

3R - 197

**ANNUAL
MONITORING
REPORTS**

DATE:

3/2006

2005 ANNUAL GROUNDWATER REPORT RECEIVED
NON-FEDERAL SITES VOLUME II

EL PASO TENNESSEE PIPELINE COMPANY MAR 17 2006

Oil Conservation Division
TABLE OF CONTENTS Environmental Bureau

METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT	
71669	State Gas Com N #1	31N	12W	16	H	3R 239
70194	Johnston Fed #4	31N	09W	33	H	3R 201
93388	Horton #1E	31N	09W	28	H	3R 192
72556	Knight #1	30N	13W	5	A	3R 207
03906	GCU Com A #142E	29N	12W	25	G	3R 197
70445	Standard Oil Com #1	29N	09W	36	N	3R 238
LD087	K-31 Line Drip	25N	06W	16	N	3R 205
94967	*Lindrith B #24	24N	03W	9	N	3R 214

* Lindrith B#24 Site has been submitted for closure, and is pending approval from NMOCD.

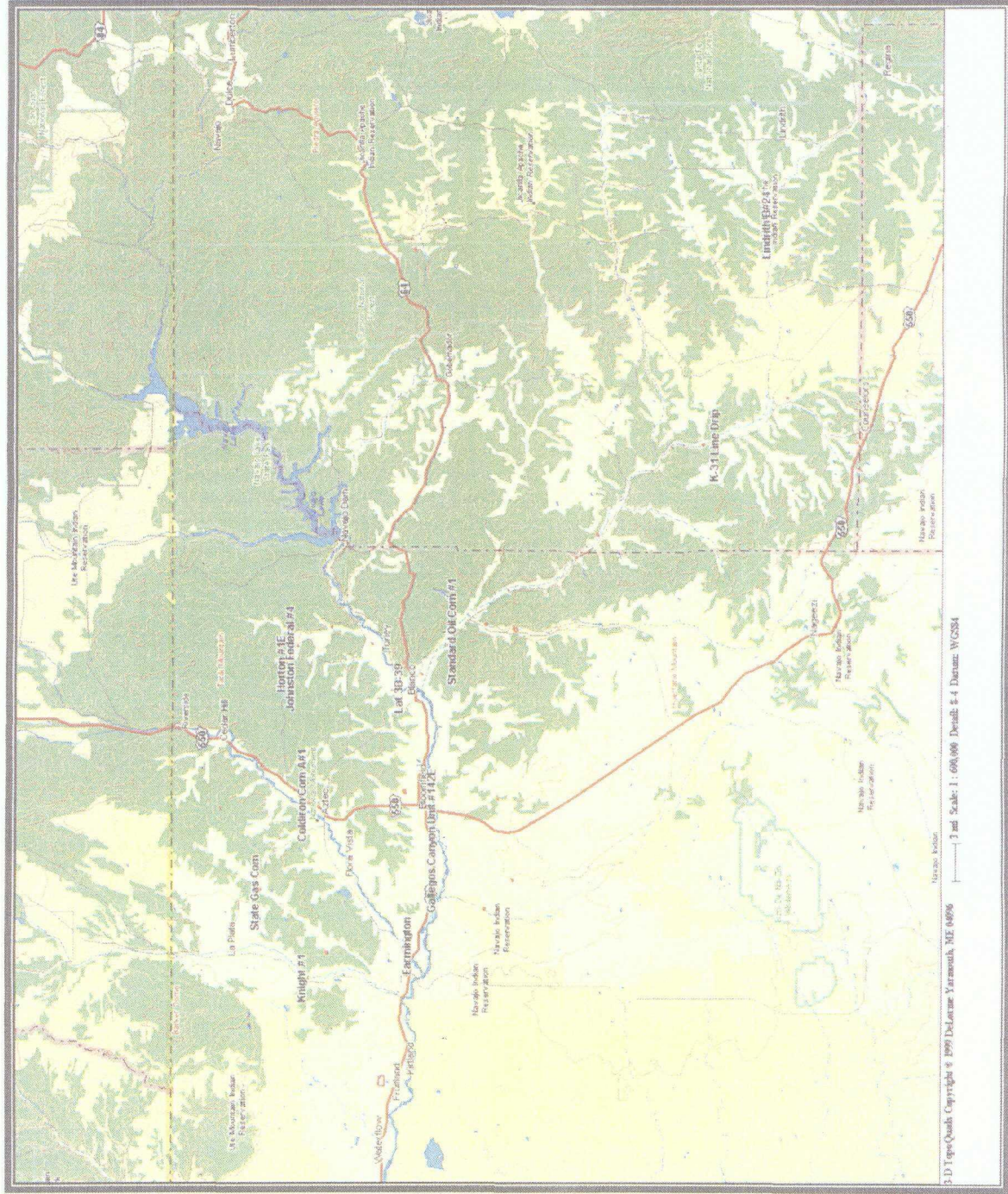


MWH
MONTGOMERY WATSON HARZA

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

Non - Federal Groundwater Site Map



**EPTPC GROUNDWATER SITES
2005 ANNUAL GROUNDWATER REPORT**

3R197

**GCU Com A #142E
Meter Code: 03906**

SITE DETAILS

Legal Description:	Town: 29N	Range: 12W	Sec: 25	Unit: G
NMOCD Haz Ranking:	10	Land Type: Fee	Operator: BP \ Amoco Production Company	

PREVIOUS ACTIVITIES

Site Assessment:	4/94	Excavation:	4/94 (20 cy)	Soil Boring:	10/95
Monitor Well:	2/97	Geoprobe:	12/96	Additional MWs:	12/01
Downgradient MWs:	12/01	Replace MW:	NA	Quarterly Initiated:	8/97
ORC Nutrient Injection:	NA	Re-Excavation:	10/96 (882 cy)	PSH Removal Initiated:	NA
Annual Initiated:	5/98	Quarterly Resumed:	NA		

SUMMARY OF 2005 ACTIVITIES

MW-1: Quarterly groundwater sampling and water level measurements were performed in 2005.

MW-2: Semi-annual groundwater sampling and water level measurements were performed in March 2005.

Site-Wide Activities: An access grant for installation of a piezometer in January 2006 was procured in 2005.

SITE MAPS

Site maps (March, June, September, December, and showing PW-3) are attached in Figures 1 through 5.

SUMMARY TABLES AND GRAPHS

- Analytical data from 2005 are summarized in Table 1, and historic data are presented graphically in Figures 6 and 7
- Laboratory reports are presented in Attachment 1 (included on CD).
