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**ANNUAL
MONITORING
REPORTS**

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**2005 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I**

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

Oil Conservation Division
Environmental Bureau

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METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
89961	Fields A#7A	32N	11W	34	E
89232	Johnston Fed #6A	31N	09W	35	F
94715	James F. Bell #1E	30N	13W	10	P
89620	Sandoval GC A #1A	30N	09W	35	C
LD151	Lat 0-21 Line Drip	30N	09W	12	O
73220	Fogelson 4-1 Com. #14	29N	11W	4	P
97213	Hamner #9	29N	09W	20	A
LD174	LAT L 40	28N	04W	13	H
89894	Hammond #41A	27N	08W	25	O
94810	Miles Fed 1A	26N	07W	5	F
LD072	K27 LD072	25N	06W	4	E
87640	Canada Mesa #2	24N	06W	24	I

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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
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**Canada Mesa #2
Meter Code: 87640**

SITE DETAILS

Legal Description:	Town:	24N	Range:	6W	Sec:	24	Unit:	I
NMOCD Haz Ranking:	40	Land Type:	Federal	Operator:	Merrion Oil & Gas Company			

PREVIOUS ACTIVITIES

Site Assessment:	7/94	Excavation:	8/94	Soil Boring:	8/95
Monitor Well:	8/95	Geoprobe:	NA	Additional MWs:	10/00
Downgradient MWs:	10/00	Replace MW:	NA	Quarterly Initiated:	8/95
ORC Nutrient Injection:	NA	Re-Excavation:	NA	PSH Removal Initiated:	8/97
Annual Initiated:	11/00	Quarterly Resumed:	NA		

SUMMARY OF 2005 ACTIVITIES

MW-1: Quarterly free-product recovery was conducted at this well in 2005.

MW-2: Annual groundwater sampling was performed in December 2005. Quarterly water level monitoring was performed.

MW-3: Annual groundwater sampling was performed in December 2005. Quarterly water level monitoring was performed.

Site-Wide Activities: A technology review and data assessment to evaluate free-product removal was performed in 2005.

SITE MAPS

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

SUMMARY TABLES AND GRAPHS

- Groundwater analytical data for 2005 are summarized in Table 1, and historic data are presented graphically in Figures 2 through 4.
- Free-product recovery data in 2005 from MW-1 are summarized in Table 2 and are presented graphically in Figure 5.

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- 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. Phase separated hydrocarbons are stored in a 55 gallon drum and are periodically picked up by Mesa Oil for recycling.

ISOCONCENTRATION MAPS

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

CONCLUSIONS

- The groundwater flow direction is generally to the east at this site.
- Free-product recovery from MW-1 removed 2.24 gallons of free-phase hydrocarbons in 2005, bringing the cumulative total recovered to date to approximately 42 gallons.
- A passive skimmer was installed at MW-1 in September 2005.
- Based on the technology review and free-product removal data for this site, it was concluded that the passive skimmer would be the most efficient and cost-effective product removal technique for MW-1 at this site.
- Benzene concentrations in MW-2 have been steadily decreasing from 3,200 µg/L in 2000 to 12.1 µg/L in December 2005.
- The benzene concentration in MW-3 continued to decrease from a high concentration of 1,430 µg/L in 2002, to 482 µg/L in December 2005. Toluene, ethylbenzene and total xylenes concentrations were below standards.

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RECOMMENDATIONS

- EPTPC will continue quarterly free-product recovery efforts at MW-1; however, the frequency of monitoring will be adjusted based on the amount of product recovered during the monitoring visits.
- EPTPC will continue sampling MW-2 and MW-3 on an annual basis.
- 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. All wells will then be scheduled for quarterly sampling until closure criteria are met.
- EPTPC will investigate BTEX concentrations downgradient of EPTPCs former pit; this effort may include installation of a new monitoring well at this site.

