3R - 213

ANNUAL MONITORING REPORTS DATE:

2/2/2005

elpaso

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.

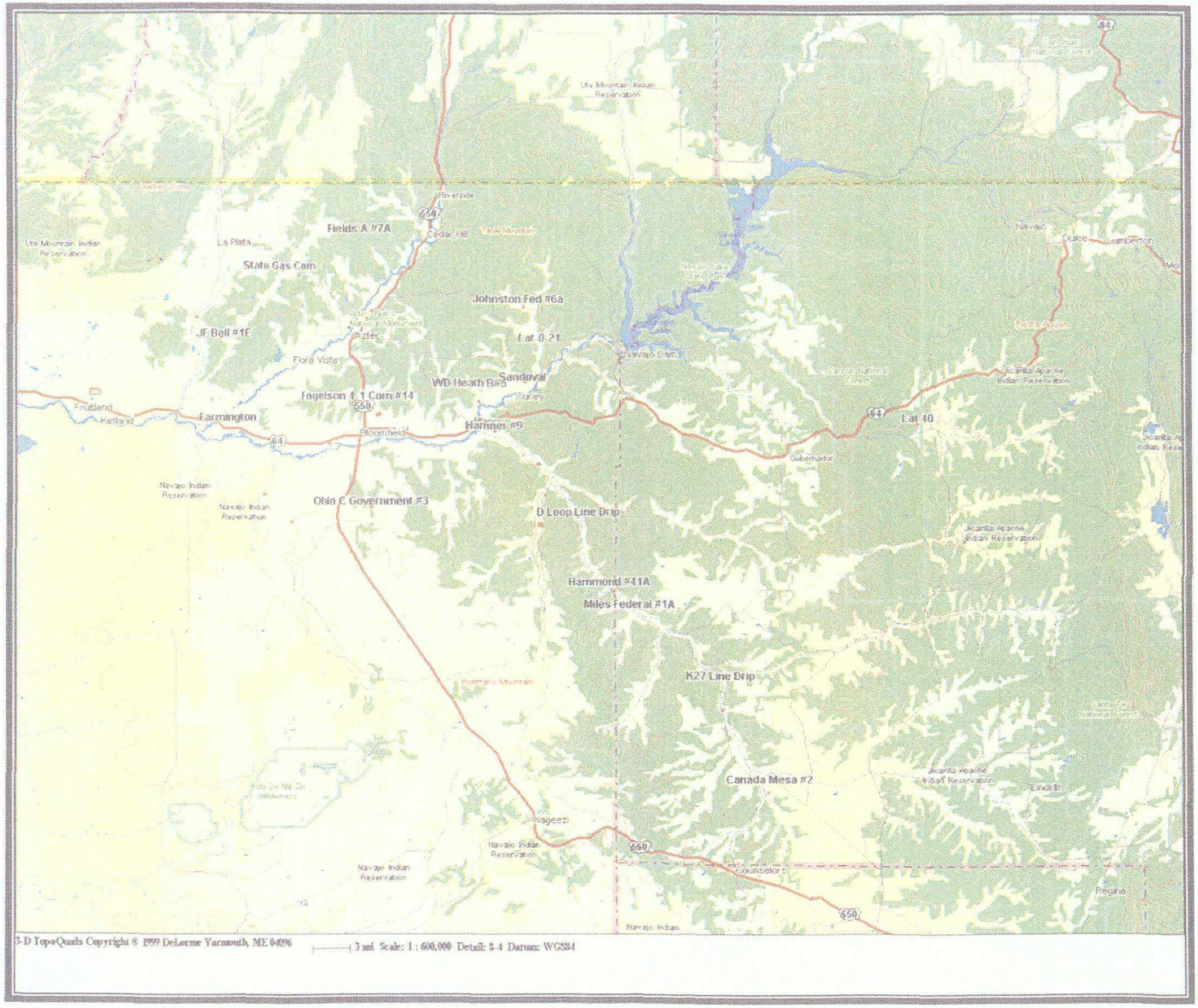
If you have any questions concerning the enclosed reports, please call me at (719) 520-4433.

