3R - 213

ANNUAL MONITORING REPORT

04/02/2008

MWH

BUILDING A BETTER WORLD

RECEIVED
2008 APR 4 PM 1 38

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

1801 California Street
Suite 2900
Denver, Colorado 80202

TEL 303 291 2222
FAX 303 291 2221
www.mwhglobal.com

2007 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I

EL PASO TENNESSEE PIPELINE COMPANY

TABLE OF CONTENTS

elpaso MWH

EPTPC GROUNDWATER SITES
2007 ANNUAL GROUNDWATER REPORT

3R213

Lat 0-21 Line Drip
Meter Code: LD151

SITE DETAILS

Legal Description:	**Town:**	30N	**Range:**	9W	**Sec:** 12	**Unit:**	O
NMOCD Haz Ranking:	40	**Land Type:**	Federal	**Operator:**	Enterprise		

PREVIOUS ACTIVITIES

Site Assessment:	1/95	**Excavation:**	1/95	**Soil Boring:**	10/95
Monitor Well:	10/95	**Geoprobe:**	11/96	**Additional MWs:**	7/00
Downgradient MWs:	7/00	**Replace MW:**	NA	**Quarterly Initiated:**	11/96
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	NA
Annual Initiated:	5/97	**Quarterly Resumed:**	NA	**PSH Removal in 2007?**	No

SUMMARY OF 2007 ACTIVITIES

MW-1: Groundwater sampling and water level monitoring (January, April, and October) were performed during 2007.

MW-2: Water level monitoring (January, April, and October) was performed during 2007.

MW-3: Groundwater sampling and water level monitoring (January, April, and October) were performed during 2007.

Site-Wide Activities: No other activities were performed at this Site during 2007.

SITE MAPS

Site maps (January, April, and October 2007) are attached as Figures 1, 2, and 3.

SUMMARY TABLES AND GRAPHS

- Historic groundwater analytical data for the Site are included in Table 1 and presented graphically in Figures 4 through 6.
- Historic free-product recovery data are included as Table 2. Free-product has not been recovered from the Site since 2002.

- The laboratory report is 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.

ISOCONCENTRATION MAPS

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

CONCLUSIONS

- Groundwater flow has historically been toward the southeast. During the Spring 2007 gauging events, the hydraulic gradient appeared to shift toward the northeast. The gradient returned to its predominant direction by October 2007. EPTPC will continue to monitor the Site gradient seasonally.
- The BTEX sample from MW-1 exceeded the standard for benzene in January and April 2007 (28.7 µg/L and 104 µg/L, respectively), but fell below the standard in October 2007 (3.8 µg/L). All other parameters were below standards in January, April and October. This represents a significant decrease since the high benzene concentration of 5,380 µg/L in 1997.
- BTEX constituents were not detected in the MW-3 groundwater samples in 2007. These results are consistent with the overall decline in concentrations since 2000, when the benzene concentration was 190 µg/L.
- Site-wide decreases in BTEX concentrations provide evidence that natural attenuation is occurring at the Site.

