

**3R - 212**

**ANNUAL  
MONITORING  
REPORT**

**02/21/2005**



**Via Federal Express**

February 21, 2005

Mr. Ed Martin  
New Mexico Oil Conservation Division  
1220 St. Francis Dr.  
Santa Fe, NM 87504

**RE: 2004 Pit Project Annual Groundwater Report**

Dear Mr. Martin:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 20 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

EPFS has organized the 20 Annual Reports (Volumes 1, 2 and 3) by land type. Volume 1 contains Annual Reports for sites found on Federal land. Volume 2 contains Non Federal land sites and Volume 3 contains one site on Navajo land. EPFS understands closure of groundwater sites on Navajo lands falls under jurisdiction of the Navajo Nation Environmental Protection Agency; however, the Navajo site report is included for your information.

If you have any questions concerning the enclosed reports, please call me at (719) 520-4433.

Sincerely,

A handwritten signature in dark ink, appearing to read "Scott T. Pope".

Scott T. Pope P.G.  
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Federal Express**  
Mr. Bill Liesse, BLM - w / enclosures (federal sites only), **Federal Express**  
Dr. Ted Helfgott, Enterprise - w / enclosures (Enterprise sites only), **Federal Express**  
Groundwater Pit File w / o enclosures  
Pam Anderson - MWH, w / o enclosures  
Inside Pocket of Each Volume of Report

