

**3R - 237**

# **REPORTS**

**DATE:**

1998



**Certified Mail: #Z 211 324 121**

March 31, 1999

Mr. William C. Olson  
New Mexico Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87504

**RECEIVED**

**APR 05 1999**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

**RE: 1998 Pit Project Annual Groundwater Report**

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual updates for the 49 remaining groundwater impacted locations that were identified during our pit closure project of 1994 / 1995.

Of the 49 reports, EPFS hereby requests closure of 18 of these locations. The 18 sites EPFS is requesting closure on are presented in 4 separate binders entitled "Final Closure Report for Groundwater Sites with Four Consecutive Quarters Below Standards".

The Jaquez Com. C #1 and Jaquez Com. E #1 site is included in a separate report which is entitled "Jaquez Com. C #1 and Jaquez Com. E #1 Annual Report for Soil and Groundwater Remediation".

If you have any questions concerning the enclosed reports or closure requests, please call me at (505) 599-2124.

Sincerely,

A handwritten signature in cursive script that reads "Scott T. Pope".

Scott T. Pope P.G.  
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # Z 211 324 122**  
Mr. Bill Liesse, BLM - w / enclosures; **Certified Mail # Z 211 324 123**  
Ms. Charmaine Tso, Navajo EPA - w / enclosures; **Certified Mail # Z 211 324 120**

# EPFS GROUNDWATER PITS 1998 ANNUAL GROUNDWATER REPORT

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SHEETS #2  
Meter/Line ID - 70286

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APR 05 1999

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## SITE DETAILS

Legals - Twn: 31N      Rng: 9W      Sec: 28  
NMOCD Hazard Ranking: 40  
Operator: AMOCO PRODUCTION COMPANY

Unit: H  
Land Type: FEE

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

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## PREVIOUS ACTIVITIES

Site Assessment: Aug-94    Excavation: Sep-94 (120 cy)    Soil Boring: Aug-95  
Monitor Well: Aug-95    Additional MW: Dec-95    Quarterly Sampling Initiated: Apr-96

## 1998 ACTIVITIES

**Quarterly Groundwater Monitoring** - Quarterly groundwater monitoring was discontinued in 1998. Groundwater analytical data from 1997 are presented in Table 1. Site maps with four quarters of analytical data from 1997 and groundwater gradients are included as Figure 1 through Figure 4. A site map is presented in Figure 1.

**Submission Of Groundwater Closure Report In 1998** - This site was submitted for closure in March of 1998 and was rejected by the OCD. Groundwater sampling did not take place, as closure was pending.

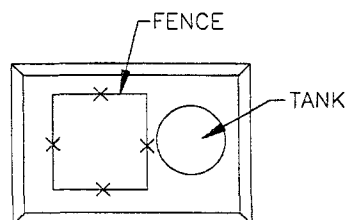
## CONCLUSIONS

Pertinent data from the 1997 groundwater report include the following: Quarterly groundwater samples have been collected at MW-1, MW-2, MW-3 and MW-4 for six quarters. Groundwater samples collected from MW-1 have been below standards for BTEX four consecutive quarters. Groundwater samples collected from the other three monitoring wells have been below standards for BTEX since quarterly sampling was initiated.

Based on groundwater levels collected from all four monitor wells, the groundwater flow trends to the northeast and MW-4 is up-gradient, MW-3 is cross-gradient, and MW-2 is slightly down-gradient of MW-1. Groundwater samples were collected on the down-gradient side of MW-1 from temporary monitoring wells. The groundwater sample collected from PZ-1 was in excess of New Mexico Groundwater Standards for benzene. An additional groundwater sample collected farther down-gradient from PZ-1 (PZ-2) was below standards for BTEX.