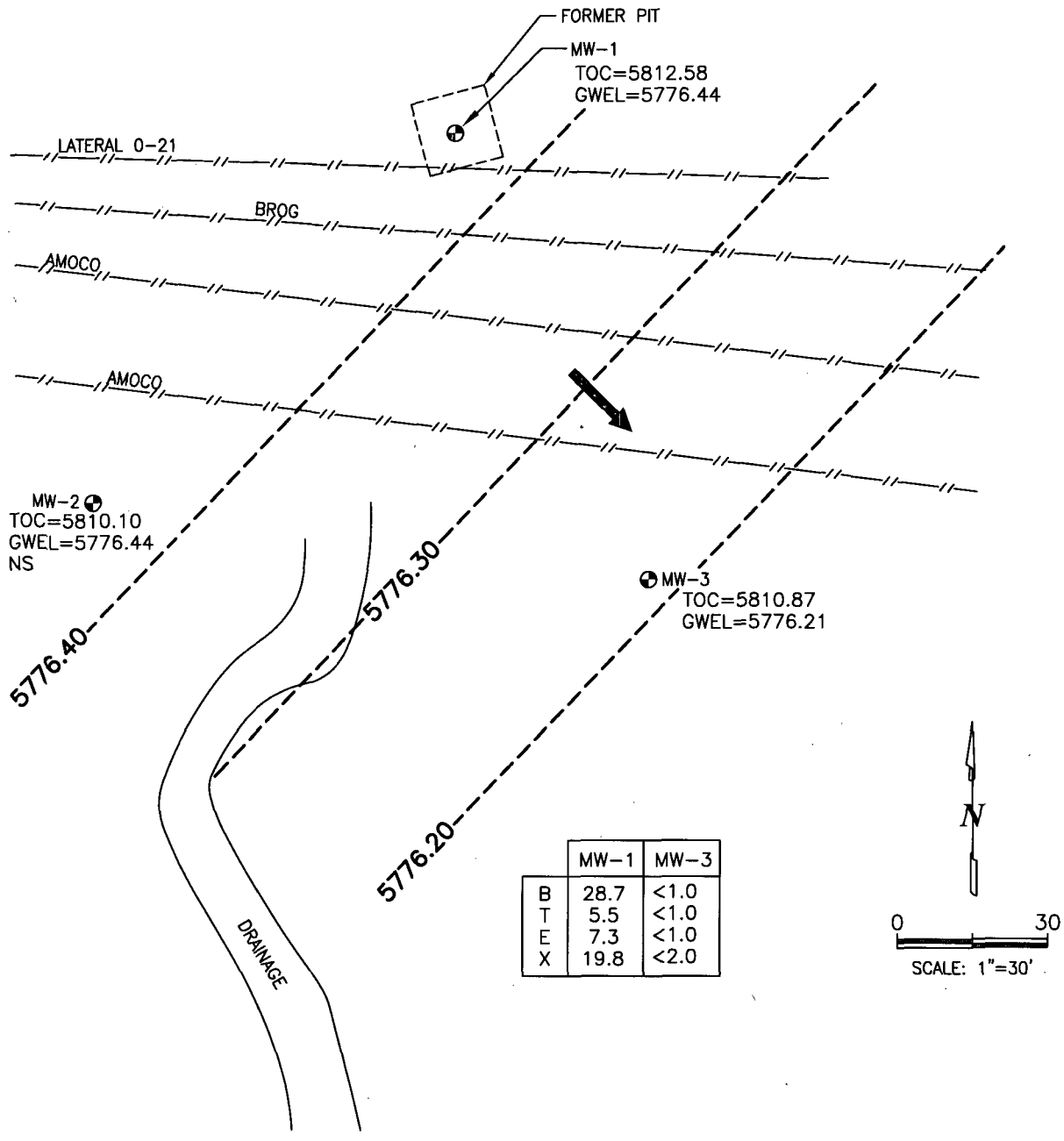
RECOMMENDATIONS

- Due to the higher benzene concentrations that are still being observed in the Spring, EPTPC recommends semi-annual (April and October) water level monitoring at MW-1 and MW-3.
- Assuming that free-product does not return to MW-1 or MW-3, EPTPC recommends that MW-1 and MW-3 continue to be sampled on a semi-annual basis

in 2008. As concentrations approach standards, these wells will be sampled quarterly until BTEX concentrations are below NMWQCC standards for four consecutive quarters, at which time this Site will be submitted for closure.

- Because BTEX concentrations at MW-2 have remained below closure criteria, EPTPC recommends that this well not be sampled again until closure.

- EPTPC recommends continuing with quarterly water level gauging, in order to collect more current data regarding variations in the Site hydraulic gradient.



	MW-1	MW-3
B	28.7	<1.0
T	5.5	<1.0
E	7.3	<1.0
X	19.8	<2.0

LEGEND

MW-1	Approximate Monitoring Well Location and Number
	Pipeline
	Direction of Groundwater Flow (Estimated)
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing
<	Not Detected. Value Shown is Reporting Limit.
5777	Potentiometric Surface (Inferred Where Dashed)
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued for Report	01/08	D.Wade	N.Day	J.Smith
0	Issued for Report	10/07	D.Wade	N.Day	J.Smith

