3R - 202

ANNUAL MONITORING REPORT

04/02/2008

MWH

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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

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2007 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I

EL PASO TENNESSEE PIPELINE COMPANY

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EPTPC GROUNDWATER SITES
2007 ANNUAL GROUNDWATER REPORT

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Johnston Fed #6A
Meter Code: 89232

SITE DETAILS

Legal Description:	**Town:**	31N	**Range:**	9W	**Sec:** 35	**Unit:**	F
NMOCD Haz Ranking:	. 40	**Land Type:**	Federal	**Operator:**	Burlington Resources		

PREVIOUS ACTIVITIES

Site Assessment:	8/94	**Excavation:**	9/94 (80cy)	**Soil Boring:**	8/95
Monitor Well:	8/95	**Geoprobe:**	NA	**Additional MWs:**	11/06
Downgradient MWs:	6/00	**Replace MW:**	NA	**Quarterly Initiated:**	4/96
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	7/97
Annual Initiated:	NA	**Quarterly Resumed:**	NA	**PSH Removal in 2007?**	Yes

SUMMARY OF 2007 ACTIVITIES

MW-1: Quarterly free-product recovery and water level monitoring were performed during 2007.

MW-2: Quarterly water level monitoring was performed during 2007.

MW-3: Quarterly free-product recovery and water level monitoring were performed during 2007.

MW-4: Annual groundwater sampling (March) and quarterly water level monitoring were performed during 2007.

MW-5: Quarterly free-product recovery and water level monitoring were performed during 2007.

MW-6: Annual groundwater sampling (March) and quarterly water level monitoring were performed during 2007.

Site-Wide Activities: In January 2007, the new monitoring well MW-6 was surveyed. The other wells in the monitoring network were re-surveyed at the same time.

Johnston Fed #6A
Meter Code: 89232

SITE MAP

A Site map (March 2007) is attached as Figure 1.

SUMMARY TABLES AND GRAPHS

- Analytical data for 2007 are included in Table 1, and the data are also presented graphically in Figures 2 through 7.
- Product recovery data are included in Table 2, and the data are also presented graphically in Figures 8 through 10.
- 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 2007.

DISPOSITION OF GENERATED WASTES

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station. Spent absorbent socks were managed as non-hazardous solid waste.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this Site; however, the attached Site map presents the analytical data collected during 2007.

CONCLUSIONS

- The groundwater flow gradient is generally to the north-northeast.
- Free-product recovery efforts at MW-1 resulted in removal of approximately 0.38 gallons of free-product, bringing the cumulative total recovered to date to 8.03 gallons.
- Free-product was not observed in MW-3 during 2007; therefore, this well can be added to the sampling program, barring recurrence of free-product. Free-product recovery can be re-initiated in the future, if needed.
- The annual groundwater sample from MW-4 indicated BTEX concentrations at or below the detection limits. BTEX levels in MW-4 have below standards since 2003, representing a significant decrease since 1997 (benzene concentration of 899 µg/L).

- Free-product was not observed in MW-5 during 2007. This well can be added to the sampling program, barring recurrence of free-product.

- New downgradient monitoring well MW-6 was sampled for the first time in March 2007. No detections of BTEX compounds were observed; the well appears to be clean.

RECOMMENDATIONS

- EPTPC will continue quarterly free-product recovery efforts at MW-1; however, the frequency of these activities may be adjusted based on the observed product thicknesses and amounts recovered during the monitoring visits.

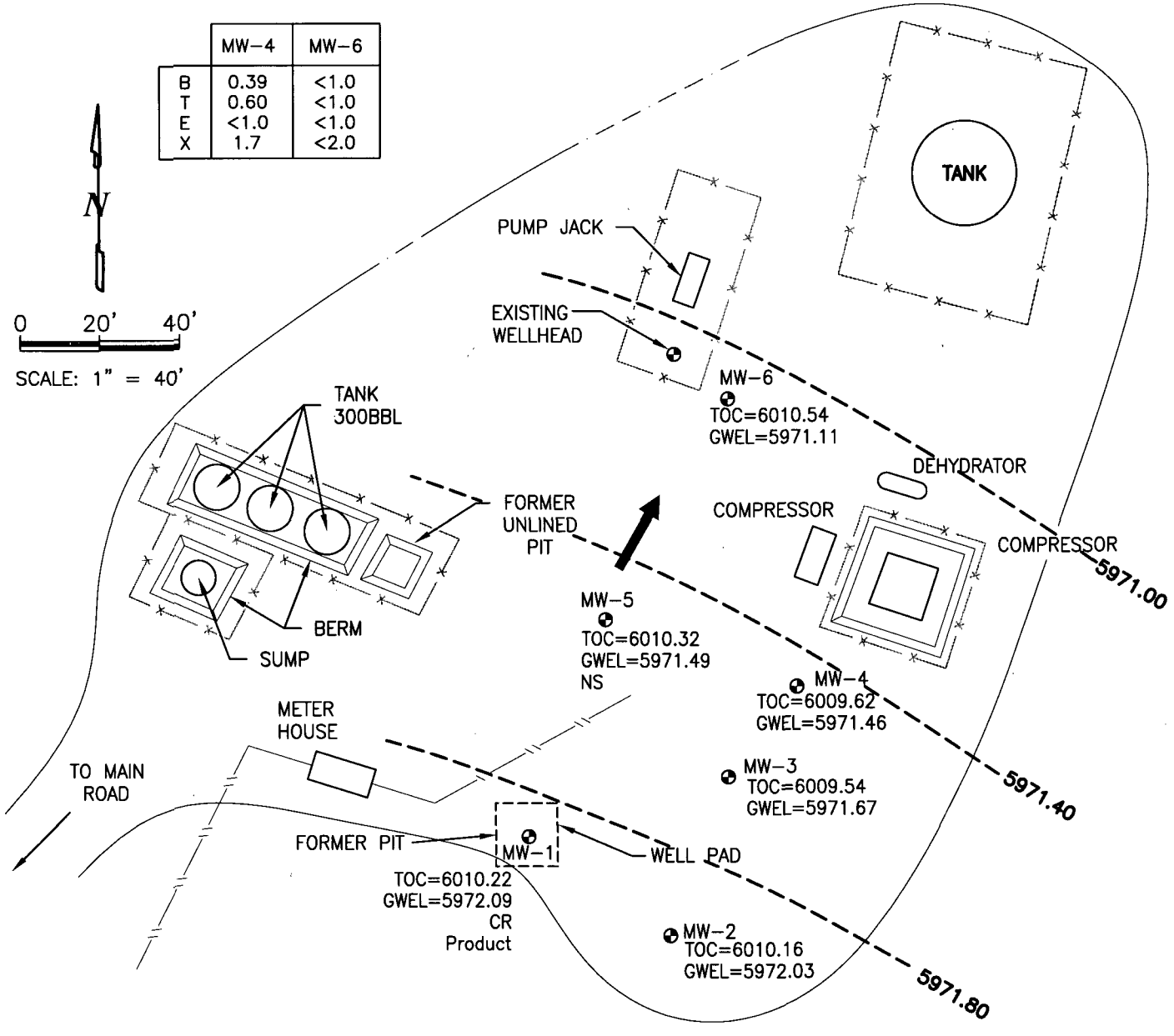
- BTEX concentrations in MW-2 were below closure standards for four sampling events (1997 – 2002); therefore, EPTPC will sample MW-2 again only at closure.

