a-Trifluorotoluene	Re977040	04/21/97	49.3	50.0	99	
C7042618*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	50.0	50.0	100	
C7042618*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	Re975056	04/18/97	50.0	50.0	100	
C7042619*1*LC							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	51.2	50.0	102	
C7042619*1*LT							
8015M	a,a,a-Trifluorotoluene	Re974069	04/18/97	50.0	50.0	100	
C7042641*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	55.0	50.0	110	
C7042641*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	Re976027	04/18/97	50.0	50.0	100	
C7042653*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	49.4	50.0	99	
C7042653*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	50.0	50.0	100	
C7042654*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	51.5	50.0	103	
C7042654*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	Re977038	04/18/97	50.0	50.0	100	
C7042904*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	48.7	50.0	97	
C7042904*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	Re975058	04/21/97	50.0	50.0	100	