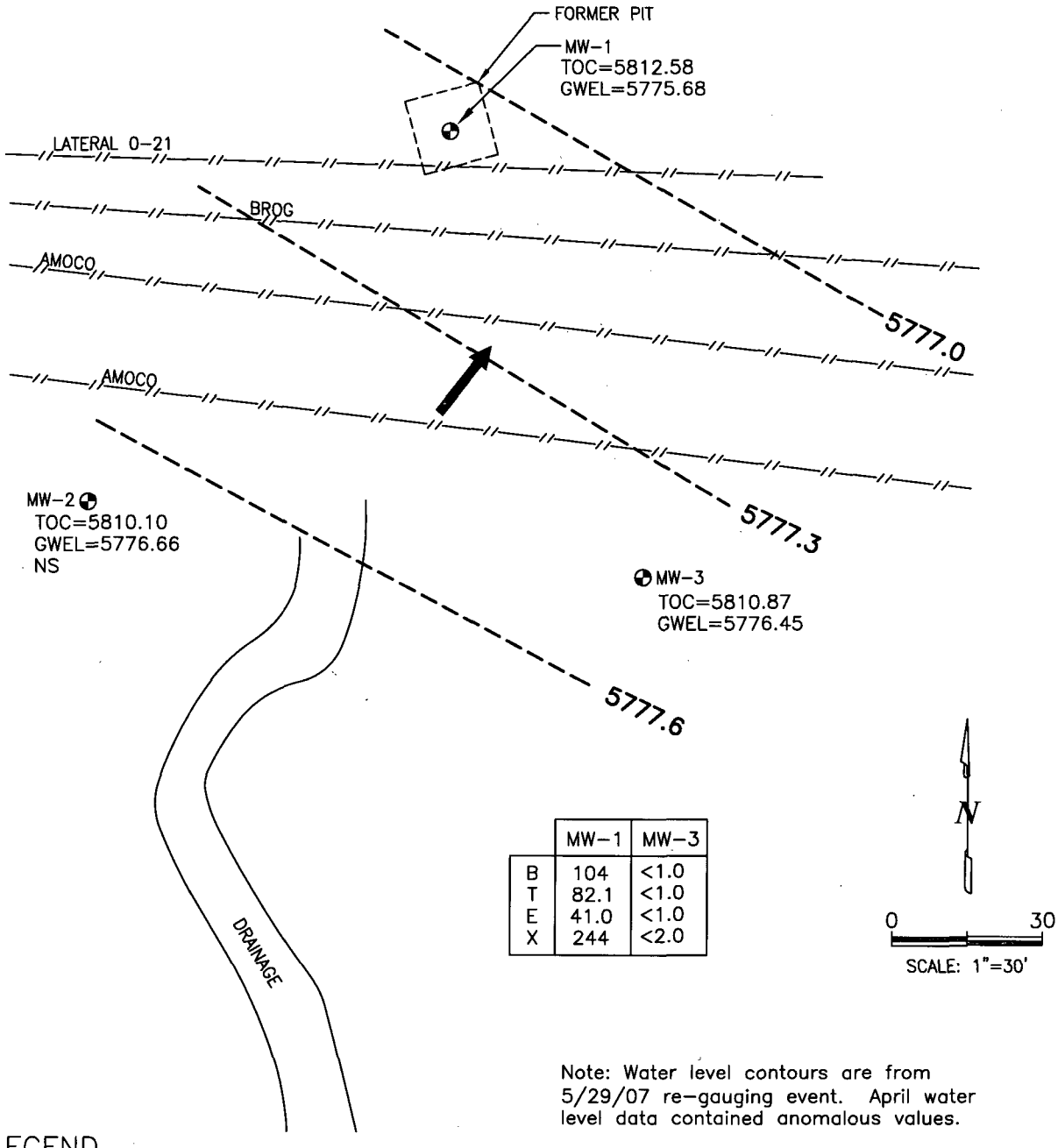
MWH

PROJECT No.: 1005521.0601
AutoCAD FILE: lat021ld
SCALE: As Shown
FIGURE No: 1

elpaso

EL PASO TENNESSEE PIPELINE COMPANY
LATERAL 0-21 LINE DRIP, LD151

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS JANUARY 2007



	MW-1	MW-3
B	104	<1.0
T	82.1	<1.0
E	41.0	<1.0
X	244	<2.0

Note: Water level contours are from 5/29/07 re-gauging event. April water level data contained anomalous values.

