ATC ASSOCIATES INC.

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# QUARTERLY GROUNDWATER MONITORING REPORT

(1st Quarter, 2003)

**Former E-Z Serve Location No. 100877**
**525 West 'A' Street**
**Hayward, California** 4-15-03
**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.**
**1117 Lone Palm Avenue, Suite B**
**Modesto, California 95351**

**ATC Work Order No. 100877-C2-15**
**ATC Project No. 54.25827.2415**
**April 15, 2003**

REGISTERED PROFESSIONAL ENGINEER
JEANNE HOMSEY
No. C047410
Exp. 12/03
CIVIL
STATE OF CALIFORNIA

**Prepared by:**

William G. Shipp

**William G. Shipp, RG No. 6115**
**Senior Project Manager**

**Approved by:**

Jeanne Homsey

**Jeanne Homsey, P.E.**
**CA Registered Civil Engineer C47410**

**DATE:** April 15, 2003

# QUARTERLY GROUNDWATER MONITORING REPORT – FIRST QUARTER 2003

| | |
|---|---|
| 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. / William Shipp, Project Manager (209) 579-2221** |
| ATC Project No.: | 54.25827.2415 |
| Regulatory Agency/File No.: | Alameda County Health Care Services and RWQCB |

**WORK PERFORMED THIS QUARTER** [January 1, 2003 – March 31, 2003]:

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

**WORK PROPOSED FOR NEXT QUARTER** [April 1, 2003 – June 30, 2003]:

1. Perform second quarter groundwater monitoring and sampling.
2. Submit second quarter groundwater monitoring report.
3. Meet with Alameda County Health Care Services to discuss the rejection of the proposed scope of work outlined in ATC's *Corrective Action Plan* (CAP), dated September 4, 2002, by the State Water Resources Control Board, Underground Storage Tank Cleanup Fund.

| | | |
|---|---|---|
| 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: | 14.19 to 15.73 | (Measured Feet) |
| Groundwater Gradient: | 0.012 ft/ft | (Magnitude) |
| Groundwater Flow Direction: | Varied | (Direction) |

**Discussion:** On February 13, 2003, ATC Associates Inc. (ATC) personnel gauged 10 groundwater monitor wells and one (1) groundwater extraction well (Figures 1 and 2). Depth to groundwater ranged between 14.19 (MW-1) to 15.73 (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 hydraulic gradient was calculated to be 0.012 foot per foot and varied across the site from the southwest to the northwest (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 February 13, 2003, 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 wells 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 detected above the laboratory-reported method detection limit in groundwater samples collected from 8 of the 11 wells sampled. The highest TPHg, benzene, and MTBE concentrations reported were 19,000, 550, and 22 µg/L, respectively. The highest TPHg and benzene concentrations were detected in groundwater samples collected from MW-2 whereas the highest MTBE concentration was detected in groundwater sample collected from MW-4. 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, revise the CAP, and perform a professional electromagnetic subsurface survey to locate the wellheads of MW-8 through MW-11.

**Summary of Unusual Activity:** None.

**Agency Directive Requirements:** Continue quarterly groundwater monitoring and sampling. Further directives may come after the Alameda County Health Care Services has had an opportunity to review actions taken by the State Water Resources Control Board Underground Storage Tank Cleanup Fund regarding the rejection of the CAP.

**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 (February 13, 2003)
- 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-1 | 2/5/92 | 41.75 | 20.82 | 20.93 | 0.00 | 46,000 | 7,600 | 2,300 | 2,400 | 6,500 | -- |
| (15'-29') | 9/11/92 | 41.75 | 20.08 | 21.67 | 0.00 | 48,000 | 9,000 | 1,200 | 1,800 | 4,600 | -- |
| | 12/22/92 | 41.75 | 19.79 | 21.96 | 0.00 | 84,000 | 22,000 | 1,600 | 4,800 | 17,000 | -- |
| | 3/3/93 | 41.75 | 16.23 | 25.52 | 0.00 | 54,000 | 16,000 | 1,600 | 1,900 | 4,300 | -- |
| | 6/23/93 | 41.75 | 16.86 | 24.89 | 0.00 | 30,000 | 18,000 | 1,100 | 1,400 | 3,700 | -- |
| | 9/30/93 | 41.75 | 18.04 | 23.71 | 0.00 | 33,000 | 10,000 | 440 | 940 | 1,700 | -- |
| | 2/6/94 | 41.75 | 18.15 | 23.60 | 0.00 | 64,000 | 18,000 | 1,600 | 4,700 | 12,000 | -- |
| | 5/2/94 | 41.75 | 17.26 | 24.49 | 0.00 | 7,200 | 2,100 | 29 | 490 | 520 | -- |
| | 7/1/94 | 41.75 | 17.60 | 24.15 | 0.00 | 13,000 | 3,700 | 150 | 550 | 12,000 | -- |
| | 9/20/94 | 41.75 | 20.59 | 21.16 | 0.00 | 10,000 | 3,100 | 75 | 440 | 870 | -- |
| | 12/5/94 | 41.75 | 17.83 | 23.92 | 0.00 | 8,700 | 3,700 | 87 | 520 | 950 | -- |
| | 3/10/95 | 41.75 | 14.67 | 27.08 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 3/15/95 | 41.75 | 14.43 | 27.32 | 0.00 | 290 | 56 | 2 | 12 | 47 | -- |
| | 9/23/96 | 41.75 | 14.92 | 26.83 | 0.00 | 20,000 | 5,200 | 860 | 700 | 1,100 | 270 |
| | 12/4/96 | 41.75 | 15.61 | 26.14 | 0.00 | 17,000 | 3,100 | 64 | 610 | 1,200 | 280 |
| | 4/8/97[NP] | 41.75 | 13.25 | 28.50 | 0.00 | 2,100 | 430 | 15 | 52 | 85 | 100 |
| | 6/30/97 | 41.75 | 14.68 | 27.07 | 0.00 | 10,000 | 2,100 | < | < | 320 | < |
| | 11/25/97 | 41.75 | 15.99 | 25.76 | 0.00 | 16,000 | 2,100 | 23 | 76 | 240 | < |
| | 6/1/98 | 41.75 | 9.98 | 31.77 | 0.00 | 19,000 | 6,100 | 430 | 1,100 | 2,300 | 420 |
| | 6/14/01 | 41.75 | 15.05 | 26.70 | 0.00 | 6,000 | 380 | 8.4 | 260 | 180 | <25 |
| | 11/7/01[2] | 41.75 | 16.31 | 25.44 | 0.00 | 12,000 | 1,000 | 30 | 1,000 | 740 | 11 |
| | 1/30/02 | 41.75 | 14.15 | 27.60 | 0.00 | 8,800 | 690 | 16 | 480 | 270 | 14 |
| | 5/29/02 | 41.75 | 14.55 | 27.20 | 0.00 | 6,400 | 330 | 13 | 250 | 260 | 12 |
| | 8/14/02 | 41.75 | 15.56 | 26.19 | 0.00 | 5,500 | 470 | 14 | 360 | 160 | 10 |
| | 11/15/02 | 41.75 | 16.10 | 25.65 | 0.00 | 10,000 | 440 | 16 | 310 | 150 | 15 |
| | 2/13/03 | 41.75 | 14.19 | 27.56 | 0.00 | 210 | 11 | <0.5 | 2.8 | 1.9 | 0.8 |
| MW-1A | 6/23/93 | 43.40 | 17.80 | 25.76 | 0.21 | -- | -- | -- | -- | -- | -- |
| (unknown) | 9/30/93 | 43.40 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 2/6/94 | 43.40 | 18.89 | 24.51 | 0.00 | 8,900 | 1,700 | 42 | 1,000 | 400 | -- |
| | 5/2/94 | 43.40 | 18.35 | 25.12 | 0.09 | -- | -- | -- | -- | -- | -- |
| | 7/1/94 | 43.40 | 18.45 | 24.95 | 0.00 | 12,000 | 1,100 | <1 | 920 | 1,100 | -- |
| | 9/20/94 | 43.40 | 21.72 | 21.85 | 0.22 | -- | -- | -- | -- | -- | -- |
| | 12/5/94 | 43.40 | 18.87 | 24.58 | 0.07 | -- | -- | -- | -- | -- | -- |
| | 3/10/95 | 43.40 | 15.83 | 27.57 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 3/15/95 | 43.40 | 15.55 | 27.89 | 0.05 | -- | -- | -- | -- | -- | -- |
| | 9/23/96 | 43.40 | 16.00 | 27.41 | 0.01 | -- | -- | -- | -- | -- | -- |
| | 12/4/96 | 43.40 | 16.55 | 26.85 | 0.00 | 52,000 | 420 | 140 | 1,000 | 3,500 | 130 |
| | 4/8/97[NP] | 43.40 | 14.15 | 29.25 | SHEEN | -- | -- | -- | -- | -- | -- |
| | 6/30/97 | 43.40 | 15.57 | 27.83 | 0.00 | 17,000 | 180 | < | 140 | 1,100 | < |
| | 11/25/97 | 43.40 | 16.91 | 26.49 | 0.00 | 19,000 | 110 | 37 | 290 | 910 | < |
| | 6/1/98 | 43.40 | 10.78 | 32.62 | 0.00 | 18,000 | 200 | 17 | 230 | 820 | 91 |
| | 6/14/01 | 43.40 | 15.93 | 27.48 | 0.01 | 27,000 | 29 | <5.0 | 620 | 520 | <50 |
| | 11/7/01[2] | 43.40 | 17.32 | 26.08 | 0.00 | 21,000 | 51 | <5.0 | 700 | 510 | <5.0 |
| | 1/30/02 | 43.40 | 15.05 | 28.35 | 0.00 | 24,000 | 22 | <5.0 | 390 | 330 | <5.0 |
| | 5/29/02 | 43.40 | 15.49 | 27.91 | 0.00 | 12,000 | 32 | <5.0 | 550 | 270 | <5.0 |
| | 8/14/02 | 43.40 | 16.50 | 26.90 | 0.00 | 14,000 | 22 | <2.0 | 510 | 240 | <2.0 |
| | 11/15/02 | 43.40 | 17.04 | 26.36 | 0.00 | 17,000 | 59 | 2.4 | 630 | 250 | <2.0 |
| | 2/13/03 | 43.40 | 15.08 | 28.32 | 0.00 | 17,000 | 45 | 1.5 | 790 | 240 | <2.0 |
| MW-2 | 2/5/92 | 43.26 | 22.35 | 20.91 | 0.00 | 67,000 | 13,000 | 4,700 | 820 | 1,300 | -- |
| (15'-29') | 9/11/92 | 43.26 | 21.67 | 21.59 | 0.00 | 57,000 | 9,000 | 1,400 | 1,200 | 8,400 | -- |
| | 12/22/92 | 43.26 | 21.39 | 21.87 | 0.00 | 31,000 | 9,900 | 350 | 2,000 | 4,100 | -- |
| | 3/3/93 | 43.26 | 17.75 | 25.51 | 0.00 | 17,000 | 5,100 | 1,300 | 720 | 1,900 | -- |
| | 6/23/93 | 43.26 | 18.42 | 24.84 | 0.00 | 60,000 | 23,000 | 1,500 | 4,500 | 17,000 | -- |
| | 9/30/93 | 43.26 | 19.63 | 23.63 | 0.00 | 38,000 | 12,000 | 780 | 1,500 | 6,500 | -- |
| | 2/6/94 | 43.26 | 19.61 | 23.65 | 0.00 | 34,000 | 8,900 | 450 | 2,000 | 5,500 | -- |
| | 5/2/94 | 43.26 | 19.84 | 23.42 | 0.00 | 18,000 | 3,800 | 260 | 1,100 | 3,500 | -- |

