

3R - 239

2010 AGWMR

03/02/2011



BUILDING A BETTER WORLD

March 2, 2011

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
2010 Annual Reports**

RECEIVED OGD
2011 MAR - 4 P 12:24

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Tennessee Pipeline Company (EPTPC), is submitting the enclosed 2010 Annual Reports for each of EPTPC's 21 remaining San Juan River Basin pit groundwater remediation sites. The reports present the 2010 sampling and product recovery data and include recommendations for 2011 activities at these sites.

The 2010 Annual Reports are divided into three volumes based on location type. The volumes are as follows:

<u>Volume</u>	<u>Location Type</u>
1	Federal Land
2	Non-Federal Land (Excl. Navajo Nation)
3	Navajo Nation

If you have any questions concerning the enclosed reports, please call either Ian Yanagisawa of EPTPC (713-420-7361) or myself (303-291-2276).

Sincerely,

Jed Smith
Project Manager

encl.

cc: Bill Freeman – NNEPA, Shiprock, NM (Volume 3 Only)
Bill Liese – BLM, Farmington, NM (Volume 1 Only)
Brandon Powell – NMOCD, Aztec, NM (Volumes 1, 2, and 3)
Ian Yanagisawa – EPTPC (Volumes 1, 2, and 3 - Electronic)

**EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT**

**State Gas Com N #1
Meter Code: 71669**

SITE DETAILS

Legal Description: **Town:** 31N **Range:** 12W **Sec:** 16 **Unit:** H
NMOCD Haz Ranking: 30 **Land Type:** State **Operator:** BP / Amoco Production Company

PREVIOUS ACTIVITIES

Site Assessment:	3/94	Excavation:	5/94 (80 cy)	Soil Boring:	10/95
Monitor Well:	10/95	Geoprobe:	NA	Additional MWs:	11/06
Downgradient MWs:	11/95	Replace MW:	NA	Quarterly Initiated:	NA
ORC Nutrient Injection:	NA	Re-Excavation:	NA	PSH Removal Initiated:	7/97
Annual Initiated:	NA	Quarterly Resumed:	NA	PSH Removal in 2010?	Yes

SUMMARY OF 2010 ACTIVITIES

- MW-1:** Annual groundwater sampling (September) and quarterly product recovery were performed during 2010.
- MW-2:** Annual groundwater sampling (September) and quarterly product recovery were performed during 2010.
- MW-3:** Annual groundwater sampling (September) and quarterly water level monitoring were performed during 2010.
- MW-4:** Annual groundwater sampling (September) and quarterly water level monitoring were performed during 2010.
- MW-5:** Annual groundwater sampling (September) and quarterly product recovery were performed during 2010.
- MW-6:** Annual groundwater sampling (September) and quarterly product recovery were performed during 2010.
- MW-7:** Annual groundwater sampling (September) and quarterly product recovery were performed in 2010.
- MW-8:** This well has been dry since its installation in November 2006. The well was damaged during the summer of 2008.
- MW-9:** Annual groundwater sampling (September) and quarterly water level monitoring were performed during 2010.
- Site-Wide Activities:** No other activities were performed at this Site during 2010.

**EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT**

**State Gas Com N #1
Meter Code: 71669**

SITE MAP

A Site map (September) is attached as Figure 1.

SUMMARY TABLES AND GRAPHS

- Historic analytical and water level data are summarized in Table 1 and presented graphically in Figures 2 through 9. Where applicable, static water level elevations were corrected for measurable thicknesses of free-product (specific gravity of 0.8).
- Historic free-product recovery data are summarized in Table 2 and presented graphically in Figures 2 through 8.
- The 2010 laboratory report is presented in Attachment 1 (included on CD).
- The 2010 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 2010.

DISPOSITION OF GENERATED WASTES

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

ISOCONCENTRATION MAPS

No isoconcentration maps were generated for this Site; however, the attached Site map presents the analytical data collected during the September 2010 annual sampling event.

RESULTS

- The groundwater flow direction at this Site trends toward the south.
- MW-1 contained measurable free-product in 2010. Passive recovery was initiated, and 0.24 gallons of free-product was recovered, bringing the historic total product recovery from this well to 79.86 gallons. Laboratory results from the annual groundwater sample collected from MW-1 indicated that BTEX concentrations remain elevated at this well. The benzene concentration was 10,300 µg/L. Toluene (9,470 µg/L), ethylbenzene (1,320 µg/L), and total xylenes (12,500 µg/L) also exceeded their respective NMWQCC standards. As a long-term trend, the benzene and toluene concentrations appear to be gradually attenuating, while the ethylbenzene and xylenes appear to be stable.

**EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT**

**State Gas Com N #1
Meter Code: 71669**

-
- Free-product was recovered from MW-2 during 2010. The volume recovered was 0.30 gallons, bringing the historic total recovery from this well to 76.88 gallons. Based on the September 2010 static gauging results, which did not indicate a measurable free-product thickness in MW-2, the remaining pore oil saturation near this well is likely minimal. The groundwater sample collected from MW-2 in September 2010 exhibited elevated BTEX concentrations above the NMWQCC standards. These results are consistent with those from previous sample events and correlate with the close proximity of residual product.
 - Free-product was not observed in MW-3 during 2010. Product recovery activities were suspended in September 2005, and MW-3 was added to the annual sampling list in 2008. In the 2010 groundwater sample, concentrations of benzene (23,600 µg/L), ethylbenzene (771 µg/L), and total xylenes (3,480 µg/L) exceeded their respective NMWQCC standards. These results are similar to historic sampling results at this well.
 - Laboratory results from the annual groundwater sample collected from MW-4 indicate that BTEX concentrations remain elevated at this well. The concentrations of benzene (19,400 µg/L), toluene (13,100 µg/L), ethylbenzene (789 µg/L), and total xylenes (9,500 µg/L) all exceeded their respective standards. Free-product was last observed in MW-4 in 2009.
 - Approximately 0.36 gallons of free-product was recovered from MW-5 during 2010, bringing the historic total recovery to 0.49 gallons. A thin layer of free-product was observed in MW-5 in June 2009. During the September 2010 static gauging event, this well exhibited 0.36 feet of free-product. Laboratory results from the annual groundwater sample collected from MW-5 indicate that BTEX concentrations remain elevated at this well. The concentrations of benzene (24,600 µg/L), ethylbenzene (1,330 µg/L), and total xylenes (4,390 µg/L) exceeded their respective standards. The toluene, ethylbenzene, and total xylenes concentrations in this well appear to be gradually attenuating; the benzene concentrations remain stable near their historic levels.
 - Approximately 0.36 gallons of free-product was also recovered from MW-6 during 2010, bringing the historic total recovery from this well to 7.44 gallons. During the September 2010 static gauging event, this well did not contain a measurable amount of free-product; therefore, pore oil saturations near this well are likely quite low. Laboratory results from the annual groundwater sample collected from MW-6 indicate that BTEX concentrations remain elevated at this well. The concentrations of benzene (6,950 µg/L), toluene (14,700 µg/L), ethylbenzene (978 µg/L), and total xylenes (8,990 µg/L) exceeded their respective standards. These results are similar to (though slightly higher than) the BTEX concentrations exhibited during the previous sampling event, which was in December 2001.
 - Upgradient monitor well MW-7 has contained free-product since September 2008. Approximately 0.28 gallons of free-product was recovered from MW-7 during 2010, bringing the total recovery from this well to 0.65 gallons. During the

**EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT**

**State Gas Com N #1
Meter Code: 71669**

September 2010 static gauging event, this well did not contain a measurable amount of free-product; therefore, pore oil saturations near this well are likely quite low. Laboratory results from the annual groundwater sample collected from MW-7 indicate that BTEX concentrations remain elevated at this well. The concentrations of benzene (13,900 µg/L), toluene (8,690 µg/L), ethylbenzene (982 µg/L), and total xylenes (7,130 µg/L) exceeded their respective standards.

- The annual sample from the downgradient well, MW-9, indicated that BTEX constituents were only present at trace levels near the laboratory reporting limits. This well appears to be clean.