LEGEND

MW-1	Approximate Monitoring Well Location and Number
——//——//——	Pipeline
➡	Direction of Groundwater Flow (Estimated)
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing
<	Not Detected. Value Shown is Reporting Limit.
5777	Potentiometric Surface (Inferred where dashed)
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
1	Issued for Report	D.Wade	N.Day	J.Smith	
0	Issued for Report	10/07	D.Wade	N.Day	J.Smith

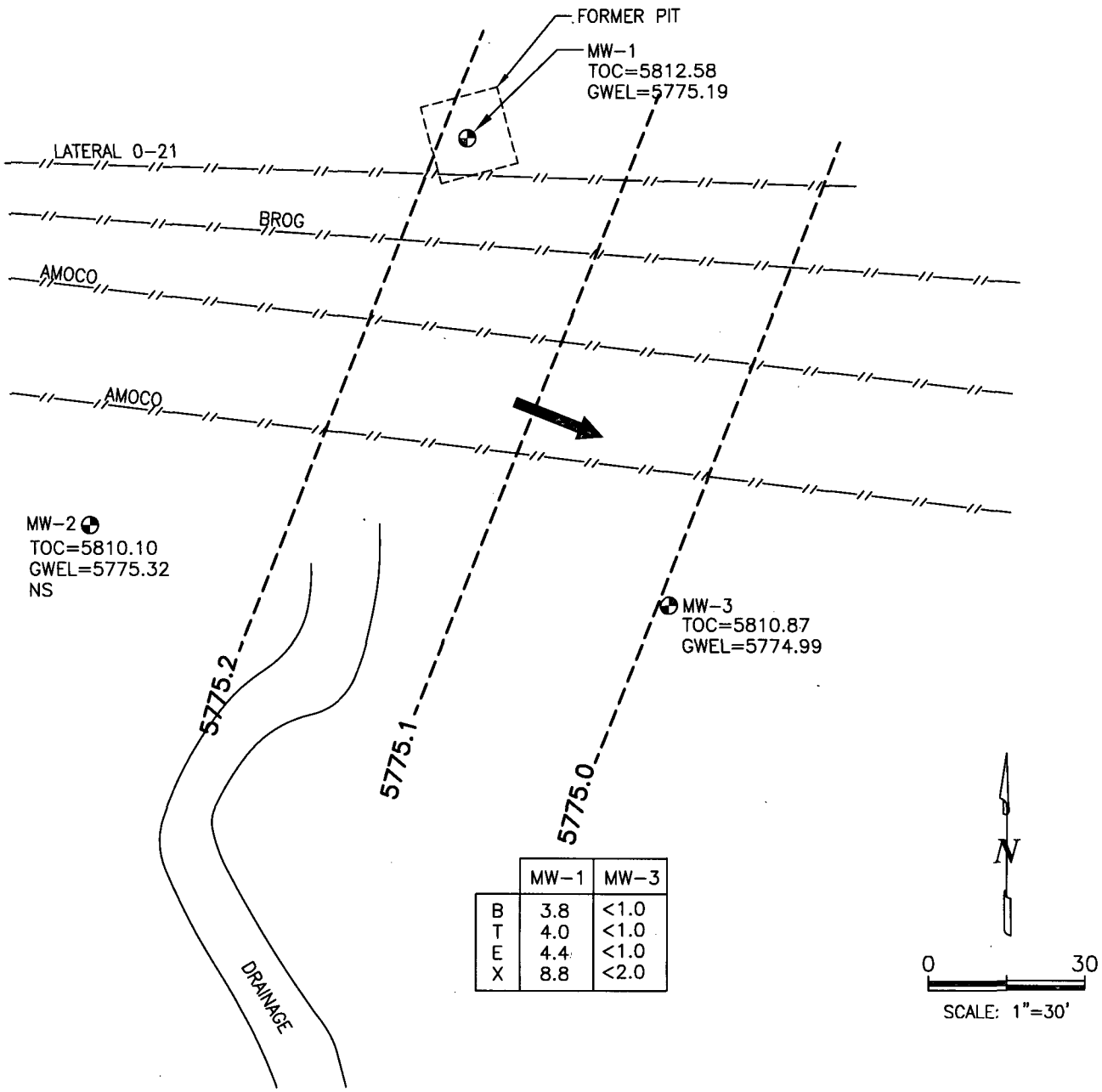
MWH

PROJECT No.: 1005521.0601
AutoCAD FILE: lat021ld
SCALE: As Shown
FIGURE No: 2

elpaso

EL PASO TENNESSEE PIPELINE COMPANY
LATERAL 0-21 LINE DRIP, LD151

GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS APRIL/MAY 2007



