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**ANNUAL
MONITORING
REPORT**

04/02/2008



MWH

BUILDING A BETTER WORLD

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April 2, 2008

Mr. Glenn von Gonten
New Mexico Oil Conservation Division (NMOCD)
1220 South St., Francis Drive
Santa Fe, New Mexico 87505

**RE: El Paso Tennessee Pipeline Company Pit Groundwater Remediation Sites
2007 Annual Reports**

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Tennessee Pipeline Company (EPTPC), is submitting the enclosed 2007 Annual Reports for each of EPTPC's 21 remaining San Juan River Basin pit groundwater remediation Sites. The reports present the 2007 sampling and product recovery data and include recommendations for 2008 activities at these Sites.

Copies of the reports for Sites located on Federal or Navajo lands are also being sent under separate cover to the Bureau of Land Management and the Navajo Nation Environmental Protection Agency.

If you have any questions concerning the enclosed reports, please call either Nancy Prince of EPTPC (719-520-4690) or me (303-291-2276).

Sincerely,

Jed Smith
Project Manager

cc: Brandon Powell – NMOCD, Aztec, NM
Nancy Prince – EPTPC
MWH Project File

**2007 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I
EL PASO TENNESSEE PIPELINE COMPANY**

TABLE OF CONTENTS

METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT	
89961	Fields A#7A	32N	11W	34	E	3R170
89232	Johnston Fed #6A	31N	09W	35	F	3R202
94715	James F. Bell #1E	30N	13W	10	P	3R196
89620	Sandoval GC A #1A	30N	09W	35	C	3R235
LD151	Lat 0-21 Line Drip	30N	09W	12	O	3R213
73220	Fogelson 4-1 Com. #14	29N	11W	4	P	3R068
97213	Hamner #9	29N	09W	20	A	3R190
LD174	LAT L 40	28N	04W	13	H	3R212
89894	Hammond #41A	27N	08W	25	O	3R186
94810	Miles Fed 1A	26N	07W	5	F	3R223
LD072	K27 LD072	25N	06W	4	E	3R204
87640	Canada Mesa #2	24N	06W	24	I	3R155
70194	Johnston Fed #4	31N	09W	33	H	3R201



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**EPTPC GROUNDWATER SITES
2007 ANNUAL GROUNDWATER REPORT**

3R106

**Hammond #41A
Meter Code: 89894**

SITE DETAILS

Legal Description:	Town:	27N	Range:	8W	Sec:	25	Unit:	O
NMOCD Haz Ranking:	40	Land Type:	Federal	Operator:	M&G Drilling Company			

PREVIOUS ACTIVITIES

Site Assessment:	6/94	Excavation:	7/94	Soil Boring:	7/95
Monitor Well:	5/97	Geoprobe:	11/96	Additional MWs:	9/99
Downgradient MWs:	9/99	Replace MW:	NA	Quarterly Initiated:	6/97
ORC Nutrient Injection:	7/98	Re-Excavation:	5/97	PSH Removal Initiated:	NA
Annual Initiated:	9/99	Quarterly Resumed:	NA	PSH Removal in 2007?	No

SUMMARY OF 2007 ACTIVITIES

MW-1: Water level water level monitoring was performed in May, August, and November 2007.

MW-2: Water level monitoring was performed in May, August, and November 2007.

MW-3: Water level monitoring was performed in May, August, and November 2007.

TMW-1: Sampling of TMW-1 was performed in May, August, and November 2007.

SITE MAPS

Site maps (May, August, and November) are attached as Figures 1 through 3.

SUMMARY TABLES AND GRAPHS

- Historic analytical data are summarized in Table 1 and presented graphically in Figures 4 through 7.
- Laboratory reports are presented in Attachment 1 (included on CD).
- Field documentation is presented in Attachment 2 (included on CD).

**EPTPC GROUNDWATER SITES
2007 ANNUAL GROUNDWATER REPORT**

**Hammond #41A
Meter Code: 89894**

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this Site during 2007.

