

3R - 238

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**ANNUAL  
MONITORING  
REPORTS**

**DATE:**

3/2006

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**2005 ANNUAL GROUNDWATER REPORT RECEIVED  
NON-FEDERAL SITES VOLUME II**

**EL PASO TENNESSEE PIPELINE COMPANY** MAR 17 2006

Oil Conservation Division  
**TABLE OF CONTENTS** Environmental Bureau

METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT	
71669	State Gas Com N #1	31N	12W	16	H	3R 239
70194	Johnston Fed #4	31N	09W	33	H	3R 201
93388	Horton #1E	31N	09W	28	H	3R 192
72556	Knight #1	30N	13W	5	A	3R 207
03906	GCU Com A #142E	29N	12W	25	G	3R 197
70445	Standard Oil Com #1	29N	09W	36	N	3R 238
LD087	K-31 Line Drip	25N	06W	16	N	3R 205
94967	*Lindrith B #24	24N	03W	9	N	3R 214

\* Lindrith B#24 Site has been submitted for closure, and is pending approval from NMOCD.



**MWH**  
MONTGOMERY WATSON HARZA

## LIST OF ACRONYMS

B	benzene
btoc	below top of casing
E	ethylbenzene
EPFS	El Paso Field Services
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitoring well
PSH	phase-separated hydrocarbons
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NE	not established
NM	not measured
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
ppb	parts per billion
µg/L	micrograms per liter
X	total xylenes



EPTPC GROUNDWATER SITES  
2005 ANNUAL GROUNDWATER REPORT

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Standard Oil Com #1  
Meter Code: 70445

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**SITE DETAILS**

Legal Description:            Town: 29N            Range: 9W            Sec: 36            Unit: N  
NMOCD Haz            30            Land Type: State            Operator: Burlington Resources  
Ranking:

**PREVIOUS ACTIVITIES**

Site Assessment:	5/94	Excavation:	5/94 (60 cy)	Soil Boring:	9/95
Monitor Well:	9/95	Geoprobe:	7/97	Additional MWs:	12/01
Downgradient MWs:	12/01	Replace MW:	NA	Quarterly Initiated:	11/96
ORC Nutrient Injection:	NA	Re-Excavation:	NA	PSH Removal Initiated:	NA
Annual Initiated:	NA	Quarterly Resumed:	NA		

**SUMMARY OF 2005 ACTIVITIES**

**MW-1:** Annual groundwater sampling was performed during June 2005.

**MW-2:** Annual groundwater sampling was performed during June 2005.

**MW-3:** Annual water level monitoring was performed during June 2005.

**MW-4:** Annual water level monitoring was performed during June 2005.

**Site-Wide Activities:** The need for additional investigation was evaluated. A plan was developed to gather additional information to include natural attenuation potential evaluation and groundwater monitoring well installation. Right of way permits and access grant applications for monitoring well installation were prepared for submittal in 2006.

**SITE MAPS**

Site maps (June and showing MW-5) are attached in Figures 1 and 2.

**EPTPC GROUNDWATER SITES  
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**Standard Oil Com #1  
Meter Code: 70445**

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**SUMMARY TABLES AND GRAPHS**

- Analytical data from 2005 are summarized in Table 1, and historic data are presented graphically in Figures 3 through 6.
- Laboratory reports are presented in Attachment 1 (included on CD).
- Field documentation is presented in Attachment 2 (included on CD).

**GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS**

No subsurface activities were performed at this site during 2005.

**DISPOSITION OF GENERATED WASTES**

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station.

**ISOCONCENTRATION MAPS**

No isoconcentration maps were prepared for this site, however, the attached site maps present water level and analytical data collected during 2005.

**CONCLUSIONS**

- The groundwater flow direction at this site is toward the northwest.
- Benzene and total xylenes concentrations in the sample collected from MW-1 during 2005 were above NMWQCC standards; 234 µg/L (benzene) and 1,530 µg/L (total xylenes).
- The benzene and total xylenes concentrations in the sample collected from MW-2 during 2005 were above standards; 1,090 µg/L (benzene) and 1,510 µg/L (total xylenes). MW-2 is located upgradient of EPTPC' former pit.
- In 1997, temporary piezometer data were collected that indicated other potential sources of contamination at the site. Piezometer locations are shown on Figure 1.