	MW-1	MW-3
B	3.8	<1.0
T	4.0	<1.0
E	4.4	<1.0
X	8.8	<2.0

LEGEND

MW-1	Approximate Monitoring Well Location and Number
	Pipeline
	Direction of Groundwater Flow (Estimated)
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing
<	Not Detected. Value Shown is Reporting Limit.
5777	Potentiometric Surface (Inferred where dashed)
B	Benzene (µg/L)
T	Toluene (µg/L)
E	Ethylbenzene (µg/L)
X	Total Xylenes (µg/L)

REV. No.	REVISIONS	REV. DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued for Report	10/07	D.Wade	N.Day	J.Smith

MWH

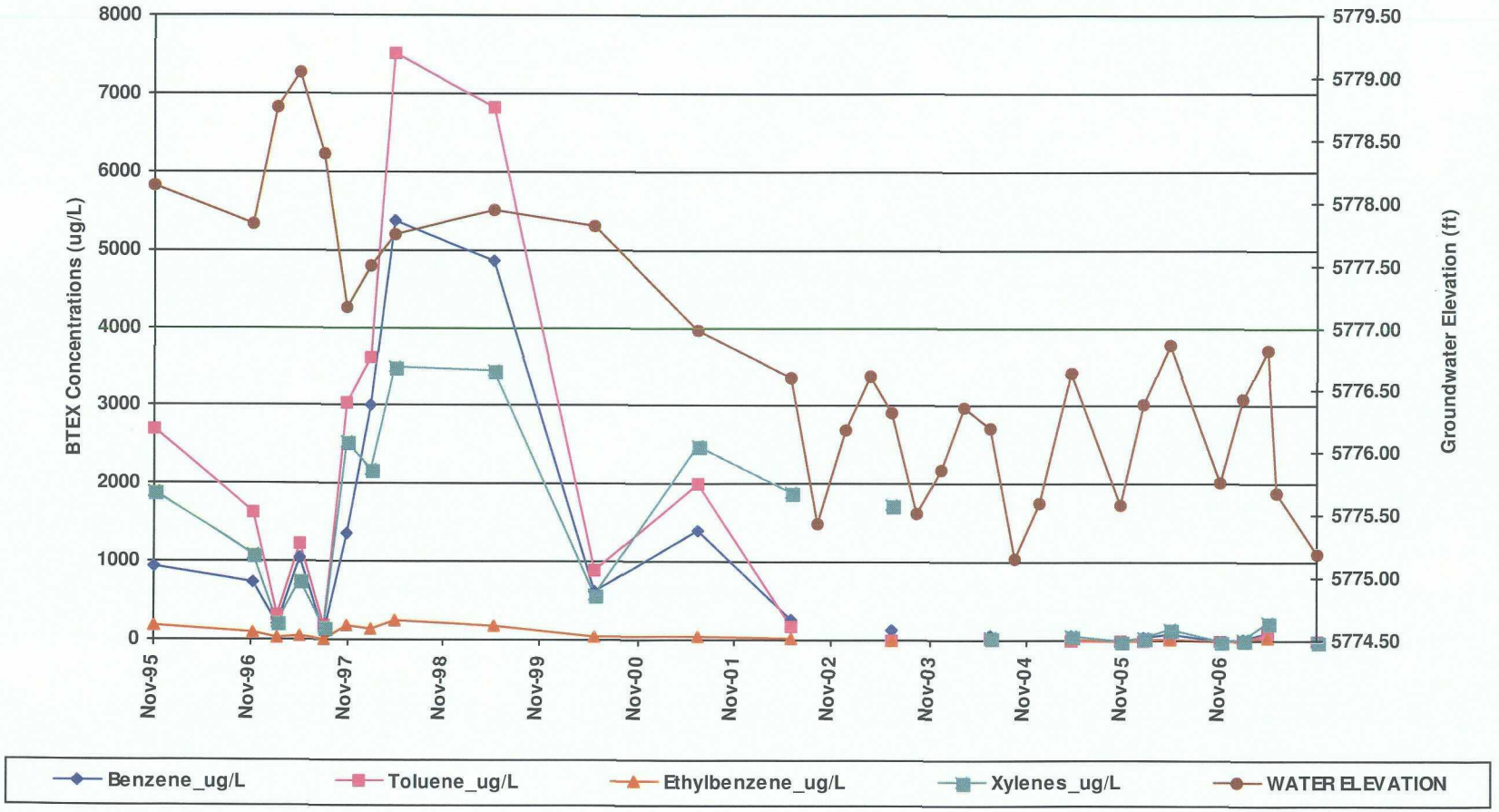
PROJECT No.: 1005521.0601
AutoCAD FILE: lat021ld
SCALE: As Shown
FIGURE No: 3