REMAINING CLOSURE REQUIREMENTS

- This site is being managed per the procedures set forth in the document entitled, "Remediation Plan for Groundwater Encountered During Pit Closure Activities" (El Paso Natural Gas Company / El Paso Field Services Company, 1995). This remediation plan was conditionally approved by the New Mexico Oil Conservation Division (OCD) in correspondence dated November 30, 1995; and the OCD approval conditions were adopted into El Paso's program methods.
- In order to meet the closure requirements at this site, the following conditions must still be achieved:
 1. Recoverable free-product must be removed from the subsurface. Generally, this corresponds with an absence of measurable free-product in the monitor wells. Currently, product recovery efforts are still required at MW-1, MW-2, MW-5, MW-6, and MW-7.
 2. Groundwater contaminant concentrations in the monitor wells must meet the NMWQCC standards for at least 4 consecutive quarters. Alternatively, concentrations must be reduced to below background levels; however, there are no established background concentrations for the remaining constituents of concern. Currently, all the active monitor wells require additional monitoring. The remaining applicable standards are:

Constituent	NMWQCC GW Standard (µg/L)
Benzene	10
Toluene	750
Ethylbenzene	750
Total Xylenes	620

RECOMMENDATIONS

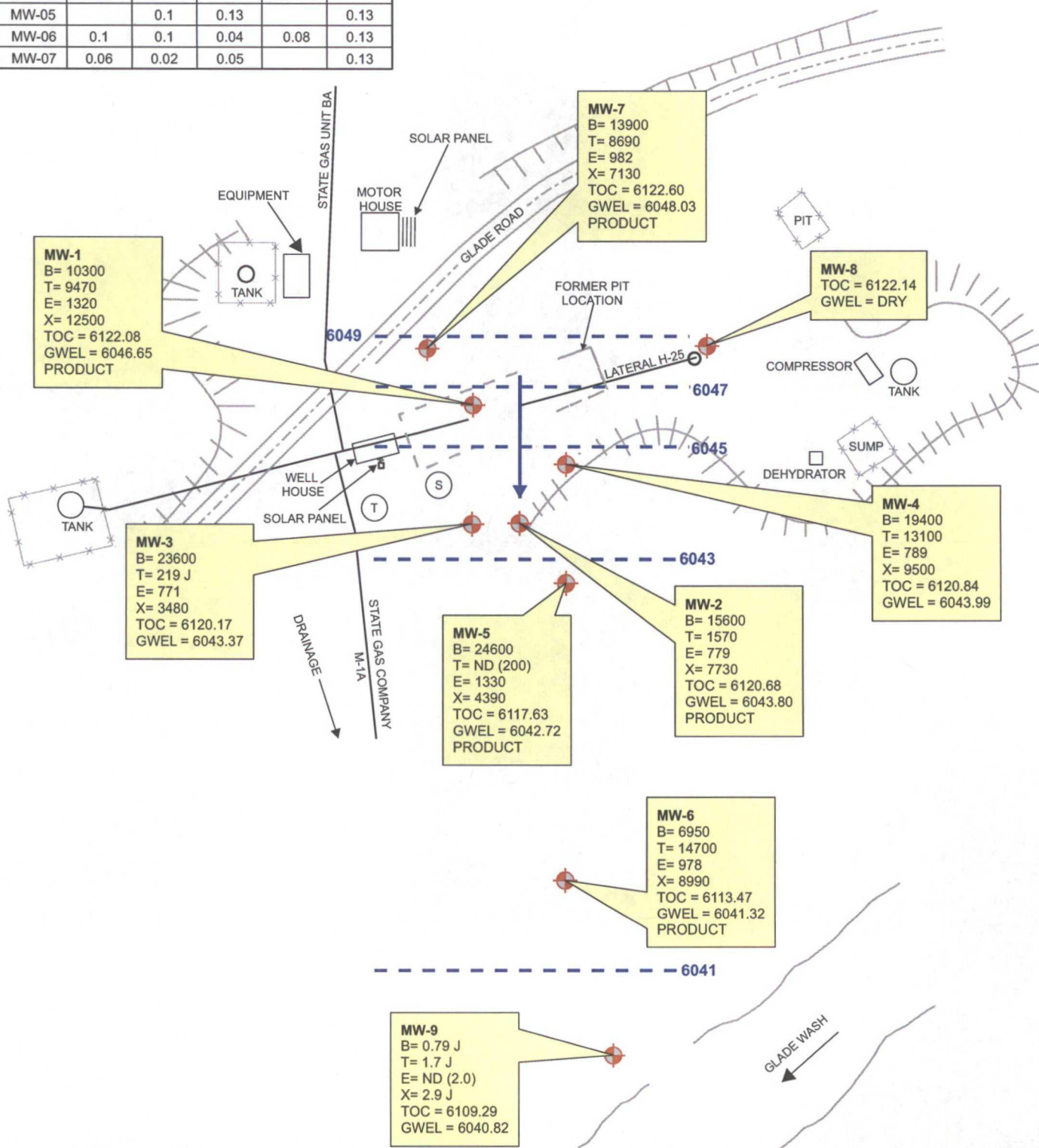
- EPTPC recommends annual groundwater sampling at all monitor wells.

**EPTPC GROUNDWATER SITES
2010 ANNUAL GROUNDWATER REPORT**

**State Gas Com N #1
Meter Code: 71669**

- EPTPC recommends quarterly water level measurements at all monitor wells.
- EPTPC recommends continuing free-product recovery efforts, as needed, at monitor wells MW-1, MW-2, MW-5, MW-6, and MW-7.
- EPTPC recommends that MW-8 be plugged and abandoned. This upgradient well was dry, and the surface completion has been destroyed.

Product Removed (Gallons)	2/11/10	5/21/10	9/22/10	9/29/10	11/2/10
MW-01				0.008	0.23
MW-02	0.13	0.04	0.12		
MW-05		0.1	0.13		0.13
MW-06	0.1	0.1	0.04	0.08	0.13
MW-07	0.06	0.02	0.05		0.13



LEGEND

MW-4 Existing Monitoring / Observation Well

Groundwater Flow Direction

—6045— Potentiometric Surface Contour (Inferred Where Dashed)

ND Not Detected; Reporting Limit Shown In Parenthesis

B Benzene (ug/L)

T Toluene (ug/L)

E Ethylbenzene (ug/L)

X Total Xylenes (ug/L)

TOC Top of Casing (ft. AMSL)

GWEL Groundwater Elevation (ft. AMSL)

J Result Flagged as Estimated

0 30 60 90 Feet



MWH



PROJECT:

STATE GAS COM N #1

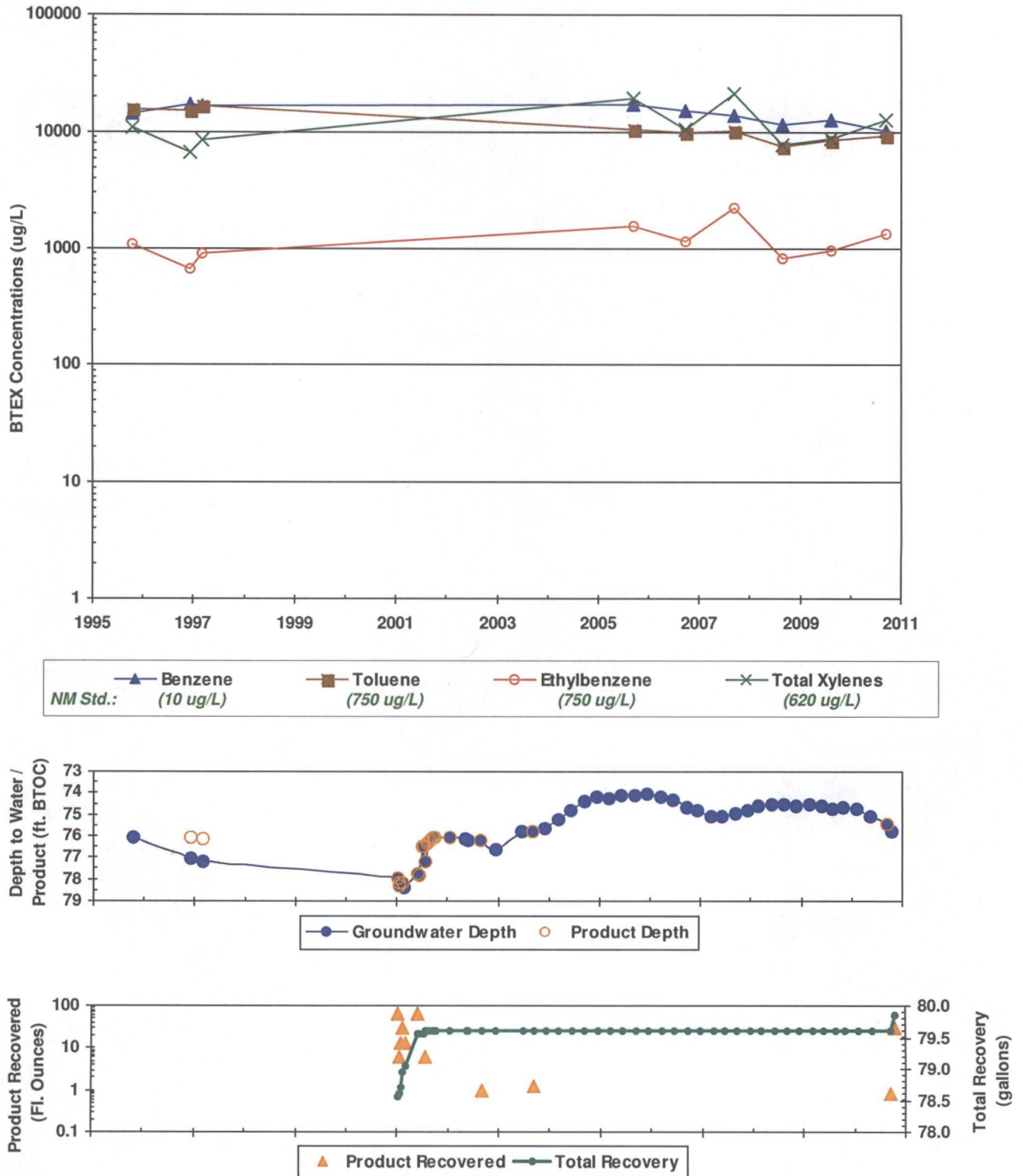
TITLE:

Groundwater Potentiometric Surface Map,
and BTEX Concentrations - September 29, 2010

FIGURE:

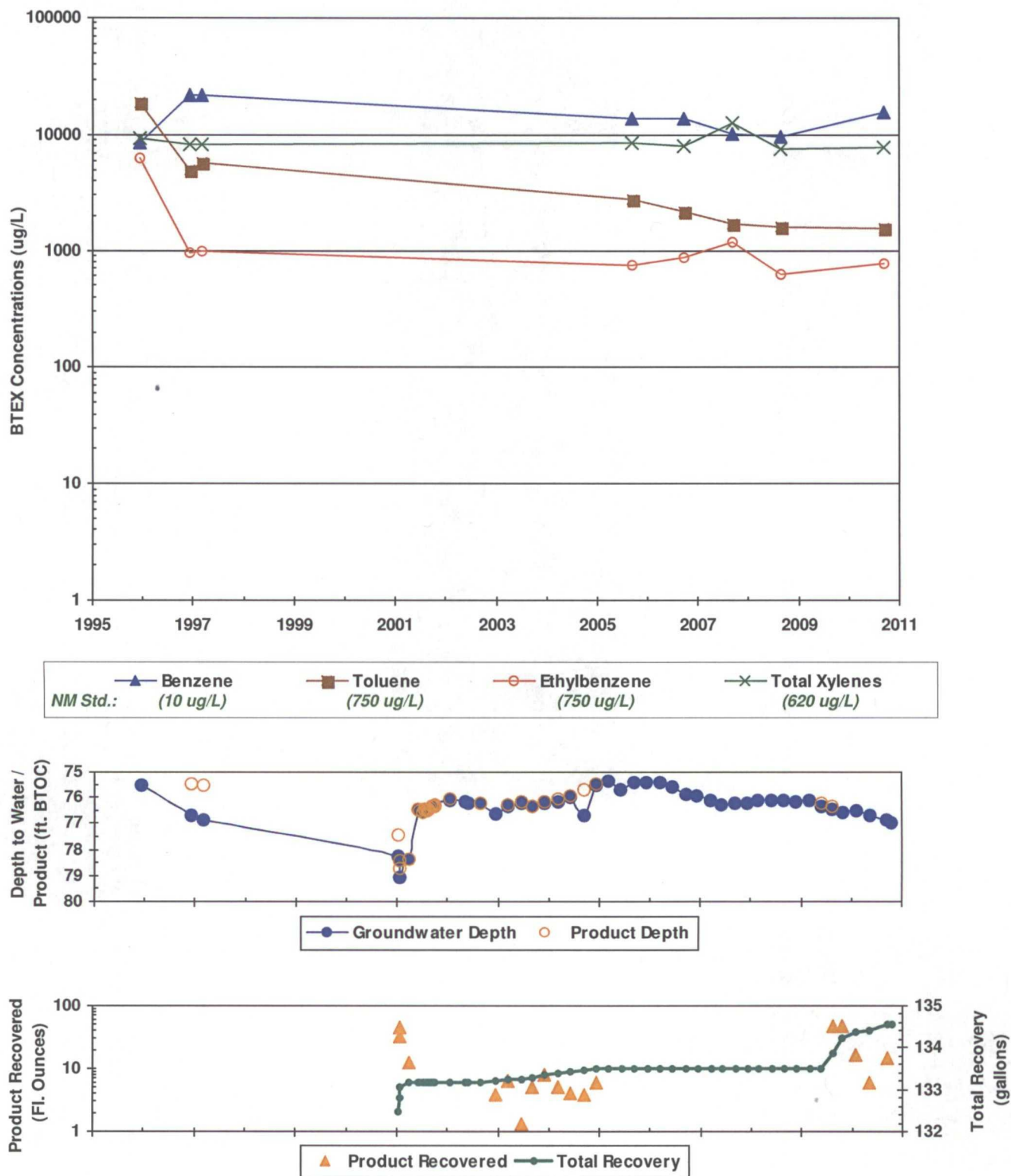
1

FIGURE 2
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW01



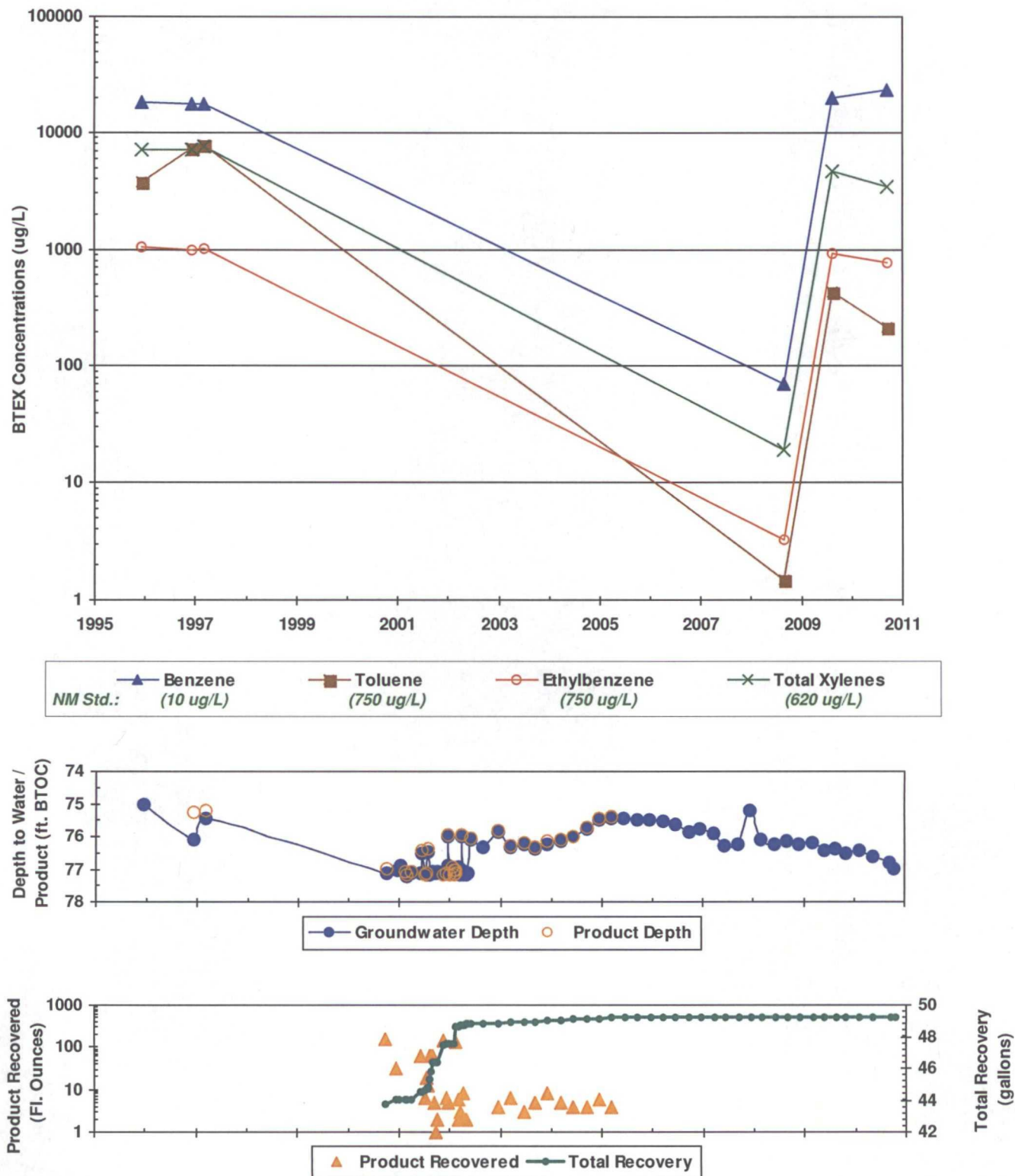
**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 3
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW02