## A detailed topographic map of the Yarmouth, Maine area. The map shows a network of roads, including US Route 1 running vertically through the center. Other roads include US Route 63, US Route 179, and various local roads like State Road #1E, #14, #40, #41A, #41B, #41C, #41D, #41E, #41F, #41G, #41H, #41I, #41J, #41K, #41L, #41M, #41N, #41O, #41P, #41Q, #41R, #41S, #41T, #41U, #41V, #41W, #41X, #41Y, #41Z, #41AA, #41AB, #41AC, #41AD, #41AE, #41AF, #41AG, #41AH, #41AI, #41AJ, #41AK, #41AL, #41AM, #41AN, #41AO, #41AP, #41AQ, #41AR, #41AS, #41AT, #41AU, #41AV, #41AW, #41AX, #41AY, #41AZ, #41BA, #41BB, #41BC, #41BD, #41BE, #41BF, #41BG, #41BH, #41BI, #41BJ, #41BK, #41BL, #41BM, #41BN, #41BO, #41BP, #41BQ, #41BR, #41BS, #41BT, #41BU, #41BV, #41BW, #41BX, #41BY, #41BZ, #41CA, #41CB, #41CC, #41CD, #41CE, #41CF, #41CG, #41CH, #41CI, #41CJ, #41CK, #41CL, #41CM, #41CN, #41CO, #41CP, #41CQ, #41CR, #41CS, #41CT, #41CU, #41CV, #41CW, #41CX, #41CY, #41CZ, #41DA, #41DB, #41DC, #41DD, #41DE, #41DF, #41DG, #41DH, #41DI, #41DJ, #41DK, #41DL, #41DM, #41DN, #41DO, #41DP, #41DQ, #41DR, #41DS, #41DT, #41DU, #41DV, #41DW, #41DX, #41DY, #41DZ, #41EA, #41EB, #41EC, #41ED, #41EE, #41EF, #41EG, #41EH, #41EI, #41EJ, #41EK, #41EL, #41EM, #41EN, #41EO, #41EP, #41EQ, #41ER, #41ES, #41ET, #41EU, #41EV, #41EW, #41EX, #41EY, #41EZ, #41FA, #41FB, #41FC, #41FD, #41FE, #41FF, #41FG, #41FH, #41FI, #41FJ, #41FK, #41FL, #41FM, #41FN, #41FO, #41FP, #41FQ, #41FR, #41FS, #41FT, #41FU, #41FV, #41FW, #41FX, #41FY, #41FZ, #41GA, #41GB, #41GC, #41GD, #41GE, #41GF, #41GG, #41GH, #41GI, #41GJ, #41GK, #41GL, #41GM, #41GN, #41GO, #41GP, #41GQ, #41GR, #41GS, #41GT, #41GU, #41GV, #41GW, #41GX, #41GY, #41GZ, #41HA, #41HB, #41HC, #41HD, #41HE, #41HF, #41HG, #41HH, #41HI, #41HJ, #41HK, #41HL, #41HM, #41HN, #41HO, #41HP, #41HQ, #41HR, #41HS, #41HT, #41HU, #41HV, #41HW, #41HX, #41HY, #41HZ, #41IA, #41IB, #41IC, #41ID, #41IE, #41IF, #41IG, #41IH, #41IJ, #41IK, #41IL, #41IM, #41IN, #41IO, #41IP, #41IQ, #41IR, #41IS, #41IT, #41IU, #41IV, #41IW, #41IX, #41IY, #41IZ, #41JA, #41JB, #41JC, #41JD, #41JE, #41JF, #41JG, #41JH, #41JI, #41JJ, #41JK, #41JL, #41JM, #41JN, #41JO, #41JP, #41JQ, #41JR, #41JS, #41JT, #41JU, #41JV, #41JW, #41JX, #41JY, #41JZ, #41KA, #41KB, #41KC, #41KD, #41KE, #41KF, #41KG, #41KH, #41KI, #41KJ, #41KK, #41KL, #41KM, #41KN, #41KO, #41KP, #41KQ, #41KR, #41KS, #41KT, #41KU, #41KV, #41KW, #41KX, #41KY, #41KZ, #41LA, #41LB, #41LC, #41LD, #41LE, #41LF, #41LG, #41LH, #41LI, #41LJ, #41LK, #41LL, #41LM, #41LN, #41LO, #41LP, #41LQ, #41LR, #41LS, #41LT, #41LU, #41LV, #41LW, #41LX, #41LY, #41LZ, #41MA, #41MB, #41MC, #41MD, #41ME, #41MF, #41MG, #41MH, #41MI, #41MJ, #41MK, #41ML, #41MM, #