- Since free-product was not observed in either MW-3 or MW-5 during 2007, these wells will be sampled annually in March and gauged quarterly to monitor for free-product.

- BTEX concentrations in MW-4 were below closure standards for the last five sampling events (2003 – 2007); therefore, EPTPC will plan to sample MW-4 again only at closure.

- MW-6 will be sampled annually in March. EPTPC may recommend discontinuing this sampling after 3 more annual events, if BTEX concentrations remain below standards.

	MW-4	MW-6
B	0.39	<1.0
T	0.60	<1.0
E	<1.0	<1.0
X	1.7	<2.0



LEGEND

⊕ MW-1	Approximate Monitoring Well Location and Number
——x——x——	Fence Line
——//——//——	Pipe Line
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)
NS	Not Sampled
Product	Free-Product Present
CR	Water Level Corrected for Product
<	Not Detected. Value Shown is Reporting Limit
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing
82.87	Potentiometric Surface (Inferred Where Dashed)
→	Direction of Groundwater Flow (Estimated)
NS	Not Sampled (See Historical Data for Most Recent Sample Results from Non-Product Wells)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued for Report	03/07	D. Wade	N.Day	J.Smith

MWH

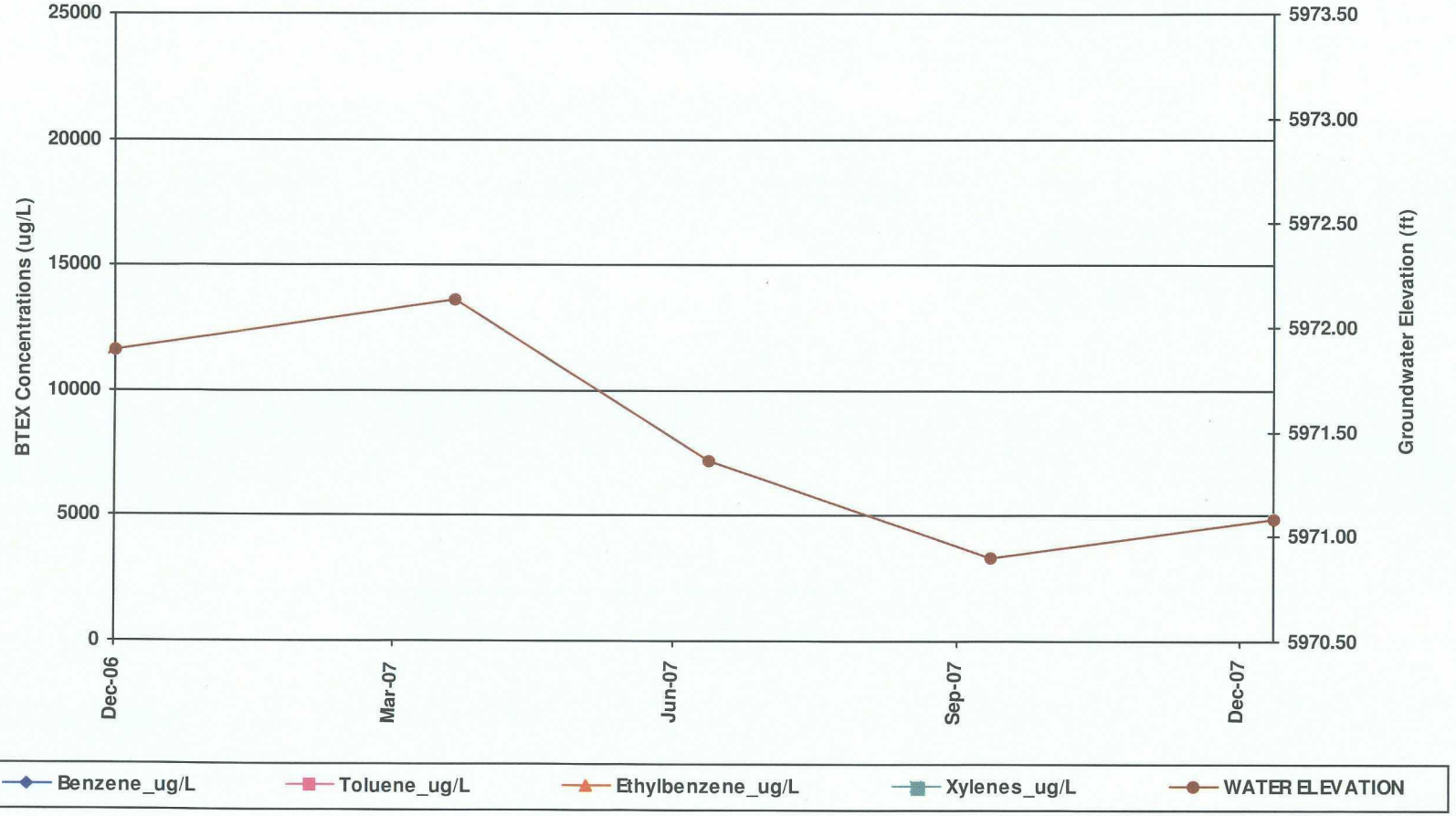
PROJECT No.: 1005521.0601
AutoCAD FILE: Johnstonefed 6A.dwg
SCALE: As Shown
FIGURE No: 1