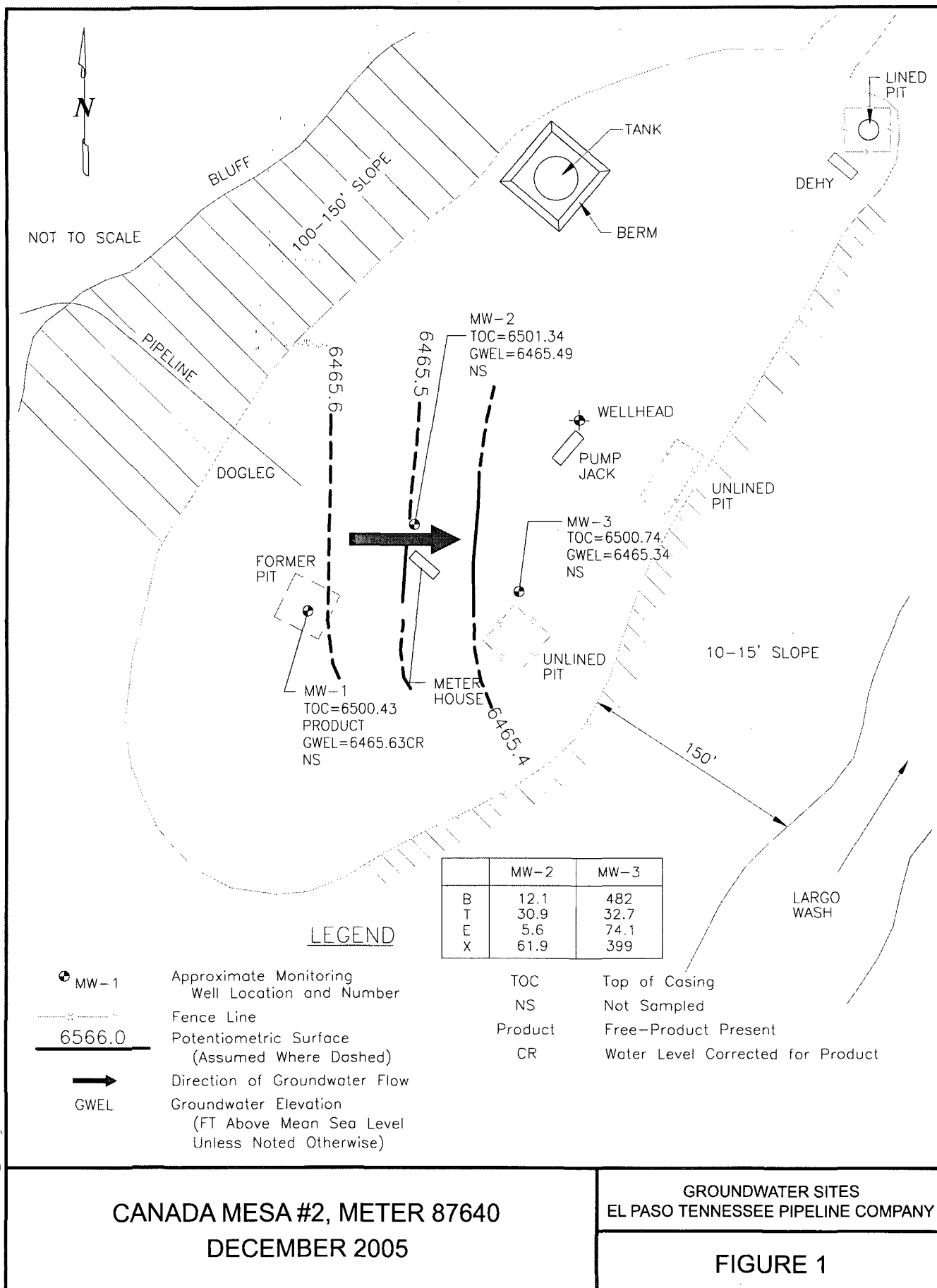


TABLE 1

SUMMARY OF BTEX COMPOUNDS IN 2005 GROUNDWATER SAMPLES
CANADA MESA #2 (METER #87640)

Site Name	Sample Date	Monitoring Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (feet)
Canada Mesa #2	12/15/2005	MW-2	12.1	30.9	5.6	61.9	35.85
Canada Mesa #2	12/15/2005	MW-3	482	32.7	74.1	399	35.4

SUMMARY OF FREE-PRODUCT REMOVAL DURING 2005
CANADA MESA #2 (METER #87640)