41MN, #41MO, #41MP, #41MQ, #41MR, #41MS, #41MT, #41MU, #41MV, #41MW, #41MX, #41MY, #41MZ, #41NA, #41NB, #41NC, #41ND, #41NE, #41NF, #41NG, #41NH, #41NI, #41NJ, #41NK, #41NL, #41NM, #41NN, #41NO, #41NP, #41NQ, #41NR, #41NS, #41NT, #41NU, #41NV, #41NW, #41NX, #41NY, #41NZ, #41OA, #41OB, #41OC, #41OD, #41OE, #41OF, #41OG, #41OH, #41OI, #41OJ, #41OK, #41OL, #41OM, #41ON, #41OO, #41OP, #41OQ, #41OR, #41OS, #41OT, #41OU, #41OV, #41OW, #41OX, #41OY, #41OZ, #41PA, #41PB, #41PC, #41PD, #41PE, #41PF, #41PG, #41PH, #41PI, #41PJ, #41PK, #41PL, #41PM, #41PN, #41PO, #41PP, #41PQ, #41PR, #41PS, #41PT, #41PU, #41PV, #41PW, #41PX, #41PY, #41PZ, #41QA, #41QB, #41QC, #41QD, #41QE, #41QF, #41QG, #41QH, #41QI, #41QJ, #41QK, #41QL, #41QM, #41QN, #41QO, #41QP, #41QQ, #41QR, #41QS, #41QT, #41QU, #41QV, #41QW, #41QX, #41QY, #41QZ, #41RA, #41RB, #41RC, #41RD, #41RE, #41RF, #41RG, #41RH, #41RI, #41RJ, #41RK, #41RL, #41RM, #41RN, #41RO, #41RP, #41RQ, #41RR, #41RS, #41RT, #41RU, #41RV, #41RW, #41RX, #41RY, #41RZ, #41SA, #41SB, #41SC, #41SD, #41SE, #41SF, #41SG, #41SH, #41SI, #41SJ, #41SK, #41SL, #41SM, #41SN, #41SO, #41SP, #41SQ, #41SR, #41SS, #41ST, #41SU, #41SV, #41SW, #41SX, #41SY, #41SZ, #41TA, #41TB, #41TC, #41TD, #41TE, #41TF, #41TG, #41TH, #41TI, #41TJ, #41TK, #41TL, #41TM, #41TN, #41TO, #41TP, #41TQ, #41TR, #41TS, #41TT, #41TU, #41TV, #41TW, #41TX, #41TY, #41TZ, #41UA, #41UB, #41UC, #41UD, #41UE, #41UF, #41UG, #41UH, #41UI, #41UJ, #41UK, #41UL, #41UM, #41UN, #41UO, #41UP, #41UQ, #41UR, #41US, #41UT, #41UU, #41UV, #41UW, #41UX, #41UY, #41UZ, #41VA, #41VB, #41VC, #41VD, #41VE, #41VF, #41VG, #41VH, #41VI, #41VJ, #41VK, #41VL, #41VM, #41VN, #41VO, #41VP, #41VQ, #41VR, #41VS, #41VT, #41VU, #41VV, #41VW, #41VX, #41VY, #41VZ, #41WA, #41WB, #41WC, #41WD, #41WE, #41WF, #41WG, #41WH, #41WI, #41WJ, #41WK, #41WL, #41WM, #41WN, #41WO, #41WP, #41WQ, #41WR, #41WS, #41WT, #41WU, #41WV, #41WW, #41WX, #41WY, #41WZ, #41XA, #41XB, #41XC, #41XD, #41XE, #41XF, #41XG, #41XH, #41XI, #41XJ, #41XK, #41XL, #41XM, #41XN, #41XO, #41XP, #41XQ, #41XR, #41XS, #41XT, #41XU, #41XV, #41XW, #41XX, #41XY, #41XZ, #41YA, #41YB, #41YC, #41YD, #41YE, #41YF, #41YG, #41YH, #41YI, #41YJ, #41YK, #41YL, #41YM, #41YN, #41YO, #41YP, #41YQ, #41YR, #41YS, #41YT, #41YU, #41YV, #41YW, #41YX, #41YY, #41YZ, #41ZA, #41ZB, #41ZC, #41ZD, #41ZE, #41ZF, #41ZG, #41ZH, #41ZI, #41ZJ, #41ZK, #41ZL, #41ZM, #41ZN, #41ZO, #41ZP, #41ZQ, #41ZR, #41ZS, #41ZT, #41ZU, #41ZV, #41ZW, #41ZX, #41ZY, #41ZZ. The map also shows numerous lakes, rivers, and streams, as well as various land parcels and structures. A scale bar at the bottom indicates distances up to 1 mile. The map is titled "Yarmouth ME" in the upper right corner.