Sincerely,

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

Federal Groundwater Site Map



3R213

EPFS GROUNDWATER SITES
2004 ANNUAL GROUNDWATER REPORT

Lat 0-21 Line Drip
Meter Code: LD151

SITE DETAILS

Legal Description:	**Town:**	30N	**Range:**	9W	**Sec:** 12	**Unit:**	O
NMOCD Haz Ranking:	40	**Land Type:**	Federal	**Operator:**	EPFS		

PREVIOUS ACTIVITIES

Site Assessment:	1/95	**Excavation:**	1/95	**Soil Boring:**	10/95
Monitor Well:	10/95	**Geoprobe:**	11/96	**Additional MWs:**	7/00
Downgradient MWs:	7/00	**Replace MW:**	NA	**Quarterly Initiated:**	11/96
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	NA
Annual Initiated:	5/97	**Quarterly Resumed:**	NA		

SUMMARY OF 2004 ACTIVITIES

MW-1: Annual groundwater sampling (June) and quarterly free-product monitoring were performed during 2004.

MW-2: Annual groundwater sampling (June) and quarterly water level monitoring were performed during 2004.

MW-3: Annual groundwater sampling (June) and quarterly free-product monitoring were performed during 2004.

Site-Wide Activities: No other activities were performed at this site in 2004.

SITE MAP

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

SUMMARY TABLES AND GRAPHS

- Analytical data for 2004 are summarized in Table 1, and historic data are presented graphically in Figures 2 through 4.
- Free-product recovery data from 2004 are summarized in Table 2, and historic data are presented graphically in Figures 5 and 6.

- The laboratory report is presented in Attachment 1.
- Field documentation is presented in Attachment 2.

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 maps present the water level and analytical data collected during 2004.

CONCLUSIONS

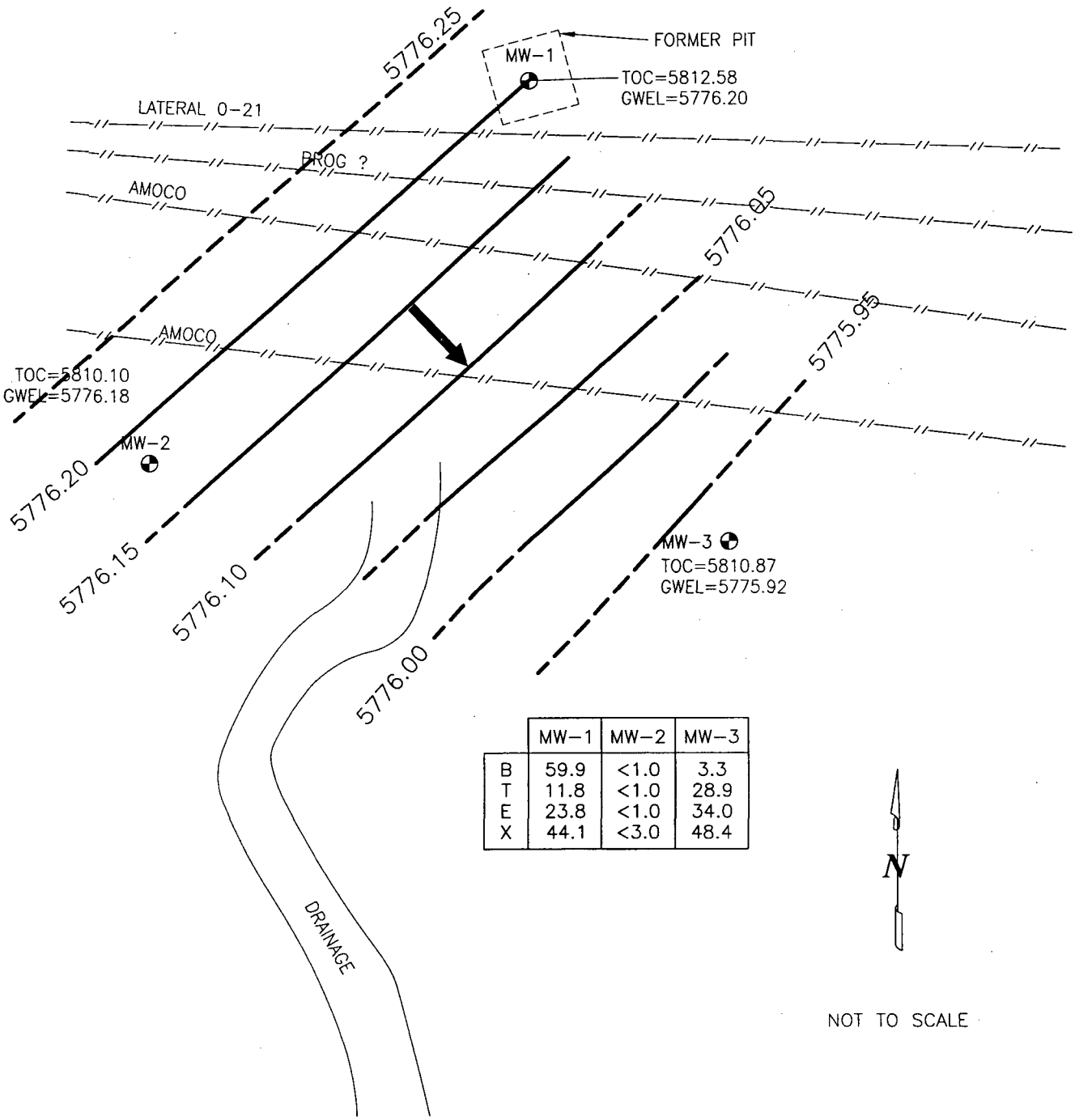
- Groundwater flow is toward the southeast at this site.
- Free-product was not detected in MW-1 or MW-3 in 2004, and only minimal amounts of product were removed in 2002 and 2003.
- The BTEX sample from MW-1 exceeded the standard for benzene (59.9 µg/L), and all other parameters were below standards. This represents a significant decrease since the high benzene concentration of 5,380 µg/L in 1997.
- BTEX concentrations were all below detection limits in MW-2 in 2004. This is the fifth, consecutive sample with BTEX concentrations below standards.
- BTEX concentrations in MW-3 were all below standards in 2004, demonstrating an overall decline in concentrations since 2000.
- Site-wide decreases in BTEX concentrations provide evidence that natural attenuation is occurring at the site.