elpaso

EL PASO TENNESSEE PIPELINE COMPANY
LATERAL 0-21 LINE DRIP, LD151

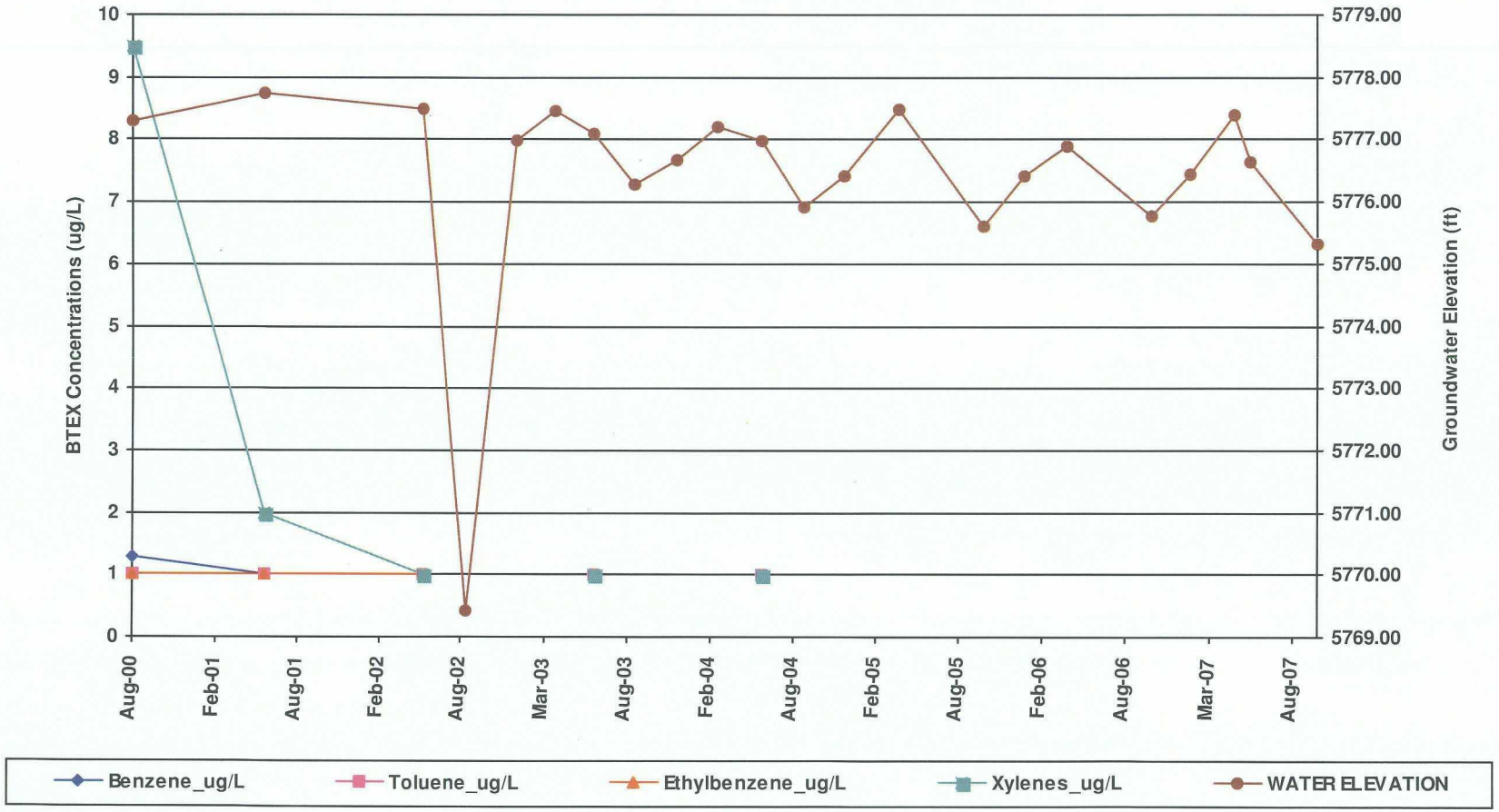
GROUNDWATER POTENTIOMETRIC SURFACE CONTOURS AND BTEX CONCENTRATIONS OCTOBER 2007