3-D TypeQuads Copyright © 1999 DeLorme Yarmouth, ME 04296  
3rd Scale: 1: 600,000 Design: 3-4 Datum: WGS84

3R 212

**EPFS GROUNDWATER SITES  
2004 ANNUAL GROUNDWATER REPORT**

**Lat L-40  
Meter Code: LD174**

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**SITE DETAILS**

<b>Legal Description:</b>	<b>Town:</b> 28N	<b>Range:</b> 4W	<b>Sec:</b> 13	<b>Unit:</b> H
<b>NMOCD Haz Ranking:</b>	20	<b>Land Type:</b>	Federal	<b>Operator:</b> EPFS

**PREVIOUS ACTIVITIES**

<b>Site Assessment:</b>	2/95	<b>Excavation:</b>	3/95	<b>Soil Boring:</b>	9/95
<b>Monitor Well:</b>	9/95	<b>Geoprobe:</b>	NA	<b>Additional MWs:</b>	*
<b>Downgradient MWs:</b>	*	<b>Replace MW:</b>	NA	<b>Quarterly Initiated:</b>	NA
<b>ORC Nutrient Injection:</b>	NA	<b>Re- Excavation:</b>	NA	<b>PSH Removal Initiated:</b>	1/98
<b>Annual Initiated:</b>	NA	<b>Quarterly Resumed:</b>	NA		

\* Attempts were made to install additional monitoring wells at this site during July 2000.  
All efforts were met with refusal.