- Field documentation is presented in Attachment 2 (included on CD).

**EPTPC GROUNDWATER SITES
2005 ANNUAL GROUNDWATER REPORT**

**GCU Com A #142E
Meter Code: 03906**

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.

ISOCONCENTRATION MAPS

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

CONCLUSIONS

- The regional groundwater flow is estimated to be toward the south, based on a geoprobe survey conducted in 1996.
- In the samples collected at MW-1, concentrations of toluene, ethylbenzene and total xylenes were below the NMWQCC standard. The concentration of benzene was above the NMWQCC standard at concentrations of 169 µg/L, 810 µg/L, 232 µg/L, and 354 µg/L in March, June, September, and December 2005, respectively.
- BTEX concentrations in monitoring well MW-2, located adjacent to production equipment, remained above closure standards with total BTEX concentrations of 5,543 µg/L (consisting of 2,800 µg/L benzene, 1,640 µg/L toluene, 125 µg/L ethylbenzene, and 978 µg/L total xylenes) and 3,350 µg/L (consisting of 1,980 µg/L benzene, 915 µg/L toluene, 63.8 µg/L ethylbenzene, and 391 µg/L total xylenes) in March and September 2005, respectively.

**EPTPC GROUNDWATER SITES
2005 ANNUAL GROUNDWATER REPORT**

**GCU Com A #142E
Meter Code: 03906**

RECOMMENDATIONS

- EPTPC recommends that MW-1 continue to be sampled on a quarterly schedule. Quarterly sampling will continue until BTEX concentrations are below NMWQCC standards for four consecutive quarters, at which time this site will be submitted for closure.
- EPTPC recommends that monitoring well MW-2, which is located adjacent to production equipment, continue to be sampled annually.
- EPTPC will evaluate other upgradient sources to EPTPCs former pit; this effort may include installation of a new monitoring well at this site.
- In order to confirm the groundwater flow direction at this site, EPTPC will install piezometer PW-3 in January 2006 (shown on Figure 5).
- Based on data that indicate contamination upgradient of EPTPC's former pit and data gathered from PW-3, EPTPC may request closure of this site in 2006.