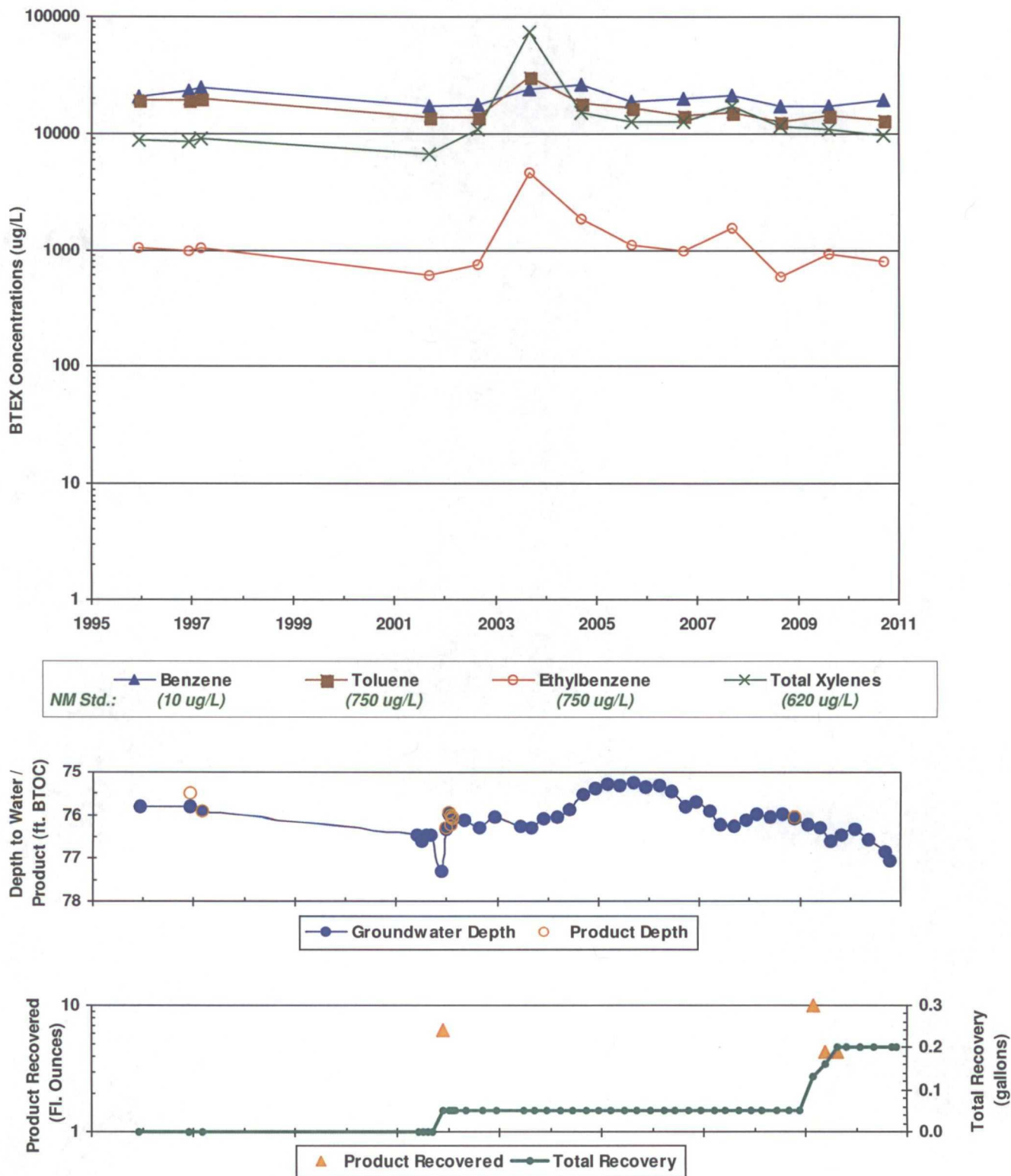
**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 4
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW03



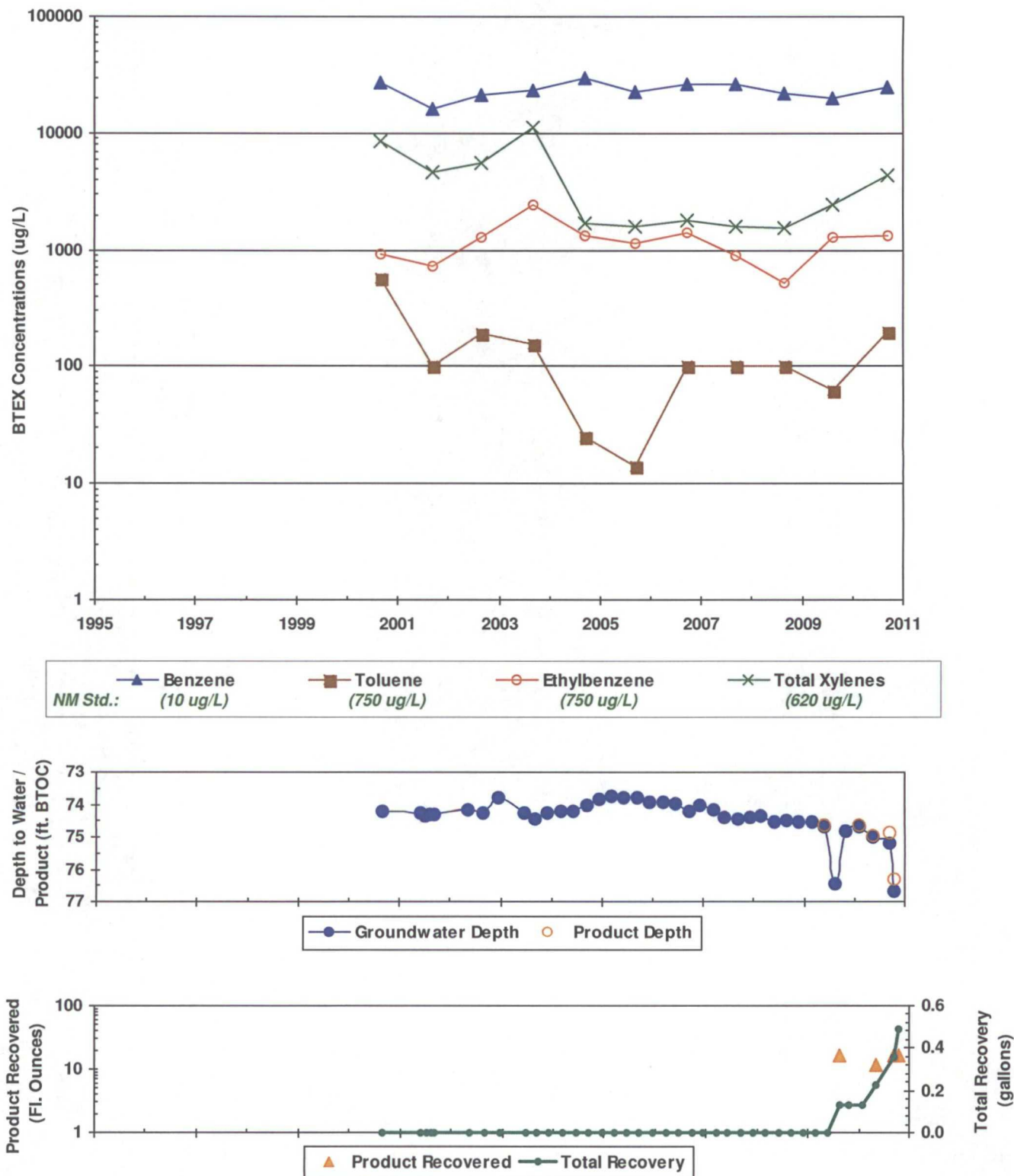
*In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.