elpaso

EL PASO TENNESSEE PIPELINE COMPANY
JOHNSTON FED #6A, METER 70194

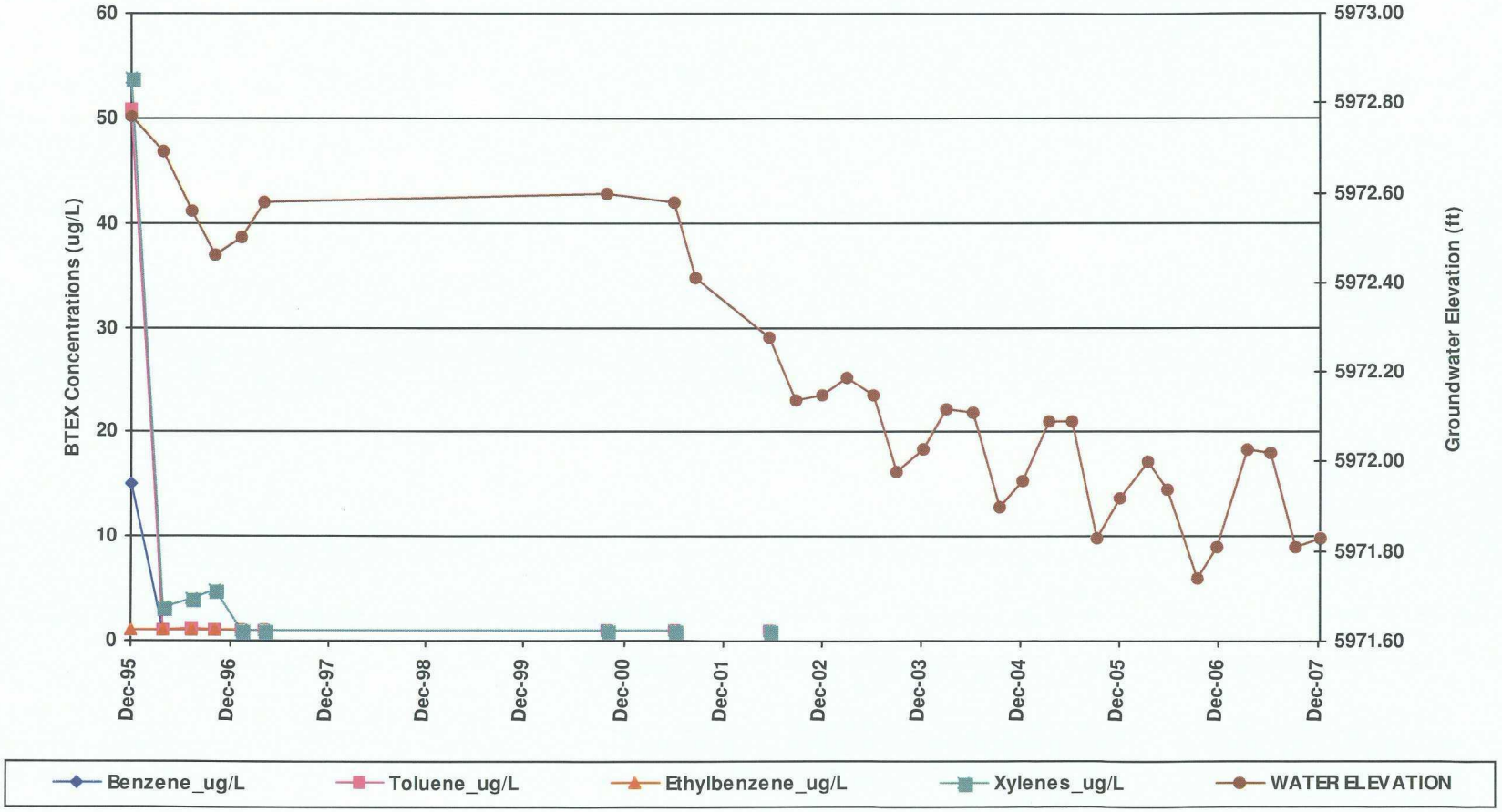
GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS MARCH 2007

FIGURE 2
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)
MW01



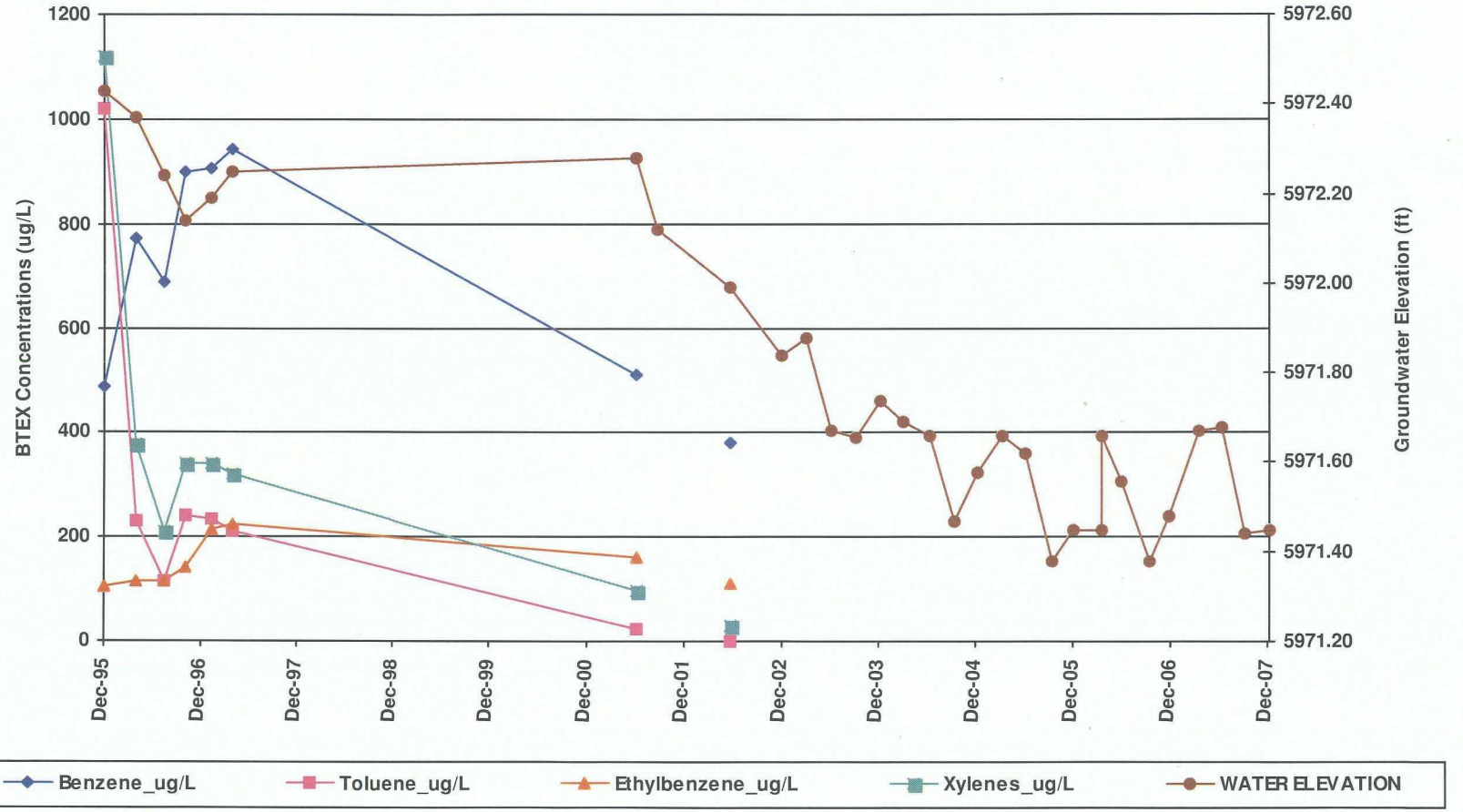
Note: Non Detects are represented by a value of 1.