TABLE 2

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)
Canada Mesa #2	MW-1	3/22/05	34.36	35.01	0.65	0.64	40.68
Canada Mesa #2	MW-1	6/24/05	34.39	34.97	0.58	0.5	41.18
Canada Mesa #2	MW-1	9/14/05	34.6	35.65	1.05	0.3	41.48
Canada Mesa #2	MW-1	12/14/05	34.74	35.05	0.31	0.8	42.28

FIGURE 2
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
CANADA MESA #2
MW-1

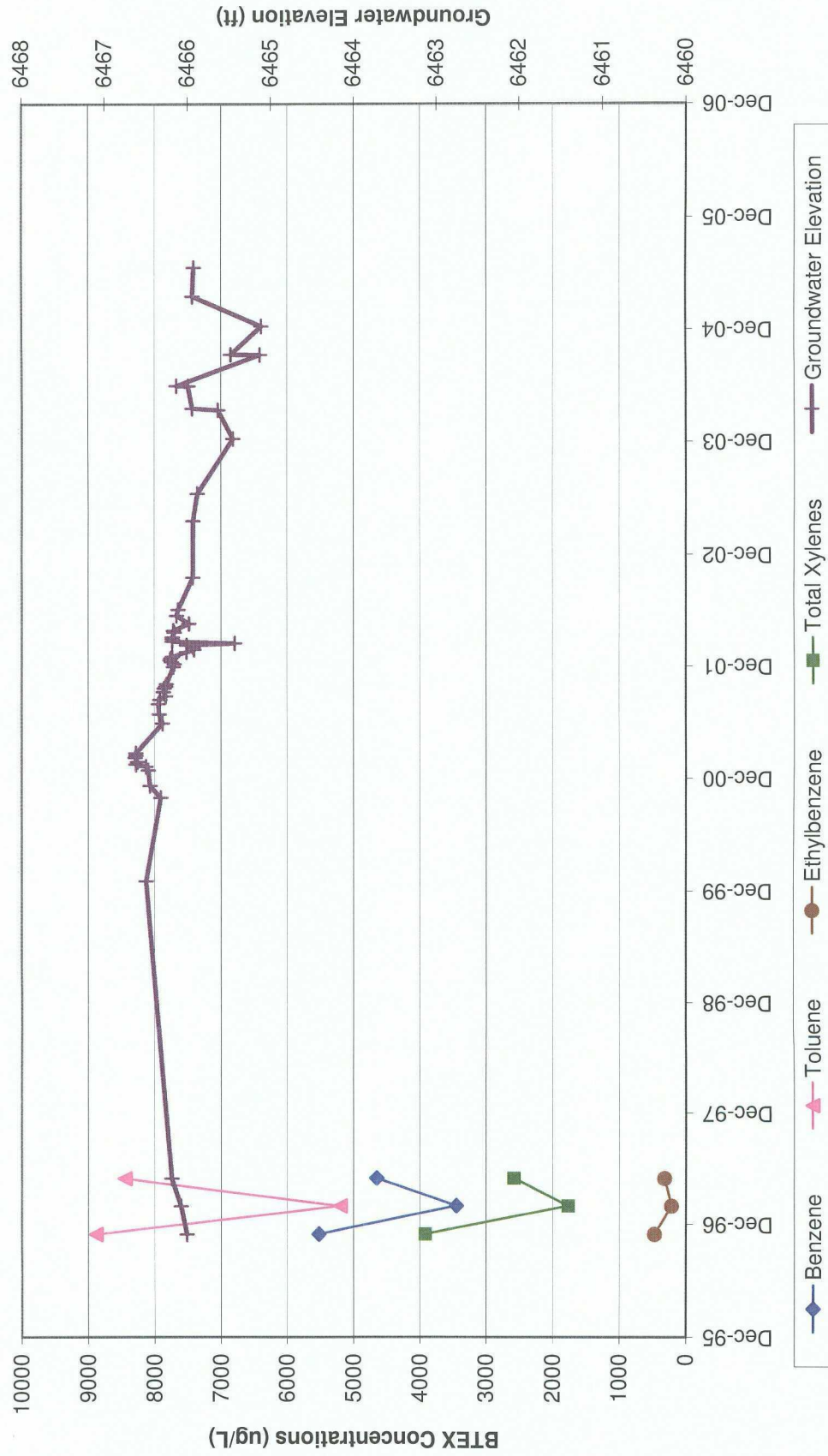


FIGURE 3
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
CANADA MESA #2
MW-2