**SUMMARY OF 2004 ACTIVITIES**

**MW-1:** Quarterly free-product recovery and water level monitoring were performed.

**Site-Wide Activities:** Due to inclement weather, EPFS was unable to gain access to the site in January 2004. A technology review and data assessment were performed to evaluate free-product removal protocol and methodologies for sites with free-product.

**SITE MAP**

A site map (2004) is attached in Figure 1.

**SUMMARY TABLES AND GRAPHS**

- Historical analytical data and groundwater elevation data are presented graphically in Figure 2.
- Free-product recovery data from 2004 are summarized in Table 1, and historic data are presented graphically in Figure 3.
- Field documentation is presented in Attachment 1.

**EPFS GROUNDWATER SITES  
2004 ANNUAL GROUNDWATER REPORT**

**Lat L-40  
Meter Code: LD174**

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**GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS**

No subsurface activities were performed at this site during 2004.

**DISPOSITION OF GENERATED WASTES**

All phase-separated hydrocarbons were disposed of at the EPFS Kutz Separator located in Bloomfield, New Mexico.

**ISOCONCENTRATION MAPS**

No isoconcentration maps were prepared for this site, however, the attached site map presents the water level data collected during 2004.

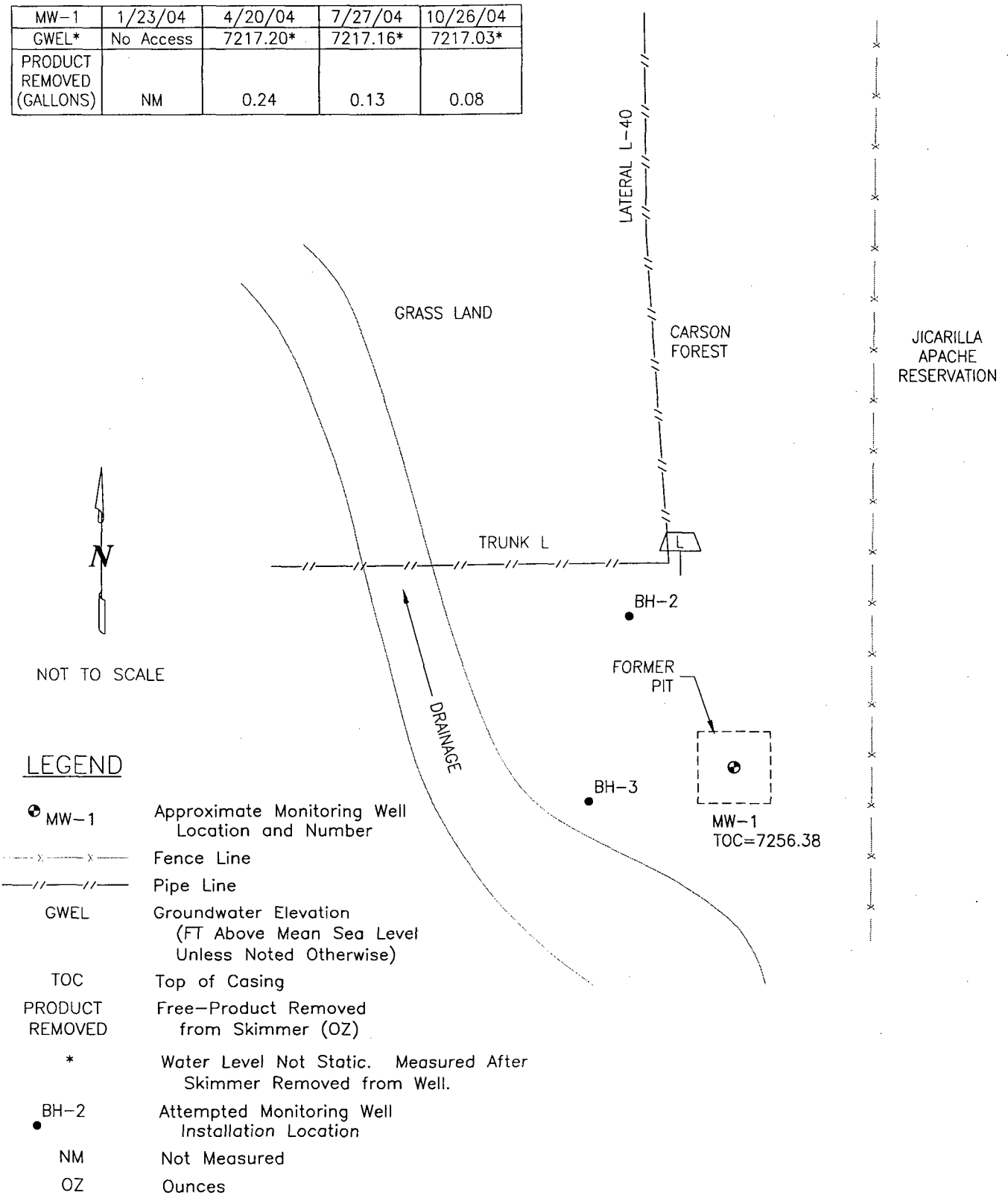
**CONCLUSIONS**

- Attempts were made to install additional monitoring wells at this site during July 2000. All efforts were met with drilling refusal.
- Free-product recovery efforts at MW-1 resulted in removal of approximately 0.45 gallons of free-phase hydrocarbons during 2004 bringing the cumulative total recovered to date to approximately 25.9 gallons since 2000. Free-product removal in 2003 totaled 1.3 gallons, compared to 0.45 gallons in 2004, demonstrating that product accumulation is decreasing.
- Based on the technology review and free-product removal data for this site, it was concluded that the passive skimmer should continue to be operated in MW-1.

**RECOMMENDATIONS**

- EPFS will continue quarterly free-product recovery at MW-1 using the passive skimmer; however, the frequency of monitoring will be adjusted based on the amount of product recovered during the monitoring visits.
- Once free-product recovery efforts are completed at MW-1, this well will be sampled on an annual basis until sample results approach closure criteria. The well will then be scheduled for quarterly sampling until closure criteria are met.

MW-1	1/23/04	4/20/04	7/27/04	10/26/04
GWEL*	No Access	7217.20*	7217.16*	7217.03*
PRODUCT REMOVED (GALLONS)	NM	0.24	0.13	0.08