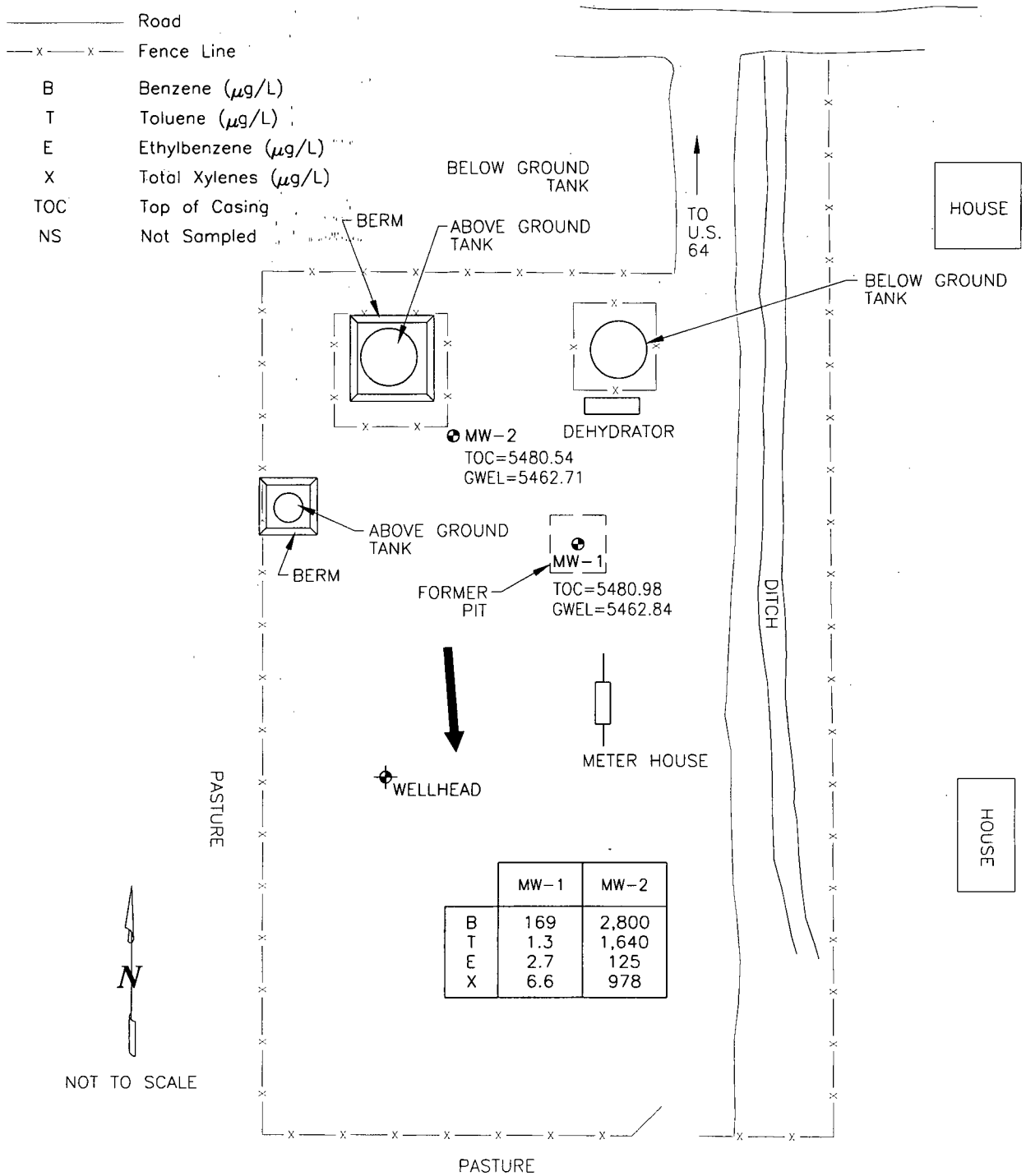
LEGEND

- MW-1 Approximate Monitoring Well Location and Number
- ← Estimated Local Groundwater Flow Direction