DISPOSITION OF GENERATED WASTES

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

ISOCONCENTRATION MAPS

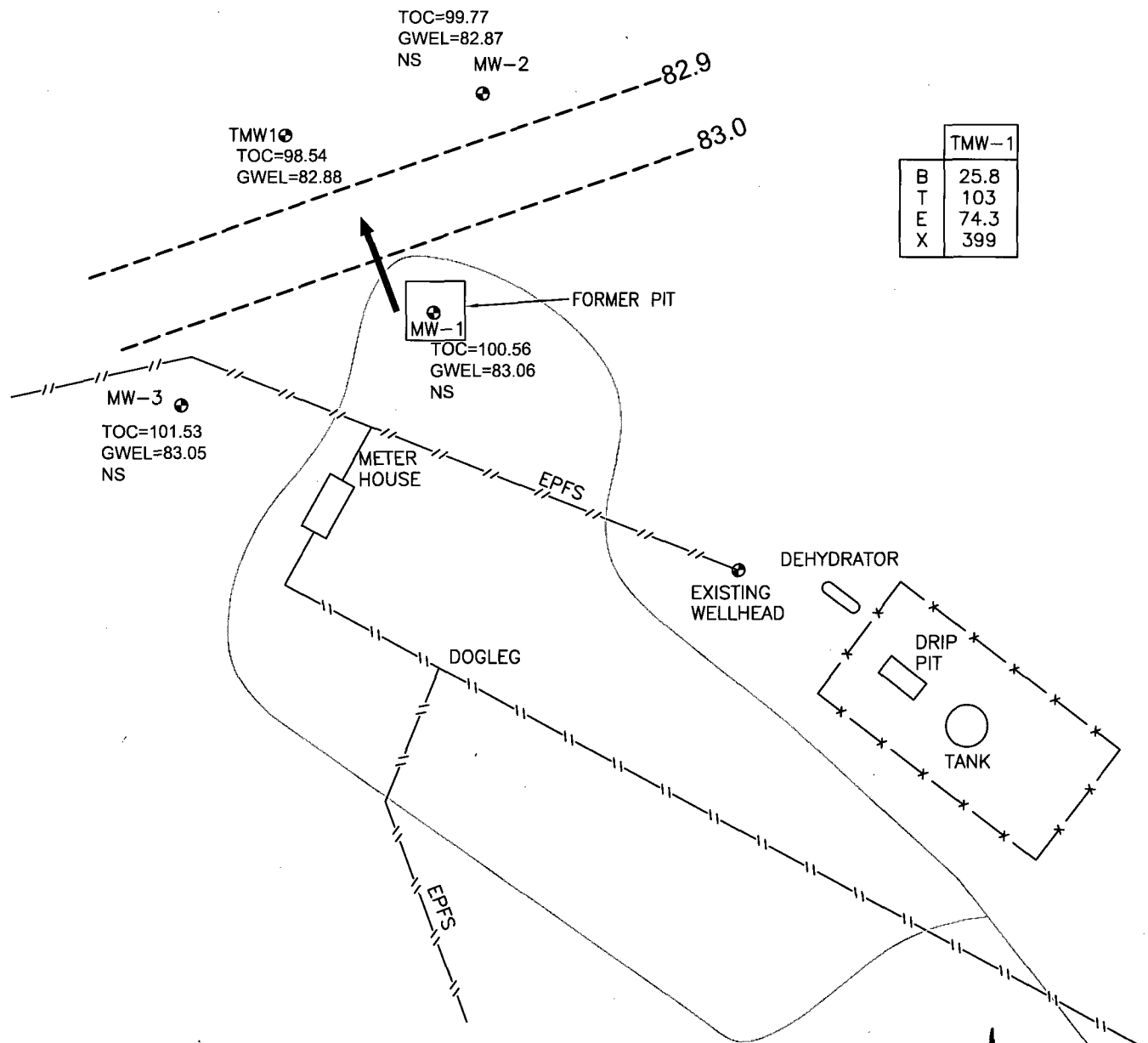
No isoconcentration maps were prepared for this Site; however, the attached Site maps present both the water level and analytical data collected during 2007.

CONCLUSIONS

- Groundwater flow at the Site is consistently to the northwest.
- The low-level (i.e., close to or below the NMWQCC standards) BTEX concentrations remain steady in TMW-1. Benzene concentrations at TMW-1 were 25.8 µg/L, 15.9 µg/L, and 21.7 µg/L in May, August, and November 2007, respectively. These results are slightly above the NMWQCC benzene standard. Toluene, ethylbenzene, and total xylenes concentrations were below their respective standards during each sample event in 2007.
- As of 2002, wells MW-1, MW-2 and MW-3 have met four consecutive quarters of BTEX concentrations below NMWQCC standards. TMW-1 was installed in 2003, as requested by NMOCD.