**EPTPC GROUNDWATER SITES  
2005 ANNUAL GROUNDWATER REPORT**

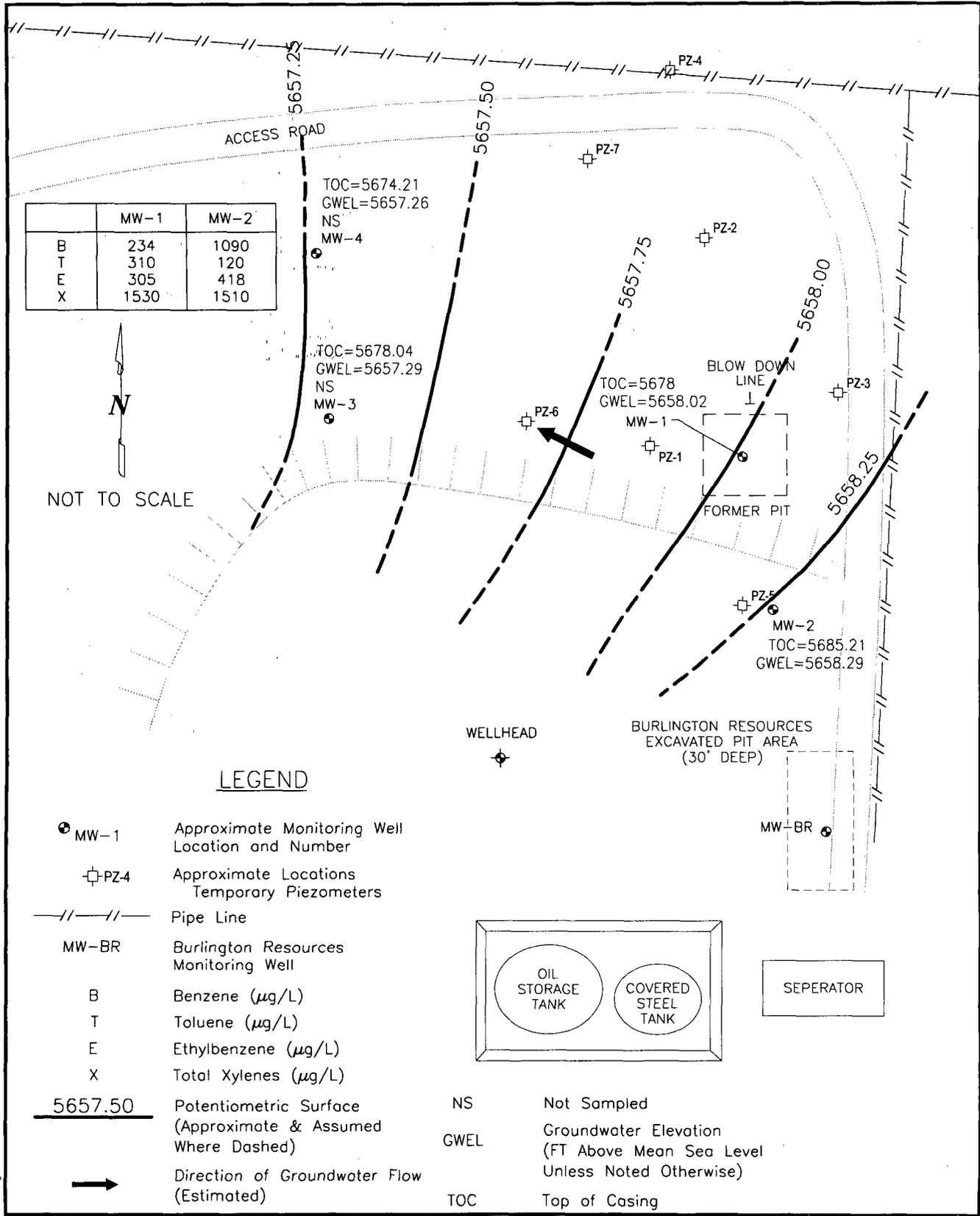
**Standard Oil Com #1  
Meter Code: 70445**

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**RECOMMENDATIONS**

- EPTPC recommends that sampling at MW-1 and MW-2 be performed on an annual basis until BTEX concentrations approach closure criteria. This well will then be scheduled for quarterly sampling until four consecutive samples are below closure standards.
- EPTPC recommends that annual water level monitoring be performed during 2006 at all wells.
- In order to verify groundwater flow direction, EPTPC will attempt to install monitoring well MW-5 north of MW-1 in March 2006.
- If installation of MW-5 is successful EPTPC will conduct slug testing to assess hydraulic conductivity and sample for natural attenuation parameters at this site in March 2006.