— Road

— x — x — Fence Line

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



GALLEGOS CANYON UNIT A142E, METER 03906
MARCH 2005

GROUNDWATER SITES
EL PASO TENNESSEE PIPELINE COMPANY

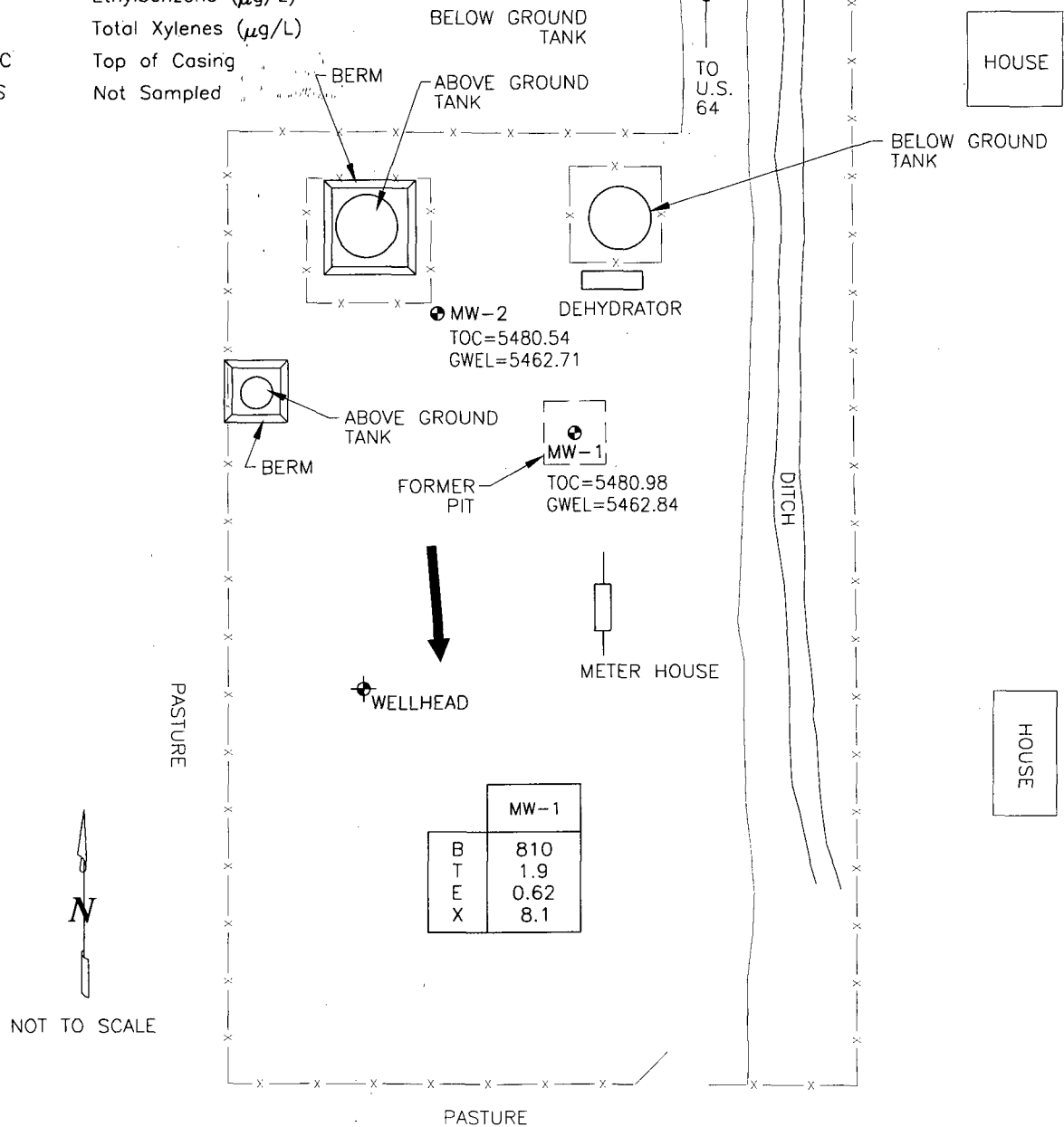
FIGURE 1

LEGEND

- MW-1 Approximate Monitoring Well Location and Number
- ← Estimated Local Groundwater Flow Direction