RECOMMENDATIONS

- EPTPC recommends conducting semiannual sampling of TMW-1 until BTEX concentrations fall beneath their respective NMWQCC closure standards. At that time, quarterly sampling will be conducted until four clean quarters have been observed and the Site can be submitted for closure.
- Because historic samples indicated that MW-1, MW-2, and MW-3 have achieved closure standards, these wells will be sampled again only during final closure sampling.



LEGEND

- MW-1 Approximate Monitoring Well Location and Number
 — Road
 — x — x — Fence Line
 — // — // — Pipe Line
 → Direction of Groundwater Flow (Relative)
 GWEL Groundwater Elevation — (Relative).
 TOC Top of Casing, Surveyed Feb. 2006
 — 82.87 — Potentiometric Surface (Inferred where dashed)

- B Benzene ($\mu\text{g/L}$)
 T Toluene ($\mu\text{g/L}$)
 E Ethylbenzene ($\mu\text{g/L}$)
 X Total Xylenes ($\mu\text{g/L}$)
 NS Not Sampled

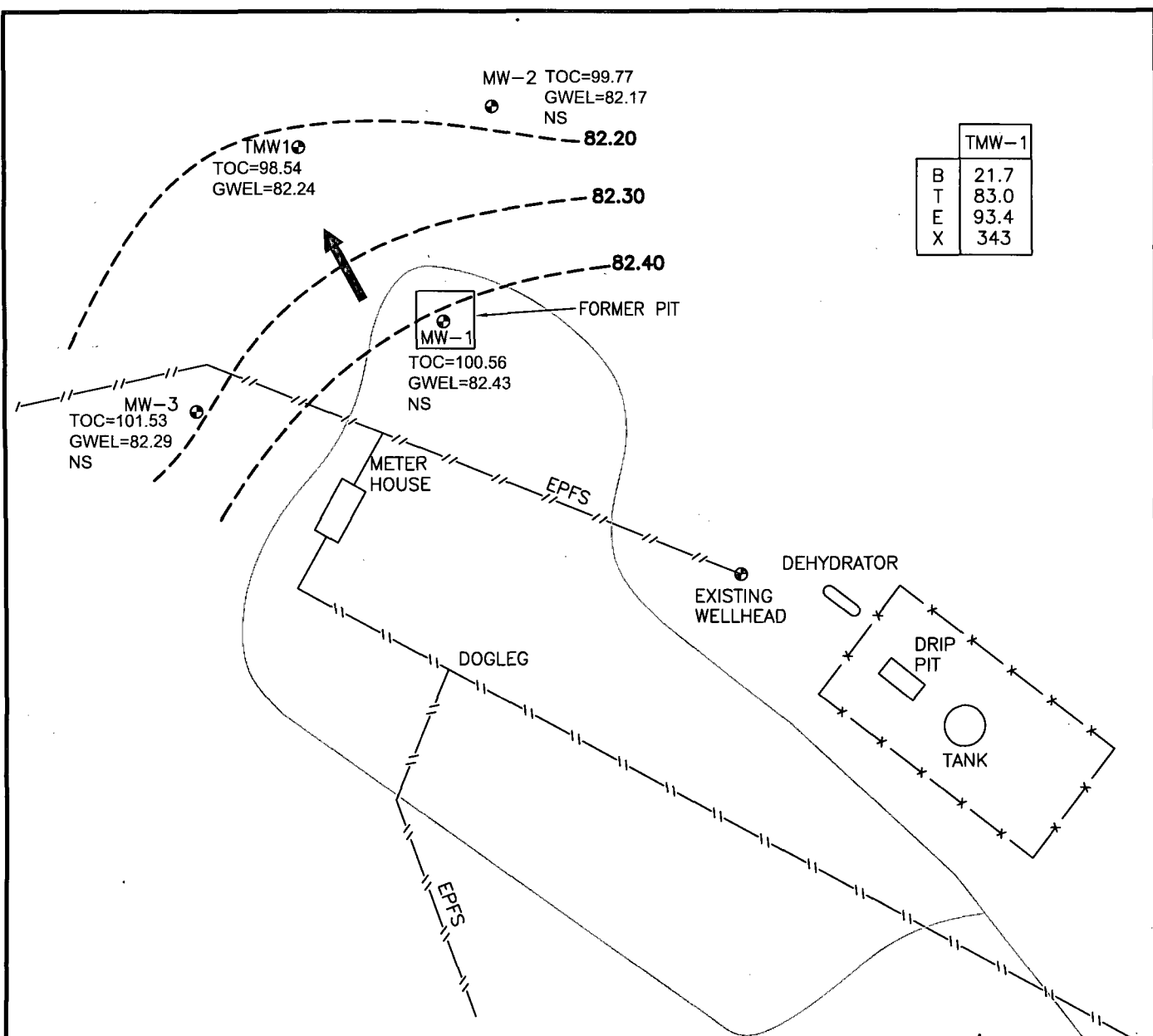
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0	Issued for Report	05/07	D. Wade	N. Day	J. Smith
REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
					PROJECT No: 1005521.0601
					AutoCAD FILE: hammond41a.dwg
					SCALE: As Shown
					FIGURE No: 1