FIGURE 3
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)
MW02



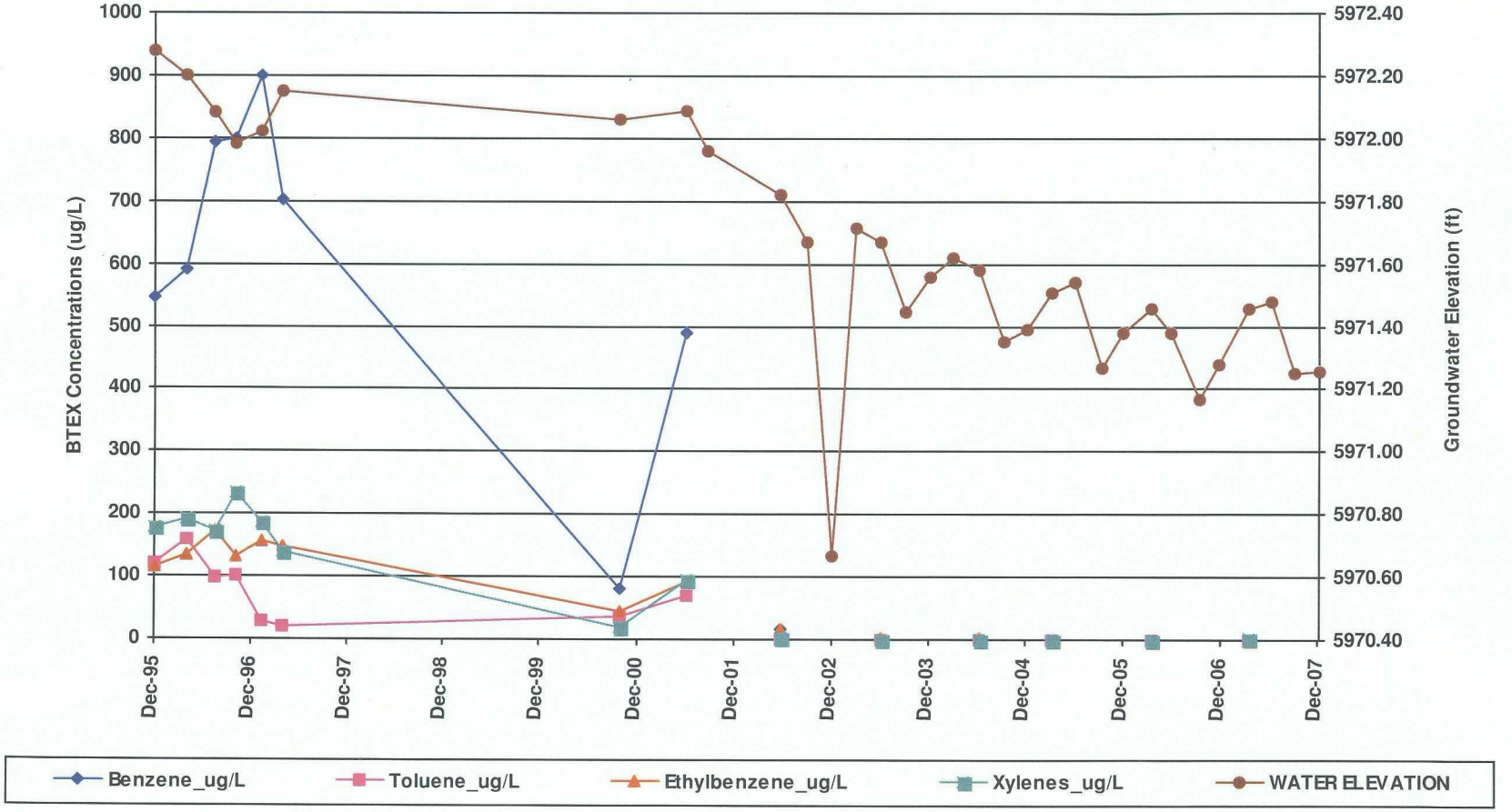
Note: Non Detects are represented by a value of 1.

