

EPFS GROUNDWATER PITS 1999 CLOSURE REPORT

Approved 13111
01504
April 3, 2001

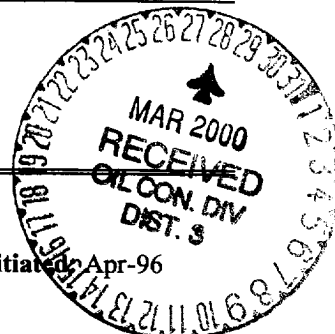
SHEETS #2
Meter/Line ID - 70286

SITE DETAILS

Legals - Twn: 31N Rng: 9W Sec: 28 Unit: H
NMOC Hazard Ranking: 40 Land Type: FEE
Operator: AMOCO PRODUCTION COMPANY

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
Additional MW: Oct-99



All supporting documentation for activities prior to 1999 can be found in the Annual Report for the year the activity occurred.

1999 ACTIVITIES

Groundwater Monitoring - Quarterly groundwater monitoring was discontinued in 1997 because monitor wells MW-1 through MW-4 all had at least four quarters below New Mexico Groundwater Standards. Monitoring well MW-5 was installed and sampled in October 1999.

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. The OCD requested an additional downgradient well to completely define the extent of groundwater contamination.

Monitor Well Installation - The groundwater gradient was known from historical data and one additional well was drilled as requested in OCD correspondence dated July 28, 1999. A groundwater gradient map that includes this recent well is included as Figure 5.

SUMMARY TABLES

Historical groundwater analytical data and groundwater analytical data from MW-5 are presented in Table 1. Copies of the 1999 laboratory data sheets and associated quality assurance/quality control data are presented in Attachment 1.

SITE MAP

Site maps with four quarters of analytical data from 1997 and groundwater gradients are included as Figure 1 through Figure 4. The most recent groundwater gradient map is presented as Figure 5.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

The October 4, 1999, geologic logs and well completion diagrams are included as Attachment 2.

DISPOSITION OF GENERATED WASTES

There were no generated wastes at this site during 1999.

ISOCONCENTRATION MAPS

BTEX parameters were below regulatory standards and isoconcentration maps were not generated.