**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-2 | 7/1/94 | 43.26 | 19.18 | 24.08 | 0.00 | 18,000 | 3,700 | 510 | 870 | 2,600 | -- |
| (15'-29') | 9/20/94 | 43.26 | 22.17 | 21.09 | 0.00 | 19,000 | 4,500 | 300 | 1,200 | 4,000 | -- |
| (Cont.) | 12/6/94 | 43.26 | 19.37 | 23.89 | 0.00 | 22,000 | 4,700 | 340 | 1,400 | 4,500 | -- |
| | 3/10/95 | 43.26 | 16.33 | 26.93 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 3/15/95 | 43.26 | 16.89 | 26.37 | 0.00 | 29,000 | 5,600 | 350 | 1,900 | 6,300 | -- |
| | 9/23/96 | 43.26 | 16.61 | 26.65 | 0.00 | 29,000 | 3,700 | 150 | 1,000 | 4,300 | 860 |
| | 12/4/96 | 43.26 | 17.19 | 26.07 | 0.00 | 31,000 | 3,800 | 140 | 2,000 | 5,100 | 690 |
| | 4/8/97[NP] | 43.26 | 14.86 | 28.40 | 0.00 | 20,000 | 2,500 | 80 | 1,300 | 3,400 | 880 |
| | 6/30/97 | 43.26 | 16.28 | 26.98 | 0.00 | 41,000 | 2,700 | 130 | 1,200 | 4,000 | 890 |
| | 11/25/97 | 43.26 | 17.56 | 25.70 | 0.00 | 51,000 | 2,900 | 140 | 1,800 | 7,000 | 1,200 |
| | 6/1/98 | 43.26 | 11.58 | 31.68 | 0.00 | 33,000 | 2,700 | 130 | 1,800 | 5,700 | 610 |
| | 6/14/01 | 43.26 | 16.63 | 26.63 | 0.00 | 18,000 | 860 | 14 | 1,100 | 2,200 | <100 |
| | 11/7/01[2] | 43.26 | 17.85 | 25.41 | 0.00 | 20,000 | 880 | 20 | 1,100 | 2,600 | 21 |
| | 1/30/02 | 43.26 | 15.65 | 27.61 | 0.00 | 19,000 | 880 | 19 | 1,100 | 2,400 | 56 |
| | 5/29/02 | 43.26 | 16.12 | 27.14 | 0.00 | 8,100 | 390 | 16 | 560 | 1,400 | 32 |
| | 8/14/02 | 43.26 | 17.20 | 26.06 | 0.00 | 19,000 | 820 | 21 | 1,200 | 2,600 | 29 |
| | 11/15/02 | 43.26 | 17.63 | 25.63 | 0.00 | 34,000 | 910 | 31 | 1,000 | 1,400 | 39 |
| | 2/13/03 | 43.26 | 15.73 | 27.53 | 0.00 | 19,000 | 550 | <20 | 900 | 1,300 | 21 |
| MW-3 | 2/5/92 | 43.89 | 21.85 | 22.04 | 0.00 | 16,000 | 2,700 | 410 | <1 | 3,400 | -- |
| (15'-29') | 9/11/92 | 43.89 | 21.13 | 22.76 | 0.00 | 43,000 | 7,600 | 1,600 | 1,400 | 4,100 | -- |
| | 12/22/92 | 43.89 | 20.88 | 23.01 | 0.00 | 29,000 | 8,800 | 1,200 | 1,500 | 3,700 | -- |
| | 3/3/93 | 43.89 | 17.29 | 26.60 | 0.00 | 17,000 | 5,000 | 1,500 | 680 | 1,700 | -- |
| | 6/23/93 | 43.89 | 17.88 | 26.01 | 0.00 | 5,700 | 3,000 | 120 | 560 | 790 | -- |
| | 9/30/93 | 43.89 | 19.18 | 24.71 | 0.00 | 21,000 | 7,000 | 2,100 | 970 | 2,600 | -- |
| | 2/6/94 | 43.89 | 19.21 | 24.68 | 0.00 | 24,000 | 7,200 | 1,600 | 990 | 3,200 | -- |
| | 5/2/94 | 43.89 | 18.30 | 25.59 | 0.00 | 10,000 | 2,200 | 440 | 470 | 1,200 | -- |
| | 7/1/94 | 43.89 | 18.63 | 25.26 | 0.00 | 8,200 | 2,000 | 370 | 350 | 930 | -- |
| | 9/20/94 | 43.89 | 21.64 | 22.25 | 0.00 | 7,200 | 2,000 | 360 | 380 | 1,000 | -- |
| | 12/6/94 | 43.89 | 19.15 | 24.74 | 0.00 | 9,000 | 2,300 | 400 | 440 | 1,100 | -- |
| | 3/10/95 | 43.89 | 16.33 | 27.56 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 3/15/95 | 43.89 | 16.89 | 27.00 | 0.00 | 4,300 | 980 | 47 | 370 | 780 | -- |
| | 9/23/96 | 43.89 | 16.11 | 27.78 | 0.00 | 10,000 | 950 | 20 | 700 | 780 | 80 |
| | 12/4/96 | 43.89 | 16.63 | 27.26 | 0.00 | 13,000 | 1,100 | 25 | 1,000 | 1,100 | 67 |
| | 4/8/97[NP] | 43.89 | 14.25 | 29.64 | 0.00 | 3,800 | 210 | 4.6 | 270 | 280 | 56 |
| | 6/30/97 | 43.89 | 15.70 | 28.19 | 0.00 | 3,500 | 280 | < | 32 | 180 | < |
| | 11/25/97 | 43.89 | 16.99 | 26.90 | 0.00 | 6,800 | 230 | < | 370 | 290 | 130 |
| | 6/1/98 | 43.89 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 6/14/01 | 43.89 | 16.02 | 27.87 | 0.00 | 2,100 | 9 | <0.5 | 78 | 43 | <5.0 |
| | 11/7/01[2] | 43.89 | 17.33 | 26.56 | 0.00 | 7,700 | 75 | <5.0 | 410 | 150 | <5.0 |
| | 1/30/02 | 43.89 | 15.10 | 28.79 | 0.00 | 3,600 | 27 | <5.0 | 120 | 34 | <5.0 |
| | 5/29/02 | 43.89 | 15.63 | 28.26 | 0.00 | 2,000 | 18 | <5.0 | 53 | 13 | <5.0 |
| | 8/14/02 | 43.89 | 16.63 | 27.26 | 0.00 | 2,400 | 19 | <0.5 | 50 | 6.5 | <0.5 |
| | 11/15/02 | 43.89 | 17.10 | 26.79 | 0.00 | 4,300 | 7.5 | <0.5 | 22 | 1.1 | 0.5 |
| | 2/13/03 | 43.89 | 15.17 | 28.72 | 0.00 | 1,700 | 3.8 | <0.5 | 29 | 3.8 | <0.5 |
| MW-4 | 2/5/92 | 42.76 | 21.31 | 21.45 | 0.00 | 16,000 | 2,700 | 410 | <1 | 3,400 | -- |
| (15'-29') | 9/11/92 | 42.76 | 20.62 | 22.14 | 0.00 | 43,000 | 7,600 | 1,600 | 1,400 | 4,100 | -- |
| | 12/22/92 | 42.76 | 20.37 | 22.39 | 0.00 | 29,000 | 8,800 | 1,200 | 1,500 | 3,700 | -- |
| | 3/3/93 | 42.76 | 16.78 | 25.98 | 0.00 | 17,000 | 5,000 | 1,500 | 680 | 1,700 | -- |
| | 6/23/93 | 42.76 | 17.45 | 25.31 | 0.00 | 5,700 | 3,000 | 120 | 560 | 790 | -- |
| | 9/30/93 | 42.76 | 18.64 | 24.12 | 0.00 | 21,000 | 7,000 | 2,100 | 970 | 2,600 | -- |
| | 2/6/94 | 42.76 | 18.59 | 24.17 | 0.00 | 24,000 | 7,200 | 1,600 | 990 | 3,200 | -- |
| | 5/2/94 | 42.76 | 17.81 | 24.95 | 0.00 | 10,000 | 2,200 | 440 | 470 | 1,200 | -- |
| | 7/1/94 | 42.76 | 18.13 | 24.63 | 0.00 | 8,200 | 2,000 | 370 | 350 | 930 | -- |
| | 9/20/94 | 42.76 | 21.13 | 21.63 | 0.00 | 7,200 | 2,000 | 360 | 380 | 1,000 | -- |
| | 12/6/94 | 42.76 | 18.36 | 24.40 | 0.00 | 9,000 | 2,300 | 400 | 440 | 1,100 | -- |
| | 3/10/95 | 42.76 | 15.25 | 27.51 | 0.00 | -- | -- | -- | -- | -- | -- |

**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-4 | 3/15/95 | 42.76 | 14.89 | 27.87 | 0.00 | 15,000 | 4,400 | 600 | 770 | 2,660 | -- |
| (15'-29') | 9/23/96 | 42.76 | 15.56 | 27.20 | 0.00 | 32,000 | 7,400 | 540 | 1,500 | 2,800 | 2,100 |
| (Cont.) | 12/4/96 | 42.76 | 16.11 | 26.65 | 0.00 | 23,000 | 7,800 | 140 | 1,200 | 1,200 | 1,900 |
| | 4/8/97[NP] | 42.76 | 13.73 | 29.03 | 0.00 | 16,000 | 3,900 | 680 | 850 | 2,300 | 980 |
| | 6/30/97 | 42.76 | 15.19 | 27.57 | 0.00 | 63,000 | 7,000 | 430 | 1,400 | 4,400 | 1,700 |
| | 11/25/97 | 42.76 | 16.49 | 26.27 | 0.00 | 30,000 | 4,300 | 61 | 810 | 1,500 | 880 |
| | 6/1/98 | 42.76 | 10.42 | 32.34 | 0.00 | 33,000 | 5,700 | 710 | 1,700 | 2,900 | 720 |
| | 6/14/01 | 42.76 | 15.55 | 27.21 | 0.00 | 9,500 | 690 | 45 | 560 | 600 | <50 |
| | 11/7/01[2] | 42.76 | 16.81 | 25.95 | 0.00 | 6,000 | 710 | 20 | 630 | 190 | 27 |
| | 1/30/02 | 42.76 | 14.60 | 28.16 | 0.00 | 4,800 | 830 | 16 | 600 | 61 | 42 |
| | 5/29/02 | 42.76 | 15.14 | 27.62 | 0.00 | 5,300 | 720 | 57 | 600 | 200 | 35 |
| | 8/14/02 | 42.76 | 16.07 | 26.69 | 0.00 | 5,000 | 640 | 15 | 550 | 35 | 28 |
| | 11/15/02 | 42.76 | 16.61 | 26.15 | 0.00 | 3,700 | 330 | 10 | 260 | 200 | 20 |
| | 2/13/03 | 42.76 | 14.68 | 28.08 | 0.00 | 4,500 | 390 | 12 | 330 | 31 | 22 |
| MW-5 | 2/5/92 | 42.10 | 20.93 | 21.17 | 0.00 | 78,000 | 7,900 | 5,000 | 2,900 | 1,800 | -- |
| (15'-29') | 9/11/92 | 42.10 | 20.27 | 21.83 | 0.00 | 49,000 | 4,700 | 400 | 1,400 | 4,100 | -- |
| | 12/22/92 | 42.10 | 19.99 | 22.11 | 0.00 | 34,000 | 8,600 | 340 | 2,200 | 4,800 | -- |
| | 3/3/93 | 42.10 | 16.49 | 25.61 | 0.00 | 22,000 | 7,500 | 640 | 1,300 | 3,400 | -- |
| | 6/23/93 | 42.10 | 17.02 | 25.08 | 0.00 | 15,000 | 5,800 | 120 | 1,100 | 2,100 | -- |
| | 9/30/93 | 42.10 | 18.25 | 23.85 | 0.00 | 25,000 | 7,600 | 410 | 1,000 | 4,400 | -- |
| | 2/6/94 | 42.10 | 18.26 | 23.84 | 0.00 | 23,000 | 6,000 | 180 | 2,000 | 5,900 | -- |
| | 5/2/94 | 42.10 | 17.50 | 24.60 | 0.00 | 8,000 | 1,300 | 29 | 440 | 770 | -- |
| | 7/1/94 | 42.10 | 17.79 | 24.31 | 0.00 | 10,000 | 1,700 | 97 | 600 | 1,400 | -- |
| | 9/20/94 | 42.10 | 20.77 | 21.33 | 0.00 | 8,400 | 1,600 | 54 | 650 | 1,400 | -- |
| | 12/5/94 | 42.10 | 18.02 | 24.08 | 0.00 | 10,000 | 1,800 | <50 | 620 | 1,400 | -- |
| | 3/10/95 | 42.10 | 14.93 | 27.17 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 3/15/95 | 42.10 | 14.70 | 27.40 | 0.00 | 5,300 | 1,100 | 11 | 180 | 320 | -- |
| | 9/23/96 | 42.10 | 15.19 | 26.91 | 0.00 | 9,800 | 1,800 | 11 | 470 | 510 | 100 |
| | 12/4/96 | 42.10 | 15.78 | 26.32 | 0.00 | 10,000 | 2,200 | 9 | 550 | 430 | 70 |
| | 4/8/97[NP] | 42.10 | 13.39 | 28.71 | 0.00 | 11,000 | 1,300 | 15 | 450 | 720 | 180 |
| | 6/30/97 | 42.10 | 14.83 | 27.27 | 0.00 | 3,800 | 500 | < | 75 | 84 | < |
| | 11/25/97 | 42.10 | 16.14 | 25.96 | 0.00 | 8,200 | 1,300 | 14 | 310 | 220 | < |
| | 6/1/98 | 42.10 | 10.10 | 32.00 | 0.00 | 3,600 | 290 | 12 | 52 | 52 | 81 |
| | 6/14/01 | 42.10 | 15.19 | 26.91 | 0.00 | 5,100 | 44 | 0.71 | 110 | 23 | <5.0 |
| | 11/7/01[2] | 42.10 | 16.47 | 25.63 | 0.00 | 7,600 | 220 | <5.0 | 550 | 30 | <5.0 |
| | 1/30/02 | 42.10 | 14.27 | 27.83 | 0.00 | 6,200 | 180 | <20 | 310 | 130 | <20 |
| | 5/29/02 | 42.10 | 14.73 | 27.37 | 0.00 | 3,900 | 66 | 0.8 | 110 | 7.4 | 0.9 |
| | 8/14/02 | 42.10 | 15.73 | 26.37 | 0.00 | 4,300 | 80 | 0.9 | 150 | 12 | 1.1 |
| | 11/15/02 | 42.10 | 16.27 | 25.83 | 0.00 | 7,000 | 99 | <5.0 | 250 | 500 | <5.0 |
| | 2/13/03 | 42.10 | 14.34 | 27.76 | 0.00 | 5,900 | 130 | <5.0 | 130 | 11 | <5.0 |
| MW-6 | 2/5/92 | 42.33 | 21.29 | 21.04 | 0.00 | 51,000 | 5,400 | 3,500 | 3,600 | 10,000 | -- |
| (15'-29') | 9/11/92 | 42.33 | 20.56 | 21.77 | 0.00 | 24,000 | 2,500 | 830 | 1,400 | 2,300 | -- |
| | 12/22/92 | 42.33 | 20.31 | 22.02 | 0.00 | 23,000 | 5,100 | 630 | 2,000 | 3,100 | -- |
| | 3/3/93 | 42.33 | 16.83 | 25.50 | 0.00 | 18,000 | 4,400 | 820 | 1,400 | 2,400 | -- |
| | 6/23/93 | 42.33 | 17.30 | 25.03 | 0.00 | 18,000 | 4,600 | 850 | 2,700 | 3,400 | -- |
| | 9/30/93 | 42.33 | 19.05 | 23.28 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 2/6/94 | 42.33 | 18.55 | 23.78 | 0.00 | 20,000 | 4,600 | 690 | 2,100 | 2,500 | -- |
| | 5/2/94 | 42.33 | 17.74 | 24.59 | 0.00 | 5,300 | 930 | 54 | 610 | 240 | -- |
| | 7/1/94 | 42.33 | 18.09 | 24.24 | 0.00 | 10,000 | 1,500 | 160 | 850 | 690 | -- |
| | 9/20/94 | 42.33 | 21.05 | 21.28 | 0.00 | 11,000 | 2,000 | 140 | 1,200 | 760 | -- |
| | 12/6/94 | 42.33 | 18.33 | 24.00 | 0.00 | 8,600 | 1,300 | 87 | 980 | 610 | -- |
| | 3/10/95 | 42.33 | 15.35 | 26.98 | 0.00 | -- | -- | -- | -- | -- | -- |
| | 3/15/95 | 42.33 | 14.91 | 27.42 | 0.00 | 9,800 | 1,600 | 110 | 1,000 | 1,000 | -- |
| | 9/23/96 | 42.33 | 15.50 | 26.83 | 0.00 | 12,000 | 520 | 55 | 930 | 350 | 51 |
| | 12/4/96 | 42.33 | 16.06 | 26.27 | 0.00 | 11,000 | 390 | 25 | 680 | 170 | 130 |
| | 4/8/97[NP] | 42.33 | 13.64 | 28.69 | 0.00 | 17,000 | 700 | 92 | 1,400 | 900 | 2,700 |