FIGURE 4
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)
MW03



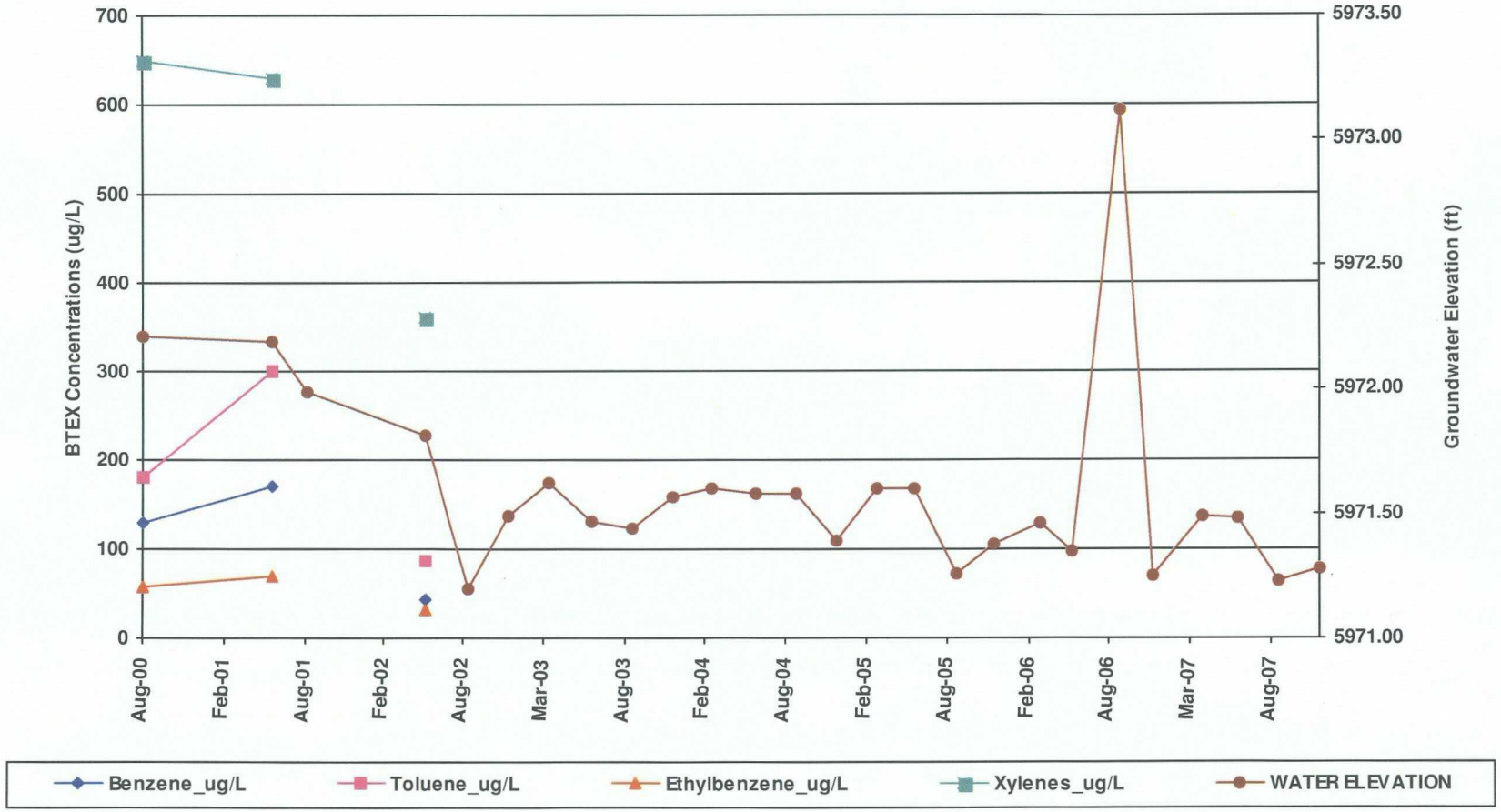
Note: Non Detects are represented by a value of 1.

FIGURE 5
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)
MW04



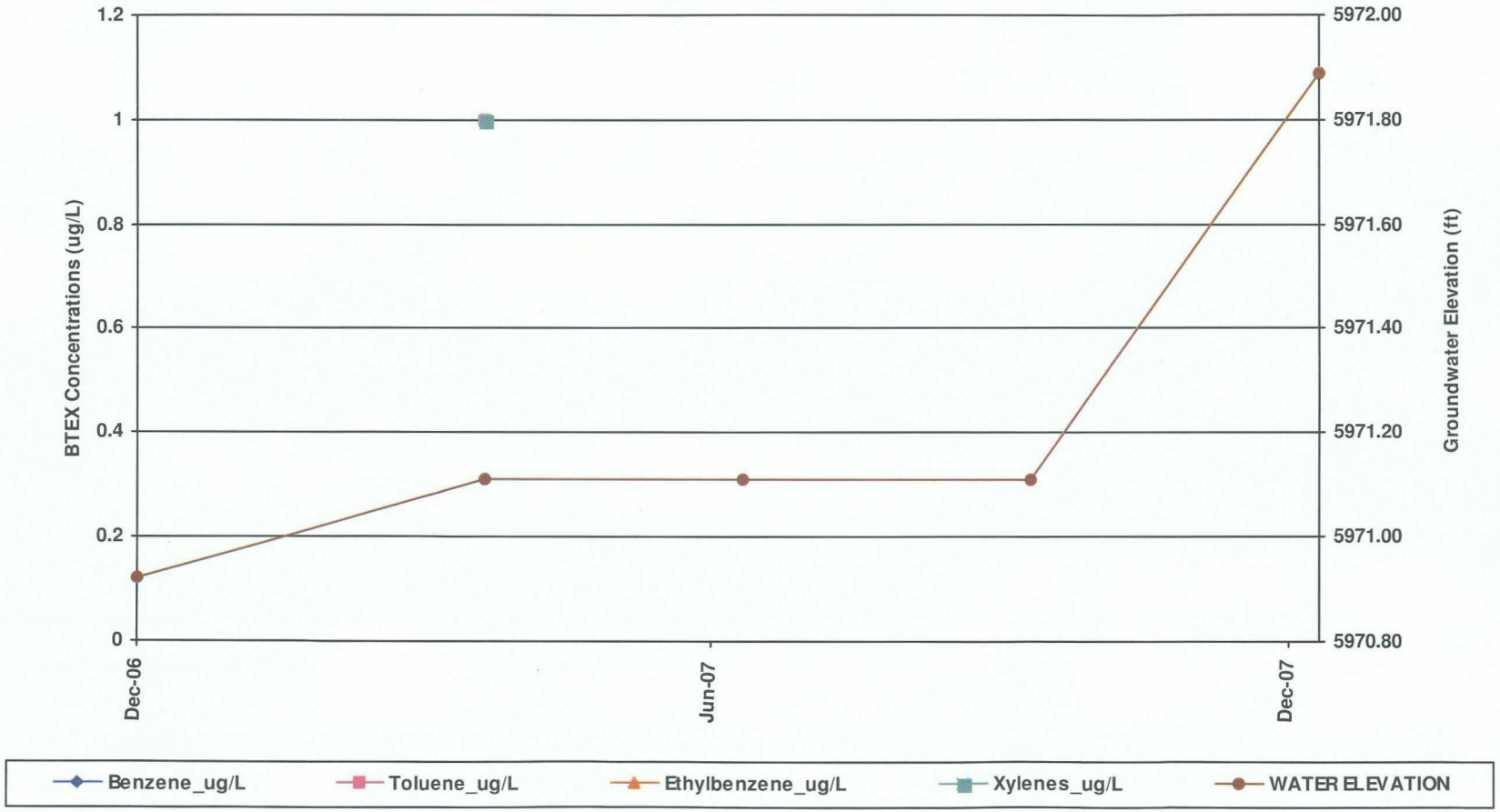
Note: Non Detects are represented by a value of 1.

