

Alameda County
DEC 26 2002
Environmental Health

**QUARTERLY GROUNDWATER
MONITORING REPORT**
(4th Quarter, 2002)

12/23/02

2003

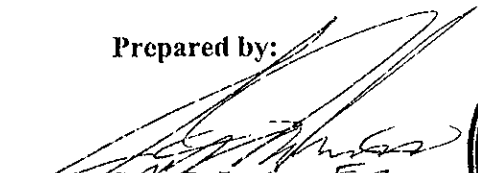
Former E-Z Serve Location No. 100877
525 West 'A' Street
Hayward, California
STID No. 3580

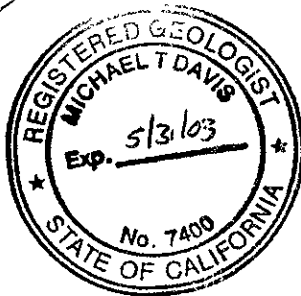
Submitted to:
Restructure Petroleum Marketing Services of California, Inc.
205 S. Hoover Boulevard, Suite 101
Tampa, Florida 33609

Submitted by
ATC Associates Inc.
9620 Chesapeake Drive, Suite 203
San Diego, California 92123

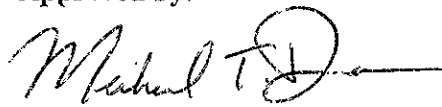
ATC Work Order No. 100877-C2-11
ATC Project No. 43.25827.0024
December 23, 2002

Prepared by:


Scott D. Levin
Project Scientist



Approved by:


Michael T. Davis, R.G. No. 7400
Senior Geologist

DATE: December 23, 2002

QUARTERLY GROUNDWATER MONITORING REPORT – FOURTH QUARTER 2002

Facility: Former E-Z Serve No. 100877	Site Address: 525 West 'A' Street, Hayward, California
Responsible Party / Contact Person:	RPMS-CA / Jeff Burke, Project Manager
Consulting Co. / Contact Person:	ATC Associates Inc. / Michael T. Davis, Project Manager (858) 569-0692
ATC Project No.:	43.35827.0024
Regulatory Agency/File No.:	RWQCB

WORK PERFORMED THIS QUARTER [October 1, 2002 – December 31, 2002]:

1. Performed first quarter groundwater monitoring and sampling.
2. Prepared first quarter groundwater monitoring report.

WORK PROPOSED FOR NEXT QUARTER [January 1, 2003 – March 31, 2003]:

1. Perform first quarter groundwater monitoring and sampling.
2. Submit first quarter groundwater monitoring report.
3. Implement Corrective Action.

Current Phase of Project:	Assessment	(Assessment, Remediation, etc.)
Frequency of Sampling:	Quarterly	(Quarterly, etc.)
Frequency of Monitoring:	Quarterly	(Monthly, etc.)
Liquid Phase Hydrocarbons Present On Site:	No	(Yes/No)
Cumulative PSH Recovered to Date:	Unknown	(Gallons)
PSH Recovered This Quarter:	None	(Gallons)
Purge Water Removed This Quarter:	None	(Gallons)
Permits for Discharge:	None	(NDPES, POTW, etc)
Current Remediation Techniques:	None	(SVES, PSH Recovery)
Approximate Depth to Groundwater:	16.10 to 17.63	(Measured Feet)
Groundwater Gradient:	0.0186 ft/ft	(Magnitude)
Groundwater Flow Direction:	West-southwesterly	(Direction)

Discussion: On November 15, 2002, ATC Associates, Incorporated (ATC) personnel gauged 10 groundwater monitor wells and one (1) groundwater extraction well (Figure 1 and 2). Depth to groundwater ranged between 16.10 (MW-1) to 17.63 (MW-2) feet below ground surface (bgs). MW-13 was not monitored due to a parked vehicle above the well box and wellheads of MW-8 through MW-11 remain inaccessible. The direction of groundwater flow was calculated to be west-southwesterly with a hydraulic gradient of approximately 0.0186 ft/ft (Figure 2). No measurable liquid phase hydrocarbons (PSH) were recorded in any of the wells measured during this quarters monitoring event. Groundwater elevations and contours are illustrated on Figure 2 and historic groundwater and PSH monitoring data is presented in Table 1.

On November 15, 2002, ATC collected groundwater samples from 10 monitoring wells and 1 extraction well. ATC utilized the attached no-purge sampling procedures described in Appendix A to collect groundwater samples from MW-1, MW-1A, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-12, MW-14, and EX-1. Field logs are also included in Appendix A. Groundwater samples collected were analyzed for total petroleum hydrocarbons characterized as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and fuel oxygenates methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA) by EPA Test Method 8260. TPHg concentrations were reported above the laboratory Practical Quantitation Limit (PQL) in groundwater samples collected from 9 of the 11 wells sampled. The highest TPHg, benzene, and MTBE concentrations reported were 34,000, 910, and 39 µg/L, respectively. The highest TPHg, benzene, and MTBE concentrations were reported in groundwater samples collected from MW-2. TPHg, benzene, and MTBE concentrations are illustrated on Figure 2 and historic groundwater analytical results are presented in Tables 1 and 2. Hydrographs of groundwater elevations and analytical data are attached in Appendix B and complete laboratory analytical results and chain-of-custody documentation are attached in Appendix C.

Recommendations: Continue quarterly groundwater monitoring and sampling, and implement the Corrective Action Plan. Contract a professional electromagnetic subsurface survey to locate the wellheads of MW-8 through MW-11.

Summary of Unusual Activity: None.

Agency Directive Requirements: Corrective Action Plan.

ATTACHED:

- Table 1 - Groundwater Elevations and Sample Analytical Results
- Table 2 - Groundwater Sample Analytical Results for Fuel Oxygenates
- Figure 1 - Vicinity Map
- Figure 2 - Groundwater Summary Map (November 15, 2002)
- Appendix A - ATC Groundwater Monitoring and Sampling Procedures, and Field Logs
- Appendix B - Hydrographs
- Appendix C - Laboratory Report and Chain-of-Custody Record

TABLES

Table 1
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-6 (15'-29') (Cont.)	6/30/97	42.33	15.08	27.25	0.00	11,000	270	37	590	450	<
	11/25/97	42.33	16.40	25.93	0.00	9,100	130	26	500	150	310
	6/1/98	42.33	10.31	32.02	0.00	14,000	190	50	680	400	160
	6/14/01	42.33	15.46	26.87	0.00	6,400	29	6.3	200	55	<20
	11/7/01 ²	42.33	16.71	25.62	0.00	7,200	34	8.7	180	31	<5.0
	1/30/02	42.33	14.60	27.73	0.00	6,600	32	7.2	130	28	<5.0
	5/29/02	42.33	14.99	27.34	0.00	5,200	26	7.0	150	27	<5.0
	8/14/02	42.33	16.03	26.30	0.00	5,300	24	6.6	120	22	<2.0
11/15/02	42.33	16.53	25.80	0.00	5,000	19	4.7	70	38	<0.5	
MW-7 (10'-29')	6/23/93	42.70	17.87	24.83	0.00	29,000	4,200	71	4,400	5,600	--
	9/30/93	42.70	18.94	23.76	0.00	30,000	3,200	71	2,800	3,400	--
	2/6/94	42.70	19.11	23.64	0.06	--	--	--	--	--	--
	5/2/94	42.70	18.11	24.59	0.00	5,700	630	13	660	400	--
	7/1/94	42.70	18.72	23.98	0.00	3,100	180	99	160	520	--
	9/20/94	42.70	21.41	21.29	0.00	6,100	540	6	750	730	--
	12/5/94	42.70	18.66	24.04	0.00	3,700	280	<10	430	350	--
	3/10/95	42.70	15.72	26.98	0.00	3,900	310	<10	540	540	--
	3/14/95	42.70	15.23	27.47	0.00	1,900	290	4	26	296	--
	9/23/96	42.70	15.94	26.76	0.00	6,300	76	<	420	270	15
	12/4/96	42.70	16.43	26.27	0.00	7,800	67	<	600	350	22
	4/8/97 ^{NP}	42.70	14.10	28.60	0.00	5,600	42	<	240	96	<
	6/30/97	42.70	15.51	27.19	0.00	5,500	<	79	<	44	280
	11/25/97	42.70	16.80	25.90	0.00	2,400	23	5.4	<	54	120
	6/1/98	42.70	10.31	32.39	0.00	14,000	190	50	680	400	160
	6/14/01	42.70	15.46	27.24	0.00	6,400	29	6	200	55	<20
	11/7/01 ²	42.70	--	--	--	--	--	--	--	--	--
1/30/02	42.70	14.97	27.73	0.00	6,200	1.5	<0.5	96	4.6	<0.5	
5/29/02	42.70	15.49	27.21	0.00	1,600	1.0	<0.5	3.4	1.9	<0.5	
8/14/02	42.70	16.44	26.26	0.00	4,100	1.3	<0.5	74	1.3	<0.5	
11/15/02	42.70	16.91	25.79	0.00	1,000	0.6	<0.5	<0.5	0.6	<0.5	
MW-8* (10'-29')	6/23/93	97.61	17.64	79.97	0.00	350	43	9	35	67	--
	9/30/93	97.61	18.85	78.76	0.00	2,700	190	340	170	720	--
	2/6/94	97.61	18.91	78.70	0.00	<100	<1	1	1	2	--
	5/2/94	97.61	18.11	79.50	0.00	<100	<1	3	<1	7	--
	7/1/94	97.61	18.43	79.18	0.00	300	18	48	19	37	--
	9/20/94	97.61	21.43	76.18	0.00	<100	<1	<1	<1	<1	--
	12/5/94	97.61	18.72	78.89	0.00	<50	<0.5	<0.5	<0.5	<0.5	--
	3/10/95	97.61	18.69	78.92	0.00	--	--	--	--	--	--
	3/14/95	97.61	14.83	82.78	0.00	<50	<0.5	<0.5	<0.5	1	--
9/23/96	97.61	15.83	81.78	0.00	<	<	<	<	<	<	
Not Sampled, well inaccessible since 4th Quarter, 1996.											
MW-9* (10'-29')	6/23/93	95.41	15.94	79.47	0.00	45,000	14,000	1,200	2,800	12,000	--
	9/30/93	95.41	17.05	78.36	0.00	86,000	22,000	1,100	3,300	15,000	--
	2/6/94	95.41	17.07	78.34	0.00	43,000	10,000	460	2,100	7,500	--
	5/2/94	95.41	16.24	79.17	0.00	17,000	5,400	270	1,300	4,700	--
	7/1/94	95.41	16.59	78.82	0.00	10,000	2,100	120	450	1,300	--
	9/20/94	95.41	19.61	75.80	0.00	7,500	2,200	97	400	1,200	--
	12/5/94	95.41	16.85	78.56	0.00	10,000	2,700	130	530	1,600	--
	3/10/95	95.41	--	--	--	--	--	--	--	--	--
3/14/95	95.41	14.18	81.23	0.00	18,000	5,900	270	1,200	3,680	--	
Not Sampled, well inaccessible since 1st Quarter, 1995.											