EL PASO TENNESSEE PIPELINE COMPANY
 HAMMOND #41A, METER 89894

GROUNDWATER POTENTIOMETRIC SURFACE
 CONTOURS AND BTEX CONCENTRATIONS
 MAY 2007



LEGEND

● MW-1

Approximate Monitoring Well Location and Number

— x — x —

Road

— x — x —

Fence Line

— // — // —

Pipe Line



Direction of Groundwater Flow (Relative)

GWEL

Groundwater Elevation - (Relative).

TOC

Top of Casing, Surveyed Feb. 2006

82.87

Potentiometric Surface (Inferred where dashed)

B

Benzene ($\mu\text{g/L}$)

T

Toluene ($\mu\text{g/L}$)

E

Ethylbenzene ($\mu\text{g/L}$)

X

Total Xylenes ($\mu\text{g/L}$)

NS

Not Sampled



0 40

SCALE: 1"=40'

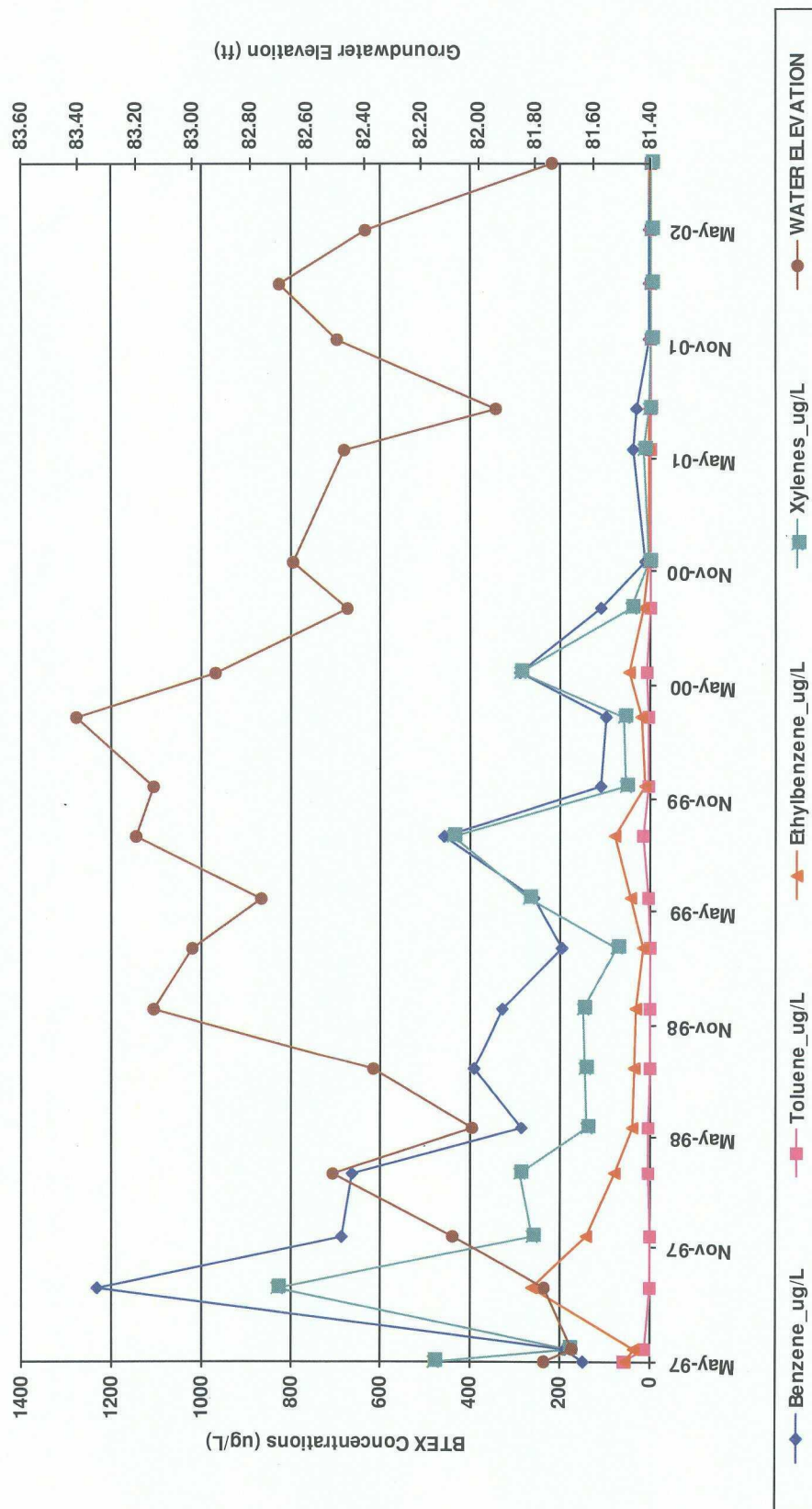
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PROJECT No.: 1005521.0601					
AutoCAD FILE: hammond41a.dwg					
SCALE: As Shown					
FIGURE No: 3					