FIGURE 6
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)
MW05



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

FIGURE 7
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)
MW06



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

FIGURE 8
SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)
MW01

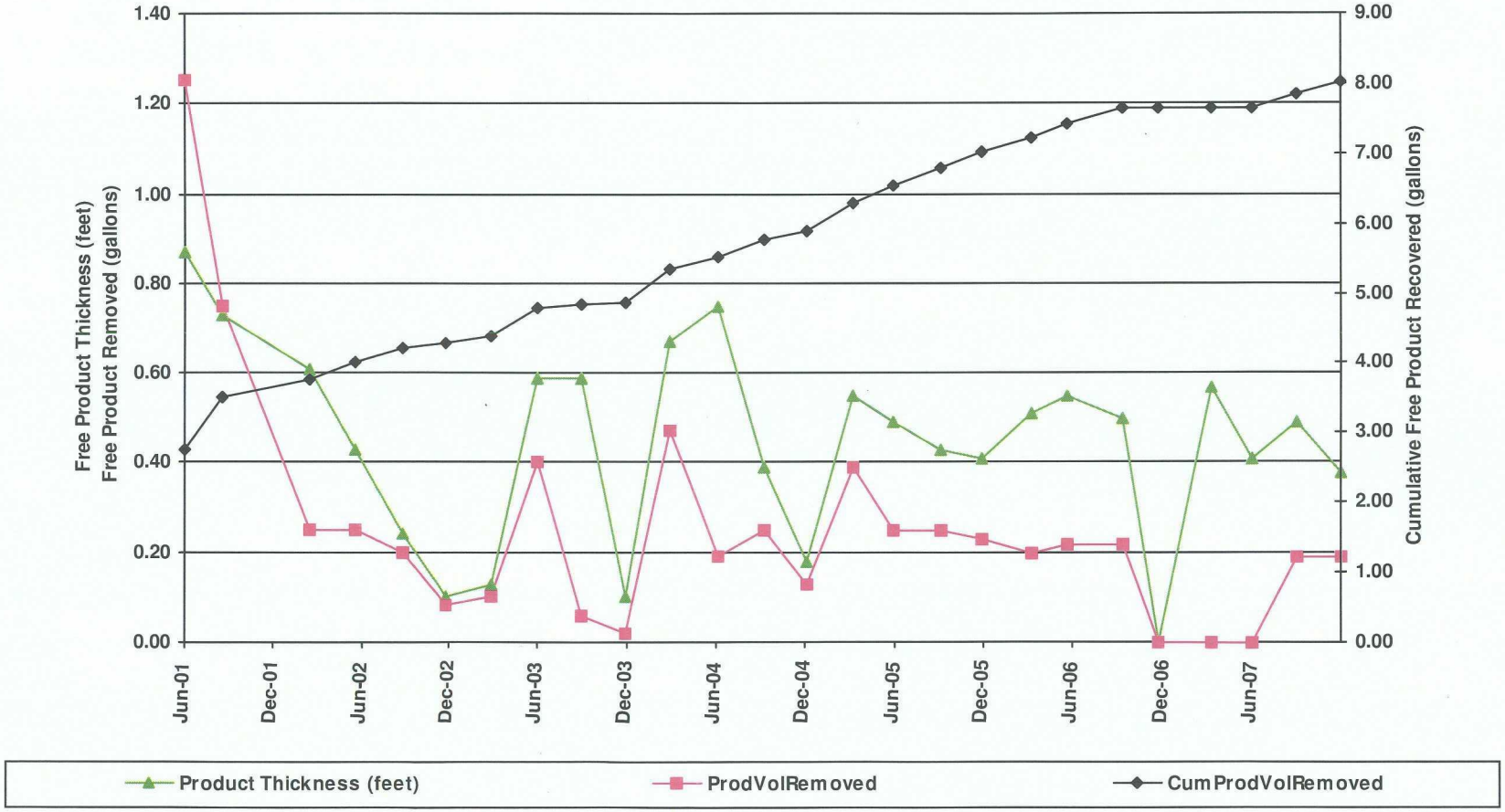


FIGURE 9
SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)
MW03

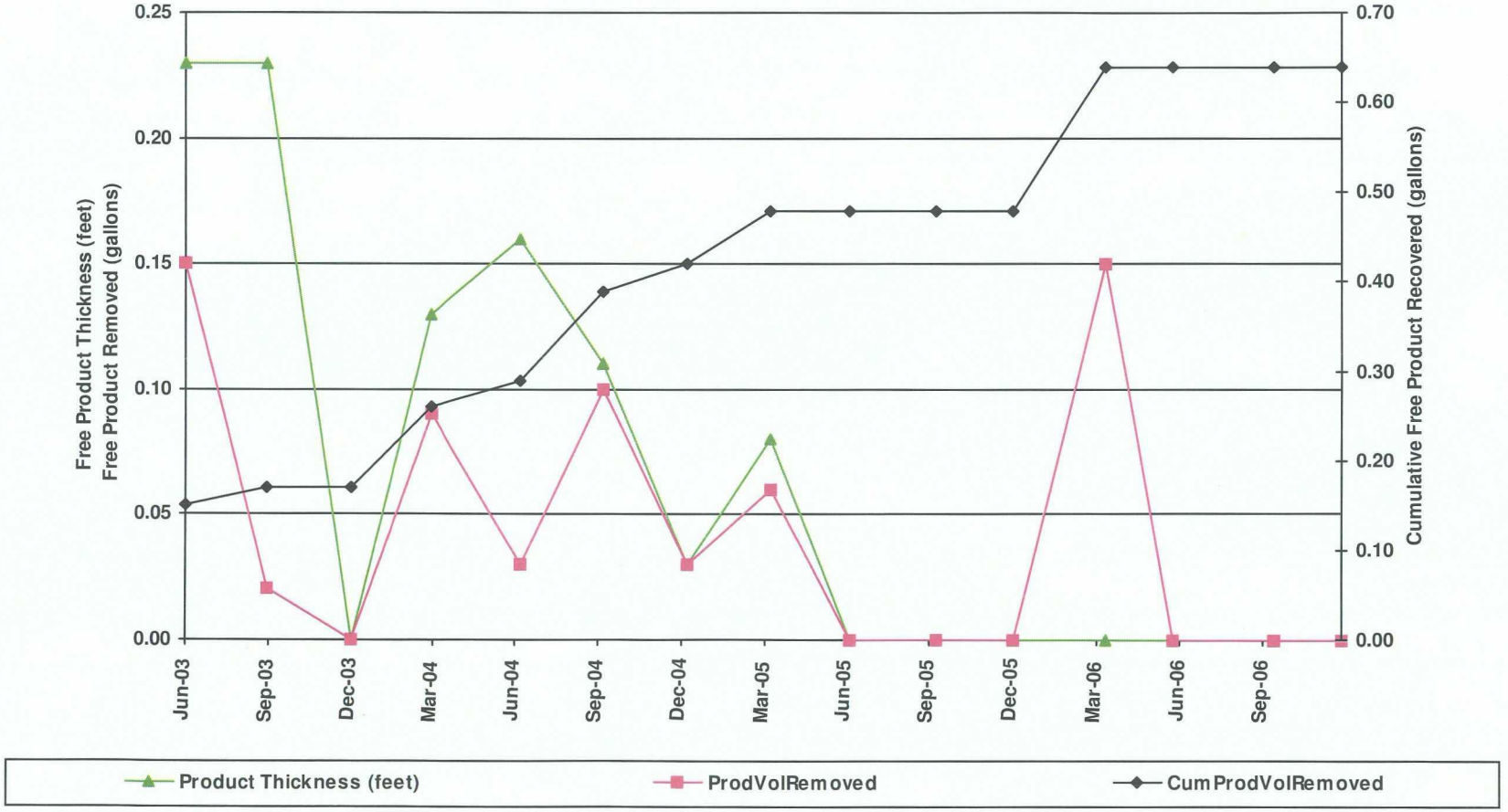


FIGURE 10
SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)
MW05

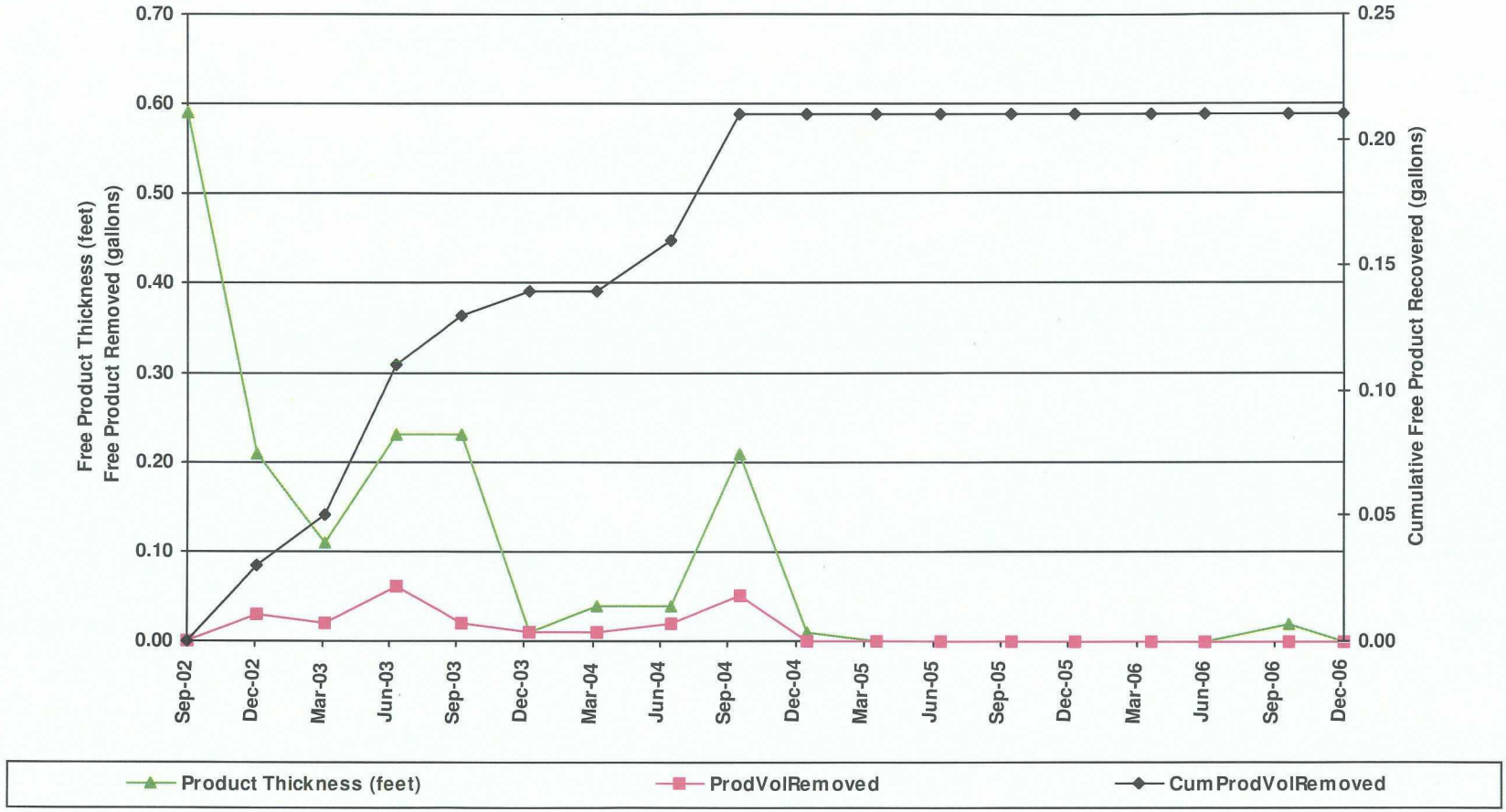


TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW01	8/10/1995	605	1380	74.6	718	37.24
	12/13/1995	1330	1610	235	1540	37.35
	4/11/1996	775	1070	124	810	37.48
	7/23/1996	676	1980	233	2090	37.55
	10/14/1996	1790	8350	580	6200	37.22
	1/22/1997	6420	19800	934	10700	38.26
	4/11/1997	7310	23500	1010	10800	38.31
MW02	12/13/1995	15.1	50.8	1	53.8	37.39
	4/11/1996	1	1	1	3.13	37.47
	7/23/1996	1	1.15	1	4.06	37.60
	10/14/1996	1	1.04	1	4.85	37.70
	1/22/1997	1	1	1	1	37.66
	4/11/1997	1	1	1	1	37.58
	10/9/2000	1	1	1	1	37.56
	6/18/2001	1	1	1	1	37.58
	6/3/2002	1	1	1	1	37.88
MW03	12/13/1995	488	1020	104	1120	37.11
	4/11/1996	772	231	113	379	37.17
	7/25/1996	687	112	115	209	37.30
	10/14/1996	900	240	140	340	37.40
	1/22/1997	907	234	215	340	37.35
	4/11/1997	944	209	223	322	37.29
	6/18/2001	510	23	160	98	37.26
	6/3/2002	380	1	110	29	37.55
MW04	12/13/1995	545	121	114	177	37.34
	4/11/1996	591	160	133	193	37.42
	7/25/1996	793	96.4	172	174	37.54
	10/14/1996	800	100	130	235	37.64
	1/22/1997	899	26.7	157	186	37.60