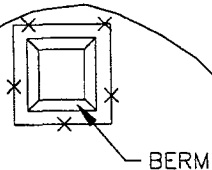
## RECOMMENDATIONS

- The OCD requires that EPFS install additional groundwater monitoring wells to monitor and determine the extent of groundwater contamination.
- Confirm gradient with temporary well points and collect downgradient sample.
- Sample annually until the extent of contamination is defined.
- EPFS will contact operator and provide pertinent site data regarding EPFS activities at the site.

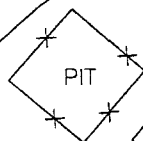


FENCE

TANK



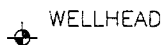
BERM



PIT



DEHY



WELLHEAD

MW-4  
B=<1  
T=<1  
E=<1  
X=<3

FORMER  
PIT

MW-1  
B=7.69  
T=<1  
E=2.66  
X=<3

MW-3  
B=<1  
T=<1  
E=<1  
X=<3

MW-2  
B=<1  
T=<1  
E=<1  
X=<3

METER  
HOUSE

## LEGEND

● MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER

B BENZENE (ug\L)  
T TOLUENE (ug\L)  
E ETHYL BENZENE (ug\L)  
X XYLENE (ug\L)

ug\L MICROGRAMS PER LITER

-54.4- GROUNDWATER CONTOUR ELEVATION

NOT TO SCALE



COL 17520AZ-001



TITLE:

SHEETS #2  
METER 70286  
JANUARY 29, 1997

DWN:

TMM

DES.:

CC

PROJECT NO.:

17520

EPFS GW PITS

CHKD:

CC

APPD:

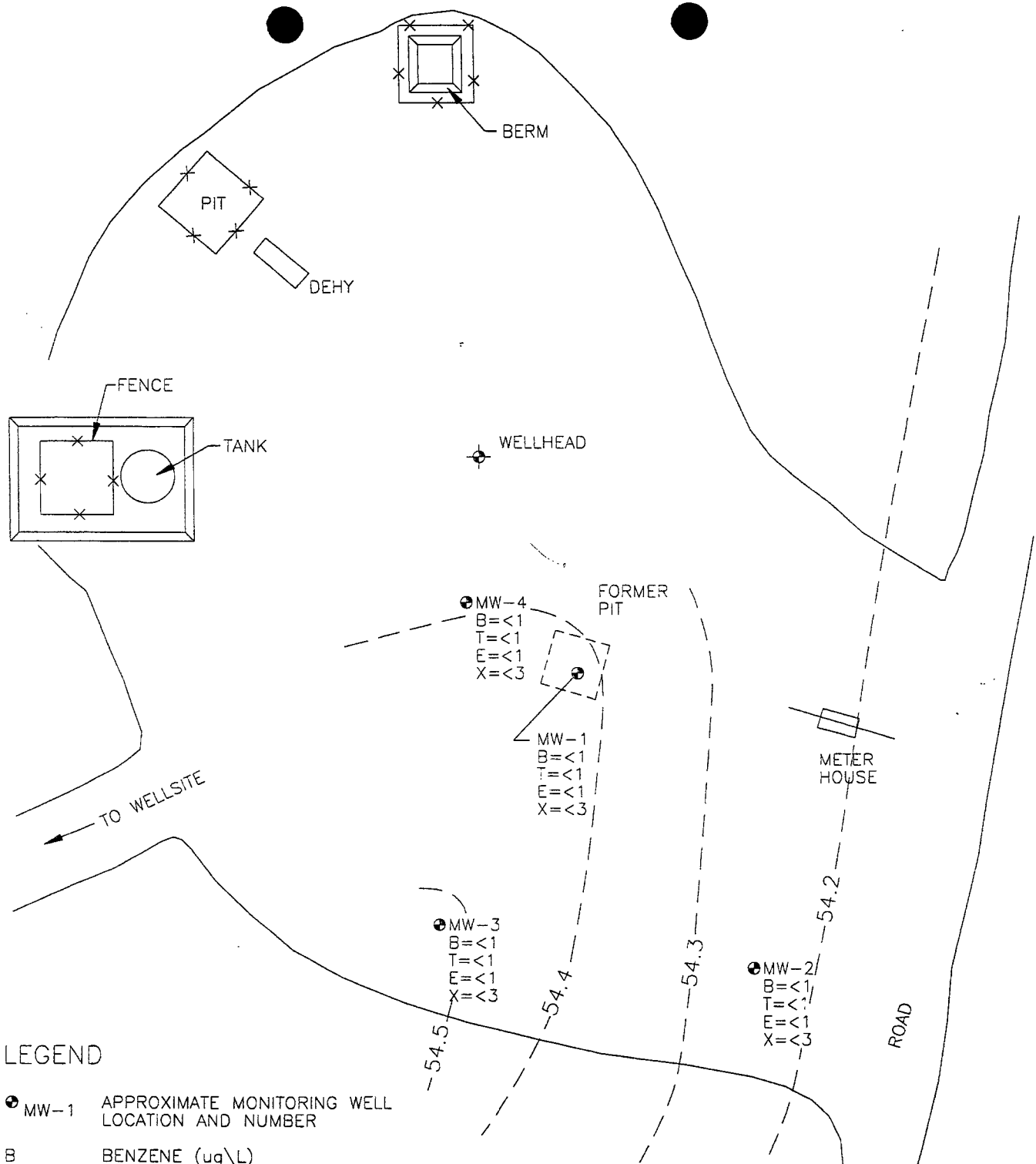
DATE:

3/4/99

REV.:

1

FIGURE 1



# LEGEND

● MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER

B BENZENE (ug\L)  
T TOLUENE (ug\L)  
E ETHYL BENZENE (ug\L)  
X XYLENE (ug\L)

ug\L MICROGRAMS PER LITER

-54.4— GROUNDWATER CONTOUR ELEVATION

NOT TO SCALE



COL. 17520A2-002



TITLE:

SHEETS #2  
METER 70286  
APRIL 28, 1997

DWN:

TMM

DES.:

CC

PROJECT NO.:

17520

EPFS GW PITS

CHKD:

CC

APPO:

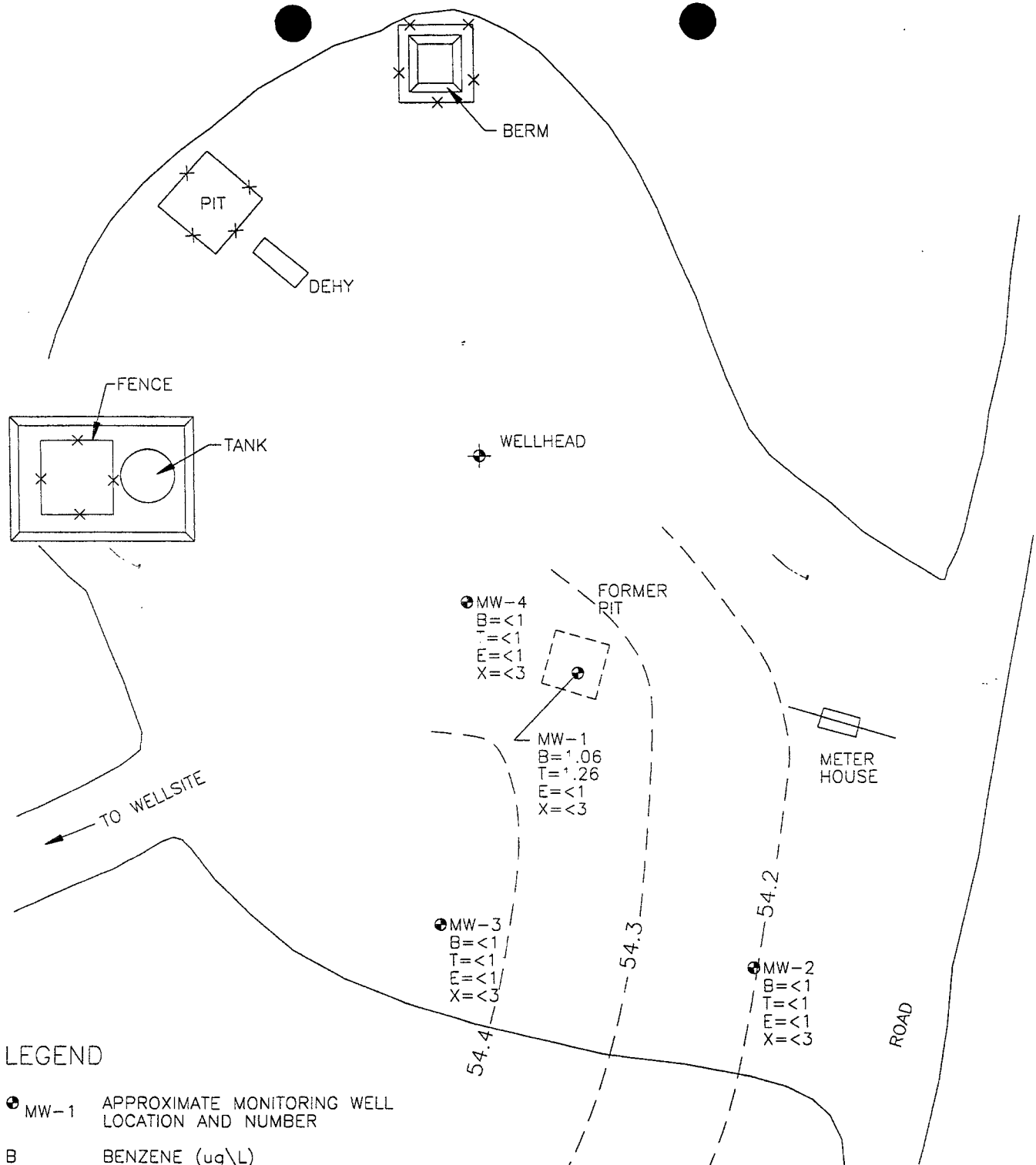
DATE:

3/3/99

REV.:

1

FIGURE 2



## LEGEND

- MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER
- B BENZENE (ug\L)  
T TOLUENE (ug\L)  
E ETHYL BENZENE (ug\L)  
X XYLENE (ug\L)
- ug\L MICROGRAMS PER LITER
- 54.4- GROUNDWATER CONTOUR ELEVATION