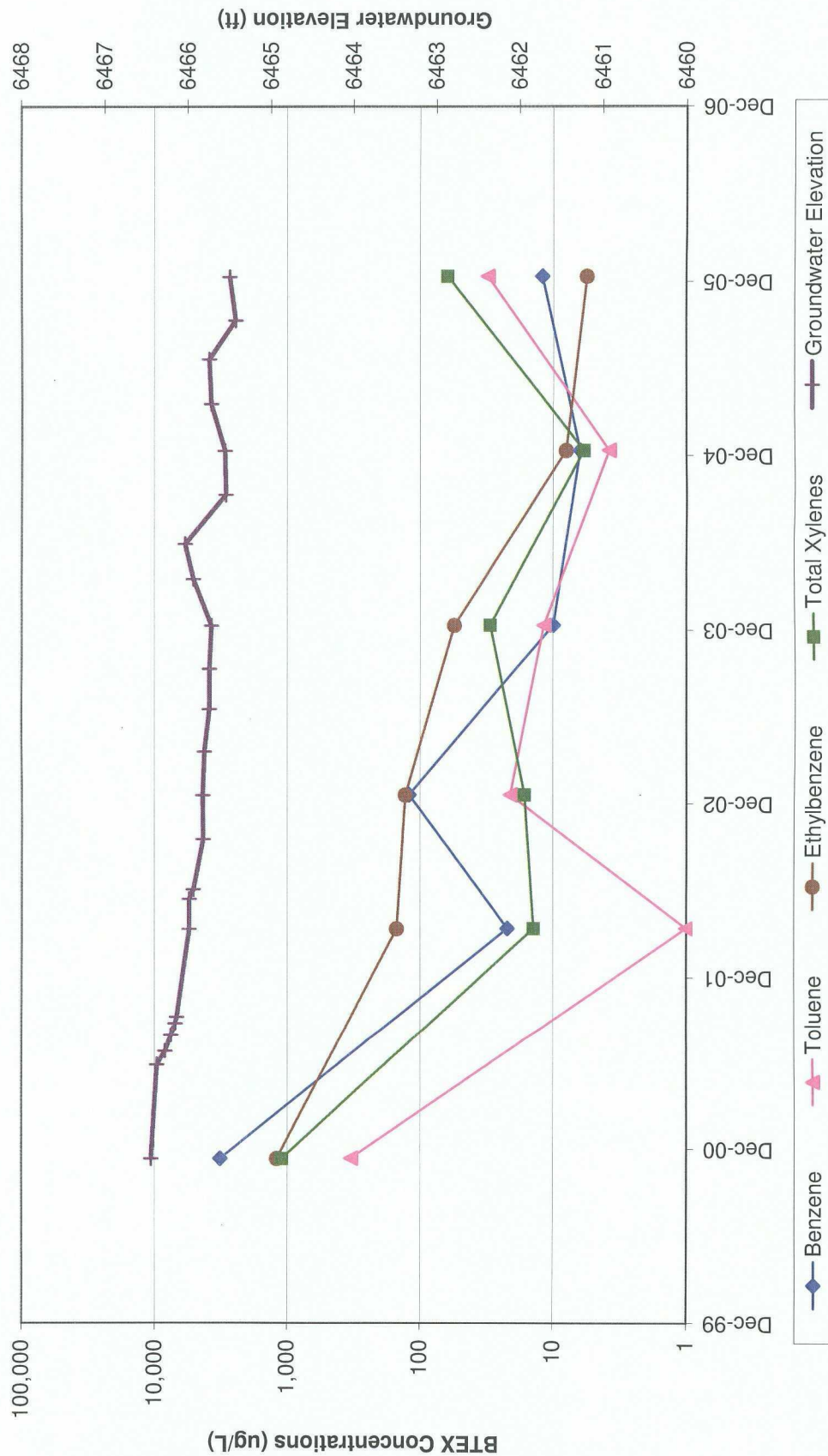


FIGURE 4
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
CANADA MESA #2
MW-3