— Road
 — x — x — Fence Line

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



NOT TO SCALE

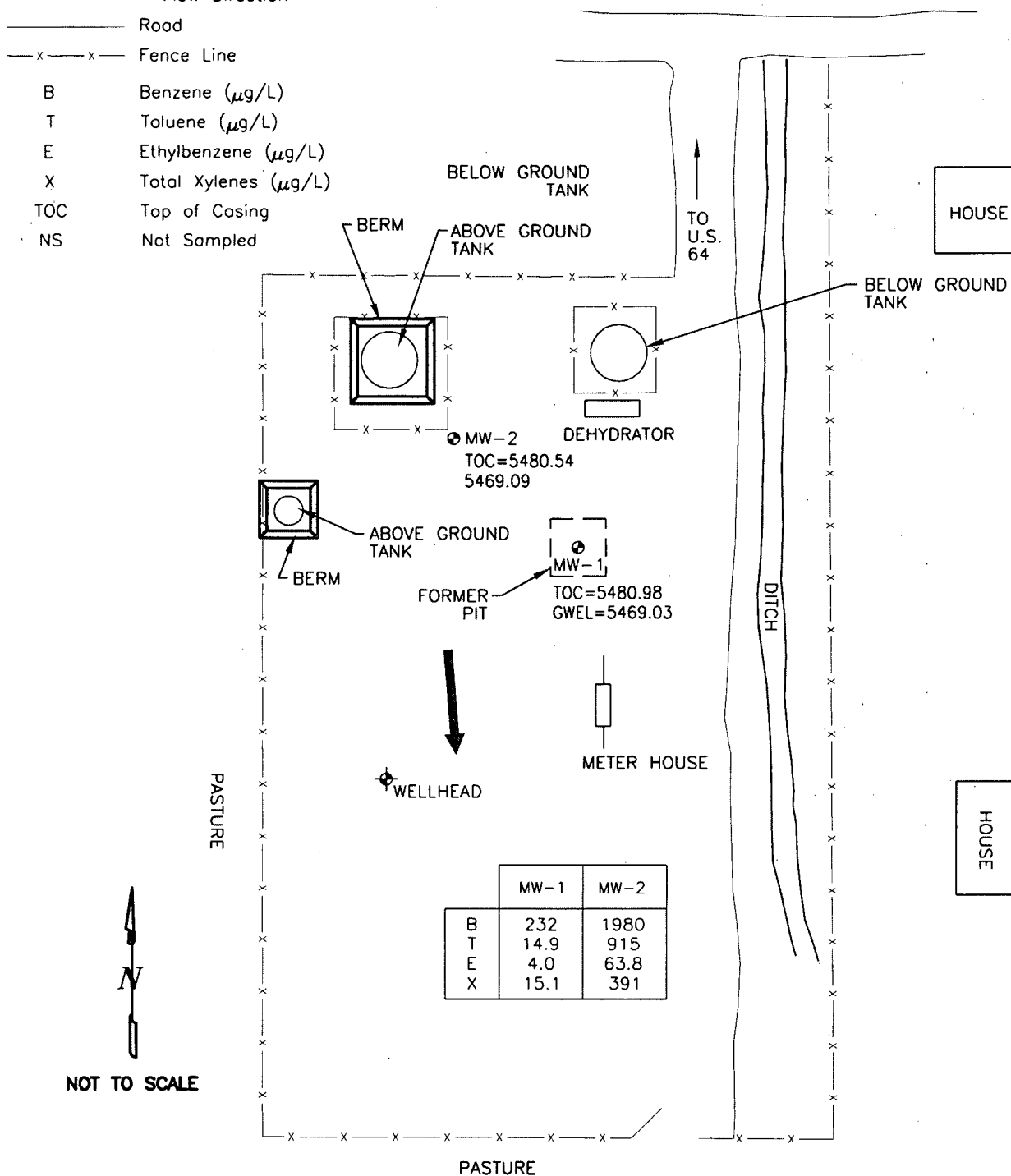
GALLEGOS CANYON UNIT A142E, METER 03906
 JUNE 2005

GROUNDWATER SITES
 EL PASO TENNESSEE PIPELINE COMPANY

FIGURE 2

LEGEND

- ⊙ MW-1 Approximate Monitoring Well Location and Number
- ← Estimated Local Groundwater Flow Direction
- Road
- x — x — Fence Line
- B Benzene (μg/L)
- T Toluene (μg/L)
- E Ethylbenzene (μg/L)
- X Total Xylenes (μg/L)
- TOC Top of Casing
- NS Not Sampled