FIGURE 5
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW04



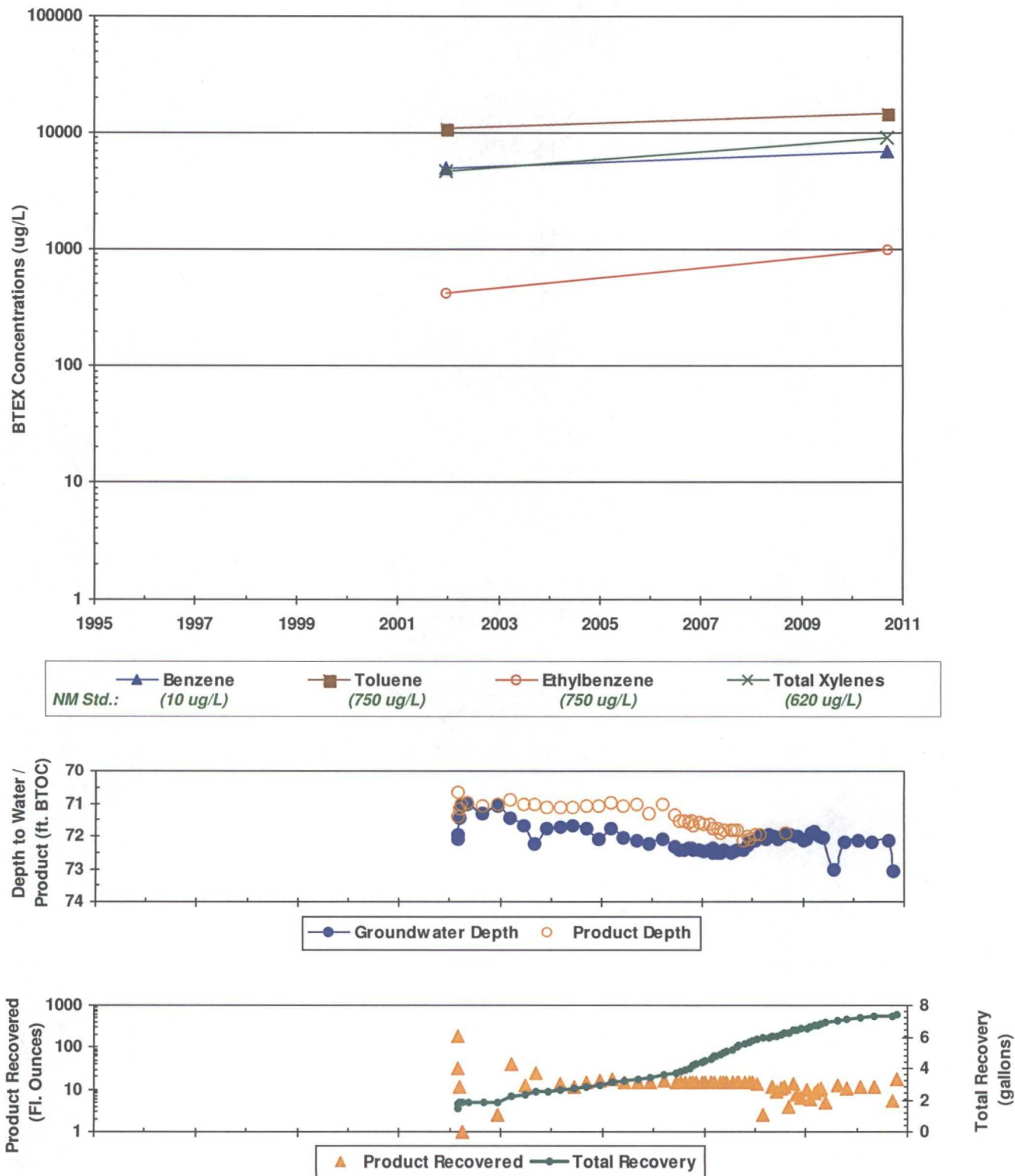
*In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.

FIGURE 6
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW05



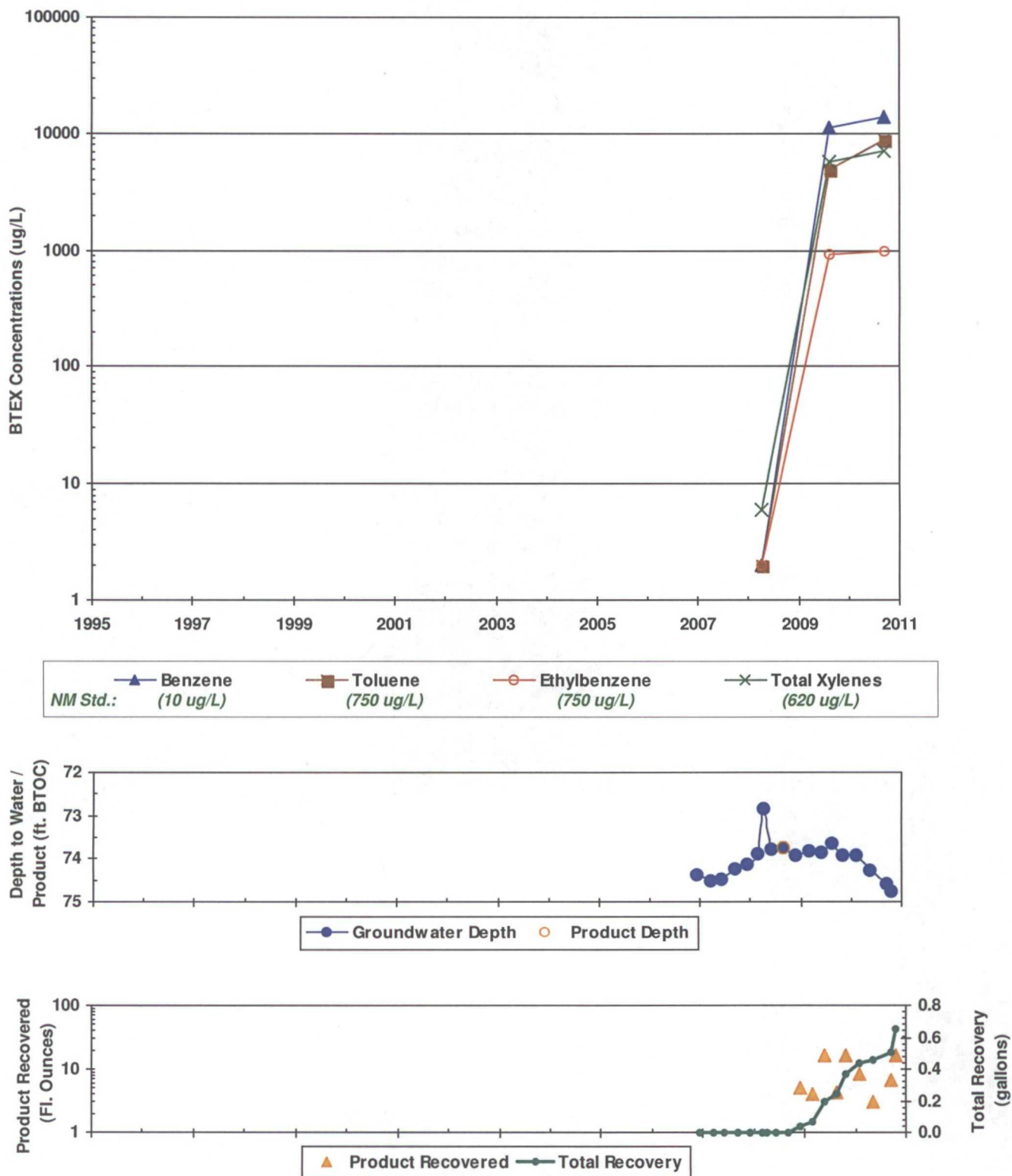
**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 7
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW06



**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

FIGURE 8
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY
STATE GAS COM N #1 (METER #71669)
MW07



*In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.