EPFS GROUNDWATER PITS 1999 CLOSURE REPORT

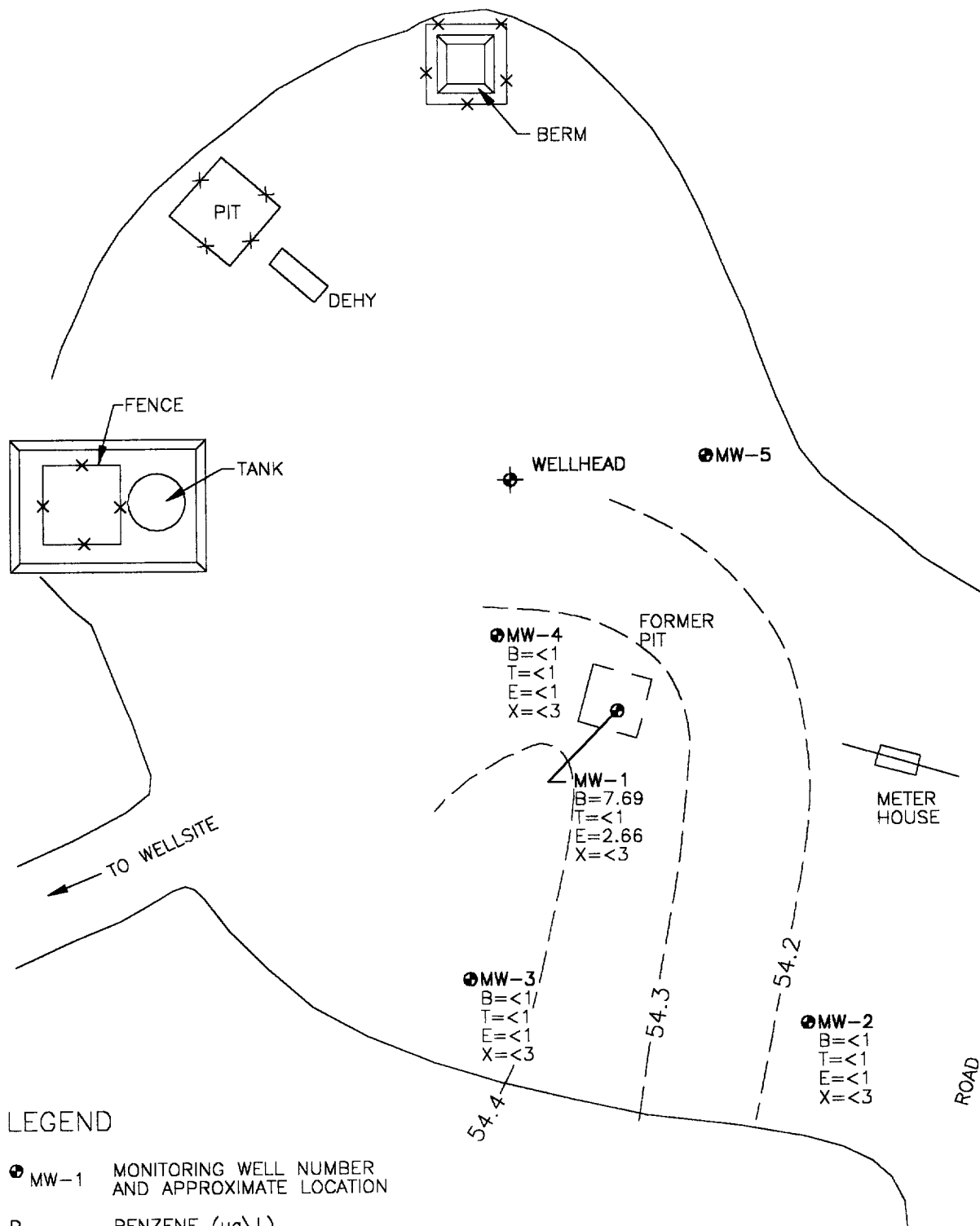
CONCLUSIONS

Recently installed monitor well MW-5 is below detection limits for all BTEX constituents. Groundwater gradient is to the northeast at this site. EPFS installed one additional groundwater monitoring well as required by the OCD to show that no downgradient migration has occurred at this site.

Based on groundwater levels collected from all four monitor wells, the groundwater flow trends to the northeast and MW-3 is upgradient, MW-4 is crossgradient, MW-5 is downgradient, and MW-2 is slightly downgradient of MW-1. Based on the sampling results from MW-1 through MW-4 and on the OCD requested additional downgradient monitoring well MW-5, EPFS has demonstrated that groundwater is below NMWQCC Standards at the five monitoring wells at this site. Therefore, EPFS requests closure of this site.

RECOMMENDATIONS

- EPFS requests closure of this site.
- Following OCD approval for closure, MW-1 through MW-5 will be abandoned in accordance with the Monitoring Well Abandonment Plan.



LEGEND

● MW-1 MONITORING WELL NUMBER AND APPROXIMATE LOCATION

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, 1999

DWN:

CJG

DES.:

CC

PROJECT NO.:

17520

EPFS GW PITS

CHKD:

CC

APPD:

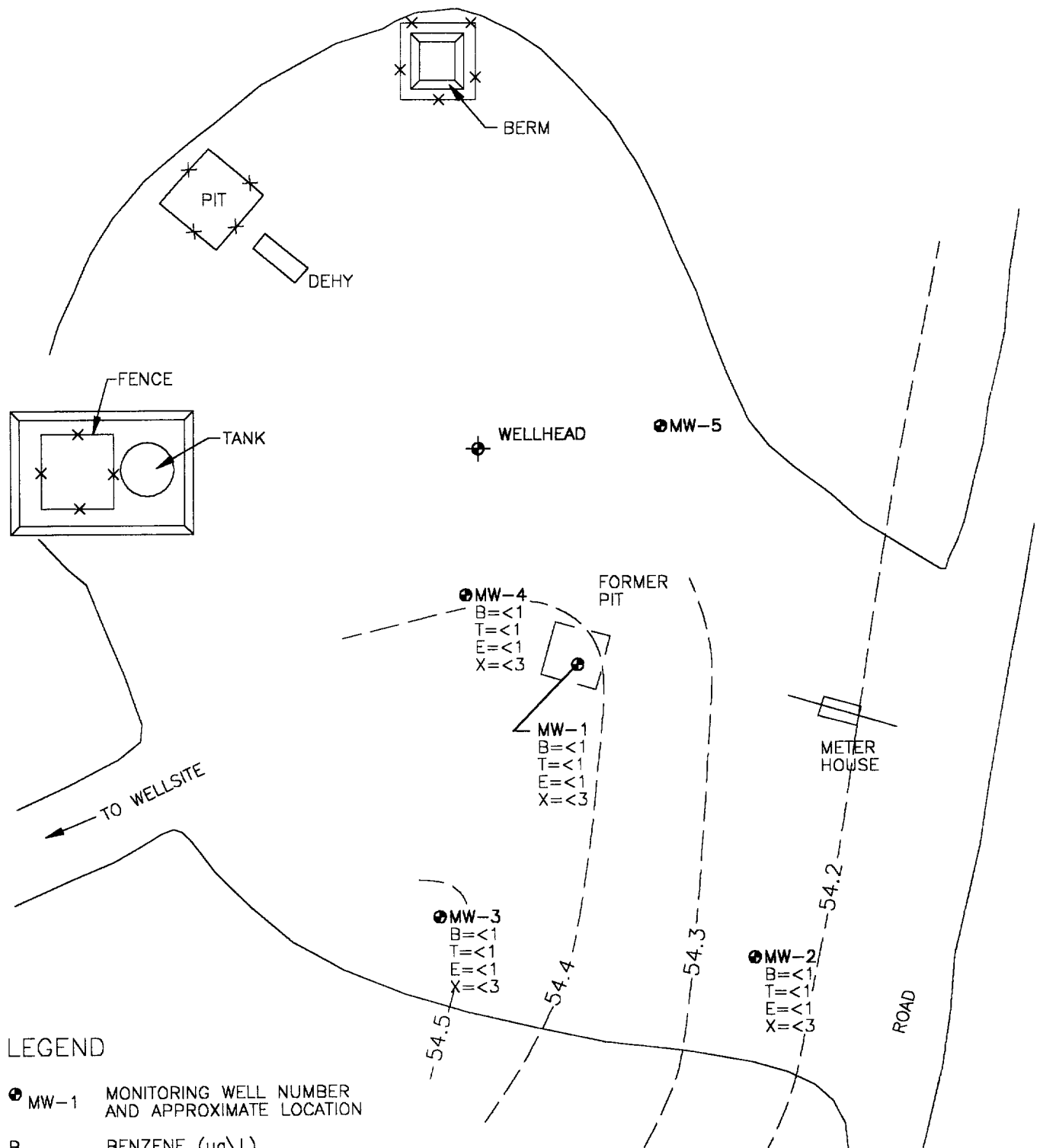
DATE:

03/20/00

REV.:

1

FIGURE 1



LEGEND

● MW-1 MONITORING WELL NUMBER AND APPROXIMATE LOCATION

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-002



TITLE:

SHEETS #2
METER 70286
APRIL 28, 1999

DWN:

CJG

DES.:

CC

PROJECT NO.:

17520

EPFS GW PITS

CHKD:

CC

APPD:

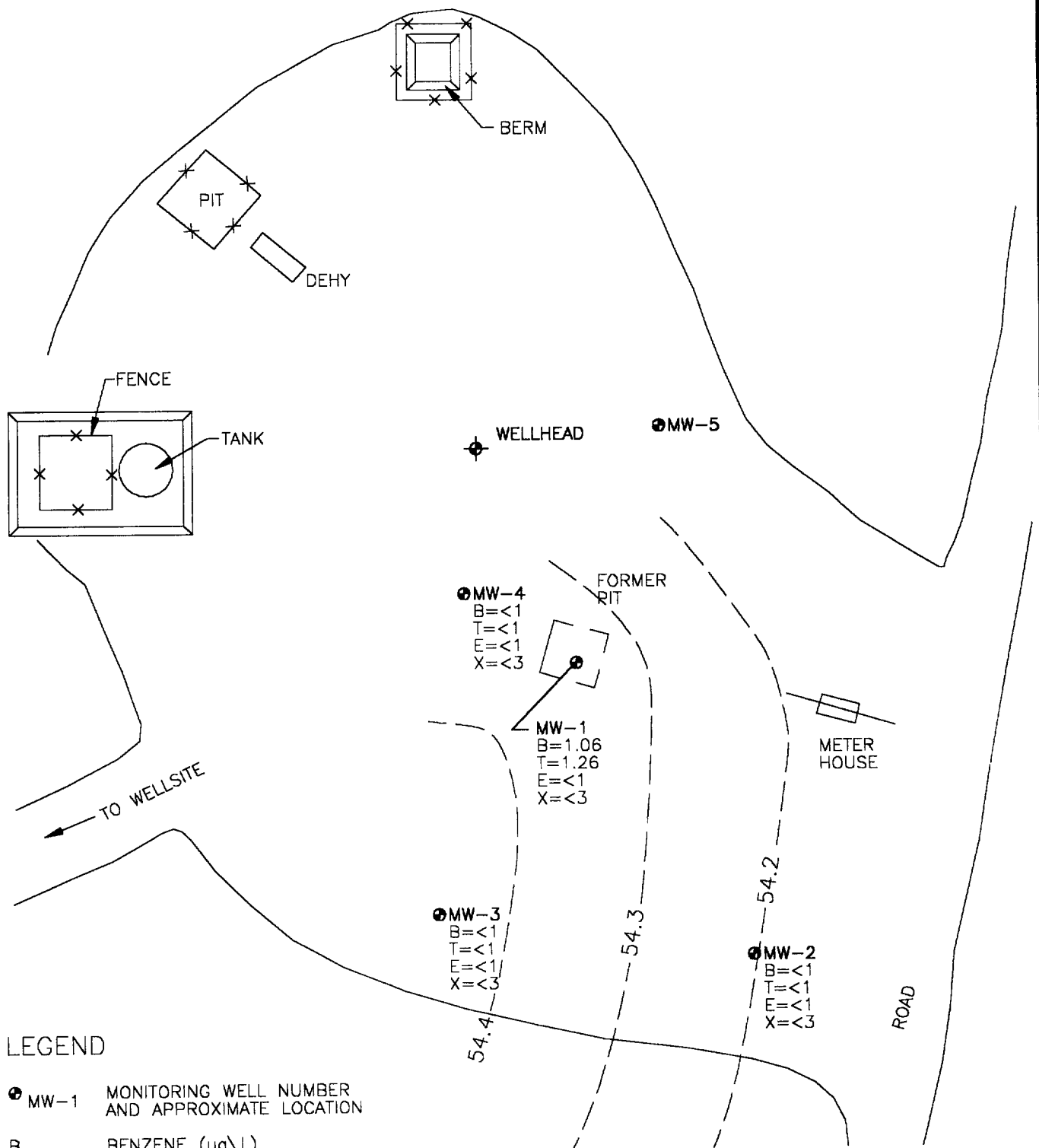
DATE:

03/20/00

REV.:

1

FIGURE 2



NOT TO SCALE



COL 17520AZ-003

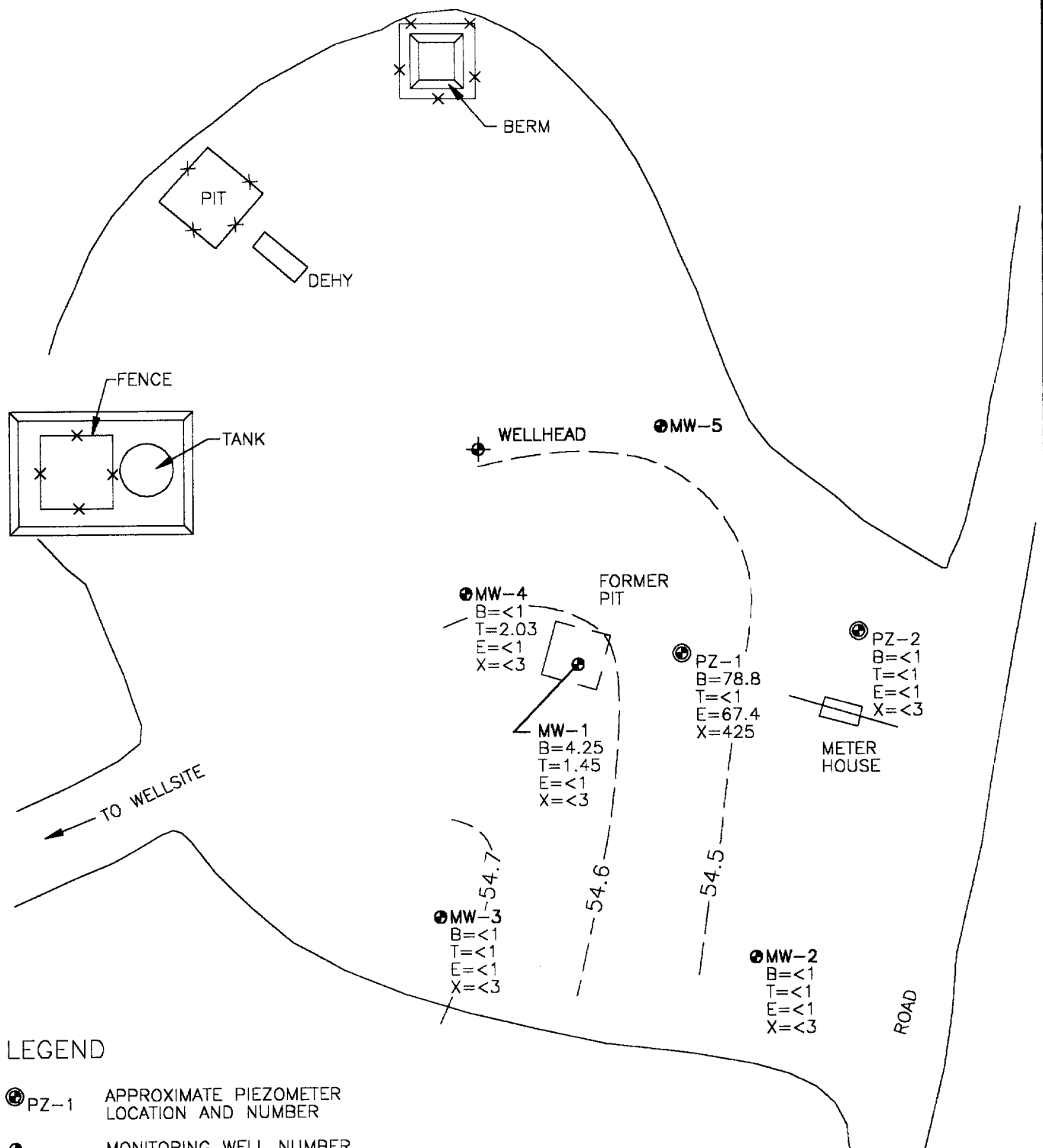


TITLE:
SHEETS #2
METER 70286
JULY 10, 1999

DWN: CJG	DES.: CC
CHKD: CC	APPD:
DATE: 03/20/00	REV.: 1

PROJECT NO.: 17520
EPFS GW PITS

FIGURE 3



LEGEND

- ② PZ-1 APPROXIMATE PIEZOMETER LOCATION AND NUMBER
- ① MW-1 MONITORING WELL NUMBER AND APPROXIMATE LOCATION

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