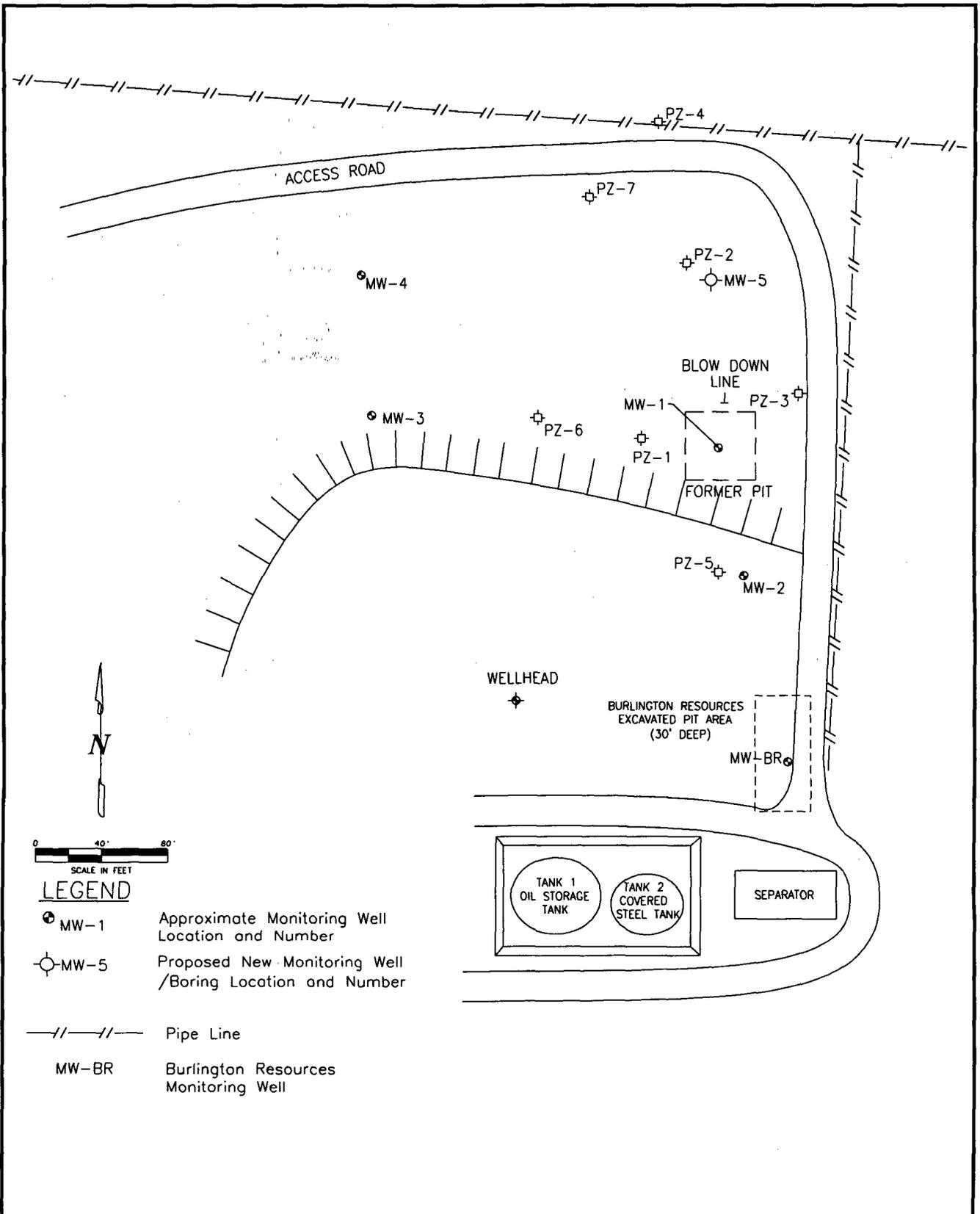


STANDARD OIL COM #1, METER 70445  
 JUNE 2005

GROUNDWATER SITES  
 EL PASO TENNESSEE PIPELINE COMPANY

FIGURE 1

standardoil\_2\_6-05.dwg



STANDARD OIL COM #1, METER 70445  
 PROPOSED NEW MONITORING WELL LOCATION

GROUNDWATER SITES  
 EL PASO TENNESSEE PIPELINE COMPANY

FIGURE 2

standardoil\_02.dwg

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN 2005 GROUNDWATER SAMPLES  
 STANDARD OIL COM #1 (METER #70445)