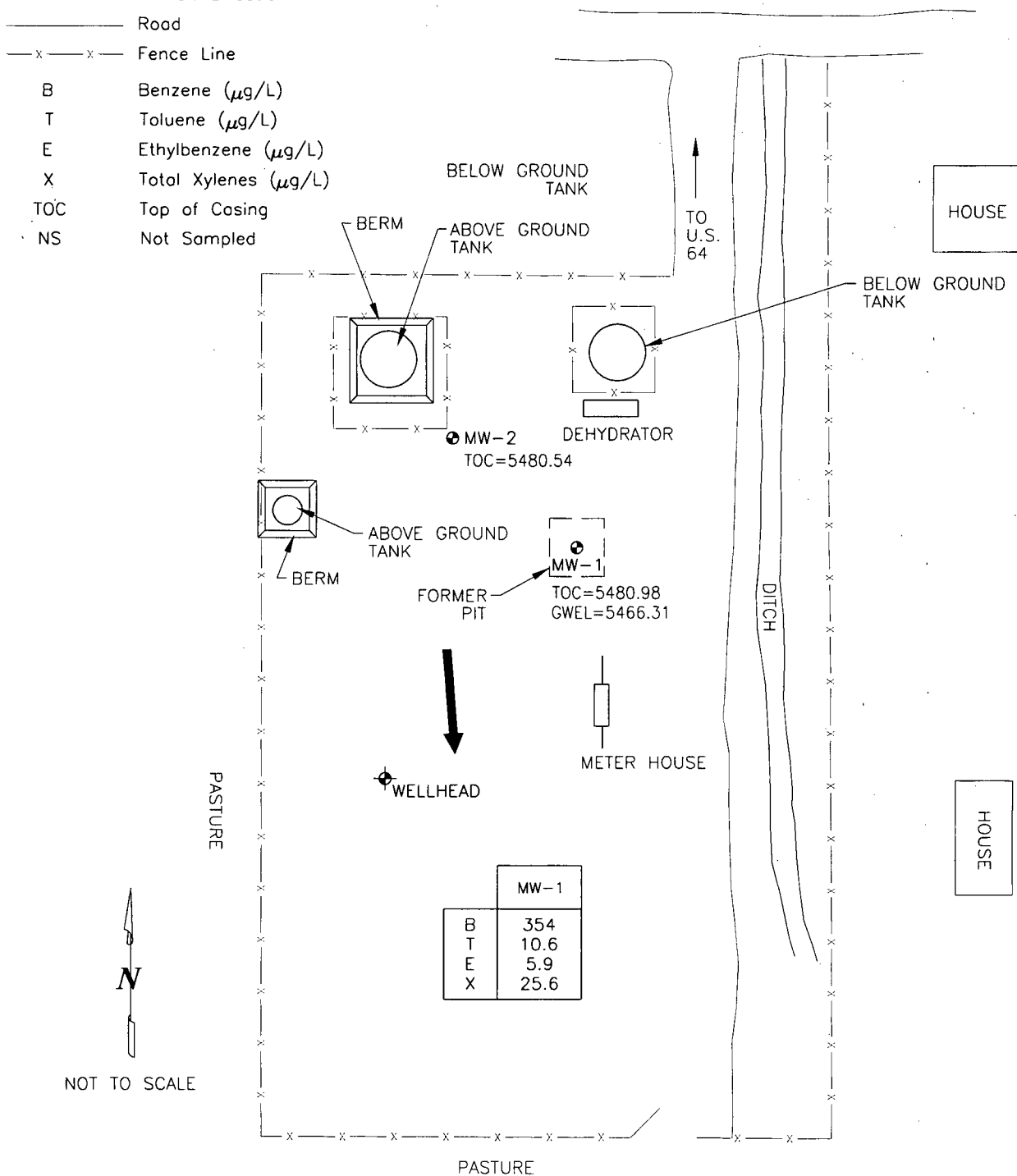
GALLEGOS CANYON UNIT A142E, METER 03906
SEPTEMBER 2005

GROUNDWATER SITES
EL PASO TENNESSEE PIPELINE COMPANY

FIGURE 3

LEGEND

- MW-1 Approximate Monitoring Well Location and Number
- ← Estimated Local Groundwater Flow Direction
- Road
- x - x - Fence Line
- B Benzene ($\mu\text{g/L}$)
- T Toluene ($\mu\text{g/L}$)
- E Ethylbenzene ($\mu\text{g/L}$)
- X Total Xylenes ($\mu\text{g/L}$)
- TOC Top of Casing
- NS Not Sampled