**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 | 6/30/97 | 42.33 | 15.08 | 27.25 | 0.00 | 11,000 | 270 | 37 | 590 | 450 | < |
| (15'-29') | 11/25/97 | 42.33 | 16.40 | 25.93 | 0.00 | 9,100 | 130 | 26 | 500 | 150 | 310 |
| (Cont.) | 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 |
| | 2/13/03 | 42.33 | 14.60 | 27.73 | 0.00 | 2,800 | 22 | 2.0 | <0.5 | 21 | 0.9 |
| MW-7 | 6/23/93 | 42.70 | 17.87 | 24.83 | 0.00 | 29,000 | 4,200 | 71 | 4,400 | 5,600 | -- |
| (10'-29') | 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 |
| | 2/13/03 | 42.70 | 14.99 | 27.71 | 0.00 | 1,500 | 0.8 | <0.5 | 20 | <0.5 | <0.5 |
| MW-8* | 6/23/93 | 97.61 | 17.64 | 79.97 | 0.00 | 350 | 43 | 9 | 35 | 67 | -- |
| (10'-29') | 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* | 6/23/93 | 95.41 | 15.94 | 79.47 | 0.00 | 45,000 | 14,000 | 1,200 | 2,800 | 12,000 | -- |
| (10'-29') | 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* | 6/23/93 | 97.11 | 17.39 | 79.72 | 0.00 | 35,000 | 980 | 640 | 3,500 | 12,000 | -- |
| (10'-29') | 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* | 2/10/95 | 92.68 | 11.80 | 80.88 | 0.00 | 7,000 | 140 | 22 | 600 | 1,000 | -- |
| (5'-25') | 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 | 2/10/95 | 43.25 | 16.30 | 26.95 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | -- |
| (10'-30') | 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 |
| | 2/13/03 | 43.25 | 15.67 | 27.58 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MW-13 | 2/10/95 | 40.97 | 14.45 | 26.52 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | -- |
| (10'-30') | 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 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 2/13/03 | 40.97 | | | | Not sampled, vehicle parked over well | | | | | |
| MW-14 | 2/10/95 | 43.19 | 16.28 | 26.91 | 0.00 | 12,000 | 42 | 8 | 740 | 2,100 | -- |
| (10'-30') | 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 |
| | 2/13/03 | 43.19 | 15.69 | 27.50 | 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 |
| | 2/13/03 | -- | 15.10 | -- | 0.00 | <50 | 1.3 | <0.5 | <0.5 | <0.5 | 0.8 |

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

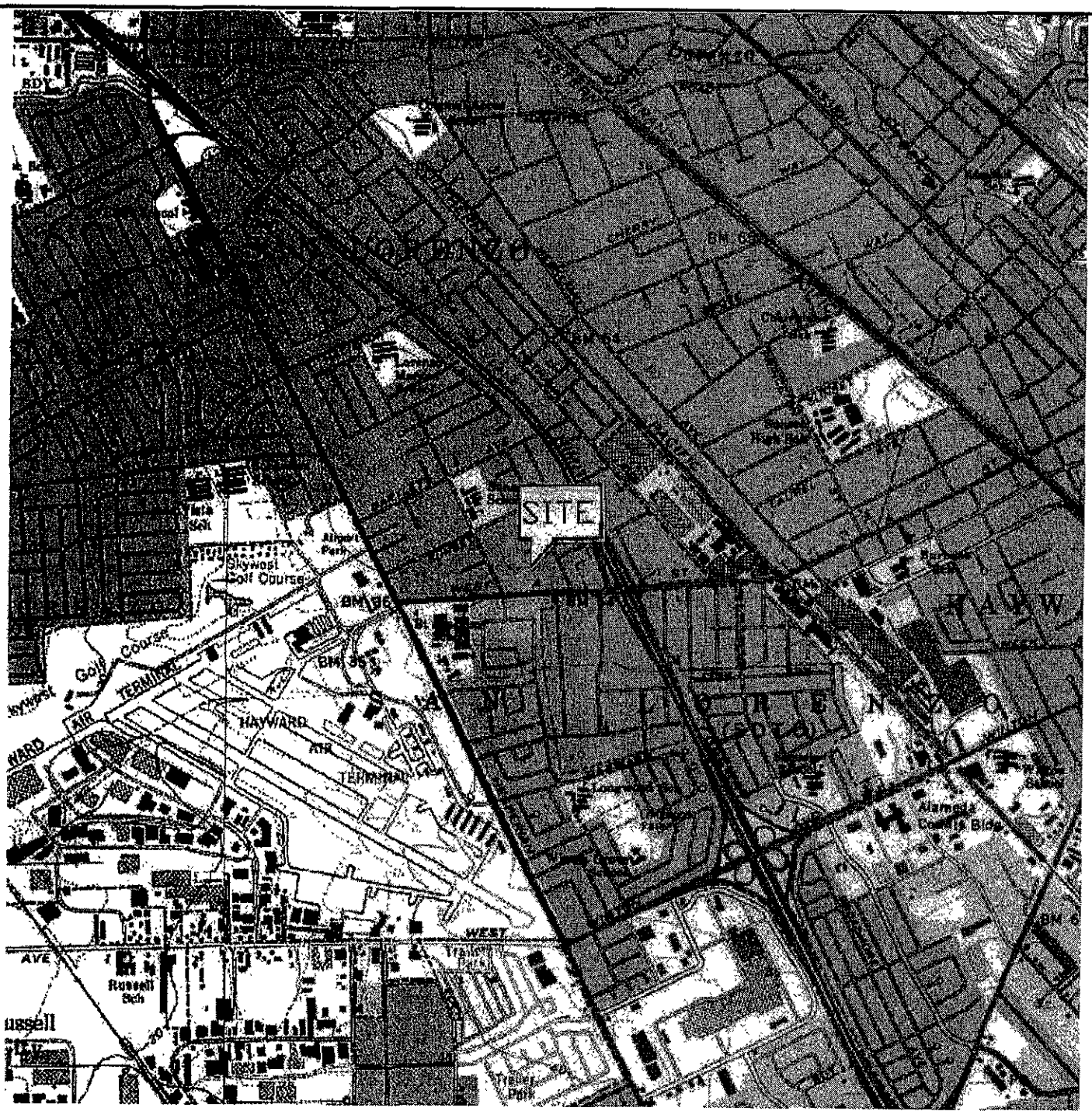
| Well No. | Sampling Date | TAME (µg/L) | TBA (µg/L) | DIPE (µg/L) | ETBE (µg/L) | MTBE (µg/L) |
|---|---|---|---|---|---|---|
| **MW-1** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | 11 |
| (15'-29') | 1/30/02 | <5.0 | <50 | <5.0 | <5.0 | 14 |
| | 5/29/02 | <2.0 | <20 | 2.5 | <2.0 | 12 |
| | 8/14/02 | <10 | <100 | <10 | <10 | 10 |
| | 11/15/02 | <10 | <100 | <10 | <10 | 15 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | 0.8 |
| **MW-1A** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | <5.0 |
| (unknown) | 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 |
| | 2/13/03 | <2.0 | <20 | <2.0 | <2.0 | <2.0 |
| **MW-2** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | 21 |
| (15'-29') | 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 |
| | 2/13/03 | <20 | <200 | <20 | <20 | 21 |
| **MW-3** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | <5.0 |
| (15'-29') | 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 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| **MW-4** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | 27 |
| (15'-29') | 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 |
| | 2/13/03 | <2.0 | <20 | <2.0 | <2.0 | 22 |
| **MW-5** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | <5.0 |
| (15'-29') | 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 |
| | 2/13/03 | <5.0 | <50 | <5.0 | <5.0 | <5.0 |
| **MW-6** | 11/7/01 | <5.0 | <50 | <5.0 | <5.0 | <5.0 |
| (15'-29') | 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 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | 0.9 |
| **MW-7** | 11/7/01 | -- | -- | -- | -- | -- |
| (10'-29') | 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 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| **MW-12** | 11/7/01 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| (10'-30') | 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-12** | 5/29/02 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| (10'-30') | 8/14/02 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| (Cont.) | 11/15/02 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| **MW-13** | 11/7/01 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| (10'-30') | 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 | -- | -- | -- | -- | -- |
| | 2/13/03 | Not sampled, vehicle parked over well | | | | |
| **MW-14** | 11/7/01 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| (10'-30') | 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 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | <0.5 |
| **EX-1** | 8/14/02 | <0.5 | <5.0 | <0.5 | <0.5 | 1.4 |
| (10'-30') | 11/15/02 | <0.5 | <5.0 | <0.5 | <0.5 | 0.7 |
| | 2/13/03 | <0.5 | <5.0 | <0.5 | <0.5 | 0.8 |

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.

N

0 2000' 4000'

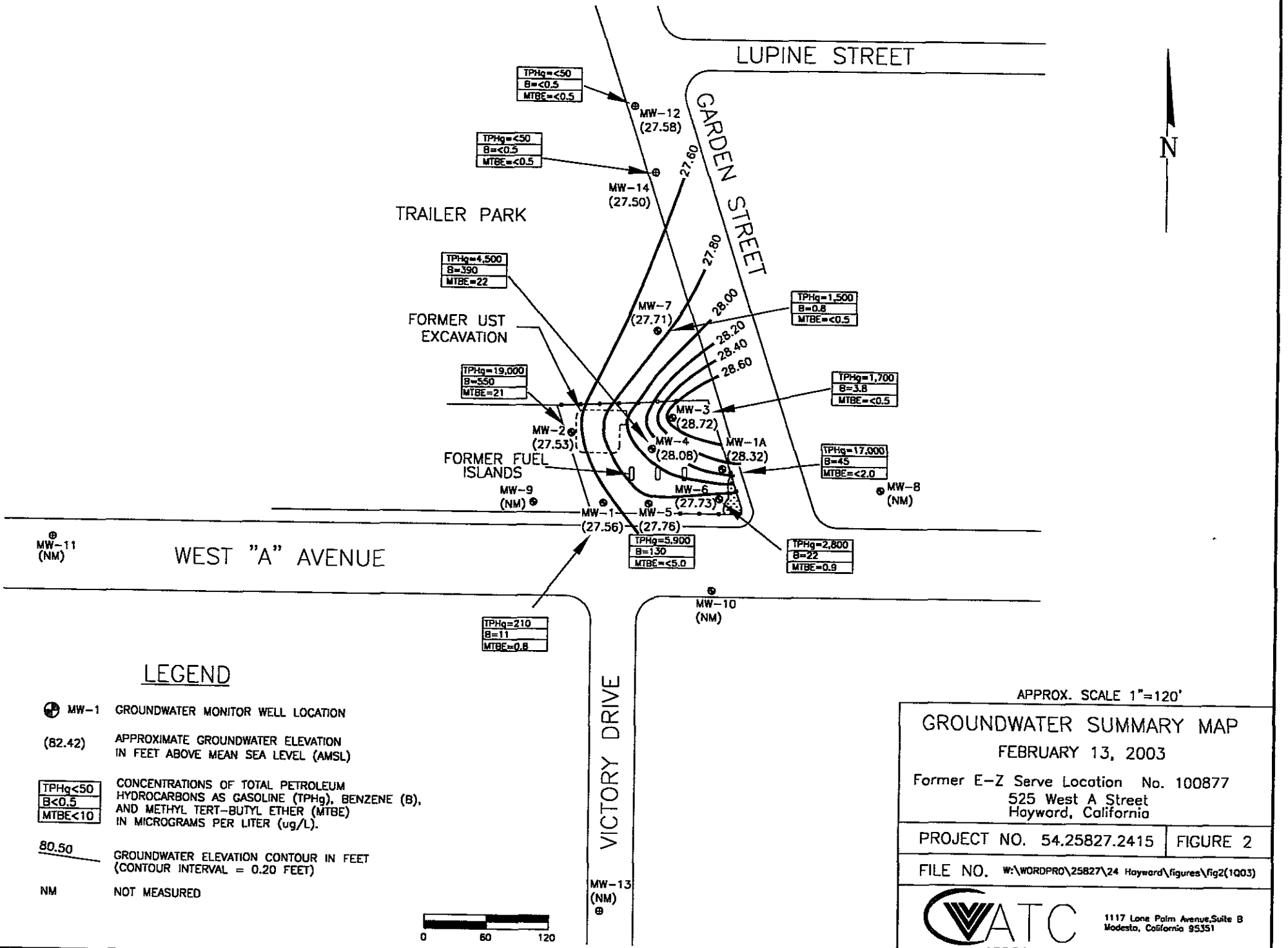
1 INCH = 2000 FEET

# VICINITY MAP

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

| | | |
|---|---|---|
| PROJECT NO. | 54.25827.2415 | FIGURE 1 |
| FILE NO. | 25827\24 Hayward\Figures\Fig1 | |

VATC ASSOCIATES INC.
1117 Lone Palm Avenue, Suite B
Modesto, California 95351




## LEGEND

| | |
|---|---|
| MW-1 | GROUNDWATER MONITOR WELL LOCATION |
| (82.42) | APPROXIMATE GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (AMSL) |
| TPHg<50<br>B<0.5<br>MTBE<10 | CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg), BENZENE (B), AND METHYL TERT-BUTYL ETHER (MTBE) IN MICROGRAMS PER LITER (ug/L). |
| 80.50 | GROUNDWATER ELEVATION CONTOUR IN FEET (CONTOUR INTERVAL = 0.20 FEET) |
| NM | NOT MEASURED |

APPROX. SCALE 1"=120'

# GROUNDWATER SUMMARY MAP

FEBRUARY 13, 2003

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

PROJECT NO. 54.25827.2415 | FIGURE 2

FILE NO. W:\WORDPRO\25827\24 Hayward\figures\fig2(1Q03)


VATC ASSOCIATES INC.
1117 Lone Palm Avenue,Suite B
Modesto, California 95351

# APPENDICES

# APPENDIX A

# GROUNDWATER MONITORING AND SAMPLING PROCEDURES, AND FIELD LOGS

**STANDARD OPERATING PROCEDURE**
**GROUNDWATER MONITOR WELL PURGING AND SAMPLING**
**(Includes No-Purge Sampling)**

Prior to purging the well, the static water level was measured using an electronic interface probe to evaluate the presence of any phase-separated hydrocarbons. The measurement were obtained from a reference point on the north side of the top of the well casing. Fluid measurements were recorded to the nearest 0.01-foot. Depth to groundwater was measured from all site wells on the same day. The total depth of the well was also recorded. If phase separated hydrocarbons are noted, a measurement of the apparent thickness was be obtained and the well was not be sampled. To prevent cross-contamination, all monitoring equipment that is in contact with groundwater was washed with Alconox® detergent and rinsed with distilled water prior to use in each well.