RECOMMENDATIONS

- EPFS recommends semi-annual (April and October) water level monitoring at MW-1, MW-2 and MW-3.

- Assuming that free-product does not return to MW-1 or MW-3, EPFS recommends that MW-1 and MW-3 be sampled on a semi-annual basis in 2005. As concentrations approach standards, these wells will be sampled quarterly until BTEX concentrations are below NMWQCC standards for four consecutive quarters, at which time this site will be submitted for closure.

- Because BTEX concentrations at MW-2 have remained below closure criteria, EPFS recommends that this well not be sampled again until closure.



	MW-1	MW-2	MW-3
B	59.9	<1.0	3.3
T	11.8	<1.0	28.9
E	23.8	<1.0	34.0
X	44.1	<3.0	48.4

LEGEND

MW-1	Approximate Monitoring Well Location and Number
——//——//——	Pipe Line
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)
5777	Potentiometric Surface (Approximate & Assumed Where Dashed)
→	Direction of Groundwater Flow (Estimated)
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing

lat1021 6_04.dwg

LATERAL O-21 LINE DRIP, LD151
JUNE 2004

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 1

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN 2004 GROUNDWATER SAMPLES
LAT O-21 LINE DRIP (METER #LD151)

Site Name	Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft btoc)
Lat 0-21 Line Drip	MW-1	6/23/2004	59.9	11.8	23.8	44.1	36.38
Lat 0-21 Line Drip	MW-1*	6/23/2004	64.5	13.1	25.7	45.2	-
Lat 0-21 Line Drip	MW-2	6/23/2004	< 1.0	< 1.0	< 1.0	< 3.0	33.92
Lat 0-21 Line Drip	MW-3	6/23/2004	3.3	28.9	34.0	48.4	34.95

< = Analyte not detected at Method Detection Limit (MDL). Value shown is MDL.

J = Value estimated

* = Duplicate sample

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL DURING 2004
LAT O-21 LINE DRIP (METER #LD151)

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)
Lat 0-21 Line Drip	MW-1	3/16/04	NA	36.22	0.00	0.00	0.25
Lat 0-21 Line Drip	MW-1	6/22/04	NA	36.38	0.00	0.00	0.25
Lat 0-21 Line Drip	MW-1	9/21/04	NA	37.43	0.00	0.00	0.25
Lat 0-21 Line Drip	MW-1	12/21/04	NA	36.98	0.00	0.00	0.25
Lat 0-21 Line Drip	MW-3	3/16/04	NA	34.75	0.00	0.00	0.01
Lat 0-21 Line Drip	MW-3	6/22/04	NA	34.95	0.00	0.00	0.01
Lat 0-21 Line Drip	MW-3	9/21/04	NA	35.95	0.00	0.00	0.01
Lat 0-21 Line Drip	MW-3	12/21/04	NA	35.51	0.00	0.00	0.01