Table 1
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-10* (10'-29')	6/23/93	97.11	17.39	79.72	0.00	35,000	980	640	3,500	12,000	--
	9/30/93	97.11	18.58	78.53	0.00	4,000	230	12	100	680	--
	2/6/94	97.11	18.61	78.50	0.00	2,000	69	12	220	120	--
	5/2/94	97.11	17.83	79.28	0.00	710	16	6	85	62	--
	7/1/94	97.11	18.17	78.94	0.00	2,000	52	43	120	210	--
	9/20/94	97.11	21.15	75.96	0.00	2,800	34	16	270	560	--
	12/5/94	97.11	18.43	78.68	0.00	2,700	30	13	260	430	--
	3/10/95	97.11	15.37	81.74	0.00	--	--	--	--	--	--
	3/14/95	97.11	15.93	81.18	0.00	1,400	18	6	200	239	--
	9/23/96	97.11	15.59	81.52	0.00	3,800	4	2.9	220	170	397
	12/4/96	97.11	16.15	80.96	0.00	4,600	1.6	7.7	260	150	20
Not Sampled, well inaccessible since 4th Quarter, 1996.											
MW-11* (5'-25')	2/10/95	92.68	11.80	80.88	0.00	7,000	140	22	600	1,000	--
	3/10/95	92.68	11.58	81.10	0.00	--	--	--	--	--	--
	3/14/95	92.68	13.96	78.72	0.00	6,000	200	17	750	1,276	--
	9/23/96	92.68	12.29	80.39	0.00	27,000	55	81	300	3,500	40
	12/4/96	92.68	--	--	--	--	--	--	--	--	--
	4/8/97	92.68	10.51	82.17	0.00	24,000	280	130	3,000	3,700	<
Not Sampled, well inaccessible since 2nd Quarter, 1997.											
MW-12 (10'-30')	2/10/95	43.25	16.30	26.95	0.00	<50	<0.5	<0.5	<0.5	<0.5	--
	3/10/95	43.25	16.37	26.88	0.00	--	--	--	--	--	--
	3/14/95	43.25	15.69	27.56	0.00	<50	<0.5	<0.5	<0.5	0.9	--
	9/23/96	43.25	16.67	26.58	0.00	<	<	1.6	<	<	<
	12/4/96	43.25	17.16	26.09	0.00	<	3.2	<	1.9	3.4	<
	4/8/97 ^{NP}	43.25	14.88	28.37	0.00	<	<	<	<	<	<
	6/30/97	43.25	16.33	26.92	0.00	--	--	--	--	--	--
	11/25/97	43.25	17.61	25.64	0.00	--	--	--	--	--	--
	6/1/98	43.25	11.58	31.67	0.00	--	--	--	--	--	--
	6/14/01	43.25	16.62	26.63	0.00	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/7/01 ²	43.25	17.91	25.34	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/30/02	43.25	15.60	27.65	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/29/02	43.25	16.24	27.01	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/14/02	43.25	17.20	26.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/15/02	43.25	17.62	25.63	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
MW-13 (10'-30')	2/10/95	40.97	14.45	26.52	0.00	<50	<0.5	<0.5	<0.5	<0.5	--
	3/10/95	40.97	14.30	26.67	0.00	--	--	--	--	--	--
	3/14/95	40.97	15.81	25.16	0.00	<50	<0.5	<0.5	<0.5	1	--
	9/23/96	40.97	14.60	26.37	0.00	<	<	0.80	1	<	<
	12/4/96	40.97	--	--	--	--	--	--	--	--	--
	4/8/97 ^{NP}	40.97	12.75	28.22	0.00	<	<	<	<	<	<
	6/30/97	40.97	14.13	26.84	0.00	--	--	--	--	--	--
	11/25/97	40.97	15.48	25.49	0.00	--	--	--	--	--	--
	6/1/98	40.97	9.58	31.39	0.00	--	--	--	--	--	--
	6/14/01	40.97	14.51	26.46	0.00	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	11/7/01 ²	40.97	15.85	25.12	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/30/02	40.97	13.65	27.32	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/29/02	40.97	14.10	26.87	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/14/02	40.97	15.13	25.84	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/15/02	40.97	--	--	--	--	--	--	--	--	--	
MW-14 (10'-30')	2/10/95	43.19	16.28	26.91	0.00	12,000	42	8	740	2,100	--
	3/10/95	43.19	16.33	26.86	0.00	--	--	--	--	--	--
	3/14/95	43.19	14.87	28.32	0.00	1,400	6	2	36	298	--

Table 1
Groundwater Elevations and Sample Analytical Results
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE ¹ (feet)	PSH (feet)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-14	9/23/96	43.19	16.67	26.52	0.00	6,400	2.8	<	690	96	9.6
(10'-30')	12/4/96	43.19	17.06	26.13	0.00	9,500	6.3	<	1,100	400	30
(Cont.)	4/8/97 ^{NP}	43.19	14.77	28.42	0.00	2,900	<	2.7	220	21	<
	6/30/97	43.19	16.22	26.97	0.00	74	1.3	<	0.51	0.68	<
	11/25/97	43.19	17.52	25.67	0.00	<	<	<	<	<	<
	6/1/98	43.19	11.46	31.73	0.00	<50	<0.5	<0.5	<0.5	<0.5	<5
	6/14/01	43.19	16.53	26.66	0.00	470	<0.5	<0.5	2.8	1	<5
	11/7/01 ²	43.19	17.84	25.35	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/30/02	43.19	15.55	27.64	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/29/02	43.19	16.14	27.05	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/14/02	43.19	17.12	26.07	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	11/15/02	43.19	17.56	25.63	0.00	<50	<0.5	<0.5	<0.5	<0.5	<0.5
EX-1	8/14/02	--	16.58	--	0.00	250	31	<0.5	<0.5	4.2	1.4
(10'-35')	11/15/02	--	17.02	--	0.00	67	4.1	<0.5	<0.5	<0.5	0.7

Notes: No known groundwater monitoring or sampling was conducted between June 1, 1998 and June 14, 2001 and June 14, 2001 and November 7, 2001. Wellhead elevations resurveyed on January 30, 2002.

TOC = Top of casing referenced to USGS benchmark [elevation = 48.50 feet above mean sea level].

DTW = Depth to water measured from top of casing.

GWE = Groundwater elevation as referenced to benchmark in feet above mean sea level.

TPHg = Total Petroleum Hydrocarbons as gasoline (EPA Method 8015).

B = Benzene (EPA Method 602 or 8020/1).

T = Toluene (EPA Method 602 or 8020/1).

E = Ethylbenzene (EPA Method 602 or 8020/1).

X = Total Xylenes (EPA Method 602 or 8020/1).

MTBE = Methyl t-Butyl Ether (EPA Method 8020 or 8021).

SHEEN = Discontinuous, non-measurable thickness of PSH.

PSH = Phase Separate Hydrocarbon thickness in feet.

µg/L = Micrograms per liter (~parts per billion).

(15'-29') = Well screen interval (in feet)

< = Sample reported as "not detected," in previous tables, reporting limit not known.

^{NP} = No-purge sample collection method implemented and continued, beginning April 8, 1997..

¹ = If PSH present, corrected GWE = TOC - Measured DTW + Corrected PSH Thickness (PSH Thickness x gas density [0.75 g/cc]).

² = All analysis performed by EPA Method 8260 beginning on November 7, 2001.

* = Wellhead elevation not re-surveyed on January 30, 2002. Previous arbitrary benchmark used as elevation reference.

-- = Not measured, surveyed, sampled, or analyzed.

Table 2
Groundwater Sample Analytical Results for Fuel Oxygenates
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

Well No.	Sampling Date	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	MTBE (µg/L)
MW-1 (15'-29')	11/7/01	<5.0	<50	<5.0	<5.0	11
	1/30/02	<5.0	<50	<5.0	<5.0	14
	5/29/02	<2.0	<20	2.5	<2.0	12
	8/14/02	<10	<100	<10	<10	10
	11/15/02	<10	<100	<10	<10	15
MW-1A (unknown)	11/7/01	<5.0	<50	<5.0	<5.0	<5.0
	1/30/02	<5.0	<50	<5.0	<5.0	<5.0
	5/29/02	<5.0	<50	<5.0	<5.0	<5.0
	8/14/02	<2.0	<20	<2.0	<2.0	<2.0
	11/15/02	<2.0	<20	<2.0	<2.0	<2.0
MW-2 (15'-29')	11/7/01	<5.0	<50	<5.0	<5.0	21
	1/30/02	<5.0	<50	<5.0	<5.0	56
	5/29/02	<5.0	<50	<5.0	<5.0	32
	8/14/02	<20	<200	<20	<20	29
	11/15/02	<20	<200	<20	<20	39
MW-3 (15'-29')	11/7/01	<5.0	<50	<5.0	<5.0	<5.0
	1/30/02	<5.0	<50	<5.0	<5.0	<5.0
	5/29/02	<5.0	<50	<5.0	<5.0	<5.0
	8/14/02	<0.5	<5.0	<0.5	<0.5	<0.5
	11/15/02	<0.5	<5.0	<0.5	<0.5	0.5
MW-4 (15'-29')	11/7/01	<5.0	<50	<5.0	<5.0	27
	1/30/02	<5.0	<50	<5.0	<5.0	42
	5/29/02	<20	<200	<20	<20	35
	8/14/02	<2.0	<20	<2.0	<2.0	28
	11/15/02	<2.0	<20	<2.0	<2.0	20
MW-5 (15'-29')	11/7/01	<5.0	<50	<5.0	<5.0	<5.0
	1/30/02	<20	<200	<20	<20	<20
	5/29/02	<0.5	<5.0	2.0	<0.5	0.9
	8/14/02	<0.5	<5.0	<0.5	<0.5	1.1
	11/15/02	<5.0	<50	<5.0	<5.0	<5.0
MW-6 (15'-29')	11/7/01	<5.0	<50	<5.0	<5.0	<5.0
	1/30/02	<5.0	<50	<5.0	<5.0	<5.0
	5/29/02	<5.0	<50	<5.0	<5.0	<5.0
	8/14/02	<2.0	<20	<2.0	<2.0	<2.0
	11/15/02	<0.5	<5.0	<0.5	<0.5	<0.5
MW-7 (10'-29')	11/7/01	--	--	--	--	--
	1/30/02	<5.0	<50	<5.0	<5.0	<5.0
	5/29/02	<0.5	<5.0	<0.5	<0.5	<0.5
	8/14/02	<0.5	<5.0	<0.5	<0.5	<0.5
	11/15/02	<0.5	<5.0	<0.5	<0.5	<0.5
MW-12 (10'-30')	11/7/01	<0.5	<5.0	<0.5	<0.5	<0.5
	1/30/02	<0.5	<5.0	<0.5	<0.5	<0.5
	5/29/02	<0.5	<5.0	<0.5	<0.5	<0.5
	8/14/02	<0.5	<5.0	<0.5	<0.5	<0.5
	11/15/02	<0.5	<5.0	<0.5	<0.5	<0.5
MW-13 (10'-30')	11/7/01	<0.5	<5.0	<0.5	<0.5	<0.5
	1/30/02	<0.5	<5.0	<0.5	<0.5	<0.5

Table 2
Groundwater Sample Analytical Results for Fuel Oxygenates
Former E-Z Serve Location No. 100877
525 West 'A' Street, Hayward, California

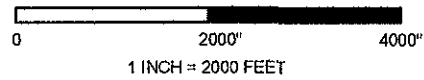
Well No.	Sampling Date	TAME (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	MTBE (µg/L)
MW-13 (10'-30') (Cont.)	5/29/02	<0.5	<5.0	<0.5	<0.5	<0.5
	8/14/02	<0.5	<5.0	<0.5	<0.5	<0.5
	11/15/02	--	--	--	--	--
MW-14 (10'-30')	11/7/01	<0.5	<5.0	<0.5	<0.5	<0.5
	1/30/02	<0.5	<5.0	<0.5	<0.5	<0.5
	5/29/02	<0.5	<5.0	<0.5	<0.5	<0.5
	8/14/02	<0.5	<5.0	<0.5	<0.5	<0.5
	11/15/02	<0.5	<5.0	<0.5	<0.5	<0.5
EX-1 (10'-30')	8/14/02	<0.5	<5.0	<0.5	<0.5	1.4
	11/15/02	<0.5	<5.0	<0.5	<0.5	0.7

Notes: Analytical results performed by utilizing EPA Method 8260.
DIPE = Di-isopropyl Ether
ETBE = Ethyl tert-Butyl Ether
MTBE = Methyl-tert-Butyl Ether (See Table 1 for historic results)
TAME = tert-Amyl Methyl Ether
TBA = tert-Butanol
µg/L = micrograms per liter (~parts per billion)
(15'-29') = Well screen interval (in feet)
< = Analytical results below the given PQL.
-- = Not sampled or analyzed.

FIGURES



REFERENCE: MAPTECH TERRAIN NAVIGATOR 2001, CALIFORNIA.