FIGURE 9
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS AND FLUID LEVELS
STATE GAS COM N #1 (METER #71669)
MW09

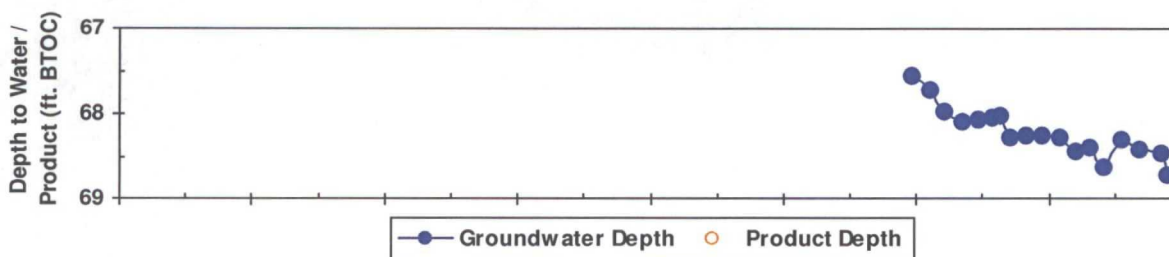
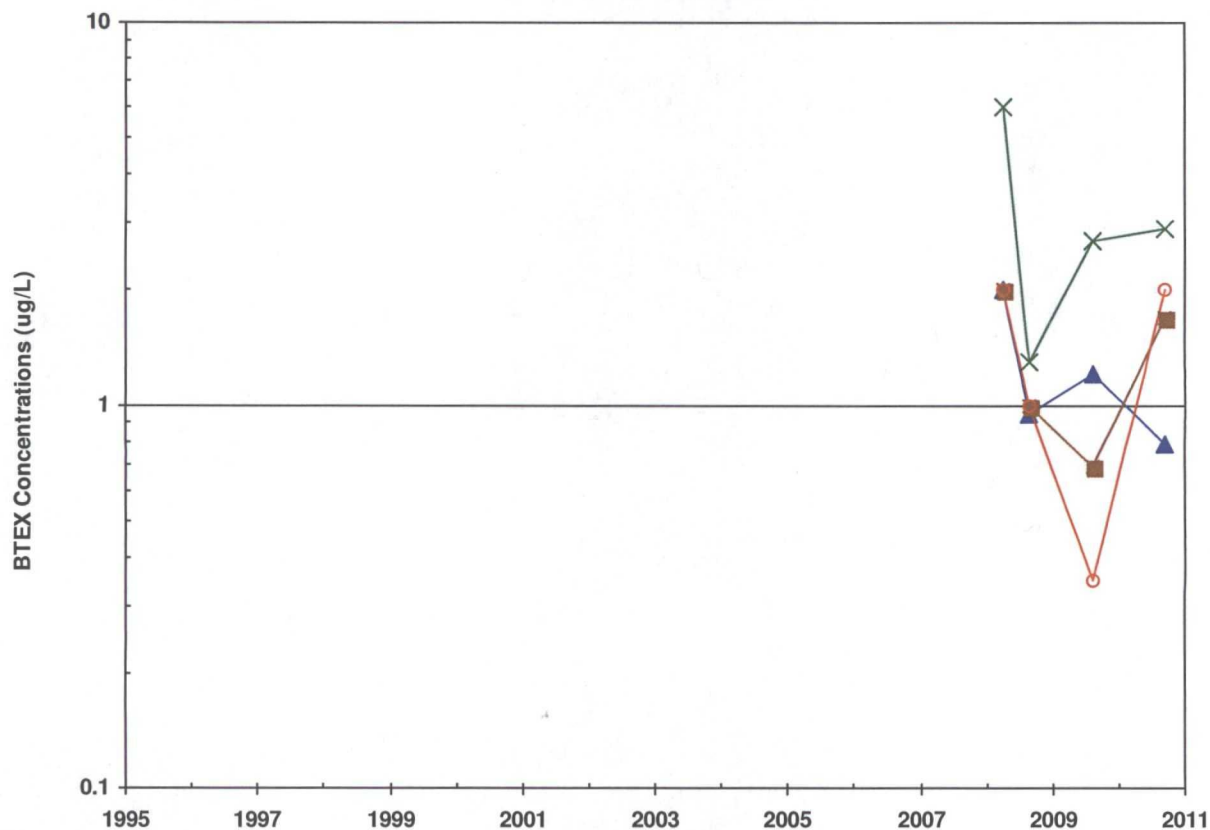


TABLE 1

**SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)	Corrected GW Elevation (ft AMSL)
NMWQCC GW Std.:		10	750	750	620		
MW01	10/17/1995	14200	15600	1090	11000	76.08	6046.00
MW01	12/3/1996	17200	15200	673	6670	77.02	6045.80
MW01	3/7/1997	16900	16600	904	8420	77.20	6045.74
MW01	9/15/2005	17300	10700	1560	19600	74.09	6047.99
MW01	9/27/2006	15100	9990	1150	10700	74.65	6047.43
MW01	9/18/2007	13800	10100	2260	21200	74.92	6047.16
MW01	9/8/2008	11700	7560	815	7740	74.55	6047.53
MW01	8/26/2009	12600	8470	973	8670	74.76	6047.32
MW01	9/29/2010	10300	9470	1320	12500	75.45	6046.65
MW02	12/7/1995	8540	18900	6230	9240	75.50	6045.18
MW02	12/3/1996	21700	5000	967	8310	76.66	6044.99
MW02	3/7/1997	22100	5680	992	8360	76.88	6044.90
MW02	9/15/2005	13700	2770	762	8610	75.38	6045.30
MW02	9/27/2006	13800	2150	880	8130	75.85	6044.83
MW02	9/18/2007	10100	1730	1200	12700	76.24	6044.44
MW02	9/8/2008	9780	1610	617	7670	76.10	6044.58
MW02	9/29/2010	15600	1570	779	7730	76.88	6043.80
MW03	12/7/1995	18000	3760	1050	7070	75.03	6045.14
MW03	12/3/1996	17700	7310	983	7200	76.10	6044.74
MW03	3/7/1997	17700	7780	1020	7550	75.42	6044.93
MW03	9/8/2008	70.3	1.5	3.3	19.1	76.14	6044.03
MW03	8/26/2009	20100	434	936	4690	76.38	6043.79
MW03	9/29/2010	23600	2191	771	3480	76.80	6043.37
MW04	12/7/1995	20300	19600	1040	8880	75.81	6045.03
MW04	12/3/1996	23600	19600	1000	8600	75.80	6045.30
MW04	3/7/1997	24800	20100	1040	9080	75.92	6044.92
MW04	9/10/2001	17000	14000	610	6700	76.45	6044.39
MW04	9/4/2002	17800	13900	750	10870	76.28	6044.56
MW04	9/14/2003	24000	30800	4670	73200	76.28	6044.56
MW04	9/16/2004	26300	18500	1870	15200	75.54	6045.30
MW04	9/15/2005	18600	16900	1120	12800	75.26	6045.58
MW04	9/27/2006	19800	14200	978	12500	75.80	6045.04
MW04	9/18/2007	21100	15400	1560	17000	76.27	6044.57
MW04	9/8/2008	17000	12700	598	11700	75.99	6044.85

TABLE 1

**SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)	Corrected GW Elevation (ft AMSL)
NMWQCC GW Std.:		10	750	750	620		
MW04	8/26/2009	17000	14400	934	11000	76.62	6044.22
MW04	9/29/2010	19400	13100	789	9500	76.85	6043.99
MW05	8/30/2000	27000	570	930	8600	74.19	6043.44
MW05	9/10/2001	16000	100	720	4600	74.30	6043.33
MW05	9/4/2002	21100	190	1310	5560	74.24	6043.39
MW05	9/14/2003	23100	157	2480	11300	74.42	6043.21
MW05	9/16/2004	29400	<25	1320	1690	74.00	6043.63
MW05	9/15/2005	22800	14.0	1160	1620	73.80	6043.83
MW05	9/27/2006	26000	<100	1440	1800	74.20	6043.43
MW05	9/18/2007	26300	<100	914	1590	74.46	6043.17
MW05	9/8/2008	21600	<100	522	1580	74.47	6043.16
MW05	8/26/2009	19800	63.2J	1280	2470	76.44	6041.19
MW05	9/29/2010	24600	<200	1330	4390	75.20	6042.72
MW06	12/20/2001	5000	11000	420	4600	NA	NA
MW06	9/29/2010	6950	14700	978	8990	72.15	6041.32
MW07	4/15/2008	<2.0	<2.0	<2.0	<6.0	72.82	6049.78
MW07	8/26/2009	11200	4930	916	5760	73.63	6048.97
MW07	9/29/2010	13900	8690	982	7130	74.57	6048.03
MW09	4/15/2008	<2.0	<2.0	<2.0	<6.0	68.03	6041.26
MW09	9/8/2008	0.95J	<1.0	<1.0	1.3J	68.25	6041.04
MW09	8/26/2009	1.2	0.69J	0.35J	2.7	68.40	6040.89
MW09	9/29/2010	0.79J	1.7J	<2.0	2.9J	68.47	6040.82

Notes:

Results shown in bold typeface exceed their respective New Mexico Water Quality Control Commission standards.

"J" = result is qualified as estimated. See laboratory report and/or supplemental data validation report for further detail.

"<" = analyte was not detected at the indicated reporting limit.

Static groundwater elevations have been corrected for product thickness where applicable. Specific gravity of 0.8 used.