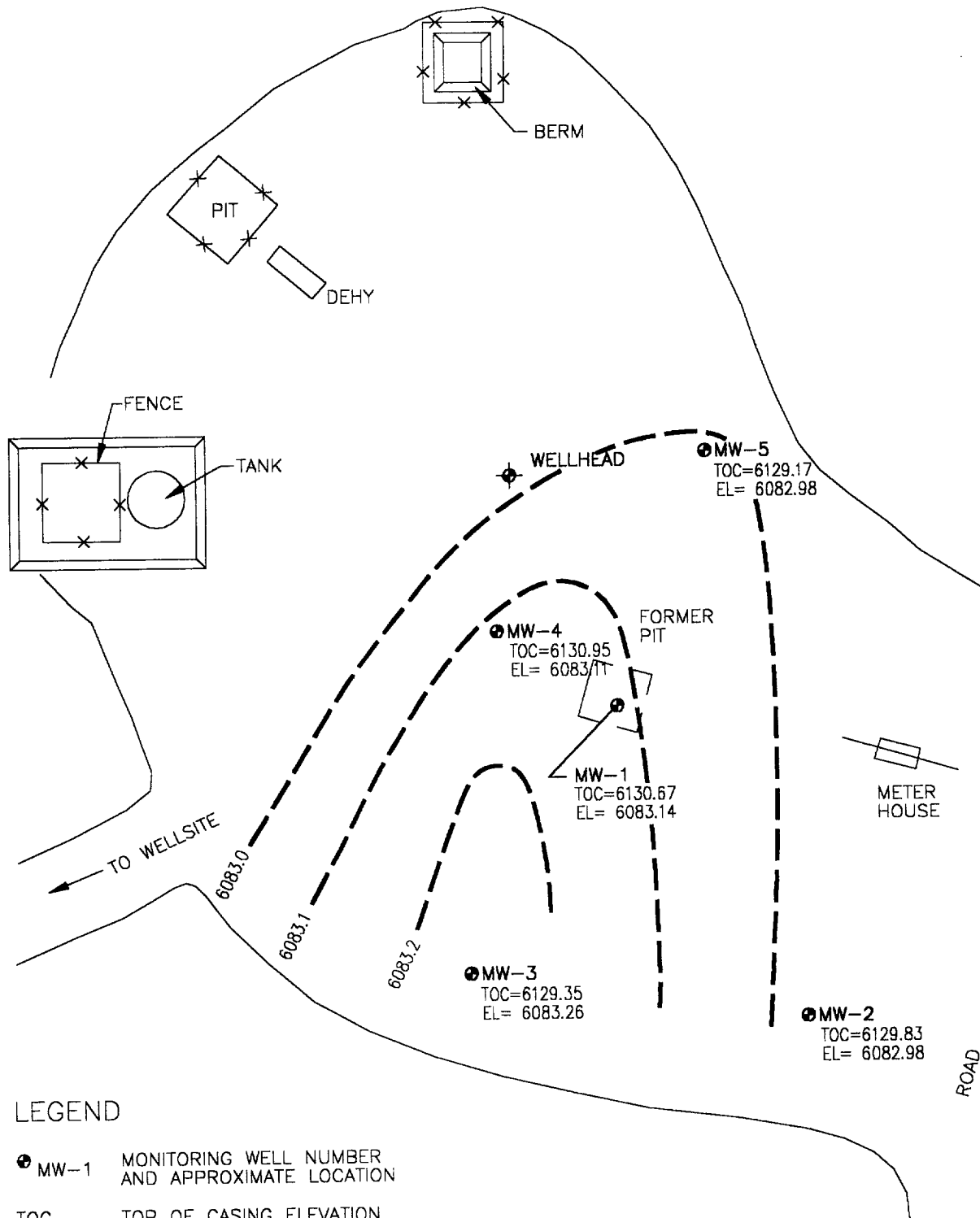
TITLE:
SHEETS #2
METER 70286
OCTOBER 23, 1999

DWN:
CJG
CHKD:
CC
DATE:
03/20/00

DES.:
CC
APPD:
REV.:
1

PROJECT NO.: 17520
EPFS GW PITS

FIGURE 4



LEGEND

- MW-1 MONITORING WELL NUMBER AND APPROXIMATE LOCATION
- TOC TOP OF CASING ELEVATION
- EL GROUNDWATER ELEVATION
- ➔ GROUNDWATER GRADIENT
- 25.0- GROUNDWATER POTENTIOMETRIC SURFACE