VICINITY MAP

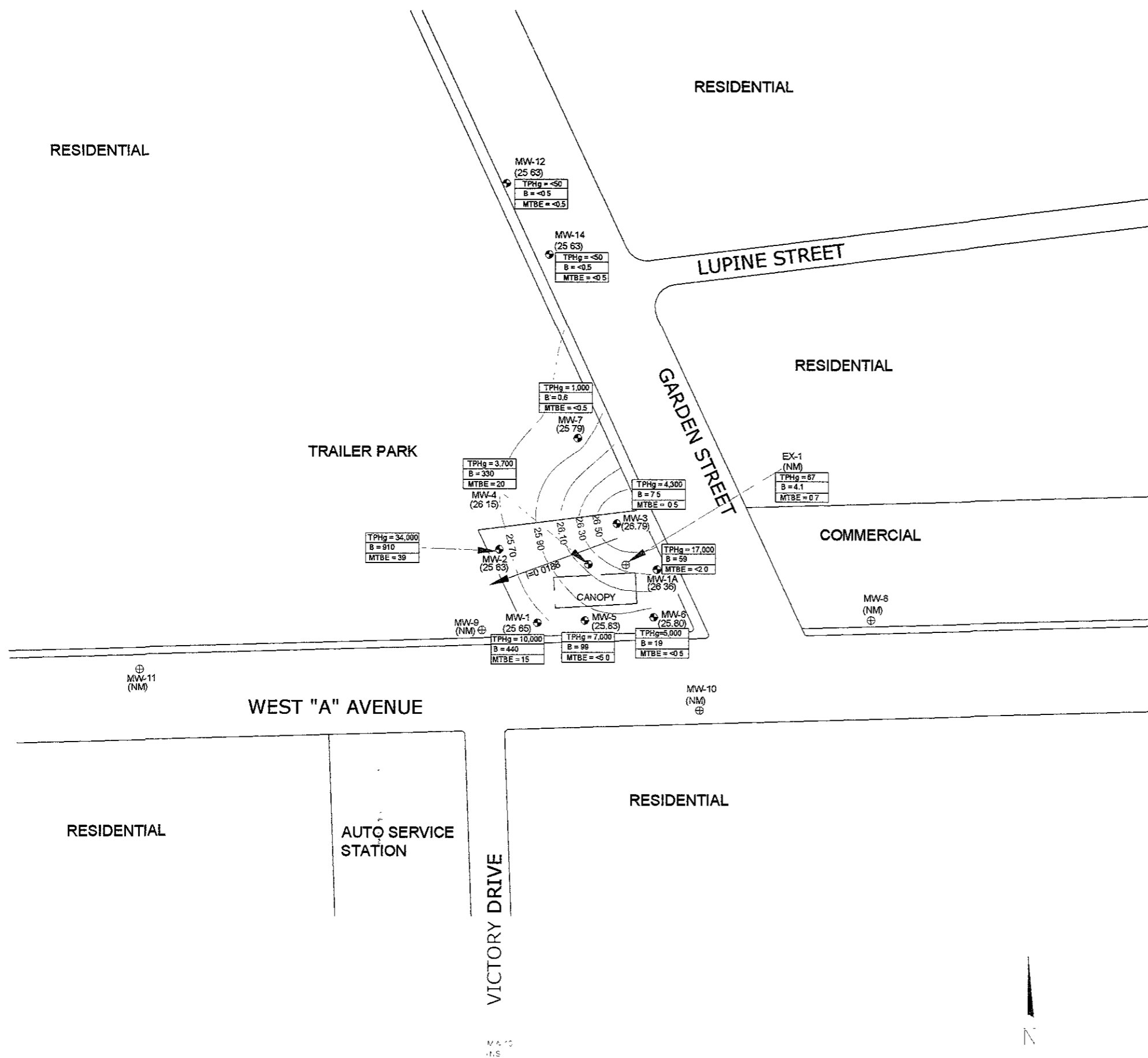
Former E-Z Serve Location No. 100877
 525 West A Street
 Hayward, California

PROJECT NO. 43.25827.0024 FIGURE 1

FILE NO. h:projects/ezserve/100877/BID/fig1



9620 Chesapeake Drive, Suite 203
 San Diego, California 92123



LEGEND

- MW-1 GROUNDWATER MONITOR WELL LOCATION
- (25 65) APPROXIMATE GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL)
- TPHg<50
B<0.5
MTBE<0.5 CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg), BENZENE (B), AND METHYL TERT-BUTYL ETHER (MTBE) IN MICROGRAMS PER LITER (ug/L).
- $i=0.0186$ APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT (i) IN LINEAR FEET/VERTICAL FEET
- 25.70 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
- ⊕ NM NOT MEASURED, WELLHEAD NOT LOCATED TO RESURVEY, LOCATION PLOTS ARE APPROXIMATE
- ⊕ NS NOT SAMPLED, WELL INACCESSIBLE

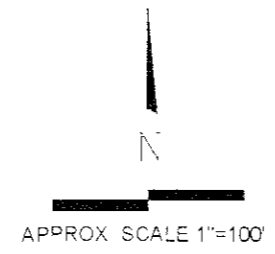
NOTE: CONTOUR LINES GENERATED BY SURFER 7, GOLDEN SOFTWARE INC., AUGUST 1999.

GROUNDWATER SUMMARY MAP (NOVEMBER 15, 2002)

Former E-Z Serve Location No. 100877
525 West A Street
Hayward, California

PROJECT NO. 43.25827.0024 FIGURE 2

FILE NO. h:projects/ezserve/100877/GW/fig2



APPENDICES

APPENDIX A
GROUNDWATER MONITORING AND SAMPLING PROCEDURES,
AND FIELD LOGS



GROUNDWATER MONITORING AND SAMPLING PROCEDURES

(Includes No-Purge Sampling)

Groundwater Monitoring and Decontamination Method

Prior to beginning, a decontamination area is established. Decontamination procedures consist of scrubbing down-well equipment in a Liquidnox[®] solution wash (or equivalent degreasing compound), and rinsing in potable water and a final rinse of de-ionized (or distilled) water before and after each well. Any non-dedicated down-well equipment is decontaminated prior to use on site.

Prior to purging and sampling a well, the static water level is measured to the nearest 0.01 feet with an electronic interface probe and/or water level meter. Depth to bottom is typically measured every quarterly event. The water level meter and tape will be decontaminated between each well. If floating phase-separated hydrocarbons (PSH) are suspected or previously confirmed, an electronic interface probe is used to measure the well fluids to the nearest 0.01 feet. PSH may alternatively be measured using a clear, open-ended product bailer, and the thickness is measured to the nearest 0.01 feet in the bailer. Any monitoring well containing a measurable thickness of PSH before or during purging is not additionally purged and no sample is collected from that well. Wells containing hydrocarbon sheen are sampled unless otherwise specified by the project manager. Field observations such as well integrity as well as water level measurements and PSH thickness are recorded in the field.

Well Purging

When well purging is required, each monitoring well to be sampled is purged using, a truck-mounted vacuum pump, a polyvinyl chloride (PVC) bailer or a submersible pump. Physical parameters (pH, temperature, and conductivity) of the purge groundwater are monitored during purging activities to assess if the water sample collected is representative of the aquifer. If required, parameters such as dissolved oxygen, turbidity, salinity etc. are also measured. Samples are considered representative if parameter stability is achieved. Stability is defined as a change of less than 0.25 pH units, less than 10% change in conductivity in micro mhos, and less than 1.0 degree centigrade (1.8 degrees Fahrenheit) change in temperature. Parameters are measured in a discreet sample decanted from the bailer separately from the rest of the purge groundwater. Parameters are measured during purging; initially, and at volume intervals of one well or borehole volume (dependent on local regulations). Purging continues until the required well or borehole volumes have been removed, until the well completely dewater, or until measured parameters stabilize as indicated above. When wells dewater or demonstrate a slow recharge, wells may be sampled although fewer than required volumes have been removed. Well purging information is recorded on the Purge Data sheet. All meters used to measure parameters are calibrated daily. Purge water is sealed, labeled, and stored on site in D.O.T.-approved 55-gallon drums. After being chemically profiled, the water is transported to an appropriate disposal facility by a licensed waste hauler.

Groundwater Sample Collection

After purging, groundwater samples are collected after at least 80% of its static water level is recovered in the well. If recharge is extremely slow, the well is allowed to recharge until sufficient volume has accumulated for sample collection. No-purge groundwater samples are collected when prior approval by the lead regulatory agency has been permitted. When no-purge samples are collected the same procedures are followed excluding well purging. All groundwater samples are collected using polyethylene disposable bailers attached with new, clean string or rope. Groundwater samples being analyzed for compounds most sensitive to volatilization are collected first. Groundwater samples are placed in appropriate laboratory-supplied containers, labeled, documented on a chain of custody form and preserved on ice in a cooler for transport to a state-certified analytical laboratory. After collection, all samples are stored in a chilled cooler and refrigerated to approximately four (4) degrees Celsius while a laboratory representative transports the samples to their facility. Analytical detection limits match or surpass standards required by relevant local or regional guidelines.



QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) PROCEDURES

Field Procedures

To prevent contamination of the samples and/or cross-contamination of monitoring wells ATC personnel adhere to the following procedures in the field:

- New, clean pair of appropriate disposable gloves is donned prior to sampling each well.
- Wells are gauged and purged in the expected order of increasing degree of contamination based on historical analytical results.
- All purging equipment will be thoroughly decontaminated between each well using the procedures previously described at the beginning of this section.
- During sample collection for volatile organic analysis, the amount of air passing through the sample is minimized. This helps prevent the air from stripping the volatiles from the groundwater. Sample bottles are filled by slowly running the sample down the side of the bottle until there is a convex meniscus over the mouth of the bottle. The lid is carefully screwed onto the bottle such that no air bubbles are present within the bottle. If a bubble is present, the cap is removed and additional water is added to the sample container. After resealing the sample container, if bubbles still are present inside, the sample container is discarded and the procedure is repeated with a new container.

Sample Control

Laboratory and field handling procedures may be monitored, if required by the client or local regulatory agency, by including quality control (QC) samples for analysis with the groundwater samples. Examples of different types of QC samples are as follows:

- Trip blanks are prepared at the analytical laboratory, by laboratory personnel to check handling procedures while in the field, as required by site conditions and local regulations. Trip blanks are transported to the project site in the same manner as the laboratory-supplied sample containers to be filled. They are not opened, and are returned to the laboratory with the samples collected. Trip blanks are analyzed for purgable organic compounds.
- Equipment blanks are prepared in the field to determine if decontamination of field sampling equipment has been effective, as required by site conditions and local regulations. The sampling equipment used to collect the groundwater samples is rinsed with distilled water that is then decanted into laboratory-supplied containers. The equipment blanks are transported to the laboratory, and are analyzed for the same chemical constituents as the samples collected at the site.
- Duplicates (split samples) are collected at the same time that the standard groundwater samples are being collected and are analyzed for the same compounds in order to check the reproducibility of laboratory data. They are typically only collected from one well per sampling event, as required by site conditions and local regulations. The duplicate is assigned an identification number that will not associate it with the source well.

Generally, trip blanks and field blanks check field handling and transportation procedures. Duplicates check laboratory procedures. The configuration of QC samples is determined by ATC depending on site conditions and regulatory requirements.



NO-PURGE SAMPLING LOG

Date: 11.15.02

Project Name: Former E-2 SERVE

Project No. 43.25827.0024

Project Address / City / County: 525 WEST A Street HAYWARD, CA Alameda Co.