FIGURE 4
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
LAT 0-21 LINE DRIP (METER #LD151)
MW01



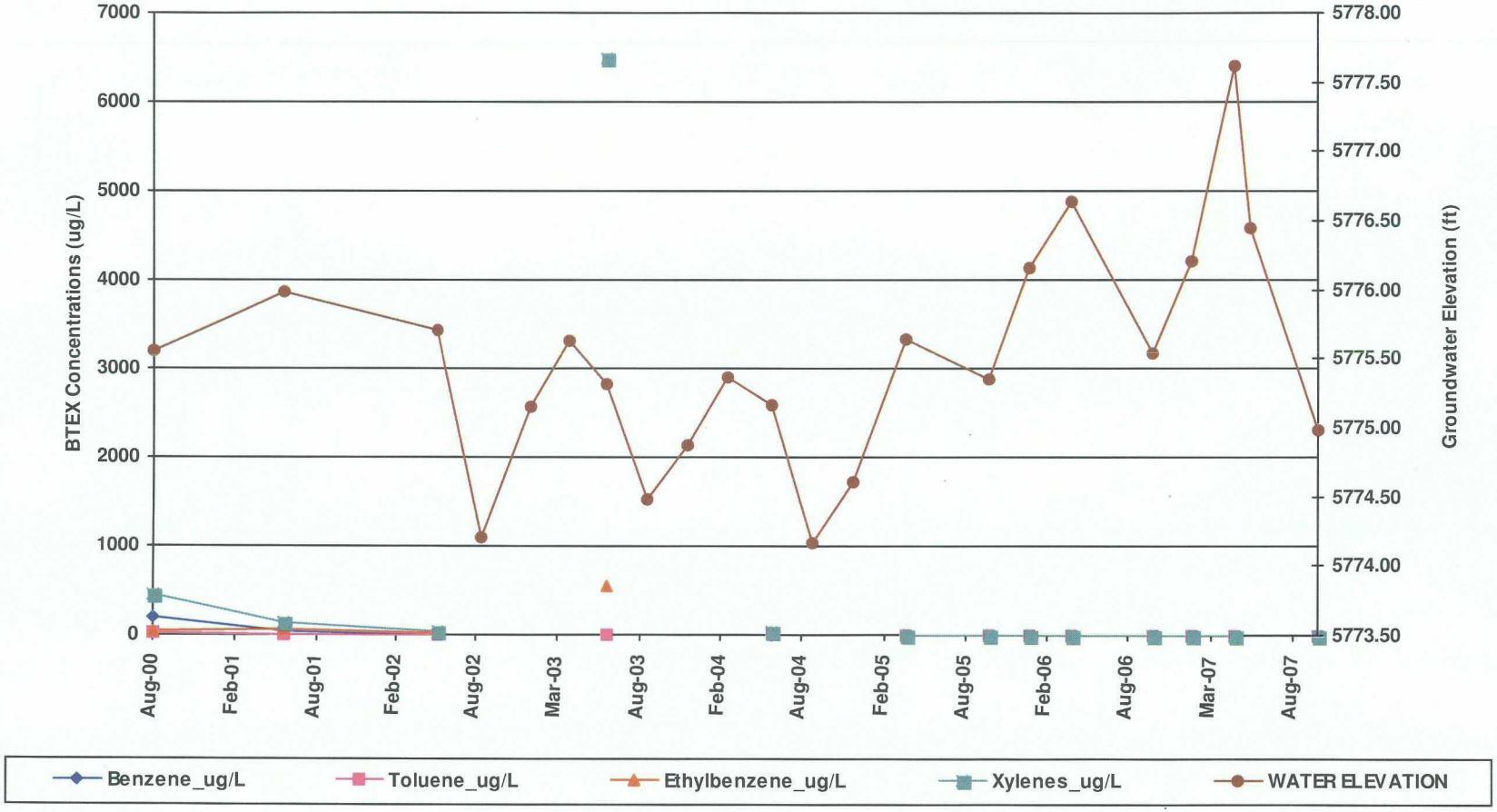
Note: Non Detects are represented by a value of 1.