If well purging was required before collecting a water sample, both the static groundwater level and total depth of the well were used to calculate the volume of water in the well. Based on this data, if free floating hydrocarbons are not present, a minimum of three well volumes of water were purged from the well using a 2-inch Grundfos® submersible pump or a PVC bailer. Periodic measurements (at approximate 5-gallon intervals) of temperature, pH, and specific electrical conductivity were collected during purging. When three successive stabilized readings were obtained, the well was sampled. If the well is low yielding and is pumped or bailed dry, the well was allowed to recover at least 80% of the static groundwater level. If the well does not recover 80% within a 24-hour time frame, a sample was collected and recovery noted on the Groundwater Sampling Log. To prevent cross-contamination, equipment was washed with Alconox® detergent and rinsed with distilled water prior to use in the well. Groundwater purged from the well was stored on-site in 55-gallon drums pending proper disposition. If no purging before collecting the water samples was required, then the above purging steps were skipped.

Groundwater samples were collected from the well using a disposable polyethylene bailer. Each sample was collected in laboratory-preserved 1-liter glass bottles and in 40-milliliter volatile organic analysis (VOA) vials. Each vial was filled completely with sample and preservatives to eliminate headspace and create a positive meniscus. The vial was capped with convex Teflon® septa. Each vial was observed to ensure that no air bubbles are present within the vial. Samples were marked for identification, placed on ice, and transported to a State-certified laboratory for analysis. Chain-of-custody records were maintained and accompany all samples to the analytical laboratory.

ATC ASSOCIATES INC.

Page: of

# NO-PURGE SAMPLING LOG

Date:

Project Name: FORMER E-Z 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 | 14.19 | 1018 | 3x 40ml VOA | NO | HCL | Tphg / BTEX / MTBE / OXY's |
| MW-1A | 15.08 | 1021 | ↓ | ↓ | ↓ | ↓ |
| MW-2 | 15.73 | 1019 | | | | |
| MW-3 | 15.17 | 1014 | | | | |
| MW-4 | 14.68 | 1017 | | | | |
| MW-5 | 14.34 | 1015 | | | | |
| MW-6 | 14.60 | 1016 | | | | |
| MW-7 | 14.99 | 1004 | | | | |
| MW-12 | 15.67 | 0944 | | | | |
| MW-13 | — | — | | | | VEHICLE ON WELL |
| MW-14 | 15.69 | 0954 | | | | |
| EX-1 | 15.10 | 1024 | ↓ | ↓ | ↓ | ↓ |

ATC Personnel On-Site: P. ARROYO

Subcontractor On Site:

Signature: Pete Arroyo

Date: 2-13-03

ATC ASSOCIATES INC.

# Field Report

Date: 2.13.03

Project: Former E-2 Serve, HAYWARD

Field Office: Pleasanton, CA
6602 Owens Dr.
Suite 100 94588

Project No.: 43.25827.0024 | Task No.:

Location: HAYWARD, CA

Weather: Cloudy | Tempature:

Client:

Scope of Work:

X Monitoring ___ Assessment ___ Remediation

Contractor:

ATC Representative(s): P. Arroyo

Page 1 of 1

Arrive on site, located and opened all wells.
Took Depth to water and sampled (3 VOA's)
(see No-purge sampling log)
Sealed all wells, departed site.

Equipment Used: Water level / 12 Disposable Bailers

Contractor Hours | Staff / Technician Hours: | Mileage:

Copies To:

Project Manager:

Reviewed By:

ZymaX

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 (858)587-0422 | fax (858)587-0485 | |
| company: HTA Assoc. | proj: E-2 Selve / Hayward | | |
| address: 9620 Chesapeake Dr. Suite 203 San Diego, CA 92123 | proj #: 42.2552.7.0024 | | |
| | sampler: I. Arroyo | | |

**ANALYSIS REQUESTED**

TAH / BTEX / MTBE (EPA 8260)

**Turnaround Time**

ASAP ☐ 48 hr ☐
12 hr ☐ 72 hr ☐
24 hr ☐ std ☒

| ZymaX use only | SAMPLE DESCRIPTION | Date Sampled | Time | Matrix | Preserve | # of containers | Remarks |
|---|---|---|---|---|---|---|---|
| | MW-1 | 2-13-03 | 1110 | GW | HCL | 3 | 40ml VOA |
| | MW-1A | | 1035 | | | 3 | |
| | MW-2 | | 1115 | | | 3 | |
| | MW-3 | | 1030 | | | 3 | |
| | MW-4 | | 1050 | | | 3 | |
| | MW-5 | | 1100 | | | 3 | |
| | MW-6 | | 1055 | | | 3 | |
| | MW-7 | | 1005 | | | 3 | |
| | MW-12 | | 0945 | | | 3 | |
| | ~~MW-13~~ | NS | — | | | X | |
| | MW-14 | | 0955 | | | 3 | |
| | EX-1 | | 1045 | | | 3 | |

**Comments**
Requires EDF format

**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: [signature]
Print: Krishna Martinez
Company: HTA
Date: 2/13/03 Time: 14:55

**Relinquished by:**
Signature: [signature]
Print: Tim Alves
Company: ZymaX
Date: 2/13/03 Time: 1455 est

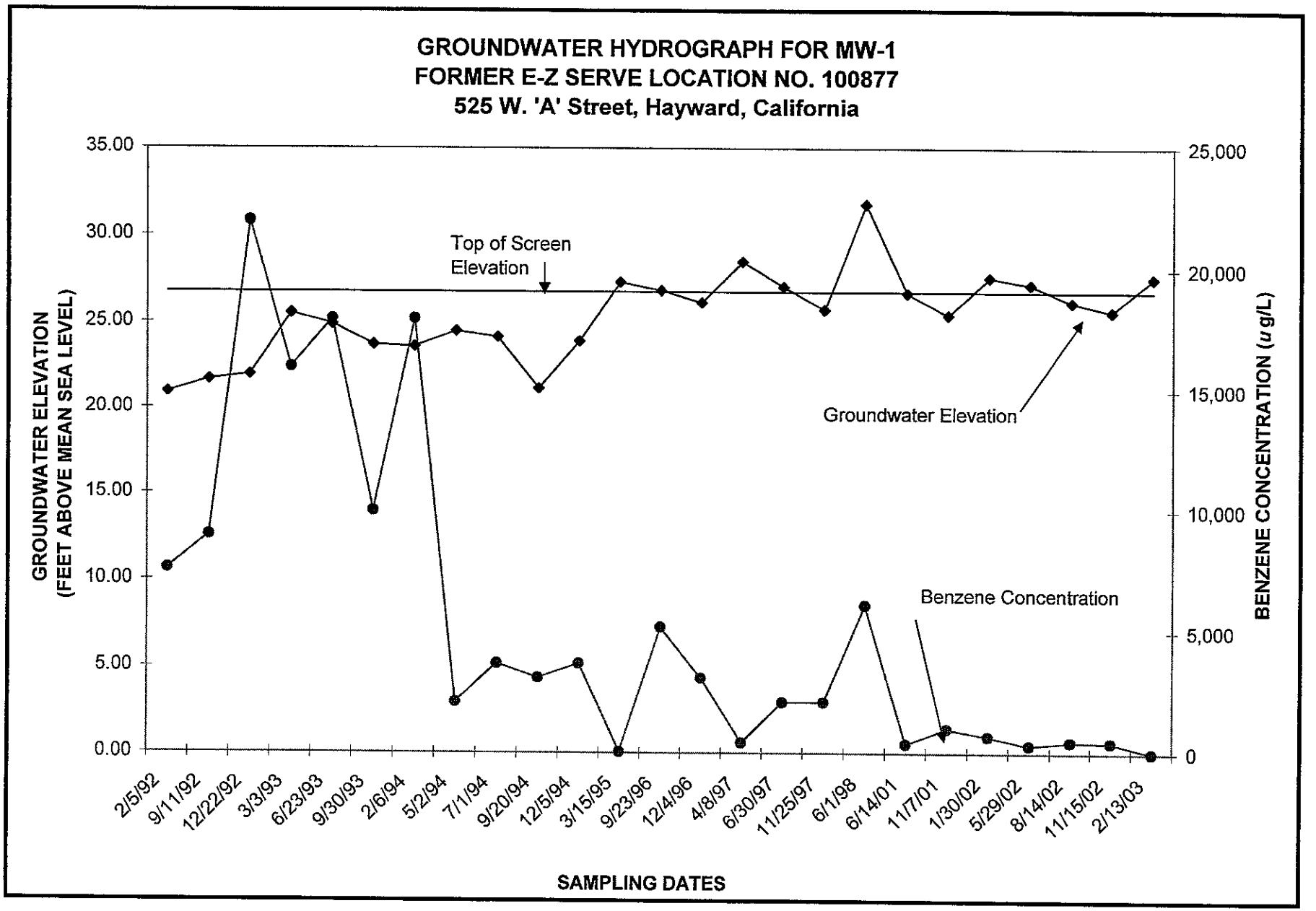
**Received by:**
Signature _____
Print _____
Company _____
Date _____ Time _____

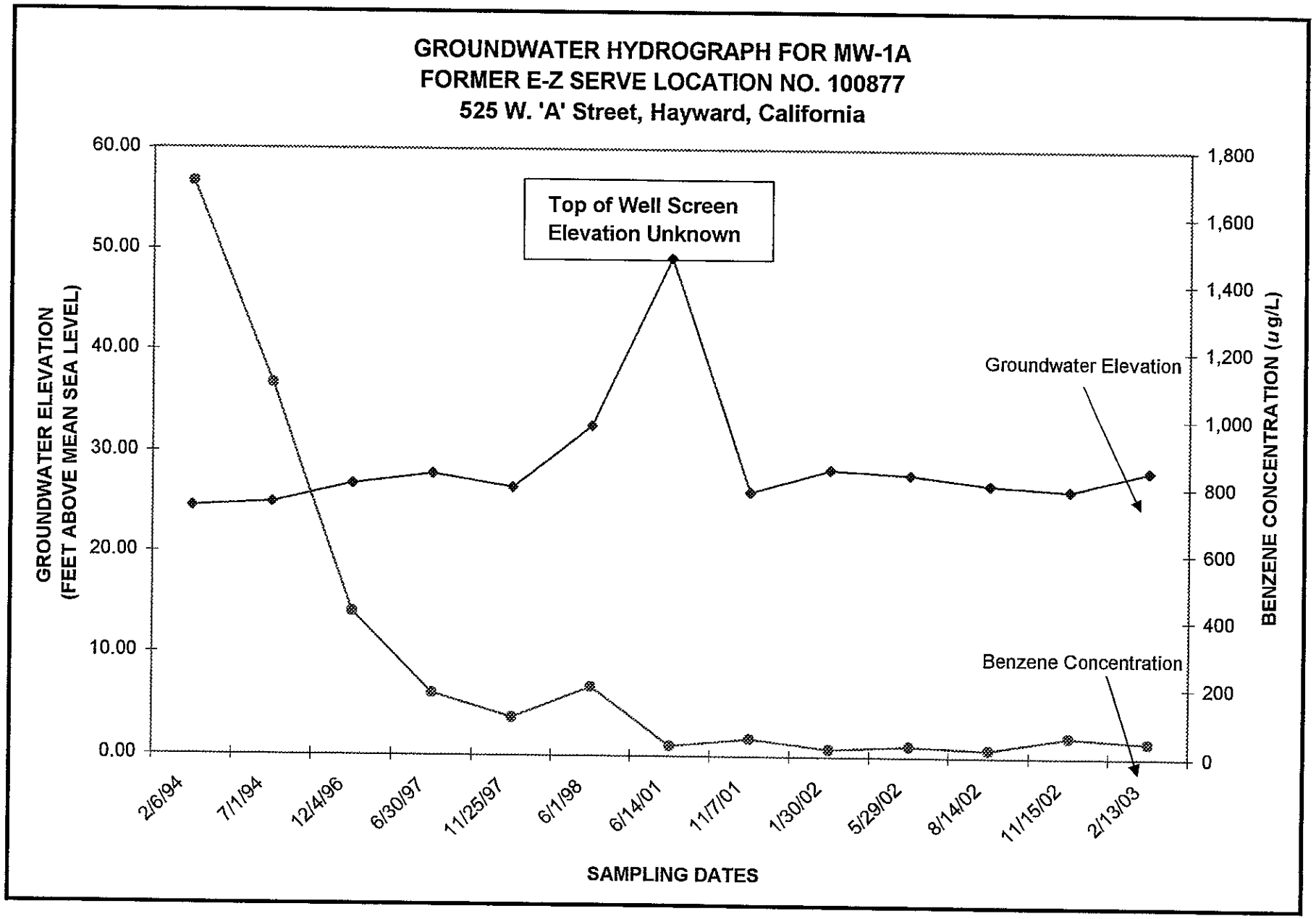
**Received by ZymaX envirotechnology, inc:**
Signature _____
Print _____
Company _____
Date _____ Time _____