FIGURE 2
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
LAT O-21 LINE DRIP
MW-1

2004 LAT O-21.xls,Lat O21 MW1

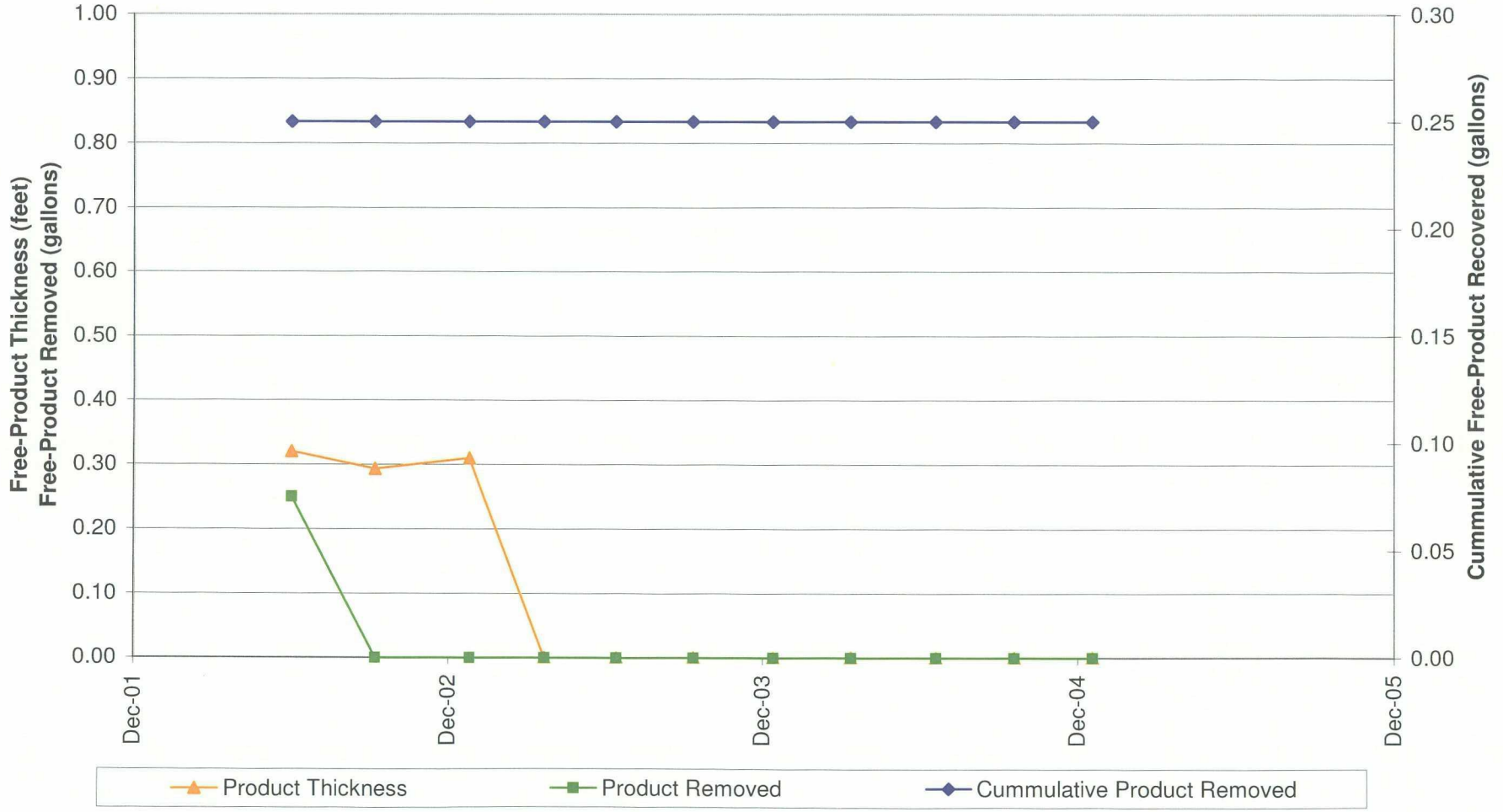
FIGURE 3
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
LAT O-21 LINE DRIP
MW-2

2004 LAT O-21.xls,Lat O21 MW2

FIGURE 4
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
LAT O-21 LINE DRIP
MW-3