FIGURE 5
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
LAT 0-21 LINE DRIP (METER #LD151)
MW02



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

FIGURE 6
SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
LAT 0-21 LINE DRIP (METER #LD151)
MW03



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

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
LAT 0-21 LINE DRIP (METER #LD151)

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW01	11/6/1995	935	2700	168	1890	34.45
	11/12/1996	741	1620	99	1100	34.75
	2/11/1997	202	313	15.6	230	33.82
	5/8/1997	1050	1220	50.8	764	33.54
	8/5/1997	99.5	179	8.42	160	34.20
	11/4/1997	1370	3040	174	2530	35.42
	2/3/1998	3000	3600	138	2180	35.08
	5/7/1998	5380	7500	247	3500	34.83
	5/18/1999	4860	6810	183	3450	34.64
	5/26/2000	620	900	49	580	34.76
	6/18/2001	1400	2000	37	2500	35.60
	6/4/2002	270	170	12	1900	35.98
	6/18/2003	137	1	1	1730	36.26
	6/23/2004	59.9	11.8	23.8	44.1	36.38
	4/18/2005	66.6	9.3	21.5	56.5	35.93
	10/22/2005	8.9	1.4	5.6	9.1	36.99
	1/19/2006	37.6	3.6	17.4	42	36.18
	4/24/2006	81.4	24.5	21.8	152	35.71
	10/24/2006	9.4	1.7	2.3	8.2	36.81
	1/19/2007	28.7	5.5	7.3	19.8	36.14
	4/24/2007	104	82.1	41	244	35.73
	10/25/2007	3.8	4	4.4	8.8	37.39
MW02	8/30/2000	1.3	1	1	9.5	33.62
	6/18/2001	1	1	1	2	33.16
	6/4/2002	1	1	1	1	33.42
	6/18/2003	1	1	1	1	33.80
	6/23/2004	1	1	1	1	33.92
MW03	8/30/2000	190	20	37	460	34.56
	6/18/2001	34	4.7	68	130	34.14
	6/4/2002	5.7	0.52	19	30	34.42
	6/18/2003	1	1	540	6490	34.80
	6/23/2004	3.3	28.9	34	48.4	34.95
	4/18/2005	1	1	5.3	2	34.48
	10/22/2005	1	1	1	1.1	35.52
	1/19/2006	1	1	1	1	34.71

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

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
LAT 0-21 LINE DRIP (METER #LD151)

Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)
MW03	4/24/2006	1	1	1	1	34.23
	10/24/2006	1	1	1	1.2	35.33
	1/19/2007	1	1	1	1	34.66
	4/24/2007	1	1	1	1	33.25
	10/25/2007	1	1	1	1	35.88

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

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
LAT 0-21 LINE DRIP (METER #LD151)

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	6/4/2002		35.98	0	0.25	0.25
	9/10/2002	36.85	37.145	0.30	0.00	0.25
	12/30/2002	36.08	36.39	0.31	0.00	0.25
	3/27/2003		35.96	0	0.00	0.25
	6/18/2003		36.26	0	0.00	0.25
	9/16/2003		37.06	0	0.00	0.25
	12/17/2003		36.72	0	0.00	0.25
	3/16/2004		36.22	0	0.00	0.25
	6/22/2004		36.38	0	0.00	0.25
	9/21/2004		37.43	0	0.00	0.25
	12/21/2004		36.98	0	0.00	0.25
	4/18/2005		35.93	0	0.00	0.25
MW03	9/10/2002	35.285	35.92	0.63	0.00	0.00
	12/30/2002	34.42	34.97	0.55	0.00	0.00
	9/16/2003	35.62	35.64	0.02	0.01	0.01
	12/17/2003		35.24	0	0.00	0.01
	3/16/2004		34.75	0	0.00	0.01
	6/22/2004		34.95	0	0.00	0.01
	9/21/2004		35.95	0	0.00	0.01
	12/21/2004		35.51	0	0.00	0.01
	4/18/2005		34.48	0	0.00	0.01