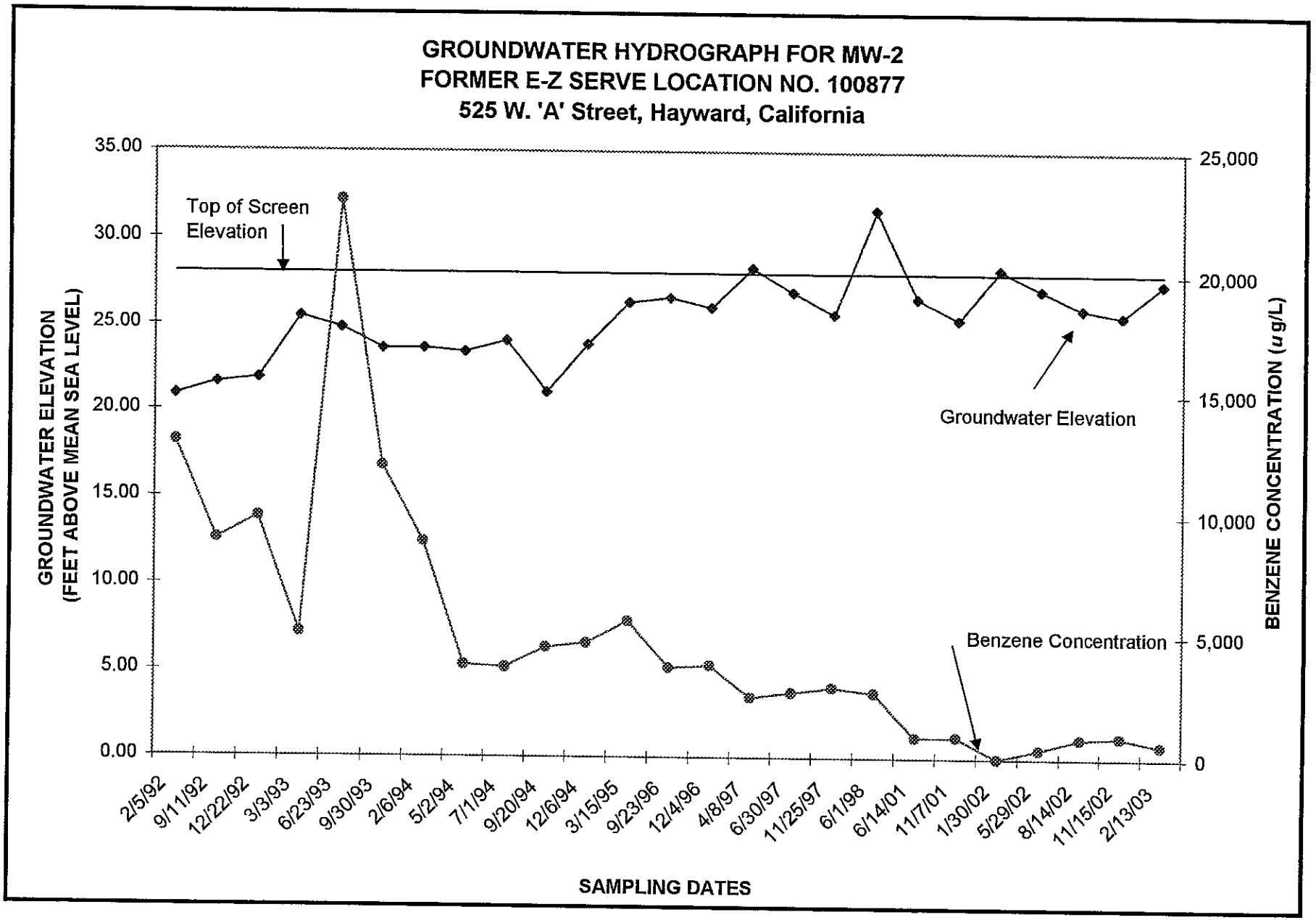
email: login@ZymaXusa.com

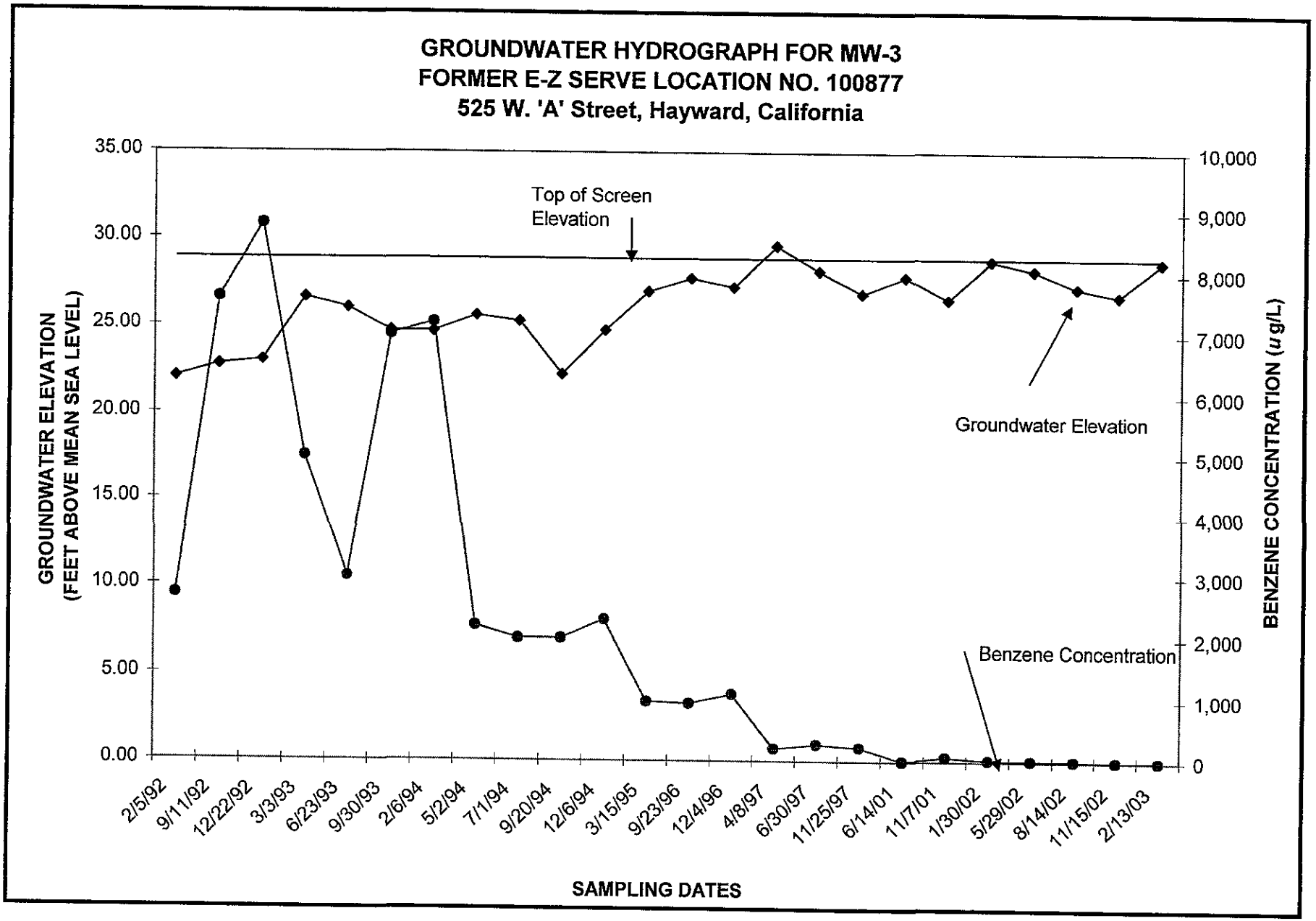
# APPENDIX B

# HYDROGRAPHS


GROUNDWATER HYDROGRAPH FOR MW-1
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (u g/L)
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
25,000
20,000
15,000
10,000
5,000
0
2/5/92
9/11/92
12/22/92
3/3/93
6/23/93
9/30/93
2/6/94
5/2/94
7/1/94
9/20/94
12/5/94
3/15/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES


GROUNDWATER HYDROGRAPH FOR MW-1A
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
Top of Well Screen Elevation Unknown
Groundwater Elevation
Benzene Concentration
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (ug/L)
SAMPLING DATES
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
2/6/94
7/1/94
12/4/96
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03


GROUNDWATER HYDROGRAPH FOR MW-2
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (u g/L)
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
25,000
20,000
15,000
10,000
5,000
0
2/5/92
9/11/92
12/22/92
3/3/93
6/23/93
9/30/93
2/6/94
5/2/94
7/1/94
9/20/94
12/6/94
3/15/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES


GROUNDWATER HYDROGRAPH FOR MW-3
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (ug/L)
SAMPLING DATES
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2/5/92
9/11/92
12/22/92
3/3/93
6/23/93
9/30/93
2/6/94
5/2/94
7/1/94
9/20/94
12/6/94
3/15/95
9/23/96
12/4/96
4/8/97
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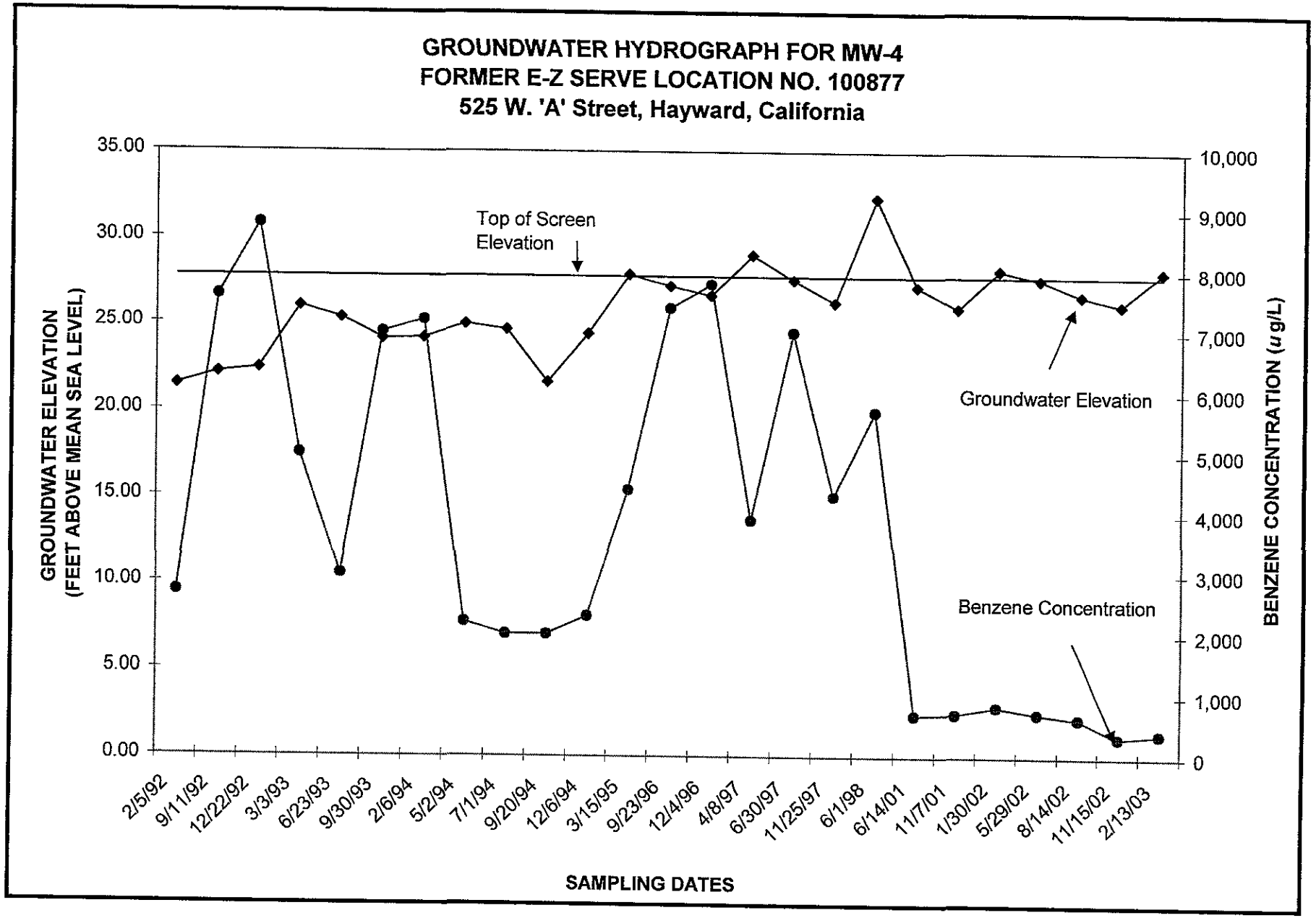
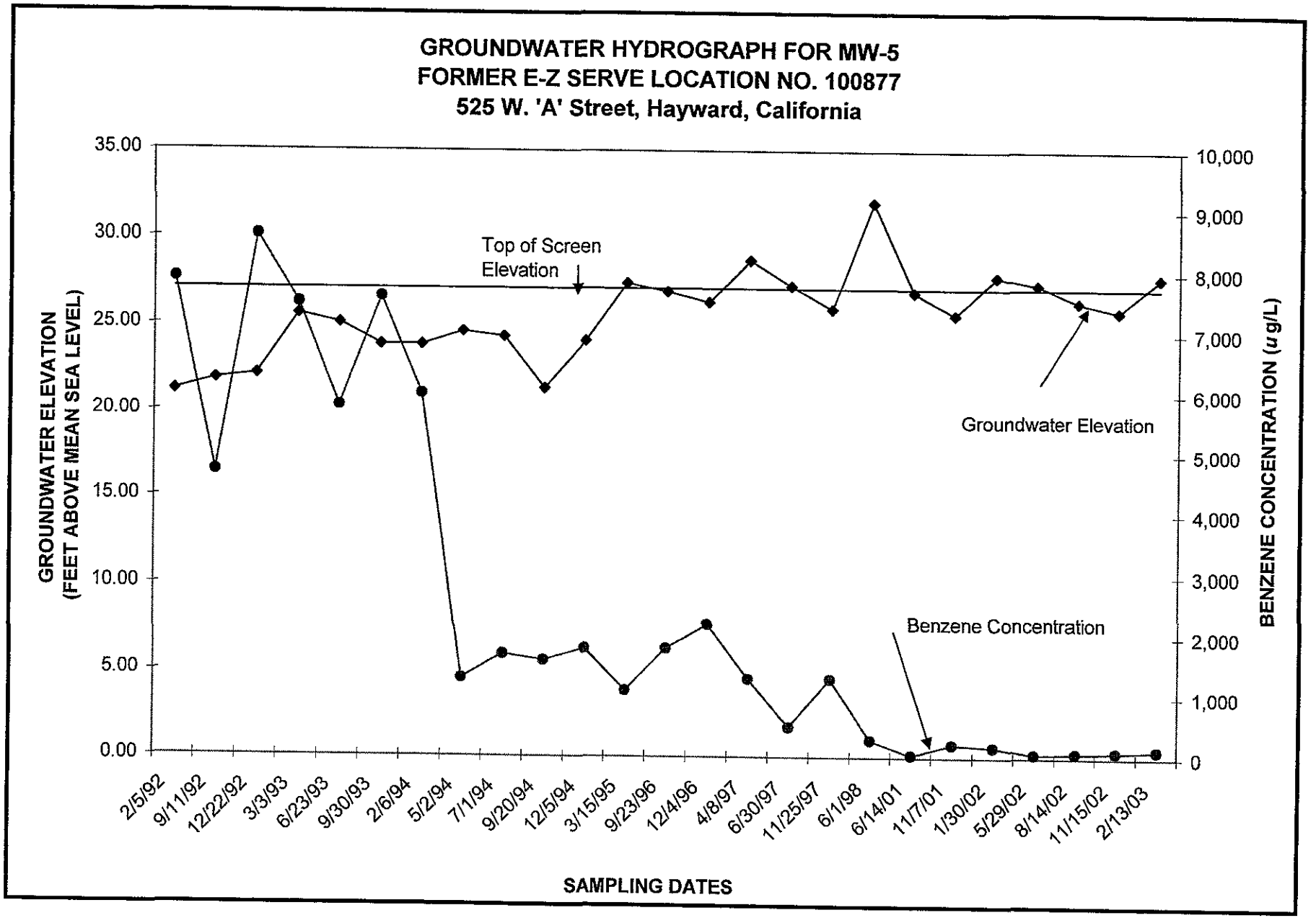
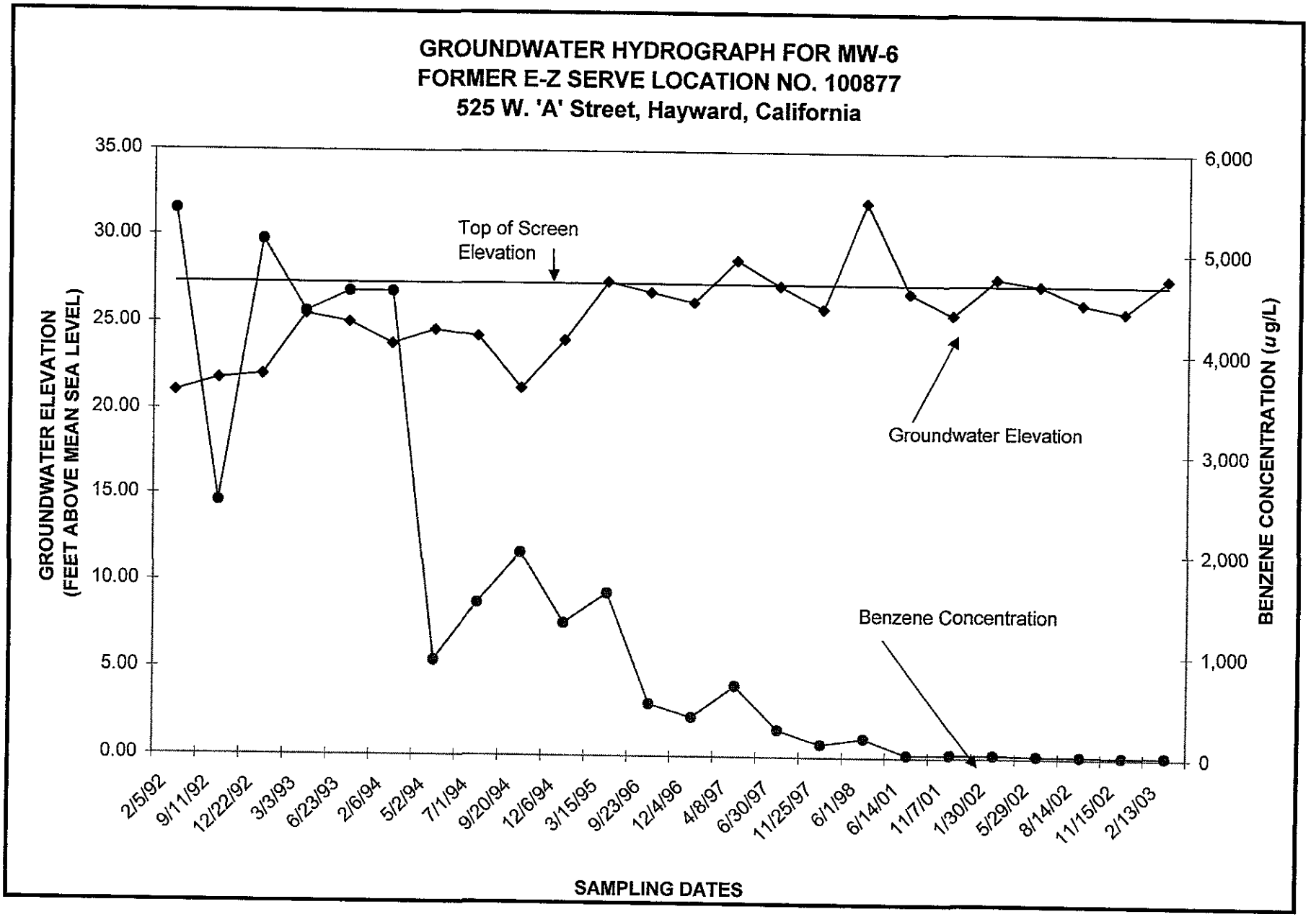
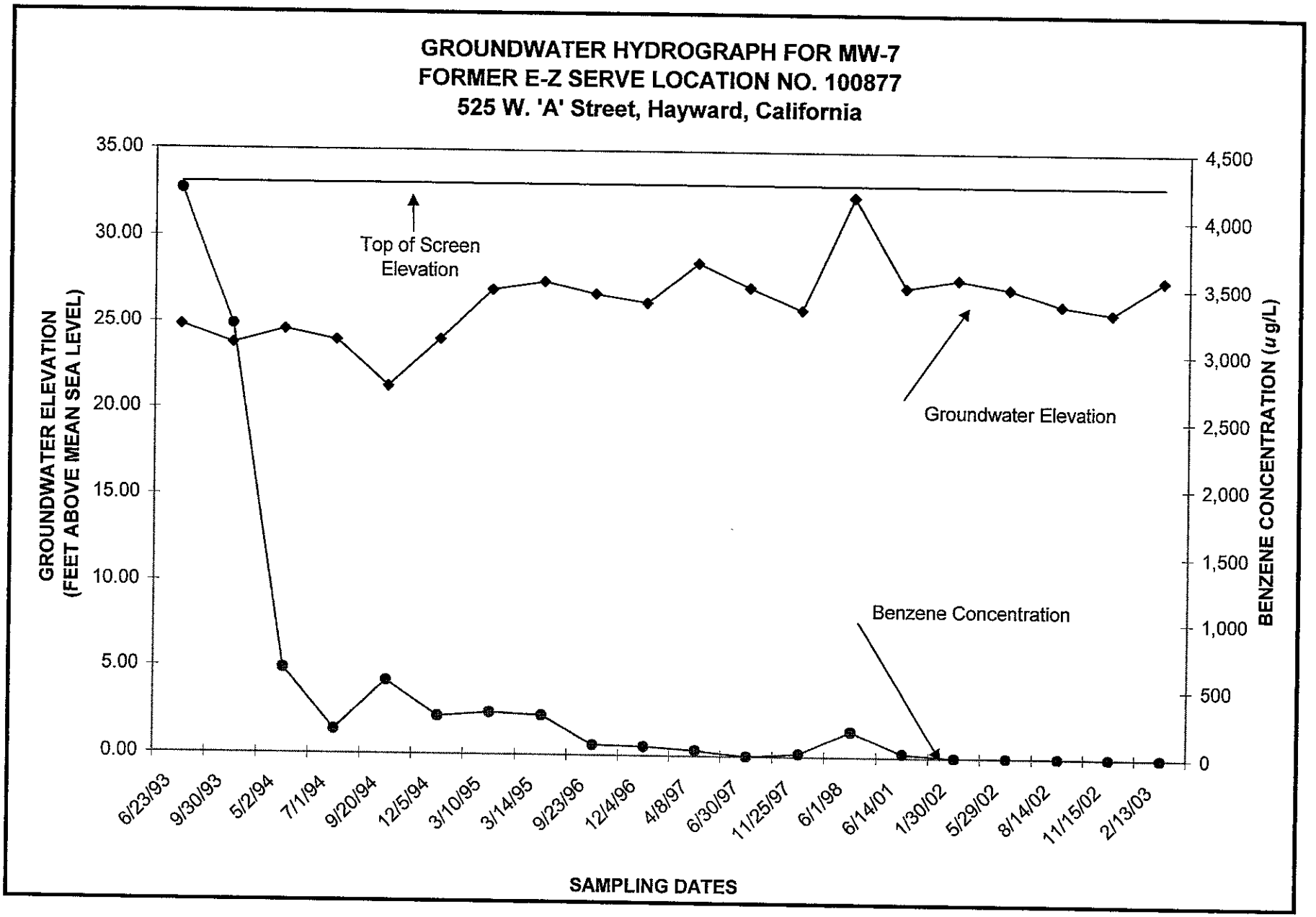
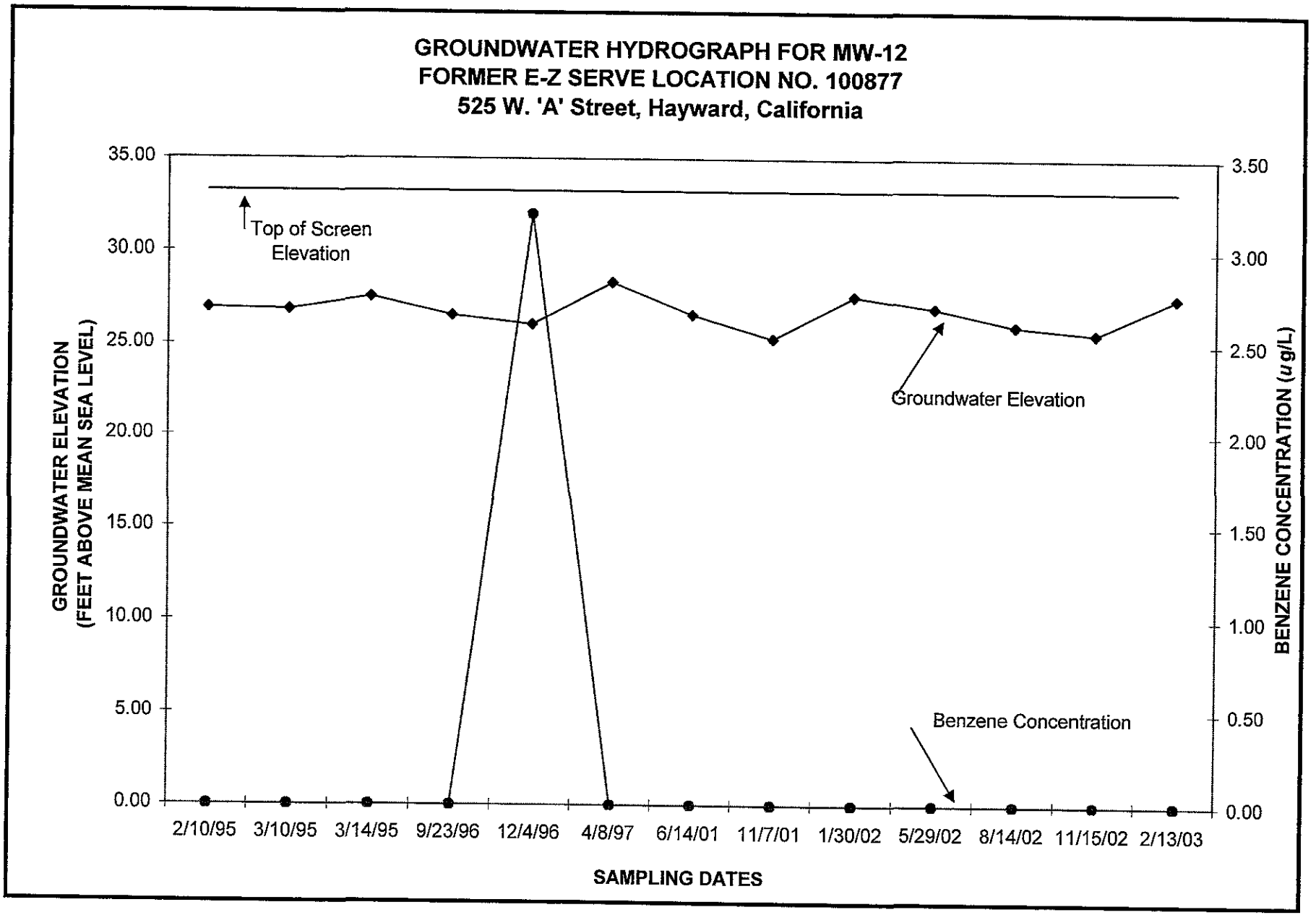
5/29/02
8/14/02
11/15/02
2/13/03