	4/11/1997	703	20.1	149	138	37.47
	10/9/2000	81	36	45	20	37.56
	6/18/2001	490	70	91	96	37.53
	6/3/2002	16	1	17	2.2	37.80
	6/18/2003	1	1	1.7	1	37.95

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

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
JOHNSTON FED #6A (METER #89232)

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW04	6/22/2004	0.56	1.1	2.8	1	38.04
	3/23/2005	1	1	1	0.99	38.11
	3/27/2006	0.39	1	1	0.83	38.16
	3/28/2007	0.39	0.6	1	1.7	38.16
MW05	8/30/2000	130	180	56	650	38.11
	6/18/2001	170	300	68	630	38.13
	6/4/2002	43	87	31	360	38.51
MW06	3/28/2007	1	1	1	1	39.43

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

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)

Monitoring Well	Removal Date	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Volume of Product Removed (gallons)
MW01	6/18/2001	37.34	38.21	0.87	1.25	2.75
	9/4/2001	37.54	38.27	0.73	0.75	3.50
	3/4/2002	37.74	38.35	0.61	0.25	3.75
	6/4/2002	37.81	38.14	0.33	0.25	4.00
	9/10/2002	38	38.235	0.24	0.20	4.20
	12/12/2002	38.01	38.11	0.10	0.08	4.28
	3/14/2003	37.95	38.08	0.13	0.10	4.38
	6/18/2003	37.88	38.47	0.59	0.40	4.78
	9/16/2003	38.17	38.25	0.08	0.06	4.84
	12/17/2003	38.13	38.23	0.10	0.02	4.87
	3/16/2004	37.9	38.57	0.67	0.47	5.34
	6/22/2004	37.9	38.65	0.75	0.19	5.52
	9/22/2004	38.21	38.6	0.39	0.25	5.77
	12/21/2004	38.2	38.38	0.18	0.13	5.90
	3/23/2005	37.95	38.5	0.55	0.39	6.29
	6/17/2005	38.13	38.62	0.49	0.25	6.54
	9/20/2005	38.4	38.83	0.43	0.25	6.79
	12/14/2005	38.31	38.72	0.41	0.23	7.02
	3/25/2006	38.15	38.66	0.51	0.20	7.21
	6/6/2006	38.29	38.84	0.55	0.22	7.43