EL PASO TENNESSEE PIPELINE COMPANY
HAMMOND #41A, METER 89894

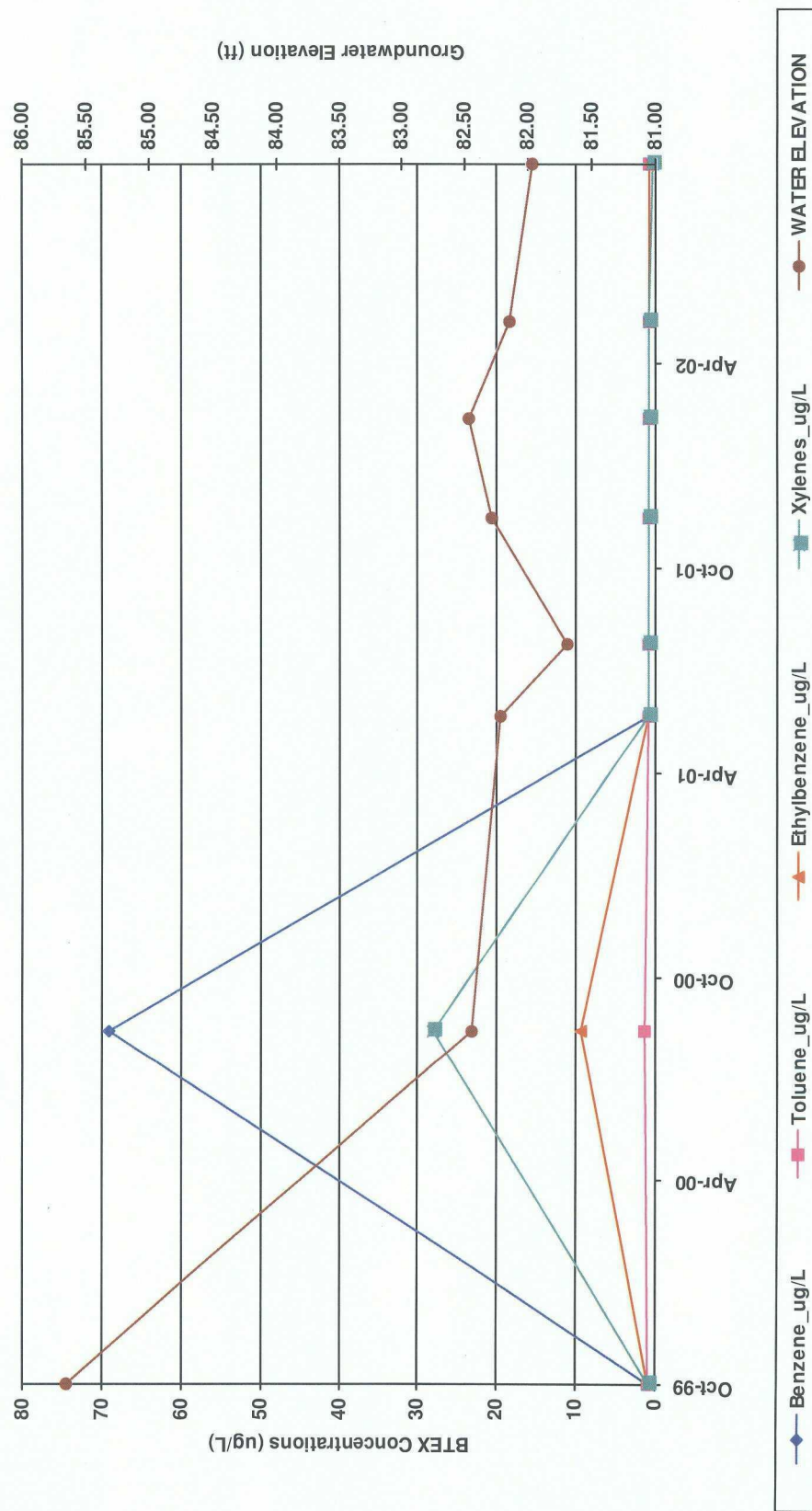
GROUNDWATER POTENTIOMETRIC SURFACE
CONTOURS AND BTEX CONCENTRATIONS
NOVEMBER 2007