Water Level Meter Type/ID:

Interface Probe Type/ID:

Collection Data						
Well No.	Depth To Water (feet)	Time	Container Type & Volume	Filtered (yes/no)	Sample Preservative	Requested Laboratory Analysis
MW-1	16.10	1113	3x40ml VOA	NO	HCL	TPH _g / BTEX / MTBE / DXY'S ↓ VEHICLE ON WELL ↓
MW-1A	17.04	1122				
MW-2	17.63	1120				
MW-3	17.10	1110				
MW-4	16.61	1115				
MW-5	16.27	1112				
MW-6	16.53	1117				
MW-7	16.91	1050				
MW-12	17.62	1028				
MW-13	N/A	—				
MW-14	17.56	1039				
EX-1	17.02	1240				

ATC Personnel On-Site: P. Arroyo

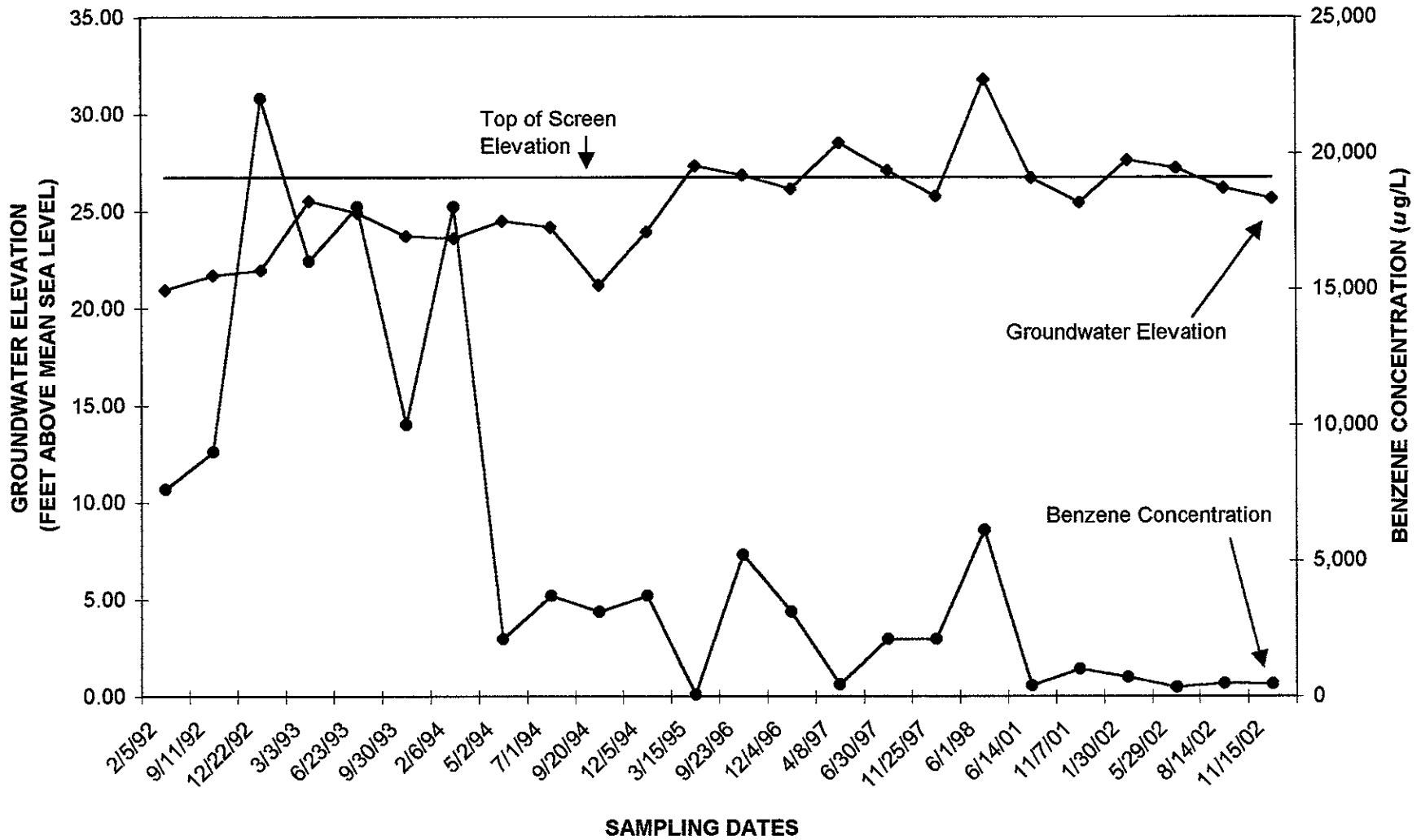
Subcontractor On Site:

Signature: Pete Arroyo

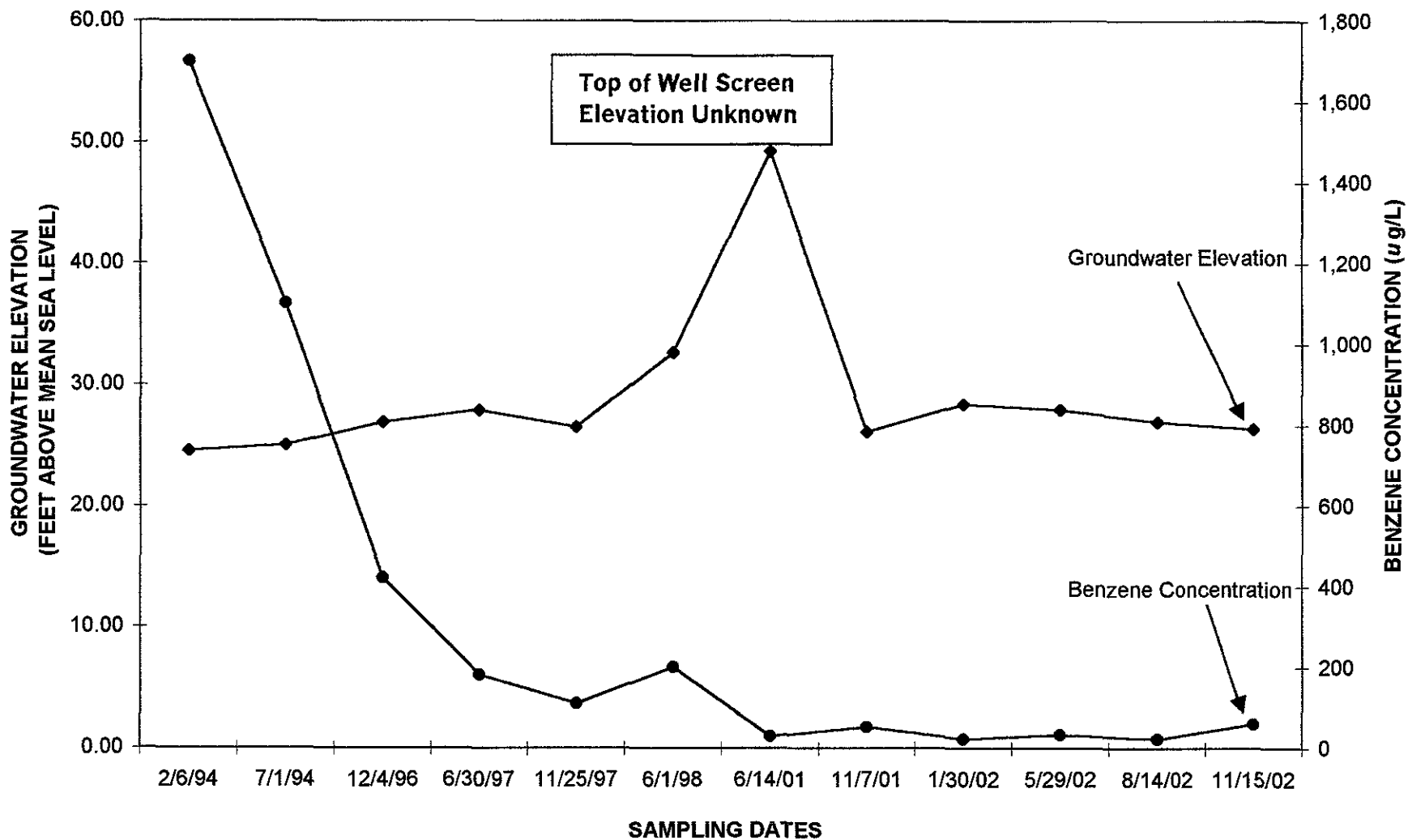
Date: 11.15.02

APPENDIX B
HYDROGRAPHS

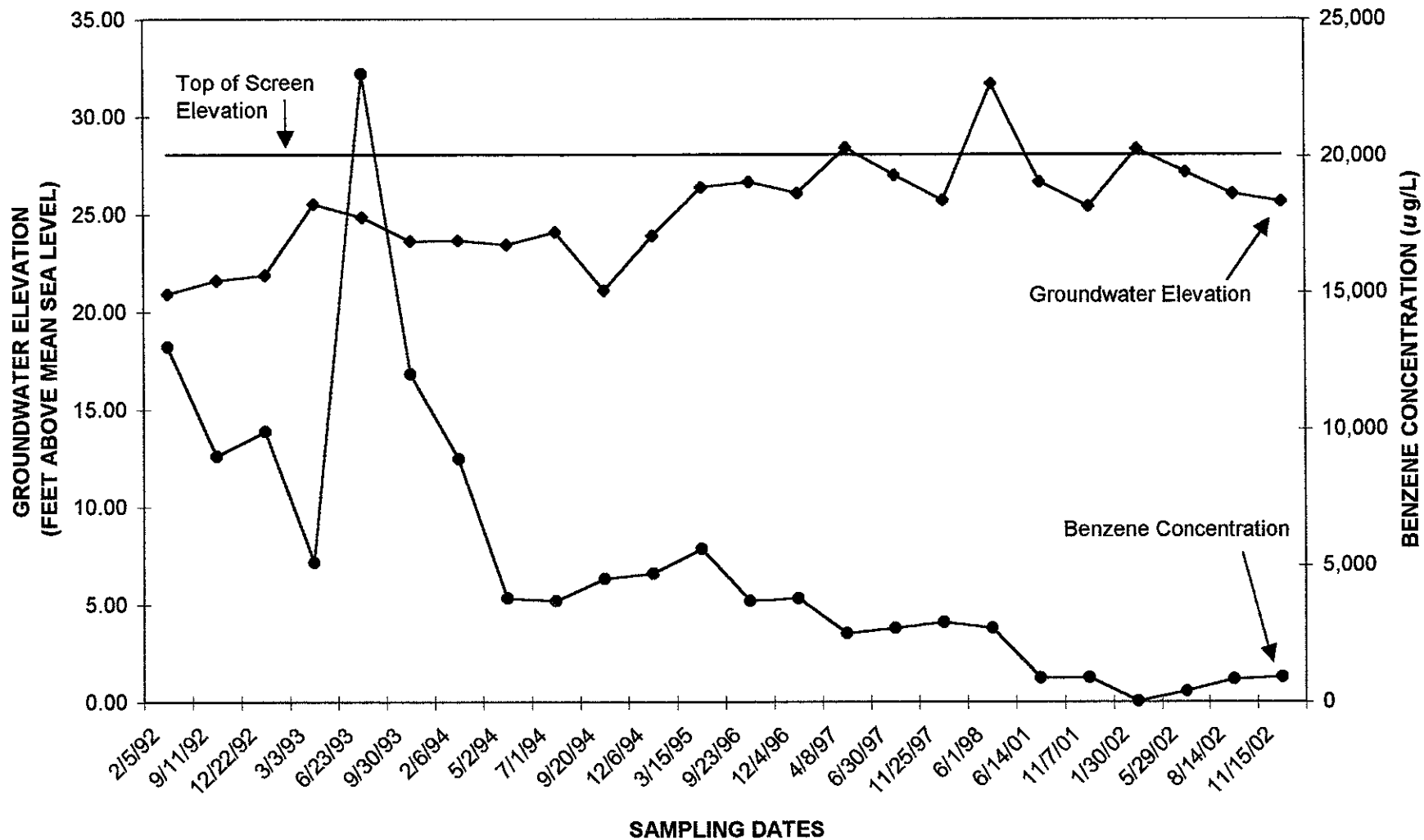
**GROUNDWATER HYDROGRAPH FOR MW-1
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