NOT TO SCALE



COL 17520AZ-006



TITLE:
SHEETS #2
METER 70286
DECEMBER 8, 1999

DWN:
CJG
CHKD:
CC
DATE:
02/10/00

DES.:
CC
APPD:
REV.:
1

PROJECT NO.: 17520
EPFS GW PITS

FIGURE 5

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
970032	70286	Sheets Well #2	01/29/97	4	Sample 4 - 4th 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
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
990426	70286	Sheets Well #2	10/20/99	5	Sample 4 - 1st Qtr	< 0.5	< 0.5	< 0.5	< 0.5	< 2

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 70-286 Location: Sheets Well No. 2
 Operator #: 0203 Operator Name: Amoco Production P/L District: Aztec
 Coordinates: Letter: H Section 28 Township: 31 Range: 9
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
 Site Assessment Date: 8/30/94 Area: 04 Run: 41

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD
Maps)

Inside

☒ (1)

Outside

☐ (2)

Land Type:

BLM ☐ (1)

State ☐ (2)

Fee ☒ (3)

Indian _____

Depth to Groundwater

Less Than 50 Feet (20 points) ☒ (1)

50 Ft to 99 Ft (10 points) ☐ (2)

Greater Than 100 Ft (0 points) ☐ (3)

Wellhead Protection Area :

Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☒ (1)

200 Ft to 1000 Ft (10 points) ☐ (2)

Greater Than 1000 Ft (0 points) ☐ (3)