FIGURE 4
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMMOND #41A (METER #89894)
MW01



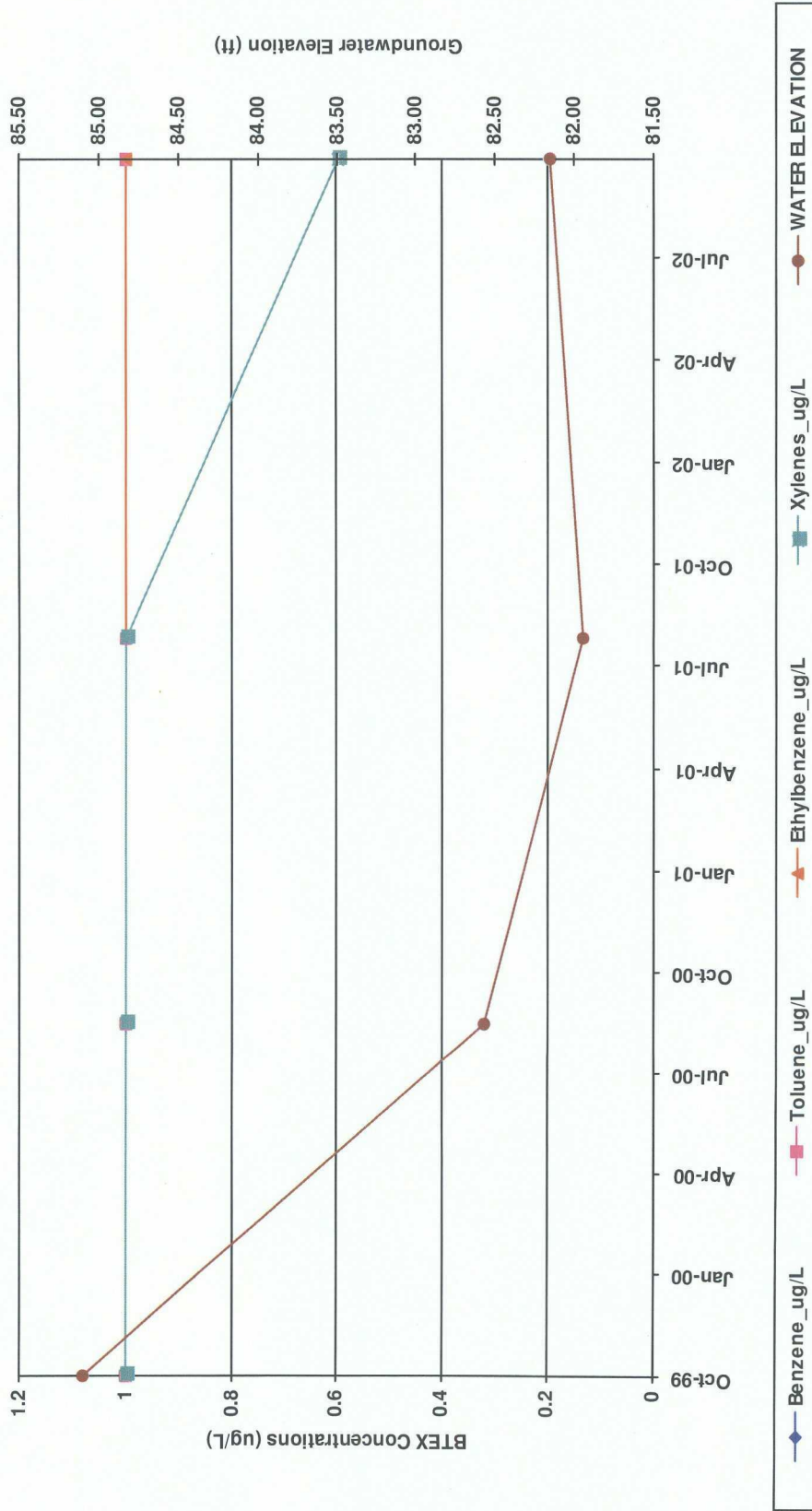
Note: Non Detects are represented by a value of 1.