NOT TO SCALE

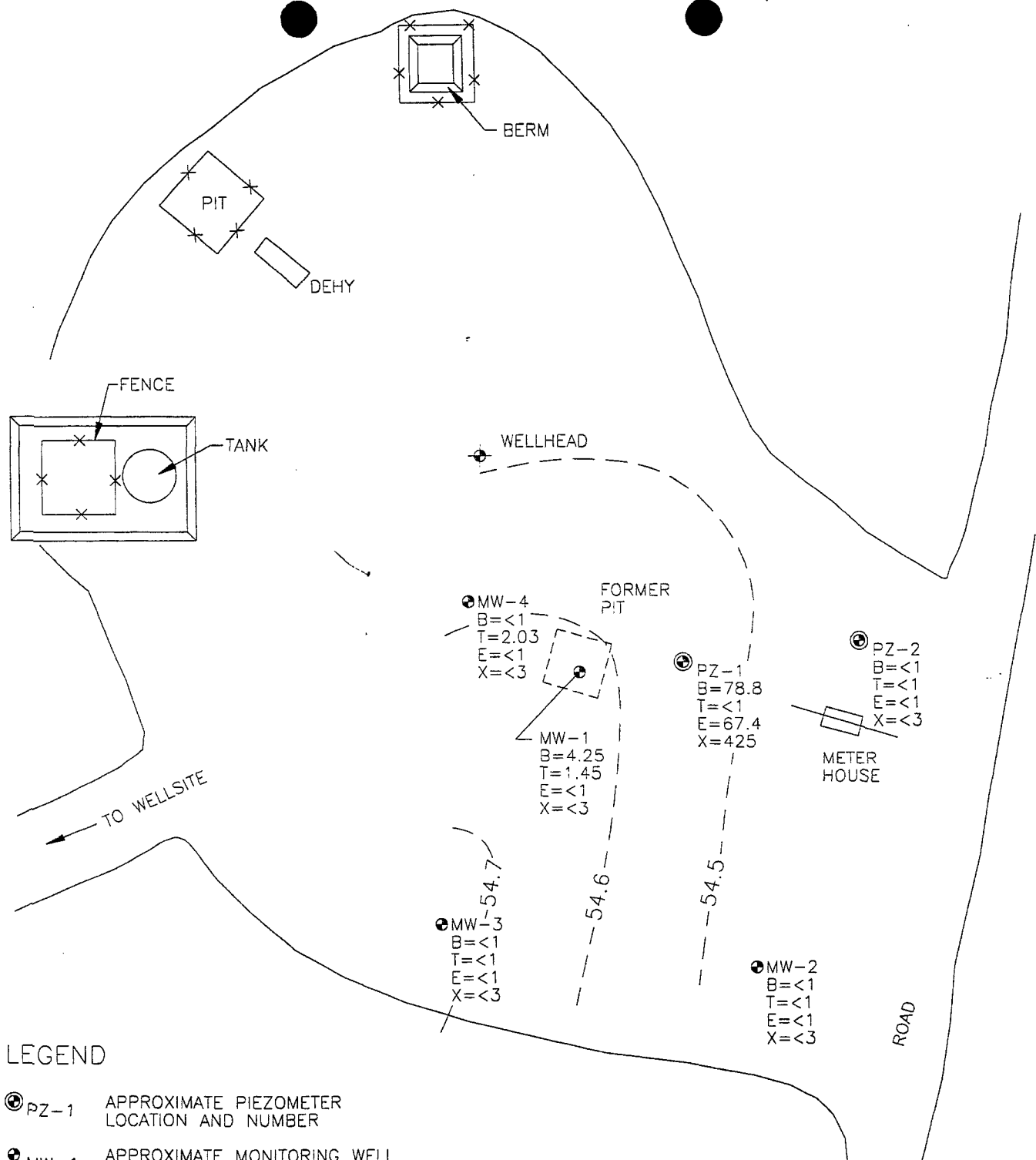


TITLE:  
SHEETS #2  
METER 70286  
JULY 10, 1997

DWN: TMM  
DES.: CC  
CHKD: CC  
DATE: 3/4/99  
REV.: 1

PROJECT NO.: 17520  
EPFS GW PITS

FIGURE 3



## LEGEND

- ⊙ PZ-1 APPROXIMATE PIEZOMETER LOCATION AND NUMBER
- ⊙ MW-1 APPROXIMATE MONITORING WELL LOCATION AND NUMBER

B BENZENE (ug\L)  
T TOLUENE (ug\L)  
E ETHYL BENZENE (ug\L)  
X XYLENE (ug\L)