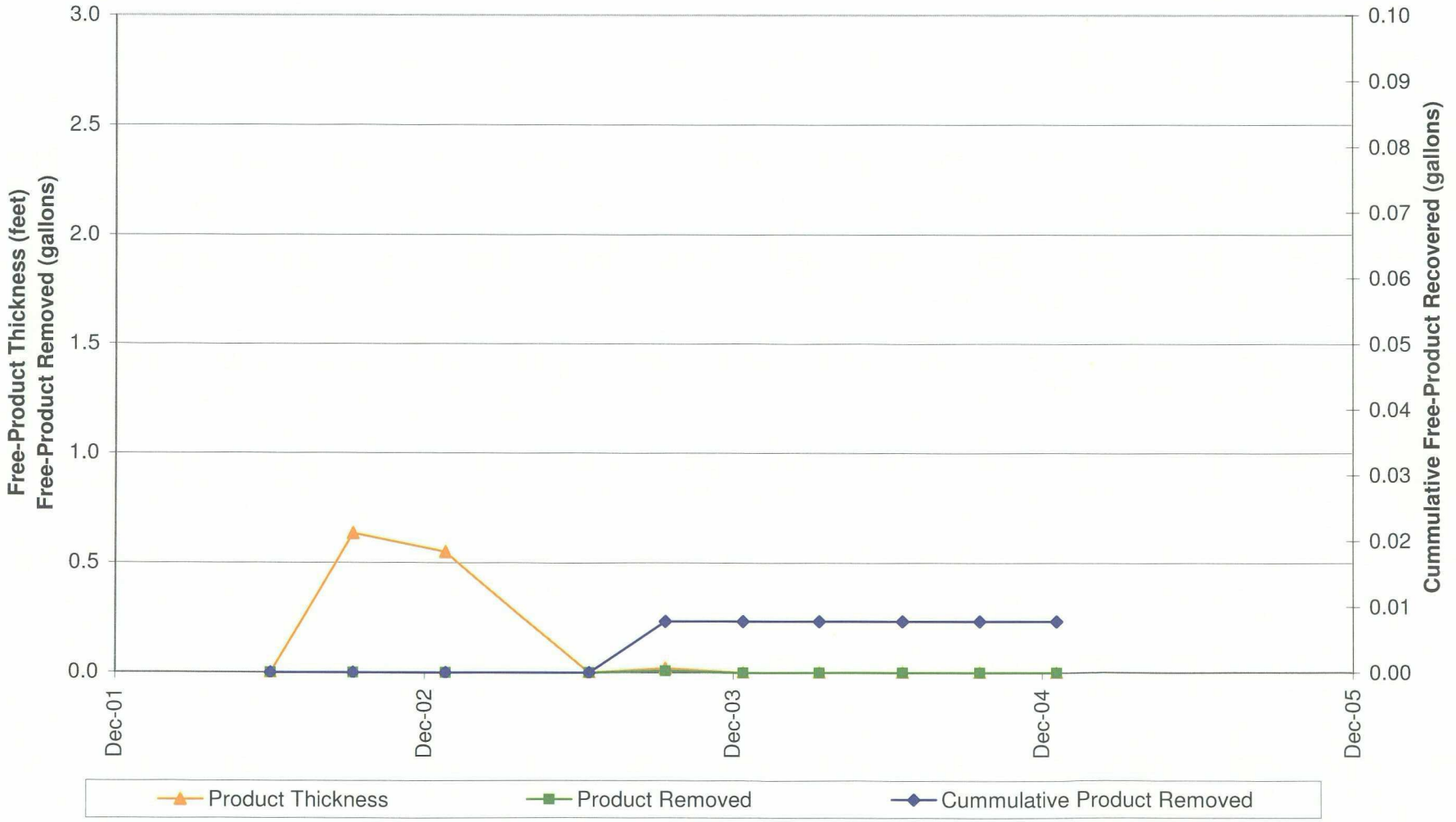
2004 LAT O-21.xls,Lat O21 MW3

FIGURE 5
HISTORIC FREE-PRODUCT RECOVERY
LAT O-21 LINE DRIP
MW-1



2004 LAT O-21.xls, Lat O21 PR1

FIGURE 6
HISTORIC FREE-PRODUCT RECOVERY
LAT O-21 LINE DRIP
MW-3



2004 LAT O-21.xls, Lat O21 PR3