FIGURE 5
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMMOND #41A (METER #89894)
MW02



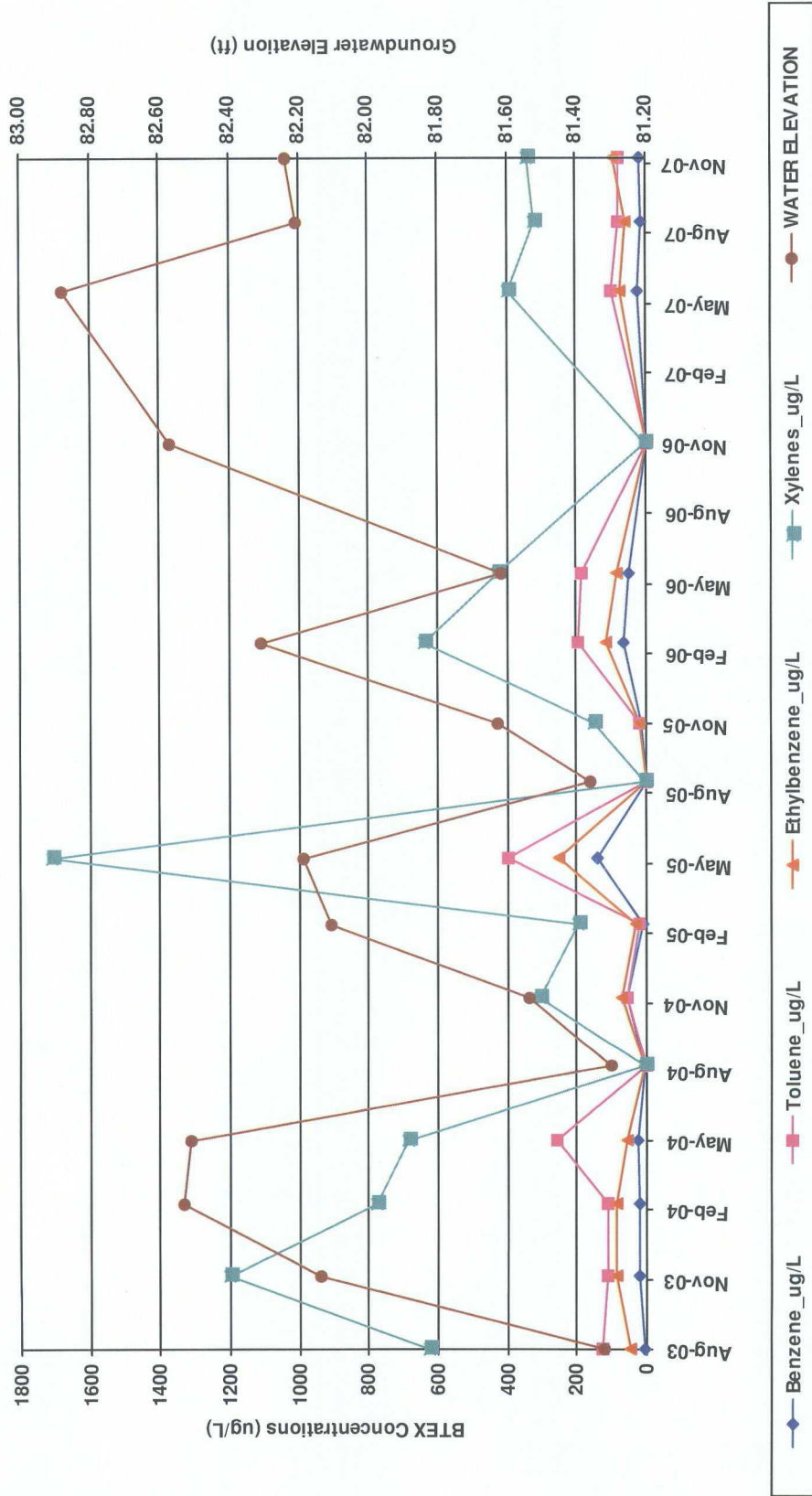
Note: Non Detects are represented by a value of 1.