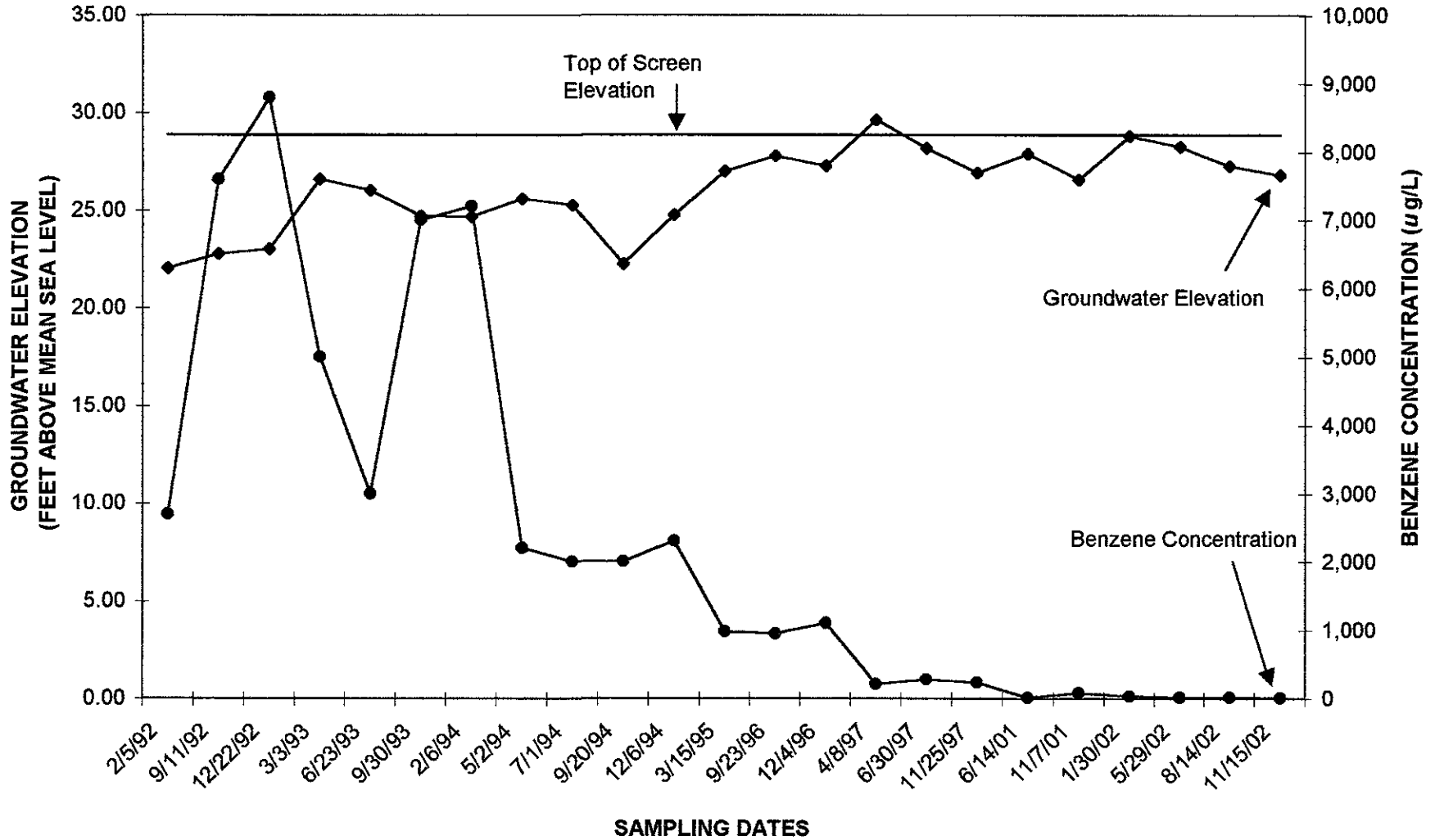
**GROUNDWATER HYDROGRAPH FOR MW-1A
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



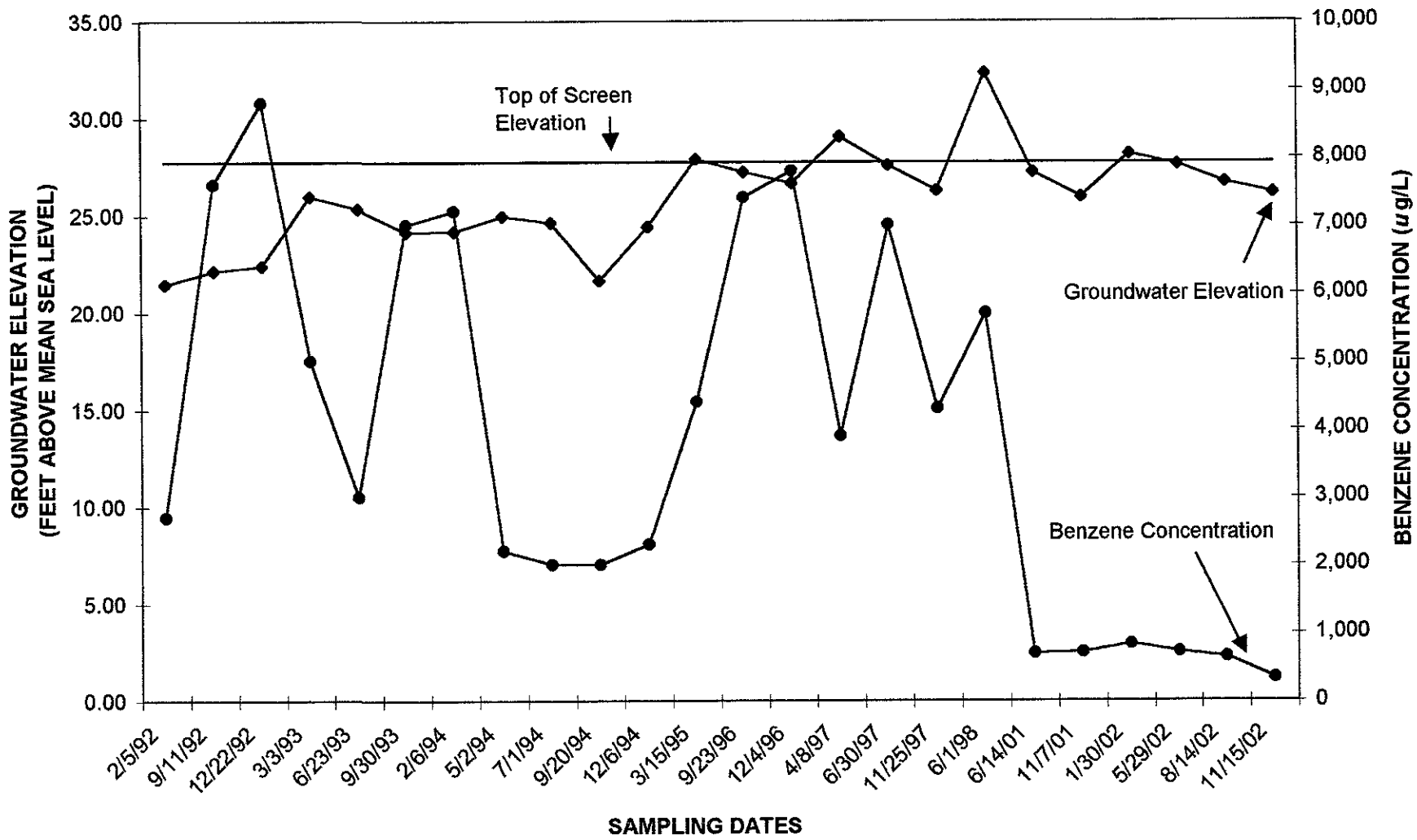
**GROUNDWATER HYDROGRAPH FOR MW-2
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



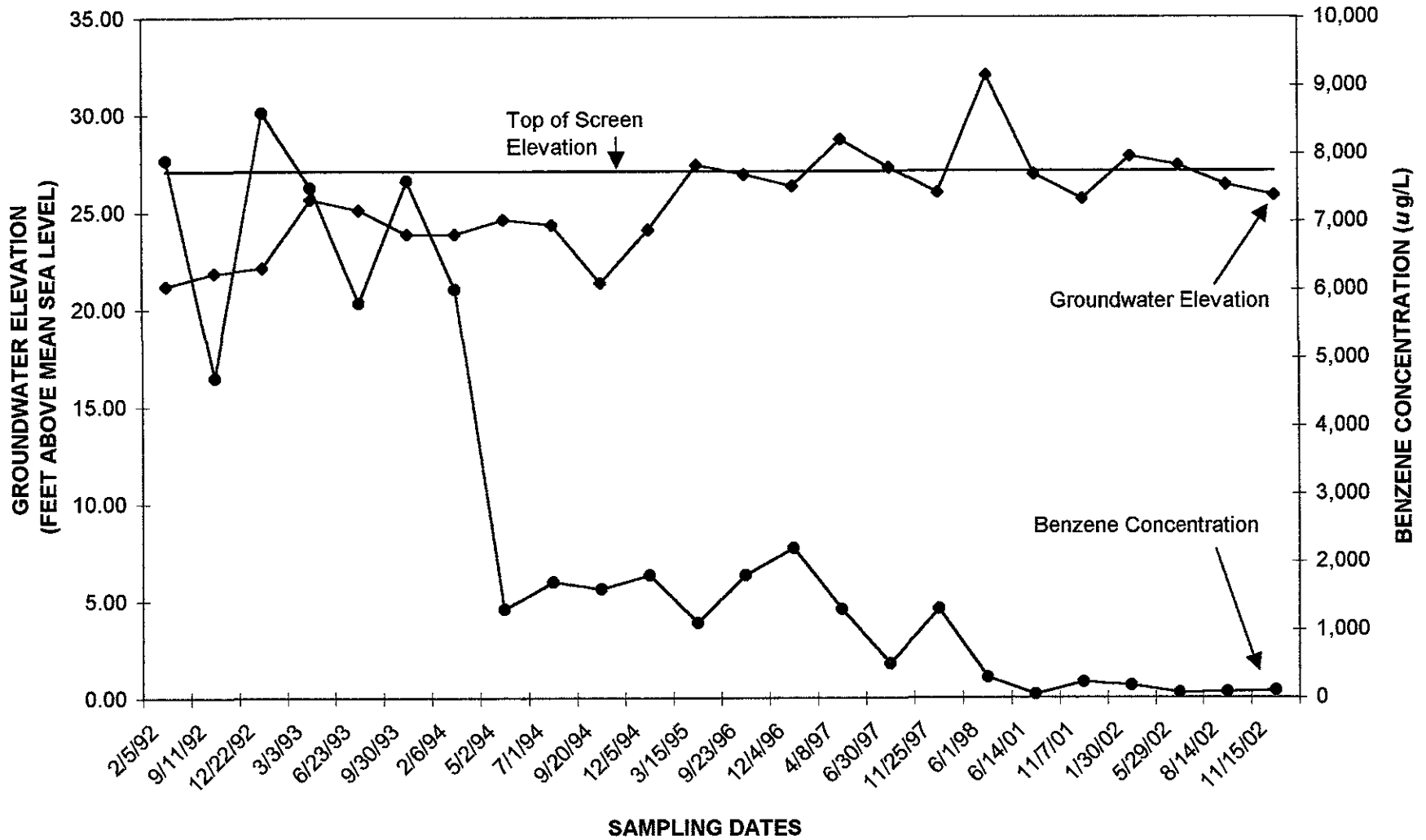
**GROUNDWATER HYDROGRAPH FOR MW-3
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



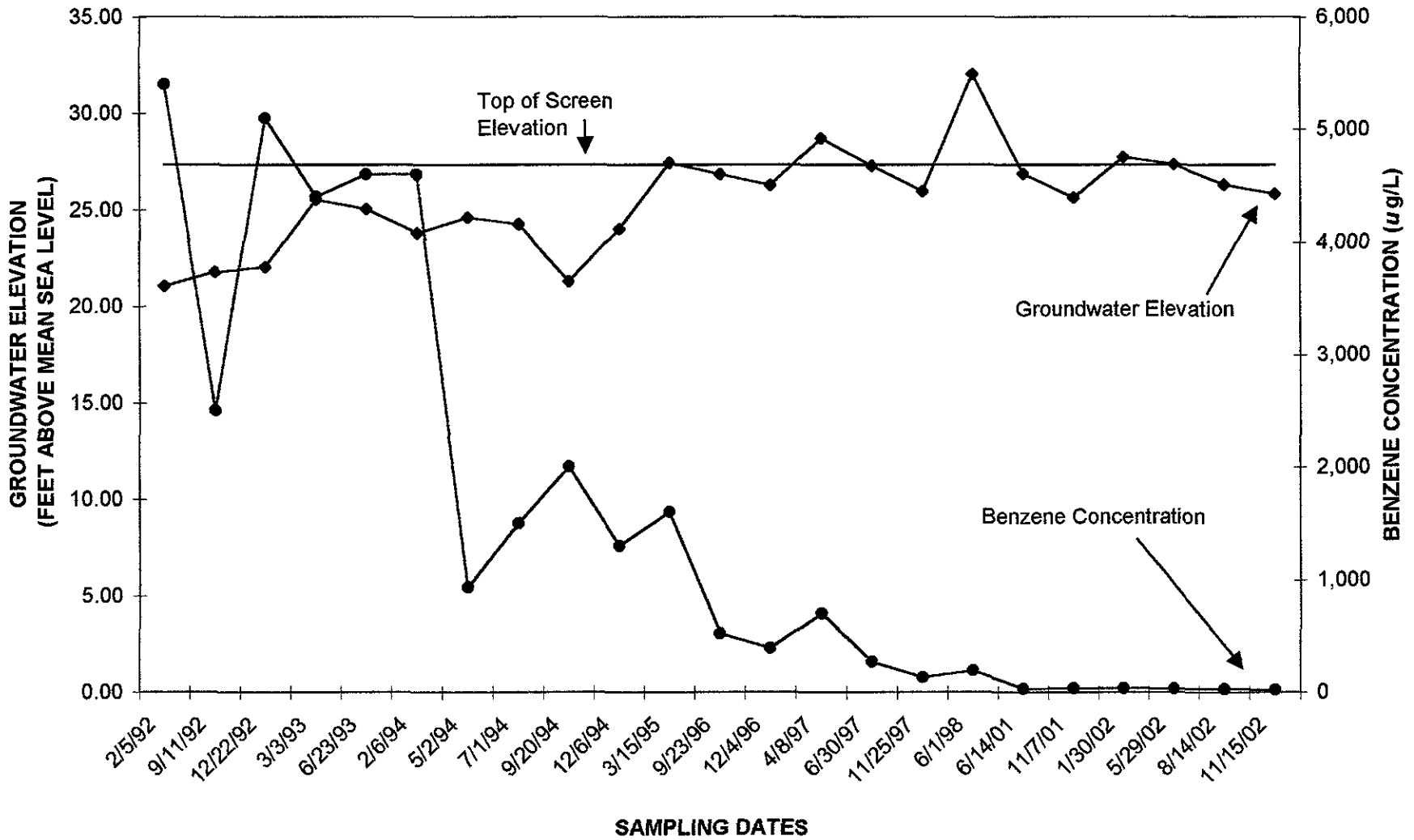
**GROUNDWATER HYDROGRAPH FOR MW-4
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