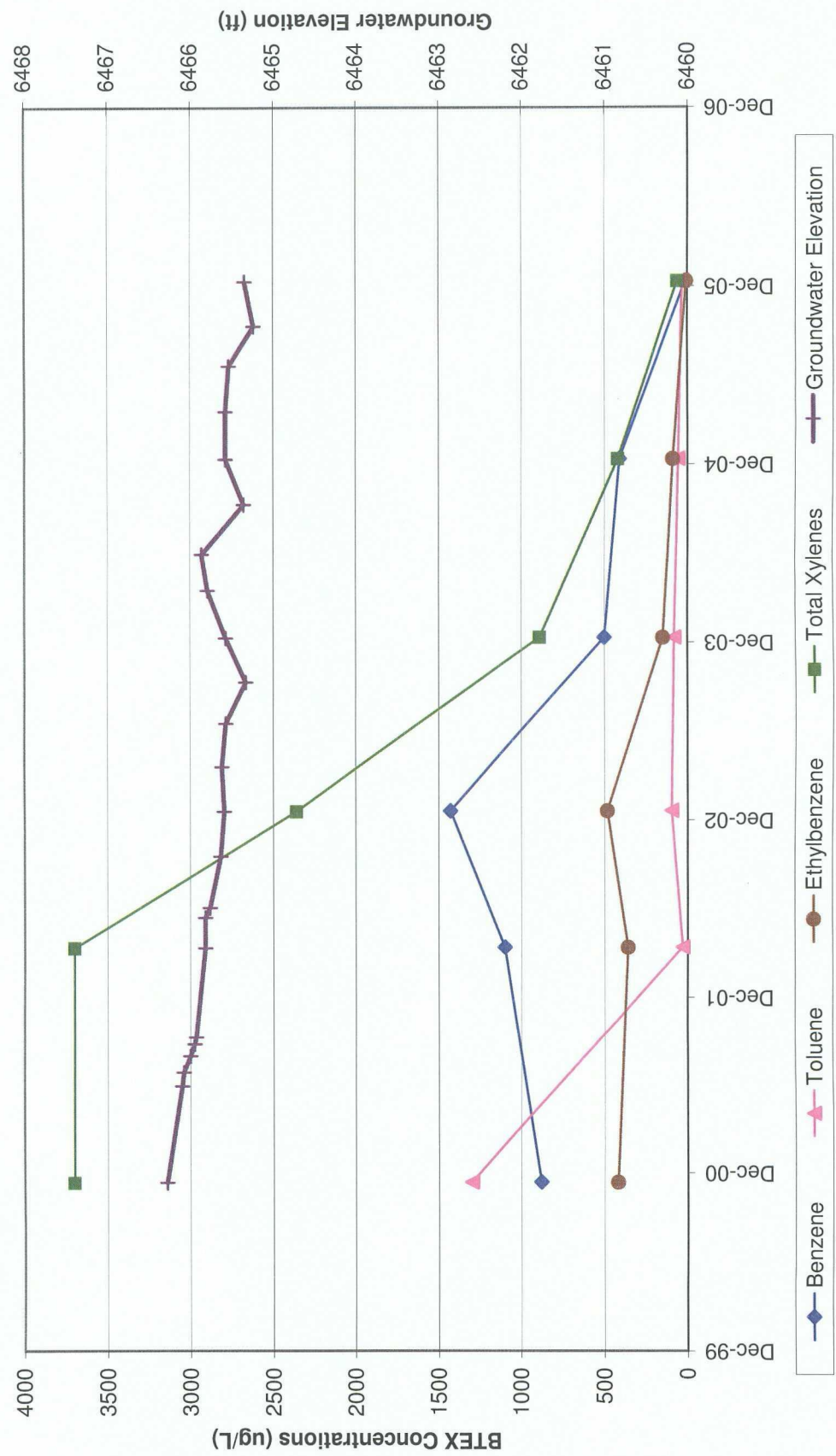


FIGURE 5
HISTORIC FREE-PRODUCT RECOVERY
CANADA MESA #2
MW-1