Site Name	Sample Date	Monitoring Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (feet)
Standard Oil Com #1	6/24/2005	MW-1	234	310	305	1530	19.98
Standard Oil Com #1	6/24/2005	MW-2	1090	120	418	1510	26.92

**FIGURE 3**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**STANDARD OIL COM #1**  
**MW-1**

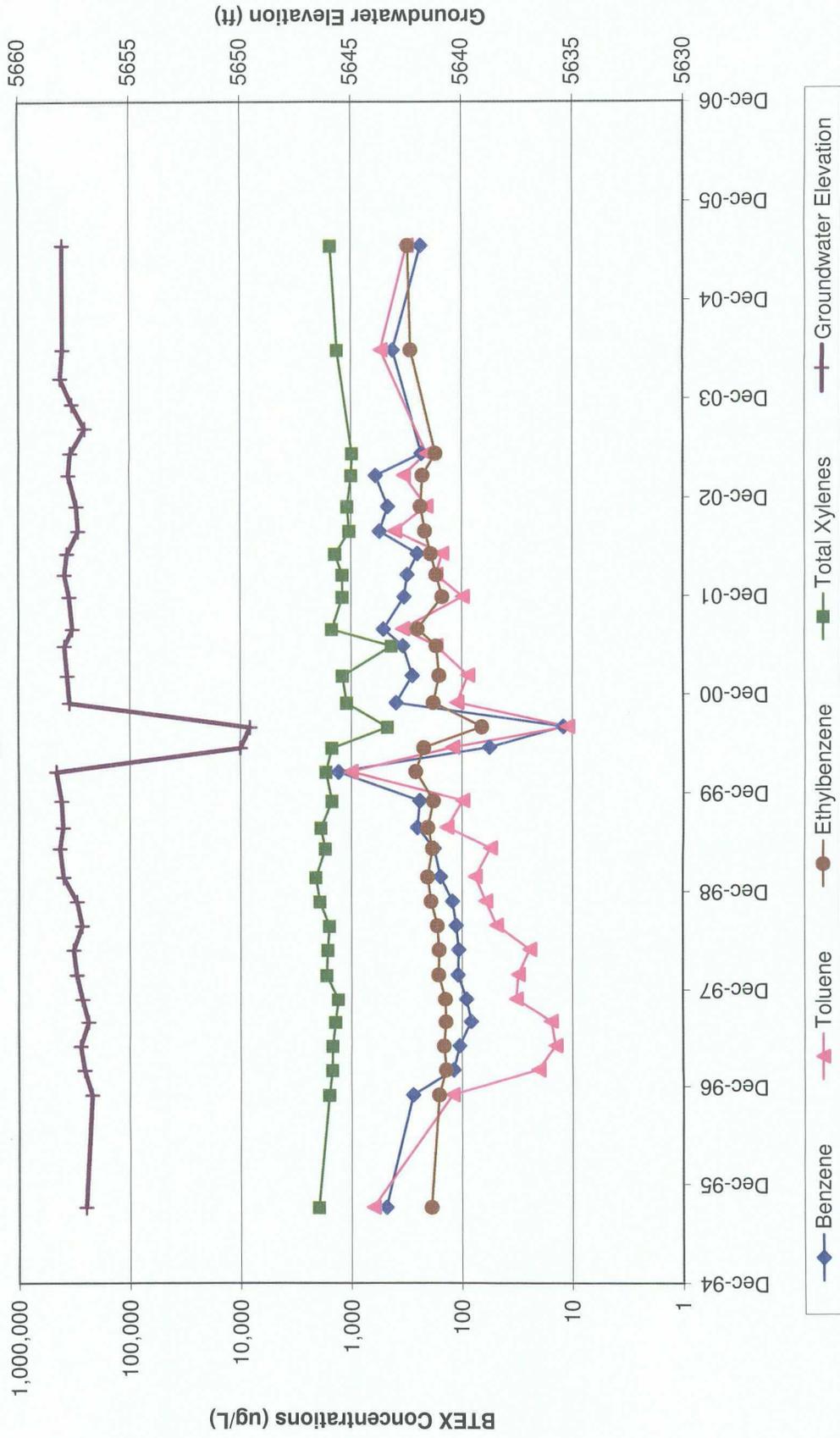
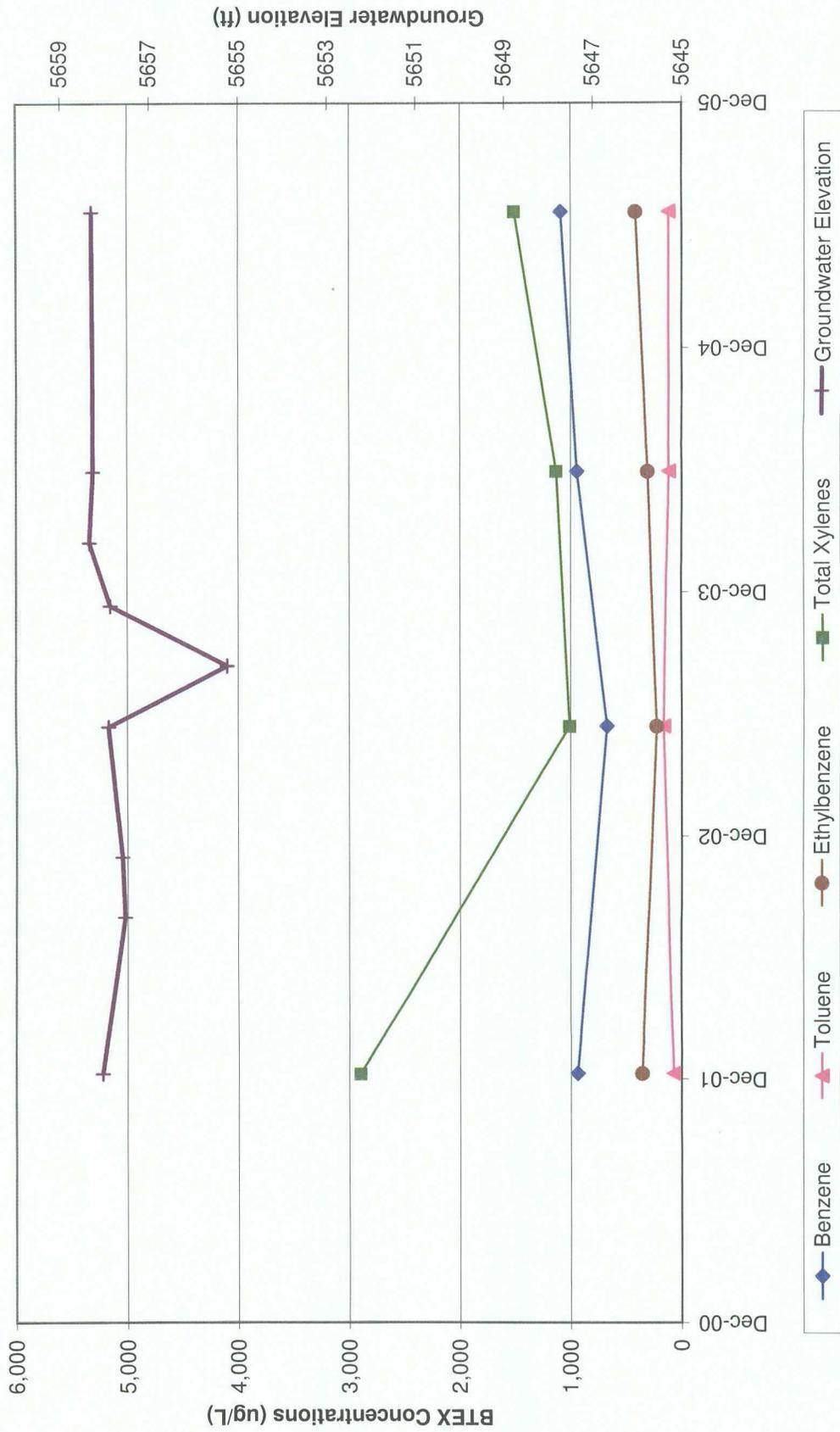
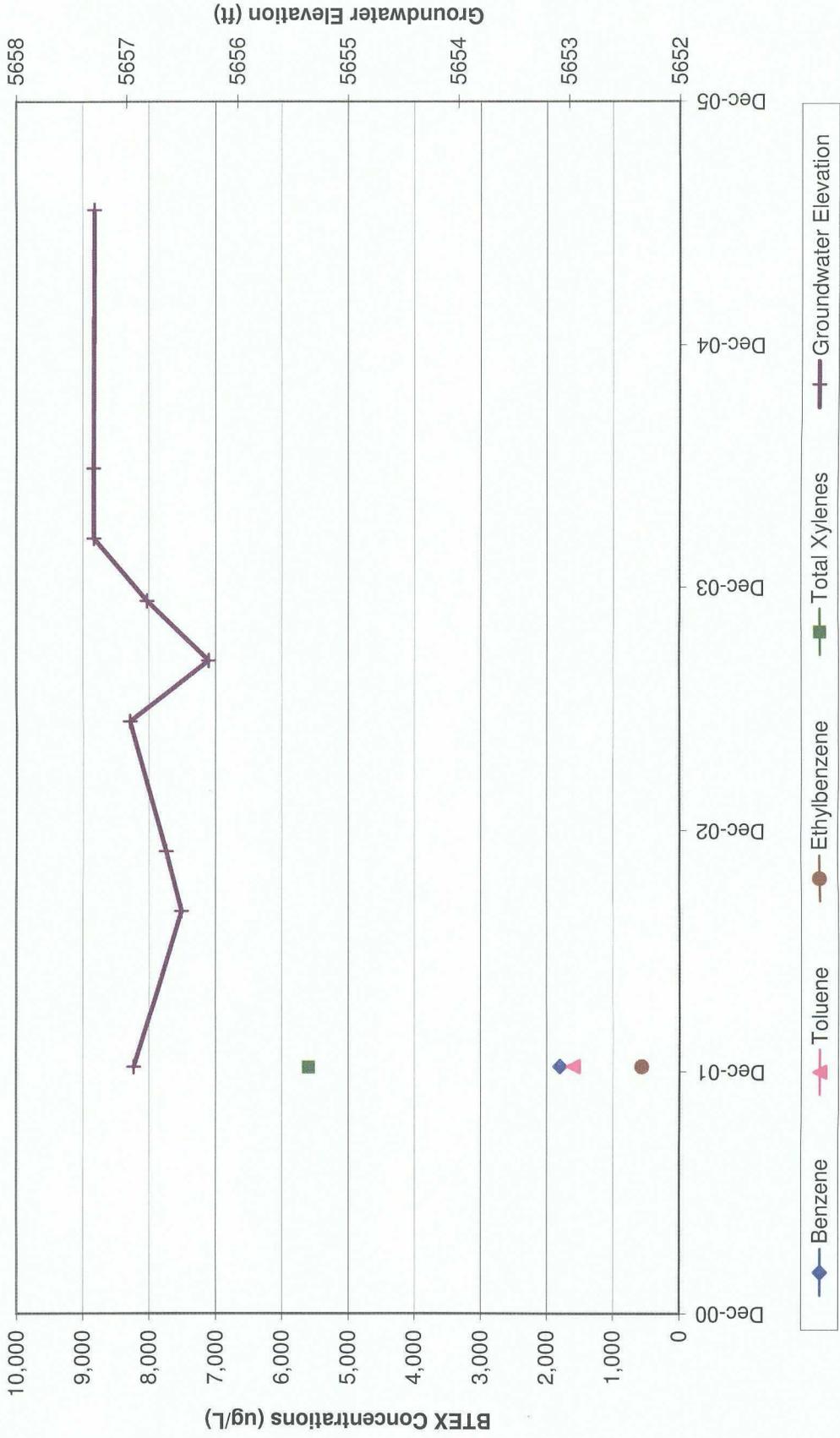


FIGURE 4  
 HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS  
 STANDARD OIL COM #1  
 MW-2



**FIGURE 5**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**STANDARD OIL COM #1**  
**MW-3**



**FIGURE 6**  
**HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS**  
**STANDARD OIL COM #1**  
**MW-4**