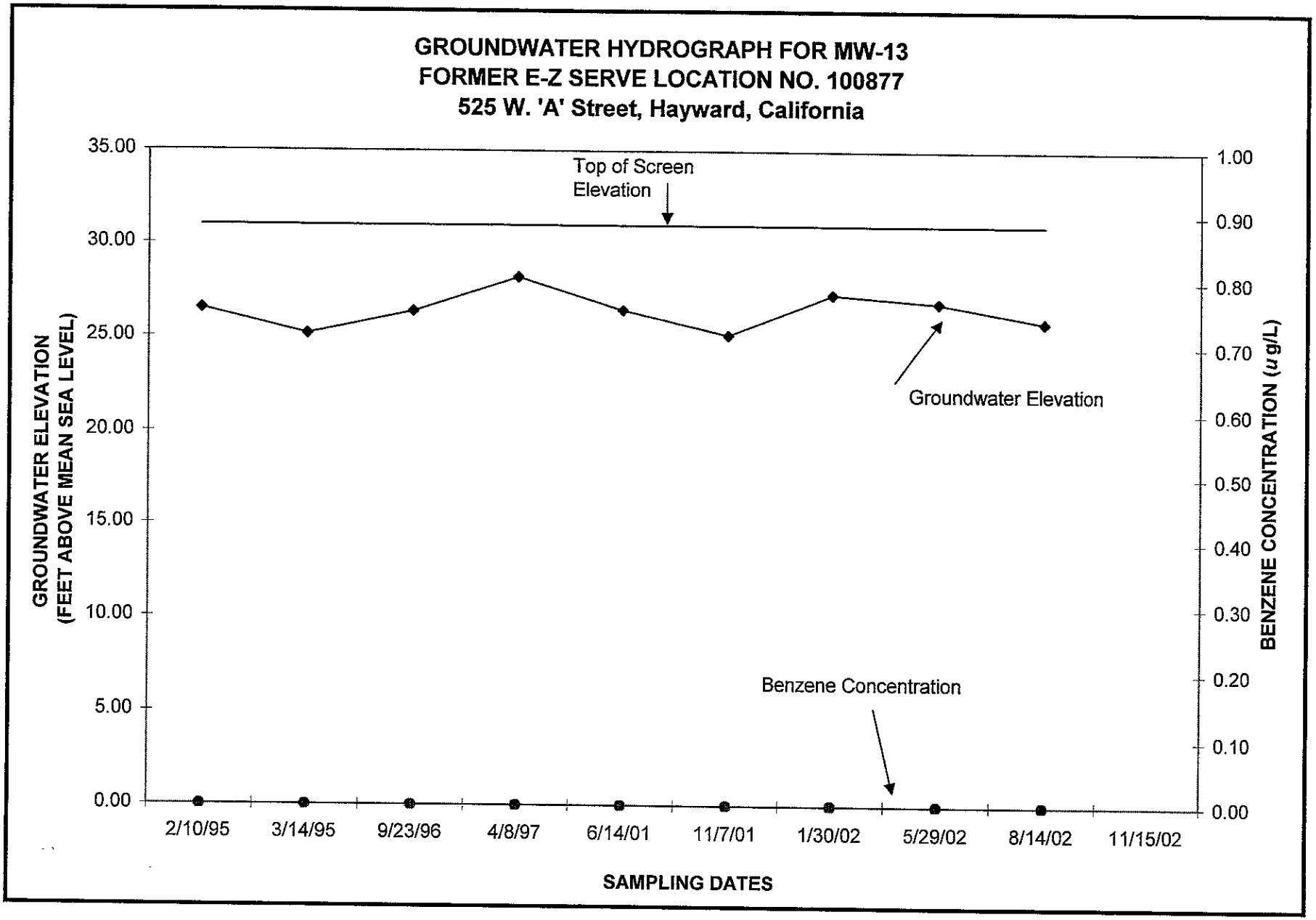

GROUNDWATER HYDROGRAPH FOR MW-4
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (µg/L)
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2/5/92
9/11/92
12/22/92
3/3/93
6/23/93
9/30/93
2/6/94
5/2/94
7/1/94
9/20/94
12/6/94
3/15/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES

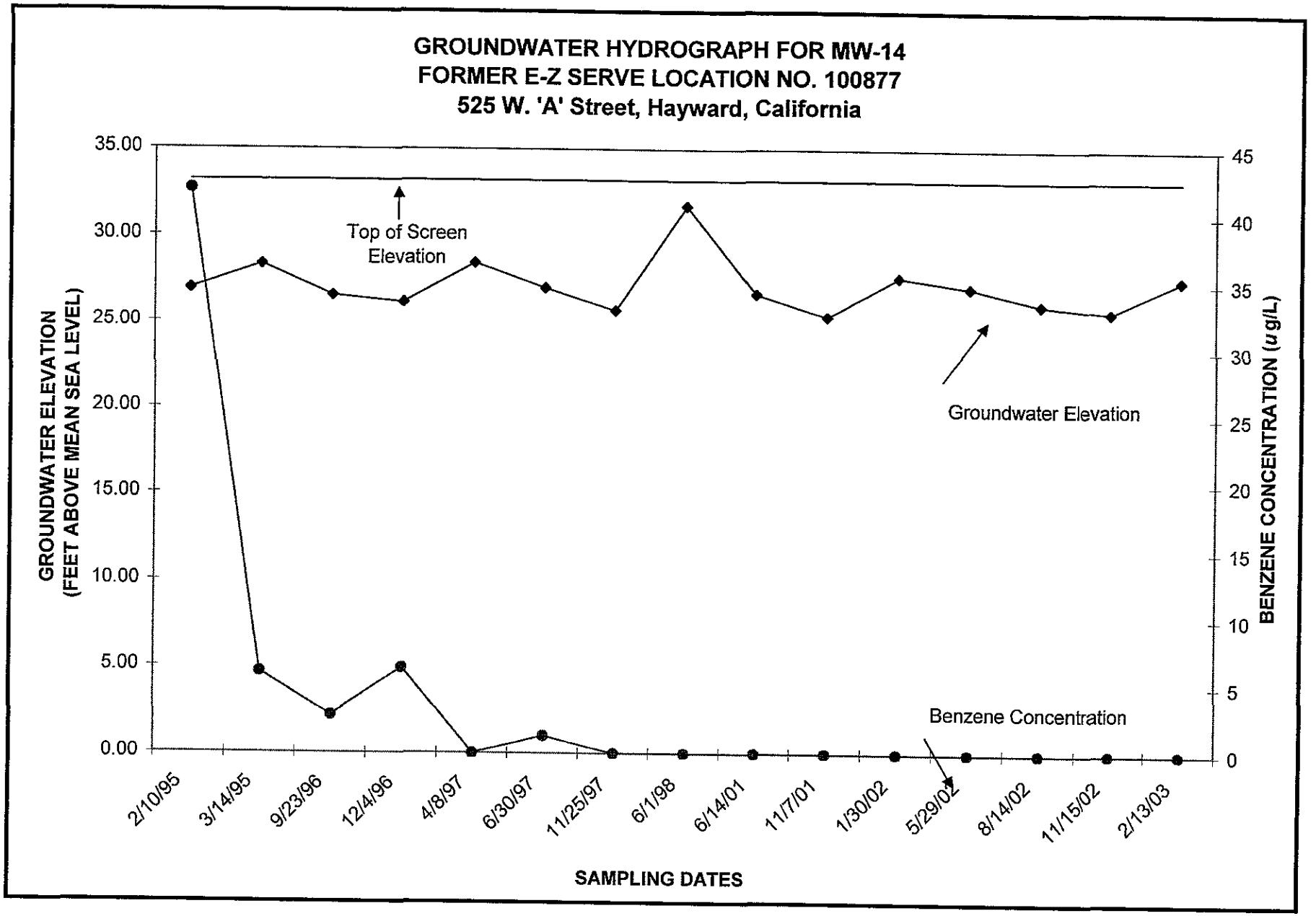

GROUNDWATER HYDROGRAPH FOR MW-5
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (u g/L)
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2/5/92
9/11/92
12/22/92
3/3/93
6/23/93
9/30/93
2/6/94
5/2/94
7/1/94
9/20/94
12/5/94
3/15/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES


GROUNDWATER HYDROGRAPH FOR MW-6
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (ug/L)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
6,000
5,000
4,000
3,000
2,000
1,000
0
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
2/5/92
9/11/92
12/22/92
3/3/93
6/23/93
2/6/94
5/2/94
7/1/94
9/20/94
12/6/94
3/15/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES


GROUNDWATER HYDROGRAPH FOR MW-7
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (ug/L)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
6/23/93
9/30/93
5/2/94
7/1/94
9/20/94
12/5/94
3/10/95
3/14/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES


GROUNDWATER HYDROGRAPH FOR MW-12
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (ug/L)
SAMPLING DATES
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2/10/95
3/10/95
3/14/95
9/23/96
12/4/96
4/8/97
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03


GROUNDWATER HYDROGRAPH FOR MW-13
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (ug/L)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
2/10/95
3/14/95
9/23/96
4/8/97
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
SAMPLING DATES


GROUNDWATER HYDROGRAPH FOR MW-14
FORMER E-Z SERVE LOCATION NO. 100877
525 W. 'A' Street, Hayward, California
GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
BENZENE CONCENTRATION (u g/L)
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
45
40
35
30
25
20
15
10
5
0
Top of Screen Elevation
Groundwater Elevation
Benzene Concentration
2/10/95
3/14/95
9/23/96
12/4/96
4/8/97
6/30/97
11/25/97
6/1/98
6/14/01
11/7/01
1/30/02
5/29/02
8/14/02
11/15/02
2/13/03
SAMPLING DATES

# APPENDIX C

# LABORATORY REPORT
# AND
# CHAIN-OF-CUSTODY RECORD

ZymaX
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 (858)569-0692 | fax (858)547-0695 | |
| company HTC Assoc. | proj E-2 Serve / Hayward | | |
| address 9620 Chesapeake Dr. Suite 203 San Diego, CA 92123 | proj # 43.258277.0024 ⊕ #100877 | | |
| | sampler T. Arroyo | | |

**ANALYSIS REQUESTED**

Turnaround Time: ASAP ☐ 48 hr ☐ 12 hr ☐ 72 hr ☐ 24 hr ☐ std ☒

| ZymaX use only | SAMPLE DESCRIPTION | Date Sampled | Time | Matrix | Preserve | TPH / BTEX / MTBE (8015/8021) | EPA (8260) | # of containers | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 30655-1 | MW-1 | 2-13-03 | 1110 | GW | HCL | X | | 3 | 40ml VOA |
| -2 | MW-1A | | 1135 | | | X | | 3 | |
| -3 | MW-2 | | 1115 | | | X | | 3 | |
| -4 | MW-3 | | 1030 | | | X | | 3 | |
| -5 | MW-4 | | 1050 | | | X | | 3 | |
| -6 | MW-5 | | 1100 | | | X | | 3 | |
| -7 | MW-6 | | 1055 | | | X | | 3 | |
| -8 | MW-7 | | 1005 | | | X | | 3 | |
| -9 | MW-12 | | 0945 | | | X | | 3 | |
| X | ~~MW-13~~ | NS | — | | | X | | X | |
| -10 | MW-14 | | 0955 | | | X | | 3 | |
| -11 | EX-1 | | 1045 | | | X | | 3 | |

**Comments**
Request EDF FORMAT
⊕ - per Scott Meckstroth 2-18-03 DP

**Relinquished by:**
Signature [signature]
Print Kristine Martinez
Company ATC
Date 2/13/03 Time 14:55

**Received by:**
Signature
Print
Company
Date Time

**Relinquished by:**
Signature [signature]
Print Tim Alves
Company ZymaX
Date 2/13/03 Time 1455 Hrs

**Received by ZymaX envirotechnology, inc:**
Signature
Print
Company
Date Time

**Sample integrity upon receipt:**
Samples received intact ☐
Samples received cold ☐
Custody seals ☐
Correct container types ☐

Bill 3rd party:

PO#:
Quote yes no

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | Scott Levin<br>ATC Associates, Inc.<br>9620 Chesapeake Dr., Ste. 203<br>San Diego, CA 92123 |
| **Project:** | EZ Serve #100877 |
| **Project Number:** | EZS0024 |
| **Collected by:** | P. Arroyo |

| | |
|---|---|
| **Lab Number:** | 30655-1 |
| **Collected:** | 02/13/03 |
| **Received:** | 02/13/03 |
| **Matrix:** | Aqueous |
| **Sample Description:** | MW-1 |
| **Analyzed:** | 02/15/03 |
| **Method:** | See Below |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 0.5 | 11. |
| Toluene | 0.5 | ND |
| Ethylbenzene | 0.5 | 2.8 |
| Xylenes | 0.5 | 1.9 |
| 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 | 0.8 |
| Percent Surrogate Recovery | | 101 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 50. | 210. |
| 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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20215**
**MSD #2**
**30655-1.xls**
**DZ/ash/pv/ses/ccc**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | **Scott Levin**<br>**ATC Associates, Inc.**<br>**9620 Chesapeake Dr., Ste. 203**<br>**San Diego, CA 92123** |

| | |
|---|---|
| **Lab Number:** | **30655-2** |
| **Collected:** | **02/13/03** |
| **Received:** | **02/13/03** |
| **Matrix:** | **Aqueous** |