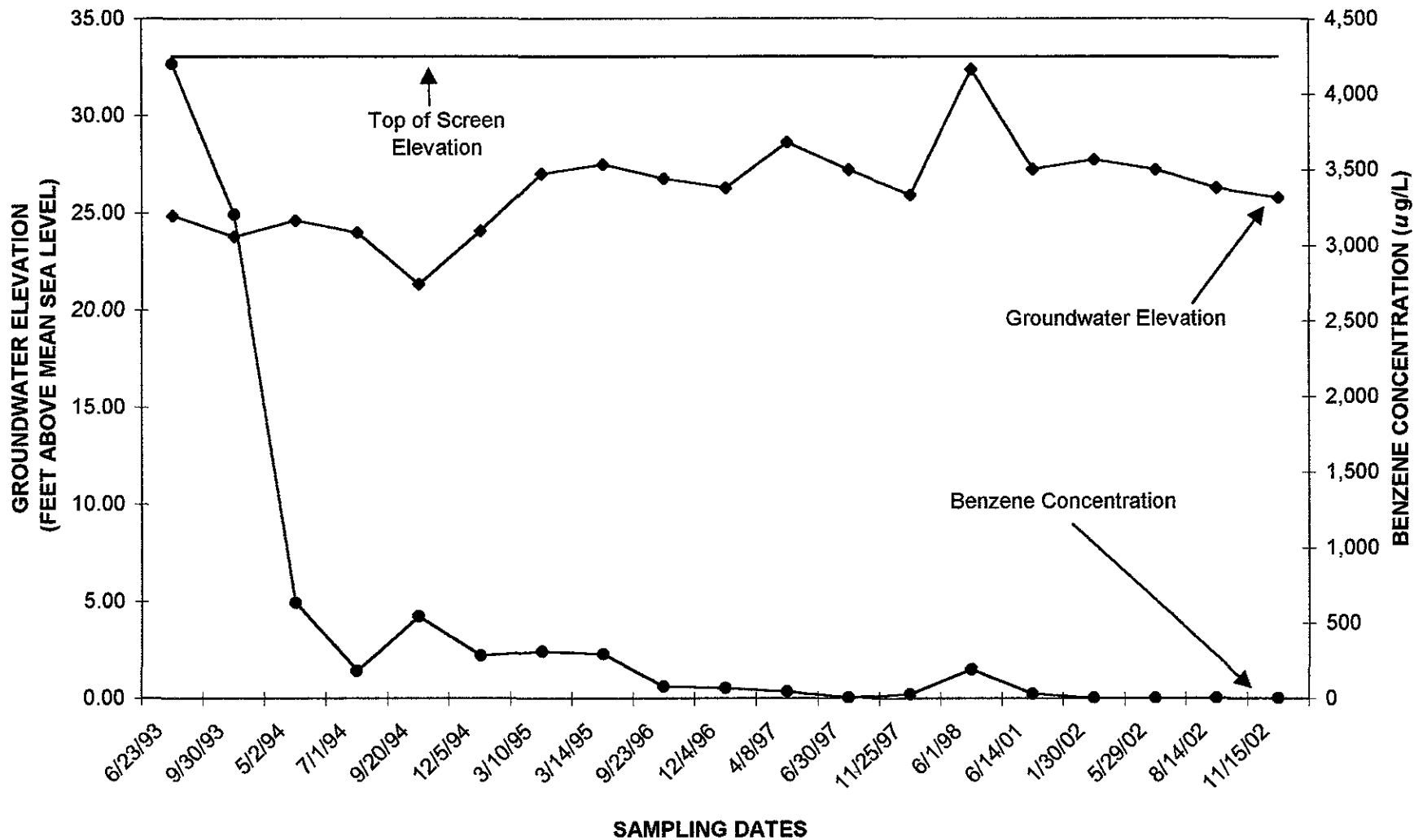
**GROUNDWATER HYDROGRAPH FOR MW-5
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



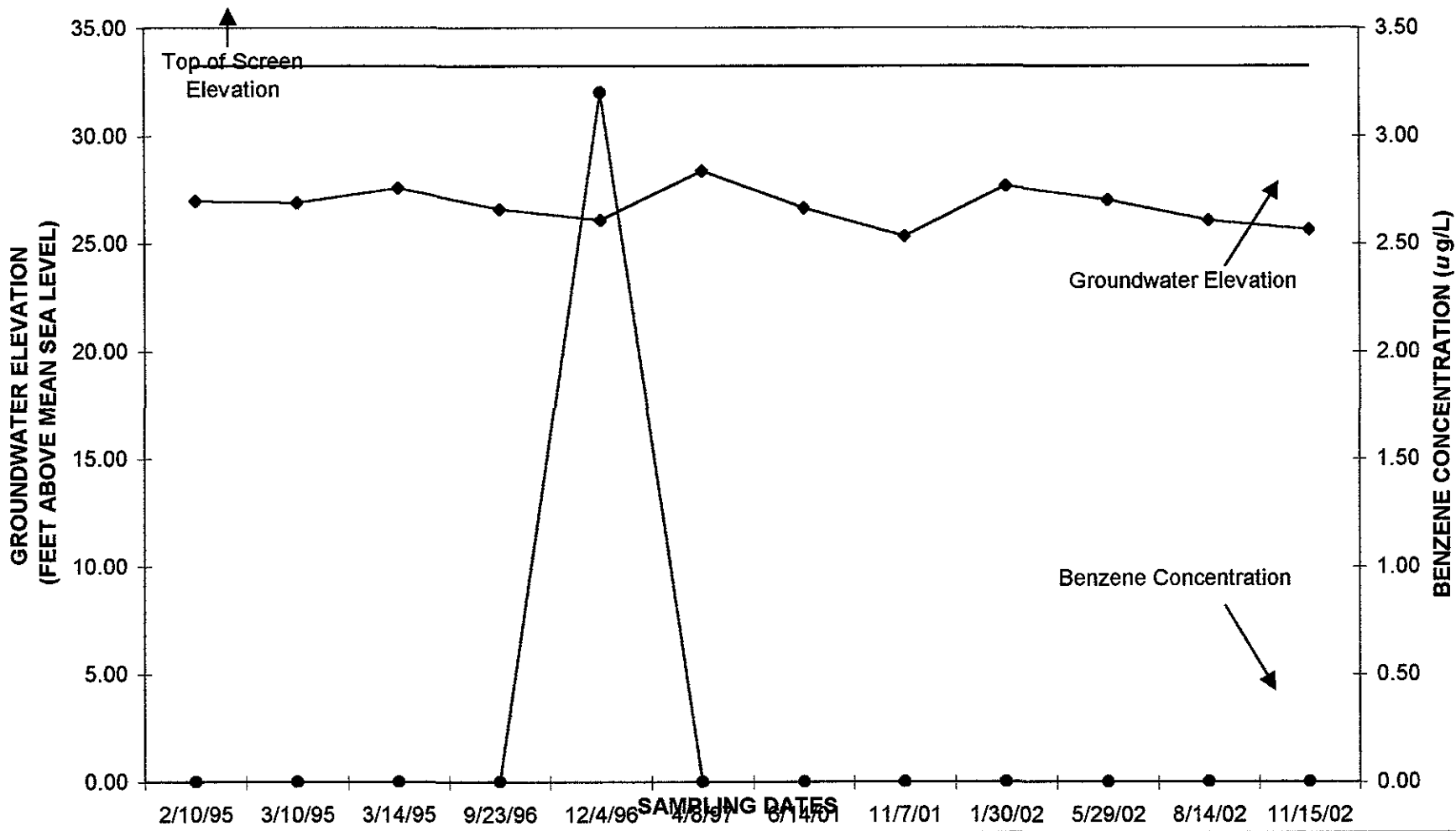
GROUNDWATER HYDROGRAPH FOR MW-6
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California



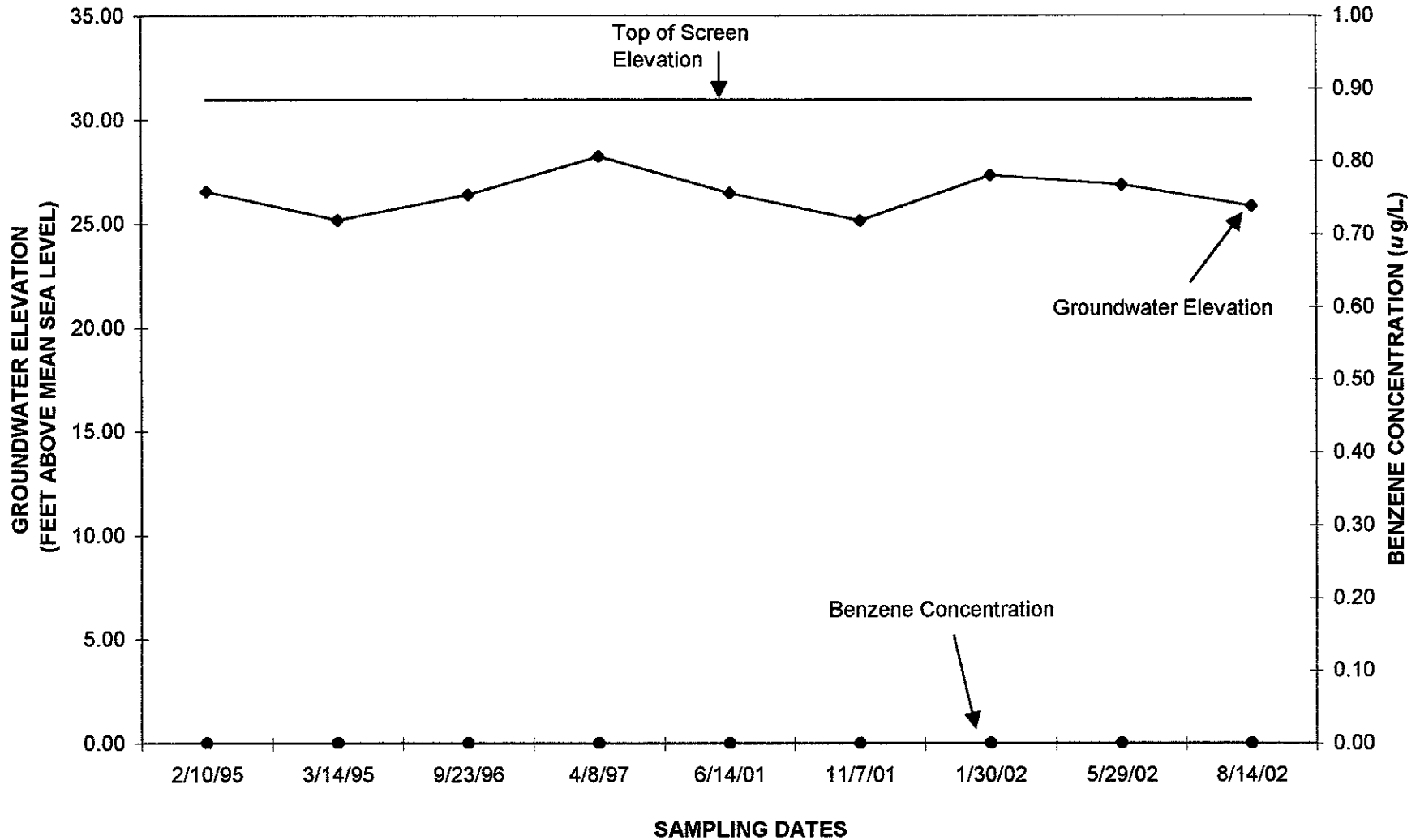
**GROUNDWATER HYDROGRAPH FOR MW-7
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