	9/25/2006	38.51	39.01	0.50	0.22	7.65
	12/7/2006		38.33	0	0.00	7.65
	3/28/2007	38.02	38.09	0.07	0.00	7.65
	6/18/2007	38.09	38.86	0.77	0.00	7.65
	9/17/2007	38.4	39.32	0.92	0.19	7.84
	12/17/2007	38.42	39.13	0.71	0.19	8.03
MW03	6/18/2003	37.63	37.87	0.24	0.15	0.15
	9/16/2003	37.87	37.885	0.01	0.02	0.17
	12/17/2003		37.8	0	0.00	0.17
	3/16/2004	37.72	37.85	0.13	0.09	0.26
	6/22/2004	37.72	37.88	0.16	0.03	0.29
	9/22/2004	37.96	38.07	0.11	0.10	0.39
	12/21/2004	37.93	37.96	0.03	0.03	0.42
	3/23/2005	37.8	37.88	0.08	0.06	0.48
	6/17/2005		37.92	0	0.00	0.48
	9/20/2005		38.16	0	0.00	0.48
	12/14/2005		38.09	0	0.00	0.48
	3/25/2006		38.09	0	0.15	0.64
	6/6/2006		37.98	0	0.00	0.64

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
JOHNSTON FED #6A (METER #89232)

Monitoring Well	Removal Date	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Volume of Product Removed (gallons)
MW03	9/25/2006		38.16	0	0.00	0.64
	12/7/2006		38.06	0	0.00	0.64
MW05	9/10/2002	38.54	39.125	0.58	0.00	0.00
	12/12/2002	38.62	38.83	0.21	0.03	0.03
	3/14/2003	38.6	38.7	0.10	0.02	0.05
	6/18/2003	38.62	38.85	0.23	0.06	0.11
	9/16/2003	38.83	38.88	0.05	0.02	0.13
	12/17/2003	38.74	38.75	0.01	0.01	0.14
	3/16/2004	38.68	38.72	0.04	0.01	0.14
	6/22/2004	38.7	38.74	0.04	0.02	0.16
	9/22/2004	38.74	38.74	0.00	0.05	0.21
	12/21/2004	38.92	38.93	0.01	0.00	0.21
	3/23/2005		38.72	0	0.00	0.21
	6/17/2005		38.72	0	0.00	0.21
	9/20/2005		39.06	0	0.00	0.21
	12/14/2005		38.94	0	0.00	0.21
	3/27/2006		38.86	0	0.00	0.21
	6/6/2006		38.97	0	0.00	0.21
	9/25/2006	37.18	37.2	0.02	0.00	0.21
	12/7/2006		39.07	0	0.00	0.21