ug\L MICROGRAMS PER LITER

-54.4- GROUNDWATER CONTOUR ELEVATION

NOT TO SCALE



COL. 17520AZ-004



TITLE:  
SHEETS #2  
METER 70286  
OCTOBER 23, 1997

DWN: TMM  
DES: CC  
CHKD: CC  
DATE: 3/4/99

PROJECT NO.: 17520  
EPFS GW PITS  
FIGURE 4

TABLE 1

Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
960350	70286	Sheets Well #2	04/16/96	1	Sample 4 - 1st Qtr	= 65.9	< 5	= 22	= 52.6	= 146
960638	70286	Sheets Well #2	07/22/96	1	Sample 4 - 2nd Qtr	= 68.6	< 1	= 11.3	= 21.6	= 103
960865	70286	Sheets Well #2	10/17/96	1	Sample 4 - 3rd Qtr	= 17.5	< 1	= 9.65	= 1.96	= 30
970029	70286	Sheets Well #2	01/29/97	1	Sample 4 - 4th Qtr	= 7.69	< 1	= 2.66	< 3	= 14
970350	70286	Sheets Well #2	04/28/97	1	Sample 4 - 5th Qtr	< 1	< 1	< 1	< 3	< 6
970632	70286	Sheets Well #2	07/10/97	1	Sample 4 - 6th Qtr	= 1.06	= 1.26	< 1	< 3	< 6
971146	70286	Sheets Well #2	10/23/97	1	Sample 4 - 7th Qtr	= 4.25	= 1.45	< 1	< 3	= 6
960351	70286	Sheets Well #2	04/17/96	2	Sample 4 - 1st Qtr	< 1	< 1	< 1	< 3	= 6
960639	70286	Sheets Well #2	07/22/96	2	Sample 4 - 2nd Qtr	< 1	< 1	< 1	< 3	= 6
960866	70286	Sheets Well #2	10/17/96	2	Sample 4 - 3rd Qtr	< 1	< 1	< 1	< 3	< 6
970030	70286	Sheets Well #2	01/29/97	2	Sample 4 - 4th Qtr	< 1	< 1	< 1	< 3	< 6
970351	70286	Sheets Well #2	04/28/97	2	Sample 4 - 5th Qtr	< 1	< 1	< 1	< 3	< 6
970633	70286	Sheets Well #2	07/10/97	2	Sample 4 - 6th Qtr	< 1	< 1	< 1	< 3	< 6
971147	70286	Sheets Well #2	10/23/97	2	Sample 4 - 7th Qtr	< 1	< 1	< 1	< 3	< 6
960352	70286	Sheets Well #2	04/17/96	3	Sample 4 - 1st Qtr	< 1	< 1	< 1	< 3	= 6
960641	70286	Sheets Well #2	07/22/96	3	Sample 4 - 2nd Qtr	< 1	< 1	< 1	< 3	= 6
960867	70286	Sheets Well #2	10/17/96	3	Sample 4 - 3rd Qtr	< 1	< 1	< 1	< 3	< 6
970031	70286	Sheets Well #2	01/29/97	3	Sample 4 - 4th Qtr	< 1	< 1	< 1	< 3	< 6
970352	70286	Sheets Well #2	04/28/97	3	Sample 4 - 5th Qtr	< 1	< 1	< 1	< 3	< 6
970634	70286	Sheets Well #2	07/10/97	3	Sample 4 - 6th Qtr	< 1	< 1	< 1	< 3	< 6
971148	70286	Sheets Well #2	10/23/97	3	Sample 4 - 7th Qtr	< 1	< 1	< 1	< 3	< 6
960353	70286	Sheets Well #2	04/17/96	4	Sample 4 - 1st Qtr	< 1	< 1	< 1	< 3	= 6
960642	70286	Sheets Well #2	07/22/96	4	Sample 4 - 2nd Qtr	< 1	< 1	< 1	< 3	= 6
960868	70286	Sheets Well #2	10/17/96	4	Sample 4 - 3rd Qtr	< 1	< 1	< 1	< 3	< 6



**TABLE 1**

Sample #	Meter/ Line #	Site Name	Sample Date	MW #	Project	Benzene (PPB)	Toluene (PPB)	Ethyl Benzene (PPB)	Total Xylenes (PPB)	Total BTEX
970032	70286	Sheets Well #2	01/29/97	4	Sample 4 - 4th Qtr	< 1	< 1	< 1	< 3	< 6
970353	70286	Sheets Well #2	04/28/97	4	Sample 4 - 5th Qtr	< 1	< 1	< 1	< 3	< 6
970635	70286	Sheets Well #2	07/10/97	4	Sample 4 - 6th Qtr	< 1	< 1	< 1	< 3	< 6
971149	70286	Sheets Well #2	10/23/97	4	Sample 4 - 7th Qtr	< 1	= 2.03B	< 1	< 3	< 6