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW01	12/3/1996	76.09	77.02	0.93	NA	NA	6045.80
MW01	3/7/1997	76.12	77.20	1.08	NA	NA	6045.74
MW01	1/16/2001	77.95	77.96	0.01	0.50	78.55	6044.13
MW01	1/24/2001	78.27	78.28	0.01	0.05	78.60	6043.81
MW01	1/31/2001	78.15	78.16	0.01	0.10	78.70	6043.93
MW01	2/19/2001	78.18	78.19	0.01	0.25	78.95	6043.90
MW01	3/5/2001	NA	78.34	78.34	0.10	79.05	6106.41
MW01	6/5/2001	77.71	77.71	0.00	0.50	79.55	6044.37
MW01	6/15/2001	77.83	77.83	0.00	--	79.55	6044.25
MW01	7/13/2001	76.51	76.52	0.01	--	79.55	6045.57
MW01	7/20/2001	76.46	76.47	0.01	--	79.55	6045.62
MW01	8/1/2001	77.22	77.22	0.00	0.05	79.60	6044.86
MW01	8/8/2001	76.37	76.37	0.00	--	79.60	6045.71
MW01	8/16/2001	76.35	76.35	0.00	--	79.60	6045.73
MW01	8/20/2001	76.28	76.28	0.00	--	79.60	6045.80
MW01	9/5/2001	76.20	76.20	0.00	--	79.60	6045.88
MW01	9/19/2001	76.14	76.14	0.00	--	79.60	6045.94
MW01	9/26/2001	76.09	76.09	0.00	--	79.60	6045.99
MW01	10/3/2001	76.06	76.06	0.00	--	79.60	6046.02
MW01	10/11/2001	76.04	76.04	0.00	--	79.60	6046.04
MW01	1/23/2002	76.07	76.08	0.01	--	79.60	6046.01
MW01	9/4/2002	76.20	76.21	0.01	0.01	79.61	6045.88
MW01	9/14/2003	75.77	75.79	0.02	0.01	79.62	6046.31
MW01	9/29/2010	75.43	75.45	0.02	0.01	79.62	6046.65
MW01	11/2/2010	--	75.82	0.00	0.23	79.86	6046.26
MW02	12/3/1996	75.45	76.66	1.21	NA	NA	6044.99
MW02	3/7/1997	75.51	76.88	1.37	NA	NA	6044.90
MW02	1/16/2001	77.43	78.26	0.83	--	132.46	6043.08
MW02	1/24/2001	78.72	79.06	0.34	0.35	132.81	6041.89
MW02	1/30/2001	78.44	78.45	0.01	0.25	133.06	6042.24
MW02	4/2/2001	78.36	78.36	0.00	0.10	133.16	6042.32
MW02	6/5/2001	76.46	76.46	0.00	--	133.16	6044.22
MW02	6/15/2001	76.54	76.54	0.00	--	133.16	6044.14
MW02	7/13/2001	76.56	76.56	0.00	--	133.16	6044.12

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW02	7/20/2001	76.48	76.48	0.00	--	133.16	6044.20
MW02	8/1/2001	76.51	76.51	0.00	--	133.16	6044.17
MW02	8/8/2001	76.50	76.50	0.00	--	133.16	6044.18
MW02	8/16/2001	76.46	76.46	0.00	--	133.16	6044.22
MW02	8/20/2001	76.43	76.43	0.00	--	133.16	6044.25
MW02	9/5/2001	76.38	76.38	0.00	--	133.16	6044.30
MW02	9/19/2001	76.34	76.34	0.00	--	133.16	6044.34
MW02	9/26/2001	76.35	76.35	0.00	--	133.16	6044.33
MW02	10/3/2001	76.31	76.31	0.00	--	133.16	6044.37
MW02	10/11/2001	76.29	76.29	0.00	--	133.16	6044.39
MW02	1/23/2002	76.07	76.08	0.01	--	133.16	6044.61
MW02	9/4/2002	76.20	76.21	0.01	--	133.16	6044.48
MW02	12/17/2002	--	76.63	0.00	0.03	133.19	6044.05
MW02	3/20/2003	76.28	76.32	0.04	0.05	133.24	6044.39
MW02	6/26/2003	76.19	76.22	0.03	0.01	133.25	6044.48
MW02	9/14/2003	76.31	76.35	0.04	0.04	133.29	6044.36
MW02	12/9/2003	76.15	76.22	0.07	0.06	133.35	6044.52
MW02	3/15/2004	76.07	76.14	0.07	0.04	133.39	6044.60
MW02	6/17/2004	75.93	75.98	0.05	0.03	133.42	6044.74
MW02	9/16/2004	75.72	76.66	0.94	0.03	133.45	6044.77
MW02	12/20/2004	75.46	75.50	0.04	0.05	133.50	6045.21
MW02	6/3/2009	76.24	76.35	0.11	--	133.50	6044.42
MW02	8/25/2009	NA	NA	NA	0.38	133.87	NA
MW02	8/26/2009	76.36	76.43	0.07	--	133.87	6044.31
MW02	11/5/2009	--	76.58	0.00	0.38	134.25	6044.10
MW02	2/11/2010	--	76.52	0.00	0.13	134.38	6044.16
MW02	5/21/2010	--	76.70	0.00	0.05	134.43	6043.98
MW02	9/22/2010	NA	NA	NA	0.12	134.55	NA
MW03	12/3/1996	75.26	76.10	0.84	NA	NA	6044.74
MW03	3/7/1997	75.19	75.42	0.23	NA	NA	6044.93
MW03	10/3/2000	76.97	77.12	0.15	1.25	43.80	6043.17
MW03	12/20/2000	--	77.00	0.00	0.25	44.05	6043.17
MW03	2/19/2001	77.06	77.08	0.02	--	44.05	6043.11
MW03	3/5/2001	77.17	77.20	0.03	--	44.05	6042.99

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW03	4/2/2001	77.09	77.11	0.02	--	44.05	6043.08
MW03	6/5/2001	--	77.11	0.00	0.50	44.55	6043.06
MW03	6/15/2001	76.44	76.50	0.06	--	44.55	6043.72
MW03	7/13/2001	77.14	77.17	0.03	0.05	44.60	6043.02
MW03	7/20/2001	77.13	77.14	0.01	0.15	44.75	6043.04
MW03	8/1/2001	76.38	76.47	0.09	--	44.75	6043.77
MW03	8/8/2001	--	77.15	0.00	0.10	44.85	6043.02
MW03	8/16/2001	--	77.15	0.00	0.50	45.35	6043.02
MW03	8/20/2001	--	77.13	0.00	0.50	45.85	6043.04
MW03	9/5/2001	--	77.08	0.00	0.50	46.35	6043.09
MW03	9/19/2001	--	77.11	0.00	0.04	46.39	6043.06
MW03	9/26/2001	--	77.10	0.00	0.01	46.40	6043.07
MW03	10/3/2001	--	77.08	0.00	0.02	46.41	6043.09
MW03	11/21/2001	77.15	77.18	0.03	1.10	47.51	6043.01
MW03	12/13/2001	77.10	77.12	0.02	0.05	47.56	6043.07
MW03	12/21/2001	--	76.88	0.00	0.04	47.60	6043.29
MW03	12/28/2001	75.97	75.99	0.02	--	47.60	6044.20
MW03	1/7/2002	77.14	77.15	0.01	--	47.60	6043.03
MW03	1/23/2002	76.93	76.94	0.01	--	47.60	6043.24
MW03	1/31/2002	77.00	77.01	0.01	--	47.60	6043.17
MW03	2/7/2002	77.16	77.17	0.01	--	47.60	6043.01
MW03	2/14/2002	77.02	77.03	0.01	1.00	48.60	6043.15
MW03	2/20/2002	77.11	77.12	0.01	--	48.60	6043.06
MW03	3/6/2002	--	76.97	0.00	0.02	48.62	6043.20
MW03	3/11/2002	--	76.94	0.00	0.05	48.67	6043.23
MW03	3/21/2002	--	77.15	0.00	0.02	48.69	6043.02
MW03	4/3/2002	75.95	75.99	0.04	--	48.69	6044.21
MW03	4/12/2002	--	77.15	0.00	0.06	48.75	6043.02
MW03	4/19/2002	--	77.09	0.00	0.02	48.77	6043.08
MW03	4/25/2002	--	77.08	0.00	0.02	48.78	6043.09
MW03	5/3/2002	--	77.18	0.00	0.02	48.80	6042.99
MW03	5/10/2002	--	77.12	0.00	0.02	48.81	6043.05
MW03	6/7/2002	76.03	76.07	0.04	--	48.81	6044.13
MW03	12/17/2002	75.81	75.85	0.04	0.03	48.85	6044.35