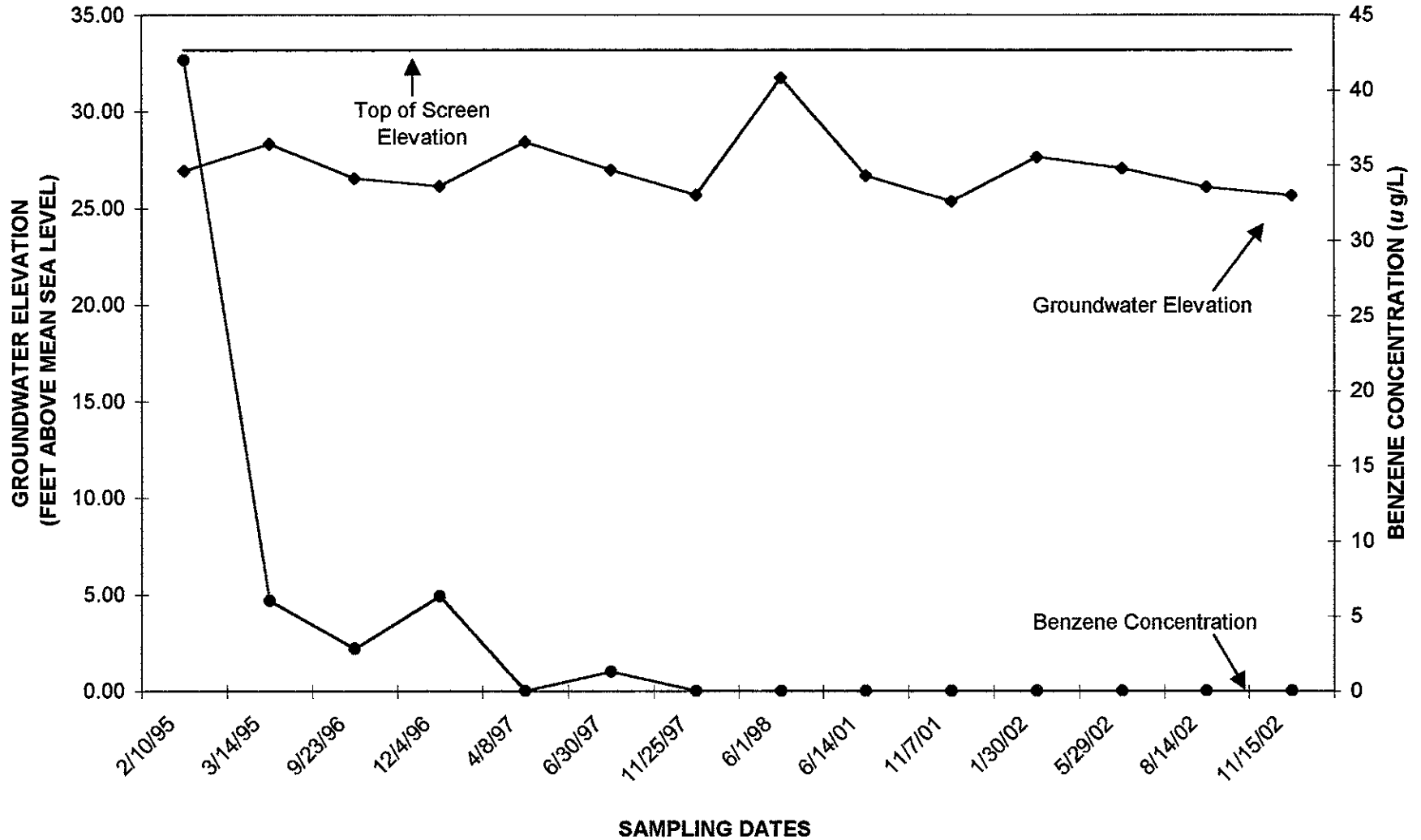
GROUNDWATER HYDROGRAPH FOR MW-12
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California



**GROUNDWATER HYDROGRAPH FOR MW-13
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



**GROUNDWATER HYDROGRAPH FOR MW-14
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California**



APPENDIX C

LABORATORY REPORT
AND
CHAIN-OF-CUSTODY RECORD

Client: **Scott Levin**
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: **29700-1**
 Collected: **11/15/02**
 Received: **11/15/02**
 Matrix: **Aqueous**

Project: **EZ Serve #100877**
 Project Number: **EZS0024**
 Collected by: **P. Arroyo**

Sample Description:
MW-1
 Analyzed: **11/18/02**
 Method: **See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	10.	440.
Toluene	10.	16.
Ethylbenzene	10.	310.
Xylenes	10.	150.
t-Amyl Methyl Ether (TAME)	10.	ND
t-Butyl Alcohol (TBA)	100.	ND
Diisopropyl Ether (DIPE)	10.	ND
Ethyl-t-Butyl Ether (ETBE)	10.	ND
Methyl-t-Butyl Ether (MTBE)	10.	15.
Percent Surrogate Recovery		102


TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	1000.	10000.
BTX as a Percent of Fuel		6

ZyMaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
 *PQL - Practical Quantitation Limit
 **Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
 Note: Analytical range is C4-C12.
 Note: TPH quantitated against gasoline.
 Note: Oxygenates not included in TPH result.

VA61118
 MSD #6
 29700-1.xls
 DZ/sks/pv/ccs/ses

Submitted by,
 ZyMaX envirotechnology, inc.

 Dwain Zsadanyi
 Project Manager

Client: Scott Levin
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 29700-2
 Collected: 11/15/02
 Received: 11/15/02
 Matrix: Aqueous

Project: EZ Serve #100877
 Project Number: EZS0024
 Collected by: P. Arroyo

Sample Description: MW-1A
 Analyzed: 11/18/02
 Method: See Below

CONSTITUENT	PQL * ug/L	RESULT** ug/L
Benzene	2.0	59.
Toluene	2.0	2.4
Ethylbenzene	2.0	630.
Xylenes	2.0	250.
t-Amyl Methyl Ether (TAME)	2.0	ND
t-Butyl Alcohol (TBA)	20.	ND
Diisopropyl Ether (DIPE)	2.0	ND
Ethyl-t-Butyl Ether (ETBE)	2.0	ND
Methyl-t-Butyl Ether (MTBE)	2.0	ND
Percent Surrogate Recovery		116

TOTAL PETROLEUM HYDROCARBONS


Total Petroleum Hydrocarbons	200.	17000.
BTX as a Percent of Fuel		2

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit
 **Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
 Note: Analytical range is C4-C12.
 Note: TPH quantitated against gasoline.
 Note: Oxygenates not included in TPH result.

VA61118
 MSD #6
 29700-2.xls
 DZ/sks/pv/ccc/ses

Submitted by,
 ZymaX envirotechnology, inc.

 Dwain Zsadanyi
 Project Manager

Client: **Scott Levin**
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: **29700-3**
 Collected: **11/15/02**
 Received: **11/15/02**
 Matrix: **Aqueous**

Project: **EZ Serve #100877**
 Project Number: **EZS0024**
 Collected by: **P. Arroyo**

Sample Description:
MW-2
 Analyzed: **11/19/02**
 Method: **See Below**

CONSTITUENT	PQL * ug/L	RESULT** ug/L
Benzene	20.	910.
Toluene	20.	31.
Ethylbenzene	20.	1000.
Xylenes	20.	1400.
t-Amyl Methyl Ether (TAME)	20.	ND
t-Butyl Alcohol (TBA)	200.	ND
Diisopropyl Ether (DIPE)	20.	ND
Ethyl-t-Butyl Ether (ETBE)	20.	ND
Methyl-t-Butyl Ether (MTBE)	20.	39.
Percent Surrogate Recovery		103

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	2000.	34000.
BTX as a Percent of Fuel		7

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA61118
 MSD #6
 29700-3.xls
 DZ/sks/pv/ccc/ses

Submitted by,
 ZymaX envirotechnology, inc.


 Dwain Zsadanyi
 Project Manager

Client: Scott Levin
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 29700-4
Collected: 11/15/02
Received: 11/15/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: P. Arroyo

Sample Description: MW-3
Analyzed: 11/19/02
Method: See Below

CONSTITUENT	PQL * ug/L	RESULT** ug/L
Benzene	0.5	7.5
Toluene	0.5	ND
Ethylbenzene	0.5	22.
Xylenes	0.5	1.1
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	0.5
Percent Surrogate Recovery		116

TOTAL PETROLEUM HYDROCARBONS

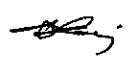
Total Petroleum Hydrocarbons	50.	4300.
BTX as a Percent of Fuel		<1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit
 **Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
 Note: Analytical range is C4-C12.
 Note: TPH quantitated against gasoline.
 Note: Oxygenates not included in TPH result.

VA61118
 MSD #6
 29700-4.xls
 DZ/sks/pv/ccc/ses

Submitted by,
 ZymaX envirotechnology, inc.

 Dwain Zsadanyi
 Project Manager

Client: **Scott Levin**
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: **29700-5**
 Collected: **11/15/02**
 Received: **11/15/02**
 Matrix: **Aqueous**

Project: **EZ Serve #100877**
 Project Number: **EZS0024**
 Collected by: **P. Arroyo**

Sample Description:
MW-4
 Analyzed: **11/19/02**
 Method: **See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	2.0	330.
Toluene	2.0	10.
Ethylbenzene	2.0	260.
Xylenes	2.0	200.
t-Amyl Methyl Ether (TAME)	2.0	ND
t-Butyl Alcohol (TBA)	20.	ND
Diisopropyl Ether (DIPE)	2.0	ND
Ethyl-t-Butyl Ether (ETBE)	2.0	ND
Methyl-t-Butyl Ether (MTBE)	2.0	20.
Percent Surrogate Recovery		107

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	200.	3700.
BTX as a Percent of Fuel		15

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA61118
 MSD #6
 29700-5.xls
 DZ/sks/pv/ccs/ses

Submitted by,
 ZymaX envirotechnology, inc.



Dwain Zsadanyi
 Project Manager

Client: Scott Levin
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 29700-6
Collected: 11/15/02
Received: 11/15/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: P. Arroyo

Sample Description:
 MW-5
Analyzed: 11/19/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	5.0	99.
Toluene	5.0	ND
Ethylbenzene	5.0	250.
Xylenes	5.0	500.
t-Amyl Methyl Ether (TAME)	5.0	ND
t-Butyl Alcohol (TBA)	50.	ND
Diisopropyl Ether (DIPE)	5.0	ND
Ethyl-t-Butyl Ether (ETBE)	5.0	ND
Methyl-t-Butyl Ether (MTBE)	5.0	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	500.	7000.
BTX as a Percent of Fuel		9

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA111119
 MSD #11
 29700-6.xls
 DZ/sks/pv/bm/ra

Submitted by,
 ZymaX envirotechnology, inc.



Dwain Zsadanyi
 Project Manager

Client: **Scott Levin**
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: **29700-7**
 Collected: **11/15/02**
 Received: **11/15/02**
 Matrix: **Aqueous**

Project: **EZ Serve #100877**
 Project Number: **EZS0024**
 Collected by: **P. Arroyo**

Sample Description:
MW-6
 Analyzed: **11/20/02**
 Method: **See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	19.
Toluene	0.5	4.7
Ethylbenzene	0.5	70.
Xylenes	0.5	38.
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		103

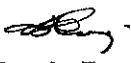
TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	5000.
BTX as a Percent of Fuel		1

ZyMaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
 *PQL - Practical Quantitation Limit
 **Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
 Note: Analytical range is C4-C12.
 Note: TPH quantitated against gasoline.
 Note: Oxygenates not included in TPH result.