FIGURE 6
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMMOND #41A (METER #89894)
MW03



Note: Non Detects are represented by a value of 1.

FIGURE 7
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMMOND #41A (METER #89894)
TMW01



Note: Non Detects are represented by a value of 1.

TABLE 1

**SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMMOND #41A (METER #89894)**

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW01	5/21/1997	150	60.1	56.7	484	18.79
	6/9/1997	190	12.3	36.9	181	18.89
	9/17/1997	1230	1	263	830	18.79
	12/9/1997	685	1	141	261	18.47
	3/20/1998	662	3.06	78.7	292	18.05
	6/4/1998	286	2.43	38.4	140	18.54
	9/10/1998	391	1	34	144	18.19
	12/17/1998	330	1.6	30	150	17.42
	3/23/1999	197	1	15.8	74.1	17.56
	6/11/1999	260	3.3	42	270	17.80
	9/20/1999	460	16	78	440	17.36
	12/9/1999	110	3.9	13	53	17.42
	3/31/2000	98	3.4	19	59	17.15
	6/9/2000	290	9.7	49	290	17.64
	9/21/2000	110	1.7	16	44	18.10
	12/5/2000	10	1	3.6	4.3	17.91
	6/4/2001	39	0.6	5.5	16	18.09
	8/7/2001	33	1	2.8	4.9	18.62
	11/27/2001	3.2	1	0.6	1	18.06
	2/25/2002	3.9	1	0.5	1	17.86
	5/21/2002	4.4	1	1	1	18.16
	9/5/2002	2.7	0.5	2.2	1.4	18.82
MW02	10/15/1999	1	1	1	1	14.12
	8/28/2000	69	1.3	9.4	28	17.32
	6/4/2001	1	1	1	1	17.54
	8/7/2001	1	1	1	1	18.08
	11/27/2001	1	1	1	1	17.47
	2/25/2002	1	1	1	1	17.30
	5/21/2002	1	1	1	1	17.62
	10/8/2002	1	1	1	0.5	17.80
MW03	10/15/1999	1	1	1	1	16.43
	8/28/2000	1	1	1	1	18.96
	8/7/2001	1	1	1	1	19.58
	10/8/2002	1	1	1	0.6	19.38

Note: Non Detects are represented by a value of 1.

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
HAMMOND #41A (METER #89894)

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
TMW01	8/13/2003	7.3	128	44.8	625	17.22
	11/15/2003	19.2	113	84.6	1200	16.40
	2/17/2004	22.3	109	83.2	774	16.01
	5/11/2004	27.2	255	56.6	685	16.03
	8/19/2004	3.1	1	2.6	5.6	17.24
	11/16/2004	55.2	53.3	70.7	306	17.00
	2/21/2005	11.2	20.2	28.9	196	16.43
	5/18/2005	140	398	252	1710	16.35
	8/23/2005	1	1	1	5.6	17.18
	11/8/2005	13.9	20.1	20.1	149	16.91
	2/23/2006	64.2	195	118	641	16.23
	5/23/2006	49.2	188	85.1	429	16.92
	11/8/2006	1.7	1.8	2.2	4.7	15.97
	5/24/2007	25.8	103	74.3	399	15.66
	8/21/2007	15.9	81	59.6	322	16.33
	11/13/2007	21.7	83	93.4	343	16.30

Note: Non Detects are represented by a value of 1.