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW03	3/20/2003	76.28	76.32	0.04	0.05	48.90	6043.88
MW03	6/26/2003	76.19	76.22	0.03	0.02	48.92	6043.97
MW03	9/14/2003	76.31	76.36	0.05	0.04	48.96	6043.85
MW03	12/9/2003	76.15	76.22	0.07	0.06	49.02	6044.01
MW03	3/15/2004	76.07	76.13	0.06	0.04	49.06	6044.09
MW03	6/17/2004	75.98	76.02	0.04	0.03	49.09	6044.18
MW03	9/16/2004	75.72	75.75	0.03	0.03	49.12	6044.44
MW03	12/20/2004	75.46	75.50	0.04	0.05	49.17	6044.70
MW03	3/17/2005	75.39	75.43	0.04	0.03	49.20	6044.77
MW04	12/3/1996	75.48	75.80	0.32		0.00	6045.30
MW04	3/7/1997	75.92	75.92	0.00	--	0.00	6044.92
MW04	12/4/2001	--	77.29	0.00	0.05	0.05	6043.55
MW04	1/7/2002	76.30	76.31	0.01	--	0.05	6044.54
MW04	1/23/2002	75.95	75.96	0.01	--	0.05	6044.89
MW04	1/31/2002	76.01	76.02	0.01	--	0.05	6044.83
MW04	2/7/2002	76.21	76.22	0.01	--	0.05	6044.63
MW04	2/14/2002	76.05	76.06	0.01	--	0.05	6044.79
MW04	2/20/2002	76.09	76.10	0.01	--	0.05	6044.75
MW04	12/3/2008	76.04	76.08	0.04	--	0.05	6044.79
MW04	3/10/2009	--	76.23	0.00	0.08	0.13	6044.61
MW04	6/3/2009	--	76.30	0.00	0.03	0.16	6044.54
MW04	8/25/2009	NA	NA	NA	0.03	0.20	NA
MW05	6/3/2009	74.65	74.67	0.02	--	0.00	6042.98
MW05	8/25/2009	NA	NA	NA	0.13	0.13	NA
MW05	2/11/2010	74.64	74.66	0.02	--	0.13	6042.99
MW05	5/21/2010	74.95	75.00	0.05	0.09	0.23	6042.67
MW05	9/22/2010	NA	NA	NA	0.13	0.36	NA
MW05	9/29/2010	74.84	75.20	0.36	--	0.36	6042.72
MW05	11/2/2010	76.32	76.67	0.35	0.13	0.49	6041.24
MW06	3/6/2002	70.64	72.09	1.45	1.50	1.50	6042.54
MW06	3/11/2002	71.38	71.95	0.57	0.25	1.75	6041.98
MW06	3/21/2002	71.17	71.44	0.27	0.09	1.84	6042.25
MW06	4/3/2002	71.04	71.06	0.02	0.01	1.85	6042.43
MW06	5/17/2002	70.97	71.04	0.07	--	1.85	6042.49

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW06	9/4/2002	71.05	71.28	0.23	--	1.85	6042.37
MW06	12/17/2002	71.03	71.06	0.03	0.02	1.87	6042.43
MW06	3/20/2003	70.90	71.43	0.53	0.33	2.20	6042.46
MW06	6/26/2003	71.04	71.66	0.62	0.10	2.30	6042.31
MW06	9/14/2003	71.04	72.25	1.21	0.20	2.50	6042.19
MW06	12/9/2003	71.10	71.75	0.65	--	2.50	6042.24
MW06	3/15/2004	71.11	71.74	0.63	0.11	2.61	6042.23
MW06	6/17/2004	71.11	71.68	0.57	0.09	2.71	6042.25
MW06	9/16/2004	71.05	71.79	0.74	0.12	2.83	6042.27
MW06	12/20/2004	71.05	72.09	1.04	0.13	2.95	6042.21
MW06	3/17/2005	70.96	71.79	0.83	0.14	3.09	6042.34
MW06	6/17/2005	71.05	72.05	1.00	0.12	3.21	6042.22
MW06	9/15/2005	71.04	72.14	1.10	0.12	3.33	6042.21
MW06	12/22/2005	71.30	72.22	0.92	0.12	3.44	6041.99
MW06	3/27/2006	71.02	72.10	1.08	0.13	3.57	6042.23
MW06	6/19/2006	71.34	72.33	0.99	0.12	3.69	6041.93
MW06	7/21/2006	71.54	72.44	0.90	0.12	3.80	6041.75
MW06	8/24/2006	71.54	72.42	0.88	0.12	3.92	6041.75
MW06	9/27/2006	71.57	72.37	0.80	0.12	4.04	6041.74
MW06	10/22/2006	71.53	72.35	0.82	0.12	4.15	6041.78
MW06	11/7/2006	71.66	72.43	0.77	0.12	4.27	6041.66
MW06	12/20/2006	71.60	72.41	0.81	0.12	4.39	6041.71
MW06	1/16/2007	71.62	72.45	0.83	0.12	4.51	6041.68
MW06	2/26/2007	71.65	72.41	0.76	0.12	4.62	6041.67
MW06	3/26/2007	71.76	72.50	0.74	0.12	4.74	6041.56
MW06	4/30/2007	71.77	72.49	0.72	0.12	4.86	6041.56
MW06	5/24/2007	71.91	72.50	0.59	0.12	4.97	6041.44
MW06	6/14/2007	71.83	72.42	0.59	0.12	5.09	6041.52
MW06	7/31/2007	71.83	72.49	0.66	0.12	5.21	6041.51
MW06	8/29/2007	71.82	72.47	0.65	0.12	5.33	6041.52
MW06	9/18/2007	71.82	72.43	0.61	0.12	5.44	6041.53
MW06	10/31/2007	72.12	72.40	0.28	0.12	5.56	6041.29
MW06	11/30/2007	72.02	72.27	0.25	0.12	5.68	6041.40
MW06	12/17/2007	72.11	72.18	0.07	0.12	5.80	6041.35

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW06	1/23/2008	71.96	72.13	0.17	0.11	5.91	6041.48
MW06	3/5/2008	71.94	71.95	0.01	0.02	5.93	6041.53
MW06	5/8/2008	--	71.94	0.00	0.09	6.02	6041.53
MW06	6/12/2008	--	72.02	0.00	0.07	6.09	6041.45
MW06	7/17/2008	--	72.07	0.00	0.08	6.17	6041.40
MW06	8/12/2008	--	72.02	0.00	0.09	6.26	6041.45
MW06	9/8/2008	71.91	71.92	0.01	0.03	6.28	6041.56
MW06	10/9/2008	--	71.97	0.00	0.11	6.40	6041.50
MW06	11/7/2008	--	71.98	0.00	0.06	6.46	6041.49
MW06	12/3/2008	--	72.00	0.00	0.05	6.51	6041.47
MW06	1/16/2009	--	72.15	0.00	0.08	6.58	6041.32
MW06	2/6/2009	--	72.09	0.00	0.05	6.63	6041.38
MW06	3/10/2009	--	71.92	0.00	0.06	6.69	6041.55
MW06	4/1/2009	--	71.84	0.00	0.08	6.77	6041.63
MW06	5/1/2009	--	72.00	0.00	0.09	6.86	6041.47
MW06	6/3/2009	--	72.06	0.00	0.04	6.90	6041.41
MW06	8/25/2009	NA	NA	NA	0.10	7.00	NA
MW06	11/5/2009	--	72.18	0.00	0.09	7.08	6041.29
MW06	2/11/2010	--	72.13	0.00	0.09	7.18	6041.34
MW06	5/21/2010	--	72.20	0.00	0.09	7.27	6041.27
MW06	9/22/2010	NA	NA	NA	0.04	7.31	NA
MW06	11/2/2010	--	73.07	0.00	0.13	7.44	6040.40
MW07	9/8/2008	73.75	73.76	0.01	--	0.00	6048.85
MW07	12/3/2008	--	73.92	0.00	0.04	0.04	6048.68
MW07	3/10/2009	--	73.83	0.00	0.03	0.07	6048.77
MW07	6/3/2009	--	73.85	0.00	0.13	0.20	6048.75
MW07	8/25/2009	NA	NA	NA	0.03	0.24	NA
MW07	11/5/2009	--	73.92	0.00	0.13	0.37	6048.68
MW07	2/11/2010	--	73.91	0.00	0.07	0.44	6048.69
MW07	5/21/2010	--	74.28	0.00	0.02	0.46	6048.32
MW07	9/22/2010	NA	NA	NA	0.05	0.51	NA
MW07	11/2/2010	--	74.76	0.00	0.13	0.65	6047.84

TABLE 2

**SUMMARY OF FREE-PRODUCT REMOVAL
STATE GAS COM N #1 (METER #71669)**

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
--------------	--------------	----------------------------	--------------------------	--------------------------	--------------------------	------------------------------	----------------------------------

Notes:

"--" indicates either that product was not measurably detected or that product was not recovered.

"NA" indicates that the respective data point is not available.

Groundwater elevations may not be static due to removal of equipment. Corrections for product thickness utilize SG of 0.8.