Name of Surface Water Body Little Pump Canyon

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 40 POINTS

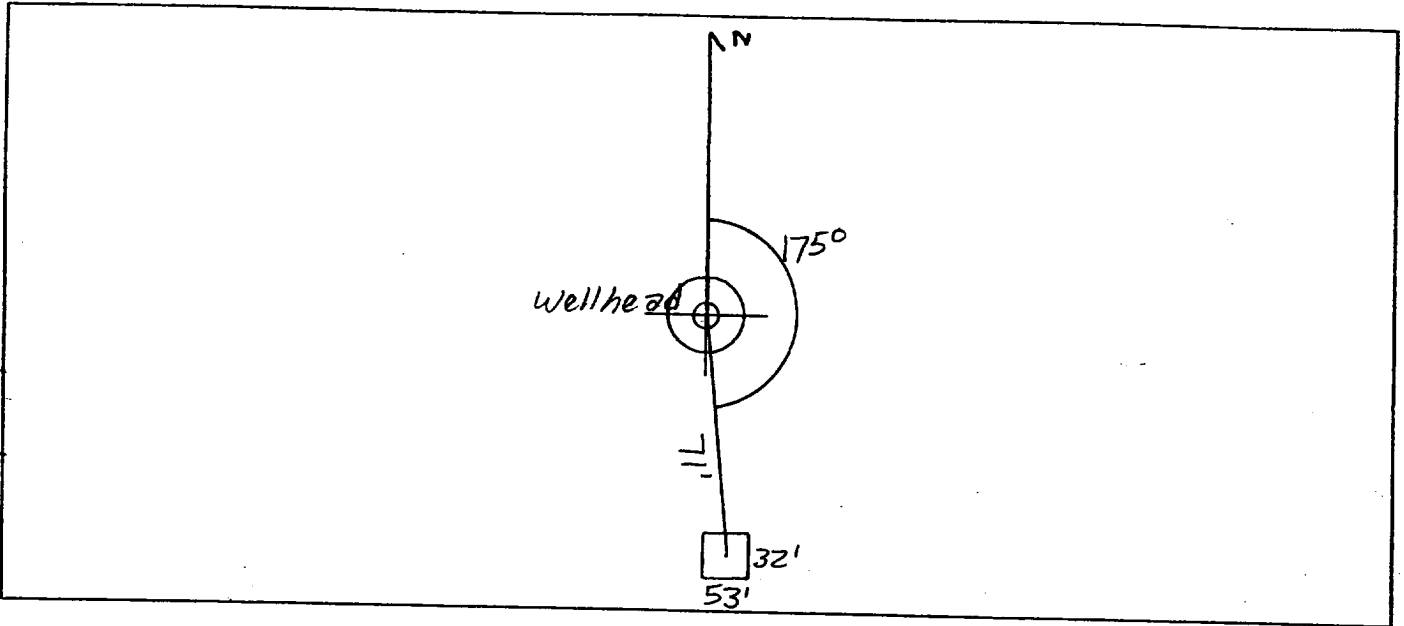
REMARKS

Remarks : Redline Book - Inside Vulnerable Zone - Inside
Four pits, location drip pit is dry. Will close one
pit.

DIG & HAUL

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 175° Footage from Wellhead 71'
 b) Length : 53' Width : 32' Depth : 5'



Remarks : SK 8/30/94
 Pictures @ 1521 (20-24, Roll 3)
 Dump Truck

Completed By:

Mark Kelly
 Signature

8/30/94
 Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>70286</u> Location: <u>Sheets Well #2</u></p> <p>Coordinates: Letter: <u>H</u> Section <u>28</u> Township: <u>31</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>9/15/94</u> Run: <u>04</u> <u>41</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>KD262</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>465</u> PID Reading Depth <u>12'</u> Feet</p> <p>Groundwater Encountered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> Approx. Cubic Yards <u>120</u></p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> <input checked="" type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>9-16-94</u> Pit Closed By: <u>BEI</u></p>
REMARKS	<p>Remarks : <u>Excavated pit to 12', TOOK piD Sample, Closed</u></p> <p><u>Pit.</u></p>
	<p>Signature of Specialist: <u>[Signature]</u></p>



SPLIT

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

KD 262

94615D

70286

N/A

9-16-94

0943

N/A

9-20-94

9-20-94

9-26-94

9-26-94

VC

Gay Clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS				ATI Results
			DF	Q	M(g)	V(ml)	
BENZENE	0.385	MG/KG	0.010204		1.96	20	0.62
TOLUENE	<0.05	MG/KG					< 0.25
ETHYL BENZENE	5.48	MG/KG					8.0
TOTAL XYLENES	66.0	MG/KG					79
TOTAL BTEX	71.9	MG/KG					87.9
TPH (418.1)	73.1	MG/KG			2.05	28	36.0
HEADSPACE PID	465	PPM					Surrogate % 96
PERCENT SOLIDS	77.3	%					Dilution Factor 10

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

Surrogate Recovery was at 101.9 for this samp All QA/QC was acceptable.

Narrative:

ATI Results attached

DF = Dilution Factor Used

Approved By:

Date:

10/27/04

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
 CLIENT : EL PASO NATURAL GAS ATI I.D.: 409389
 PROJECT # : 24324
 PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946130	NON-AQ	09/15/94	09/22/94	09/23/94	1
05	946150	NON-AQ	09/16/94	09/22/94	09/24/94	10
06	946151	NON-AQ	09/16/94	09/22/94	09/24/94	10

PARAMETER	UNITS	04	05	06
BENZENE	MG/KG	<0.025	0.62	<0.25
TOLUENE	MG/KG	0.032	<0.25	4.8
ETHYLBENZENE	MG/KG	<0.025	8.0	1.4
TOTAL XYLENES	MG/KG	<0.025	79	17

SURROGATE:

BROMOFLUOROBENZENE (%) 93 95 76



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 409389

September 29, 1994

El Paso Natural Gas Company
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 09/21/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



GENERAL CHEMISTRY RESULTS

CLIENT	: EL PASO NATURAL GAS	ATI I.D.	: 409389
PROJECT #	: 24324	DATE RECEIVED	: 09/21/94
PROJECT NAME	: PIT CLOSURE	DATE ANALYZED	: 09/26/94

PARAMETER	UNITS	05
PETROLEUM HYDROCARBONS, IR	MG/KG	360