VA111120
 MSD #11
 29700-7.xls
 DZ/sks/pv/mh

Submitted by,
 ZyMaX envirotechnology, inc.

 Dwain Zsadanyi
 Project Manager

Client: Scott Levin
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 29700-8
Collected: 11/15/02
Received: 11/15/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: P. Arroyo

Sample Description: MW-7
Analyzed: 11/20/02
Method: See Below

CONSTITUENT	PQL * ug/L	RESULT ** ug/L
Benzene	0.5	0.6
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	0.6
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	1000.
BTX as a Percent of Fuel		<1

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

- Note: Analyzed by EPA 8260 and GC/MS Combination.
- Note: Analytical range is C4-C12.
- Note: TPH quantitated against gasoline.
- Note: Oxygenates not included in TPH result.

VA111120
 MSD #11
 29700-8.xls
 DZ/sks/pv/mh

Submitted by,
 ZymaX envirotechnology, inc.



Dwain Zsadyani
 Project Manager



REPORT OF ANALYTICAL RESULTS

Client: Scott Levin
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: 29700-9
Collected: 11/15/02
Received: 11/15/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: P. Arroyo

Sample Description:
MW-12
Analyzed: 11/19/02
Method: See Below

Table with 3 columns: CONSTITUENT, PQL* ug/L, RESULT** ug/L. Rows include Benzene, Toluene, Ethylbenzene, Xylenes, t-Amyl Methyl Ether (TAME), t-Butyl Alcohol (TBA), Diisopropyl Ether (DIPE), Ethyl-t-Butyl Ether (ETBE), Methyl-t-Butyl Ether (MTBE), and Percent Surrogate Recovery.

TOTAL PETROLEUM HYDROCARBONS

Table with 3 columns: CONSTITUENT, PQL* ug/L, RESULT** ug/L. Rows include Total Petroleum Hydrocarbons (50, ND) and BTX as a Percent of Fuel (N/A).

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*PQL - Practical Quantitation Limit
**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.
Note: Analytical range is C4-C12.
Note: TPH quantitated against gasoline.
Note: Oxygenates not included in TPH result.

VA111119
MSD #11
29700-9.xls
DZ/sks/pv/bm/ra

Submitted by,
ZymaX envirotechnology, inc.
[Signature]
Dwain Zsadanyi
Project Manager

Client: Scott Levin
 ATC Associates, Inc.
 9620 Chesapeake Dr., Ste. 203
 San Diego, CA 92123

Lab Number: 29700-10
Collected: 11/15/02
Received: 11/15/02
Matrix: Aqueous

Project: EZ Serve #100877
Project Number: EZS0024
Collected by: P. Arroyo

Sample Description: MW-14
Analyzed: 11/19/02
Method: See Below

CONSTITUENT	PQL * ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	ND
BTX as a Percent of Fuel		N/A

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA111119
 MSD #11
 29700-10.xls
 DZ/sks/pv/bm/ra

Submitted by,
 ZymaX envirotechnology, inc.



Dwain Zsadanyi
 Project Manager

Client: **Scott Levin**
ATC Associates, Inc.
9620 Chesapeake Dr., Ste. 203
San Diego, CA 92123

Lab Number: **29700-11**
 Collected: **11/15/02**
 Received: **11/15/02**
 Matrix: **Aqueous**

Project: **EZ Serve #100877**
 Project Number: **EZS0024**
 Collected by: **P. Arroyo**

Sample Description:
EX-1
 Analyzed: **11/20/02**
 Method: **See Below**

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	4.1
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	0.7
Percent Surrogate Recovery		101

TOTAL PETROLEUM HYDROCARBONS

Total Petroleum Hydrocarbons	50.	67.
BTX as a Percent of Fuel		6

ZyMaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

Note: Analytical range is C4-C12.

Note: TPH quantitated against gasoline.

Note: Oxygenates not included in TPH result.

VA111120
 MSD #11
 29700-11.xls
 DZ/sks/pv/mh

Submitted by,
 ZyMaX envirotechnology, inc.



Dwain Zsadanyi
 Project Manager

Client:
ZyMaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA61118
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 11/18/02
Method: See Below

CONSTITUENT	PQL * ug/L	RESULT ** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		98

TOTAL PETROLEUM HYDROCARBONS

Gasoline	50.	ND
BTX as a Percent of Fuel		N/A

ZyMaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717


*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA61118
MSD #6
VA61118c.xls
DZ/ah/pv/mh

Submitted by,
ZyMaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager

Client:
ZyMaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA111119
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 11/19/02
Method: See Below

CONSTITUENT	PQL* ug/L	RESULT** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		102

TOTAL PETROLEUM HYDROCARBONS

Gasoline	50.	ND
BTX as a Percent of Fuel		N/A

ZyMaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA111119
MSD #11
A111119b.xls
DZ/sks/pv

Submitted by,
ZyMaX envirotechnology, inc.


Dwain Zsadyani
Project Manager

Client:
ZyMaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: BLK VA111120
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description:
Instrument Blank
Analyzed: 11/20/02
Method: See Below

CONSTITUENT	PQL * ug/L	RESULT ** ug/L
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Xylenes	0.5	ND
t-Amyl Methyl Ether (TAME)	0.5	ND
t-Butyl Alcohol (TBA)	5.0	ND
Diisopropyl Ether (DIPE)	0.5	ND
Ethyl-t-Butyl Ether (ETBE)	0.5	ND
Methyl-t-Butyl Ether (MTBE)	0.5	ND
Percent Surrogate Recovery		100

TOTAL PETROLEUM HYDROCARBONS

Gasoline	50.	ND
BTX as a Percent of Fuel		N/A

ZyMaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717


*PQL - Practical Quantitation Limit

**Results listed as ND would have been reported if present at or above the listed PQL.

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA111120
MSD #11
A111120b.xls
DZ/sks/pv

Submitted by,
ZyMaX envirotechnology, inc.


Dwain Zsadanyi
Project Manager

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VA61118
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description:
Quality Assurance Spike
Analyzed: 11/18/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	11.3	12.9	114
Toluene	17.9	20.2	113
Ethylbenzene	12.1	10.8	89
Xylenes	27.9	24.1	86
Methyl t-Butyl Ether (MTBE)	21.1	21.3	101
Percent Surrogate Recovery			103

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	582.	116
BTX as a Percent of Fuel	11	10	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA61118
MSD #6
VA61118q.xls
DZ/ah/pv/ses

Submitted by,
ZymaX envirotechnology, inc.



Dwain Zsadanyi
Project Manager

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VA61118
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 11/18/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	11.3	12.9	114	0
Toluene	17.9	21.0	117	4
Ethylbenzene	12.1	11.1	92	3
Xylenes	27.9	24.7	89	2
Methyl t-Butyl Ether (MTBE)	21.1	22.0	104	3
Percent Surrogate Recovery			105	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	591.	118	2
BTX as a Percent of Fuel	11	10		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA61118
MSD #6
VA61118q.xls
DZ/ah/pv/ses

Submitted by,
ZymaX envirotechnology, inc.



Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VA111119
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 11/19/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	9.6	9.0	94
Toluene	16.7	15.8	95
Ethylbenzene	8.4	9.3	111
Xylenes	42.9	47.8	111
Methyl t-Butyl Ether (MTBE)	21.7	22.2	102
Percent Surrogate Recovery			99

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	425.	85
BTX as a Percent of Fuel	14	17	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA111119
MSD #11
A111119q.xls
DZ/sks/pv

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VA111119
Collected:
Received:
Matrix: Aqueous

Project:

Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 11/19/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	9.6	9.4	98	4
Toluene	16.7	16.5	99	4
Ethylbenzene	8.4	9.5	113	2
Xylenes	42.9	48.6	113	2
Methyl t-Butyl Ether (MTBE)	21.7	22.7	105	2
Percent Surrogate Recovery			100	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	455.	91	7
BTX as a Percent of Fuel	14	16		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA111119
MSD #11
A111119q.xls
DZ/sks/pv

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QS VA111120
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description: Quality Assurance Spike
Analyzed: 11/20/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery
Benzene	9.6	8.7	91
Toluene	16.7	15.4	92
Ethylbenzene	8.4	8.1	96
Xylenes	42.9	41.4	97
Methyl t-Butyl Ether (MTBE)	21.7	22.7	105
Percent Surrogate Recovery			101

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	489.	98
BTX as a Percent of Fuel	14	13	

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA111120
MSD #11
A111120q.xls
DZ/sks/pv/mh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



QUALITY ASSURANCE REPORT
SPIKE DUPLICATE RESULTS

Client:
ZymaX envirotechnology, inc.
71 Zaca Lane, Suite 110
San Luis Obispo, CA 93401

Lab Number: QSD VA111120
Collected:
Received:
Matrix: Aqueous

Project:
Project Number:
Collected by:

Sample Description:
Quality Assurance Spike Duplicate
Analyzed: 11/20/02
Method: See Below

CONSTITUENT	Amount Spiked ug/L	Amount Recovered ug/L	Percent Recovery	Relative Percent Difference*
Benzene	9.6	8.9	93	2
Toluene	16.7	15.7	94	2
Ethylbenzene	8.4	8.6	102	6
Xylenes	42.9	44.1	103	6
Methyl t-Butyl Ether (MTBE)	21.7	23.1	106	2
Percent Surrogate Recovery			101	

TOTAL PETROLEUM HYDROCARBONS

Gasoline	500.	461.	92	6
BTX as a Percent of Fuel	14	15		

ZymaX envirotechnology, inc. is certified by CA Department of Health Services: Laboratory #1717
*Relative Percent Difference of the spike and spike duplicate

Note: Analyzed by EPA 8260 and GC/MS Combination.

VA111120
MSD #11
A111120q.xls
DZ/sks/pv/mh

Submitted by,
ZymaX envirotechnology, inc.

Dwain Zsadanyi
Project Manager



71 Zaca Lane
San Luis Obispo CA 93401

vox 805.544.4696
fax 805.544.8226

CLIENT EDD LUFT EDF DW EDT

CHAIN of CUSTODY

report to SCOTT LEVIN	vox (859) 569-0692	fax (859) 569-0695	ANALYSIS REQUESTED	Turnaround Time	
company ATC Assoc.	proj E-2 SERVE* HAYWARD				ASAP <input type="checkbox"/> 48 hr <input type="checkbox"/>
address 9620 CHESAPEAKE Dr. Suite 203 SAN DIEGO, CA 92123	proj # 43.25827.0024				12 hr <input type="checkbox"/> 72 hr <input type="checkbox"/>
	sampler P. Arroyo		24 hr <input type="checkbox"/> std <input checked="" type="checkbox"/>		

ZymaX use only	SAMPLE DESCRIPTION	Date Sampled	Time	Matrix	Preserve	# of containers	Remarks
29700-1	MW-1	11-15-02	1200	BW	HCL	X	3X40ml VDA
-2	MW-1A		1140			X	
-3	MW-2		1155			X	
-4	MW-3		1135			X	
-5	MW-4		1205			X	
-6	MW-5		1150			X	
-7	MW-6		1145			X	
-8	MW-7		1050			X	
-9	MW-12		1030			X	
	MW-13					X	
-10	MW-14		1040			X	
-11	EX-1		1245			X	

Comments
REQUEST EDF FORMAT
*11/18/02 #100877 per S. Levin-ab

Sample integrity upon receipt:

Samples received intact

Samples received cold

Custody seals

Correct container types

Bill 3rd party: _____

PO#: _____

Quote yes no

Relinquished by:

Signature: Peter Arroyo

Print: Peter Arroyo

Company: ATC

Date: 11-15-02 Time: 14:00

Relinquished by:

Signature: Christie Atkins

Print: Christie Atkins

Company: ATC

Date: 11/15/02 Time: 14:20

Received by:

Signature: Christie Atkins

Print: Christie Atkins

Company: LTC

Date: 11/15/02 Time: 2:00

Received by ZymaX envirotechnology, inc:

Signature: [Signature]

Print: Christie Atkins

Company: ZYMAX

Date: 11/15/02 Time: 1420Hr