MW-1	
B	354
T	10.6
E	5.9
X	25.6

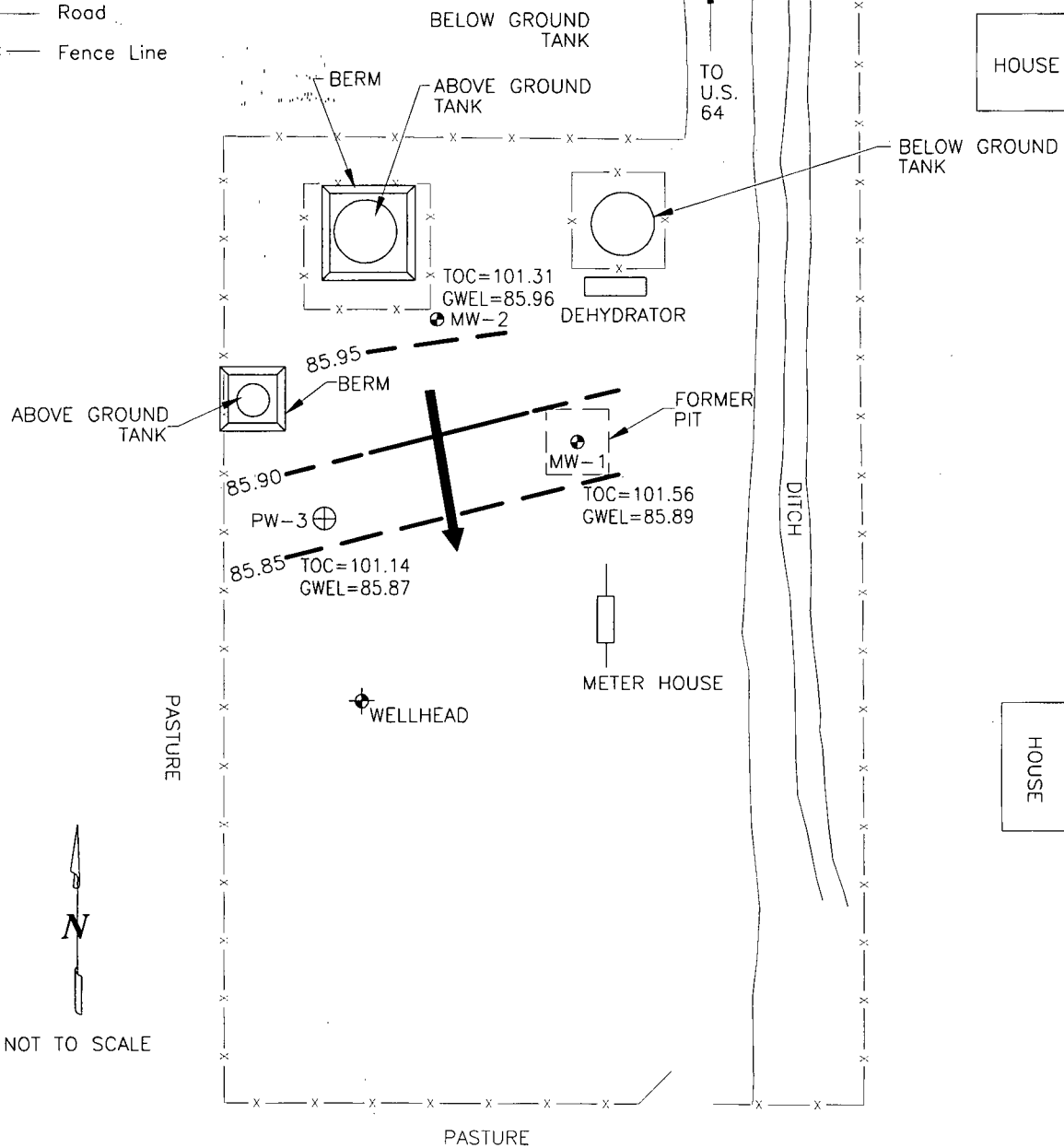
GALLEGOS CANYON UNIT A142E, METER 03906
DECEMBER 2005

GROUNDWATER SITES
EL PASO TENNESSEE PIPELINE COMPANY

FIGURE 4

LEGEND

- MW-1 Approximate Monitoring Well Location and Number
- PW-3 ⊕ Proposed Piezometer Location (Geoprobe)
- ← Estimated Local Groundwater Flow Direction
- TOC Top of Casing (Relative to Survey Point)
- Road
- x — Fence Line



GALLEGOS CANYON UNIT A142E, METER 03906
JANUARY 2006

GROUNDWATER SITES
EL PASO TENNESSEE PIPELINE COMPANY

FIGURE 5

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN 2005 GROUNDWATER SAMPLES
GCU COM A #142E (METER #03906)