LATERAL L-40 LINE DRIP, LD 174  
2004

GROUNDWATER SITES  
EL PASO FIELD SERVICES

FIGURE 1

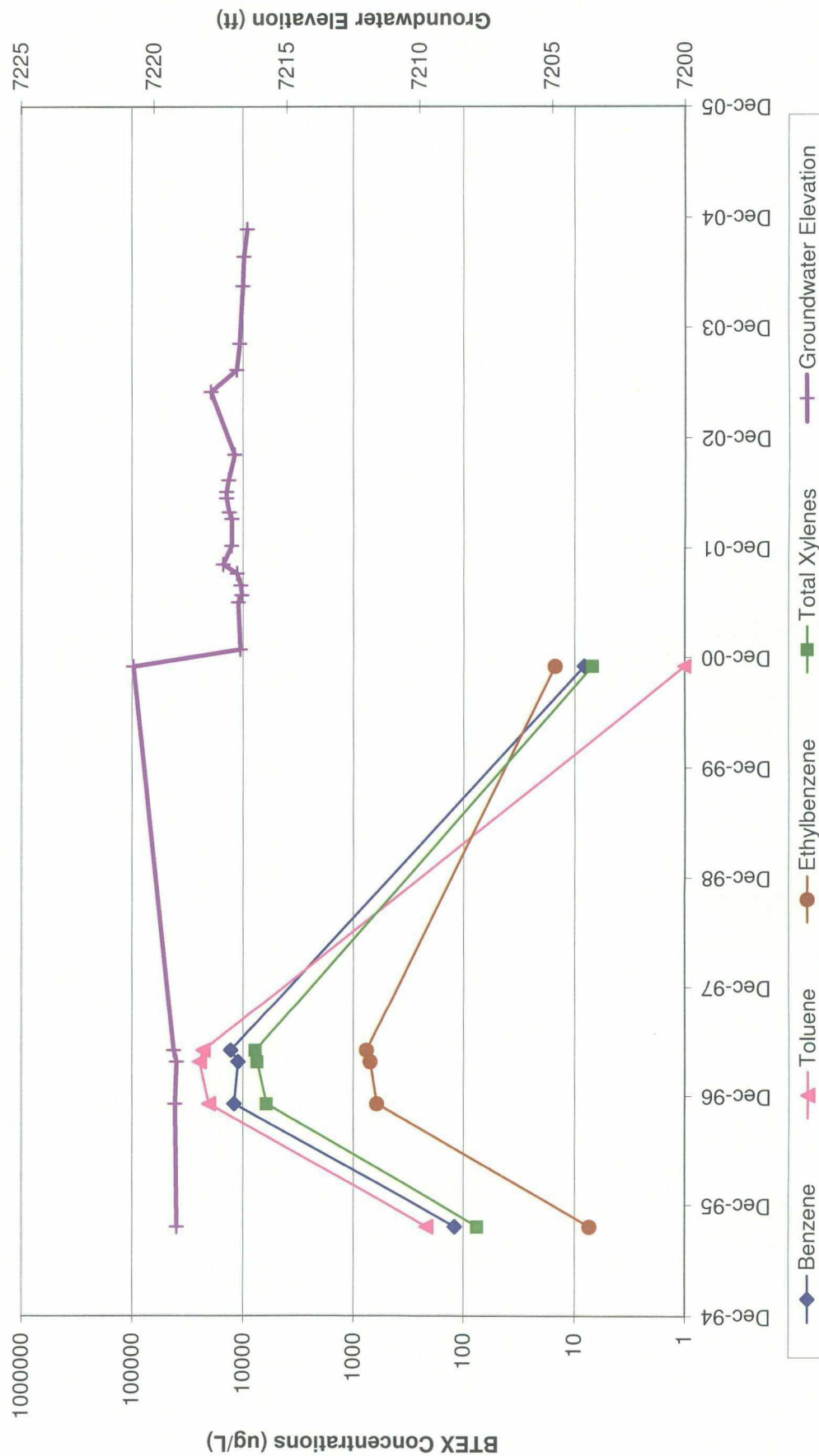
**TABLE 1**  
**SUMMARY OF FREE-PRODUCT REMOVAL DURING 2004**  
**LAT L-40 (METER #LD174)**

Site Name	Monitoring Well	Removal Date	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Volume of Product Removed (gallons)	Cummulative Volume of Product Removed (gallons)
<b>Lat L-40</b>	MW-1	4/20/04	NA	39.18	0.00	0.24	25.71
<b>Lat L-40</b>	MW-1	7/27/04	NA	39.22	0.00	0.13	25.83
<b>Lat L-40</b>	MW-1	10/26/04	NA	39.35	0.00	0.08	25.91

MW-1 contains a passive skimmer. Volume of product removed is from skimmer.  
Water levels and product thickness' measured following removal of passive skimmer.



**FIGURE 2**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**LAT L40**  
**MW-1**





**FIGURE 3**  
**HISTORIC FREE-PRODUCT RECOVERY**  
**LAT L40**  
**MW-1**