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

| | |
|---|---|
| **Sample Description:** | **MW-1A** |
| **Analyzed:** | **02/19/03** |
| **Method:** | **See Below** |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 2.0 | 45. |
| Toluene | 2.0 | 1.5 |
| Ethylbenzene | 2.0 | 790. |
| Xylenes | 2.0 | 240. |
| 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 | | 102 |
| 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.**

**VA20219**
**MSD #2**
**30655-2.xls**
**DZ/ash/pv/ses/ccc/ra**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | Scott Levin<br>ATC Associates, Inc.<br>9620 Chesapeake Dr., Ste. 203<br>San Diego, CA 92123 |
| **Project:** | EZ Serve #100877 |
| **Project Number:** | EZS0024 |
| **Collected by:** | P. Arroyo |

| | |
|---|---|
| **Lab Number:** | 30655-3 |
| **Collected:** | 02/13/03 |
| **Received:** | 02/13/03 |
| **Matrix:** | Aqueous |
| **Sample Description:** | MW-2 |
| **Analyzed:** | 02/19/03 |
| **Method:** | See Below |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 20. | 550. |
| Toluene | 20. | ND |
| Ethylbenzene | 20. | 900. |
| Xylenes | 20. | 1300. |
| 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. | 21. |
| Percent Surrogate Recovery | | 97 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 2000. | 19000. |
| BTX as a Percent of Fuel | | 10 |

**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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20219**
**MSD #2**
**30655-3.xls**
**DZ/ash/pv/ses/ccc/ra**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | **Scott Levin**<br>**ATC Associates, Inc.**<br>**9620 Chesapeake Dr., Ste. 203**<br>**San Diego, CA 92123** |

| | |
|---|---|
| **Lab Number:** | **30655-4** |
| **Collected:** | **02/13/03** |
| **Received:** | **02/13/03** |
| **Matrix:** | **Aqueous** |

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

| | |
|---|---|
| **Sample Description:** | **MW-3** |
| **Analyzed:** | **02/15/03** |
| **Method:** | **See Below** |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 0.5 | 3.8 |
| Toluene | 0.5 | ND |
| Ethylbenzene | 0.5 | 29. |
| Xylenes | 0.5 | 3.8 |
| 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 | | 106 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 50. | 1700. |
| 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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20215**
**MSD #2**
**30655-4.xls**
**DZ/ash/pv/ses/ccc**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | Scott Levin<br>ATC Associates, Inc.<br>9620 Chesapeake Dr., Ste. 203<br>San Diego, CA 92123 |
| **Project:** | EZ Serve #100877 |
| **Project Number:** | EZS0024 |
| **Collected by:** | P. Arroyo |

| | |
|---|---|
| **Lab Number:** | 30655-5 |
| **Collected:** | 02/13/03 |
| **Received:** | 02/13/03 |
| **Matrix:** | Aqueous |
| **Sample Description:** | MW-4 |
| **Analyzed:** | 02/19/03 |
| **Method:** | See Below |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 2.0 | 390. |
| Toluene | 2.0 | 12. |
| Ethylbenzene | 2.0 | 330. |
| Xylenes | 2.0 | 31. |
| 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 | 22. |
| Percent Surrogate Recovery | | 99 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 200. | 4500. |
| BTX as a Percent of Fuel | | 10 |

**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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20219**
**MSD #2**
**30655-5.xls**
**DZ/ash/pv/ses/ccc/ra**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | **Scott Levin**<br>**ATC Associates, Inc.**<br>**9620 Chesapeake Dr., Ste. 203**<br>**San Diego, CA 92123** |

| | |
|---|---|
| **Lab Number:** | **30655-6** |
| **Collected:** | **02/13/03** |
| **Received:** | **02/13/03** |
| **Matrix:** | **Aqueous** |

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

| | |
|---|---|
| **Sample Description:** | **MW-5** |
| **Analyzed:** | **02/19/03** |
| **Method:** | **See Below** |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 5.0 | 130. |
| Toluene | 5.0 | ND |
| Ethylbenzene | 5.0 | 130. |
| Xylenes | 5.0 | 11. |
| 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 | | 98 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 500. | 5900. |
| 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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20219**
**MSD #2**
**30655-6.xls**
**DZ/ash/pv/ses/ccc/ra**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | Scott Levin<br>ATC Associates, Inc.<br>9620 Chesapeake Dr., Ste. 203<br>San Diego, CA 92123 |
| **Project:** | EZ Serve #100877 |
| **Project Number:** | EZS0024 |
| **Collected by:** | P. Arroyo |

| | |
|---|---|
| **Lab Number:** | 30655-7 |
| **Collected:** | 02/13/03 |
| **Received:** | 02/13/03 |
| **Matrix:** | Aqueous |
| **Sample Description:** | MW-6 |
| **Analyzed:** | 02/19/03 |
| **Method:** | See Below |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 0.5 | 22. |
| Toluene | 0.5 | 2.0 |
| Ethylbenzene | 0.5 | ND |
| Xylenes | 0.5 | 21. |
| 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 | 0.9 |
| Percent Surrogate Recovery | | 105 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 50. | 2800. |
| 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.**

**VA20219**
**MSD #2**
**30655-7.xls**
**DZ/ash/pv/ses/ccc/ra**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | **Scott Levin**<br>**ATC Associates, Inc.**<br>**9620 Chesapeake Dr., Ste. 203**<br>**San Diego, CA 92123** |

| | |
|---|---|
| **Lab Number:** | **30655-8** |
| **Collected:** | **02/13/03** |
| **Received:** | **02/13/03** |
| **Matrix:** | **Aqueous** |

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

| | |
|---|---|
| **Sample Description:** | **MW-7** |
| **Analyzed:** | **02/15/03** |
| **Method:** | **See Below** |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 0.5 | 0.6 |
| Toluene | 0.5 | ND |
| Ethylbenzene | 0.5 | 20. |
| 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 | | 103 |
| TOTAL PETROLEUM HYDROCARBONS | | |
| Total Petroleum Hydrocarbons | 50. | 1500. |
| 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.**

**VA20215**
**MSD #2**
**30655-8.xls**
**DZ/ash/pv/ses/ccc**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | **Scott Levin**<br>**ATC Associates, Inc.**<br>**9620 Chesapeake Dr., Ste. 203**<br>**San Diego, CA 92123** |

| | |
|---|---|
| **Lab Number:** | **30655-9** |
| **Collected:** | **02/13/03** |
| **Received:** | **02/13/03** |
| **Matrix:** | **Aqueous** |

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

| | |
|---|---|
| **Sample Description:** | **MW-12** |
| **Analyzed:** | **02/14/03** |
| **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 | | |
| 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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20214**
**MSD #2**
**30655-9.xls**
**DZ/ash/pv/ses/ccc**

ZymaX envirotechnology

**REPORT OF ANALYTICAL RESULTS**

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

| | |
|---|---|
| **Lab Number:** | **30655-10** |
| **Collected:** | **02/13/03** |
| **Received:** | **02/13/03** |
| **Matrix:** | **Aqueous** |

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

| | |
|---|---|
| **Sample Description:** | **MW-14** |
| **Analyzed:** | **02/15/03** |
| **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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20215**
**MSD #2**
**30655-10.xls**
**DZ/ash/pv/ses/ccc**

ZymaX envirotechnology

# REPORT OF ANALYTICAL RESULTS

| | |
|---|---|
| **Client:** | Scott Levin<br>ATC Associates, Inc.<br>9620 Chesapeake Dr., Ste. 203<br>San Diego, CA 92123 |
| **Project:** | EZ Serve #100877 |
| **Project Number:** | EZS0024 |
| **Collected by:** | P. Arroyo |

| | |
|---|---|
| **Lab Number:** | 30655-11 |
| **Collected:** | 02/13/03 |
| **Received:** | 02/13/03 |
| **Matrix:** | Aqueous |
| **Sample Description:** | EX-1 |
| **Analyzed:** | 02/15/03 |
| **Method:** | See Below |

| CONSTITUENT | PQL* ug/L | RESULT** ug/L |
|---|---|---|
| Benzene | 0.5 | 1.3 |
| 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 | 0.8 |
| 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.**

**VA20215**
**MSD #2**
**30655-11.xls**
**DZ/ash/pv/ses/ccc**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

ZymaX envirotechnology

**QUALITY ASSURANCE REPORT**
**BLANK RESULTS**

| | |
|---|---|
| **Client:** ZymaX envirotechnology, inc.<br>71 Zaca Lane, Suite 110<br>San Luis Obispo, CA 93401 | **Lab Number:** BLK VA20219<br>**Collected:**<br>**Received:**<br>**Matrix:** Aqueous |
| **Project:**<br>**Project Number:**<br>**Collected by:** | **Sample Description:** Instrument Blank<br>**Analyzed:** 02/19/03<br>**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.**

**VA20219**
**MSD #2**
**VA20219b.xls**
**DZ/ash/pv/ccc**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

ZymaX envirotechnology

**QUALITY ASSURANCE REPORT**
**SPIKE RESULTS**

| | |
|---|---|
| **Client:** | |
| ZymaX envirotechnology, inc. | |
| 71 Zaca Lane, Suite 110 | |
| San Luis Obispo, CA 93401 | |
| **Lab Number:** | QS VA20219 |
| **Collected:** | |
| **Received:** | |
| **Matrix:** | Aqueous |
| **Project:** | |
| **Project Number:** | |
| **Collected by:** | |
| **Sample Description:** | Quality Assurance Spike |
| **Analyzed:** | 02/19/03 |
| **Method:** | See Below |

| CONSTITUENT | Amount Spiked ug/L | Amount Recovered ug/L | Percent Recovery |
|---|---|---|---|
| Benzene | 11.3 | 12.1 | 107 |
| Toluene | 17.9 | 19.5 | 109 |
| Ethylbenzene | 12.1 | 11.3 | 93 |
| Xylenes | 27.9 | 27.2 | 97 |
| Methyl t-Butyl Ether (MTBE) | 21.1 | 24.2 | 115 |
| Percent Surrogate Recovery | | | 101 |
| TOTAL PETROLEUM HYDROCARBONS | | | |
| Gasoline | 500. | 467. | 93 |
| BTX as a Percent of Fuel | 11 | 13 | |

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

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

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20219**
**MSD #2**
**VA20219q.xls**
**DZ/ash/pv/ccc**

ZymaX envirotechnology

**QUALITY ASSURANCE REPORT**
**SPIKE DUPLICATE RESULTS**

| | |
|---|---|
| **Client:** | |
| ZymaX envirotechnology, inc. | |
| 71 Zaca Lane, Suite 110 | |
| San Luis Obispo, CA 93401 | |
| **Lab Number:** | QSD VA20219 |
| **Collected:** | |
| **Received:** | |
| **Matrix:** | Aqueous |
| **Project:** | |
| **Project Number:** | |
| **Collected by:** | |
| **Sample Description:** | Quality Assurance Spike Duplicate |
| **Analyzed:** | 02/19/03 |
| **Method:** | See Below |

| CONSTITUENT | Amount Spiked ug/L | Amount Recovered ug/L | Percent Recovery | Relative Percent Difference* |
|---|---|---|---|---|
| Benzene | 11.3 | 11.8 | 104 | 3 |
| Toluene | 17.9 | 19.3 | 108 | 1 |
| Ethylbenzene | 12.1 | 10.7 | 88 | 5 |
| Xylenes | 27.9 | 26.0 | 93 | 5 |
| Methyl t-Butyl Ether (MTBE) | 21.1 | 20.4 | 97 | 17 |
| Percent Surrogate Recovery | | | 101 | |
| TOTAL PETROLEUM HYDROCARBONS | | | | |
| Gasoline | 500. | 554. | 111 | 17 |
| 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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20219**
**MSD #2**
**VA20219q.xls**
**DZ/ash/pv/ccc**

ZymaX envirotechnology

**QUALITY ASSURANCE REPORT**
**BLANK RESULTS**

| | |
|---|---|
| **Client:** | |
| ZymaX envirotechnology, inc. | |
| 71 Zaca Lane, Suite 110 | |
| San Luis Obispo, CA 93401 | |
| **Lab Number:** | **BLK VA20215** |
| **Collected:** | |
| **Received:** | |
| **Matrix:** | **Aqueous** |
| **Project:** | |
| **Project Number:** | |
| **Collected by:** | |
| **Sample Description:** | **Instrument Blank** |
| **Analyzed:** | **02/15/03** |
| **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 | | 99 |
| 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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20215**
**MSD #2**
**VA20215b.xls**
**DZ/ash/pv/ccc**

ZymaX envirotechnology

**QUALITY ASSURANCE REPORT**
**BLANK RESULTS**

| | |
|---|---|
| **Client:** | |
| ZymaX envirotechnology, inc. | |
| 71 Zaca Lane, Suite 110 | |
| San Luis Obispo, CA 93401 | |
| **Lab Number:** | **BLK VA20214** |
| **Collected:** | |
| **Received:** | |
| **Matrix:** | **Aqueous** |
| **Project:** | |
| **Project Number:** | |
| **Collected by:** | |
| **Sample Description:** | **Instrument Blank** |
| **Analyzed:** | **02/14/03** |
| **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.**

**Submitted by,**
**ZymaX envirotechnology, inc.**

**Dwain Zsadanyi**
**Project Manager**

**VA20214**
**MSD #2**
**VA20214b.xls**
**DZ/ash/pv/ccc**