Site Name	Sample Date	Monitoring Well	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (feet)
GCU Com A #142E	3/17/2005	MW-1	169	1.3	2.7	6.6	18.15
GCU Com A #142E	6/23/2005	MW-1	810	1.9	0.62	8.1	14.72
GCU Com A #142E	9/26/2005	MW-1	232	14.9	4	15.1	11.95
GCU Com A #142E	12/14/2005	MW-1	354	10.6	5.9	25.6	14.67
GCU Com A #142E	3/17/2005	MW-2	2800	1640	125	978	17.83
GCU Com A #142E	9/14/2005	MW-2	1980	915	63.8	391	11.45

FIGURE 6
HISTORIC BTX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
GCU COM A #142E
MW-1

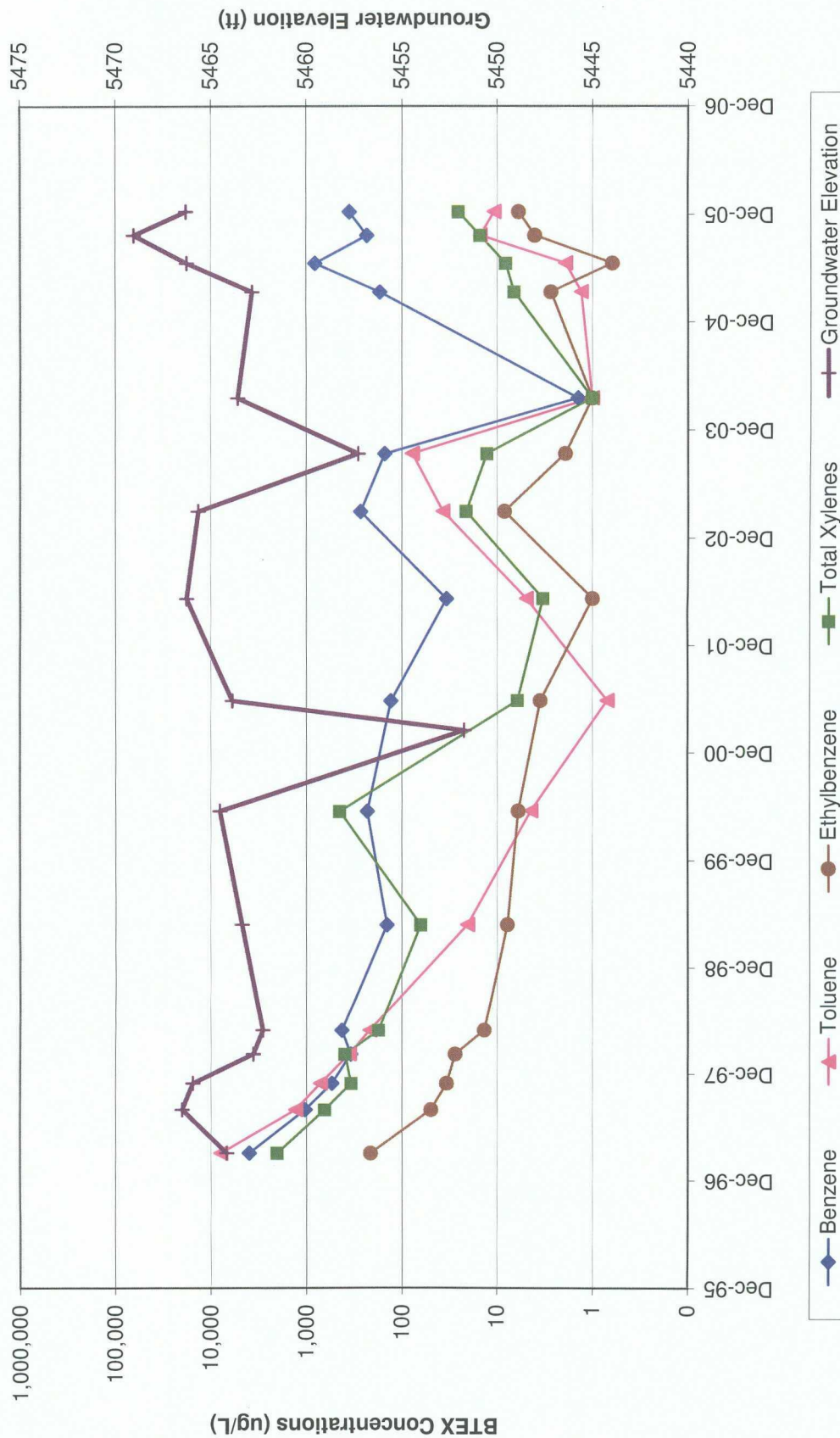


FIGURE 7
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
GCU COM A #142E
MW-2

