

JUL 17 1998

*Approved*  
**Huerfano Unit No. 98**  
**Meter/Line ID - 14051**

**SITE DETAILS**

**Legals - Twn: 26 Rng: 9**  
**NMOCD Hazard Ranking: 20**  
**Operator: Meridian**

**Sec: 16 Unit: P**  
**Land Type: STATE**

**PREVIOUS ACTIVITIES**

**Site Assessment: 6/21/94**  
**Monitor Well: N/A**

**Excavation: 8/12/94**  
**Re-Excavation: N/A**

**Soil Boring: 8/18/95**  
**Geoprobe: N/A**

**CONCLUSIONS**

The initial test pit was excavated to the practical extent of the trackhoe, which was 12 feet below ground surface (bgs). PID field screening indicated subsurface soils to be 0 ppm at 12 feet bgs. Excavation was terminated and a sample was collected and analyzed for BTEX and TPH. Sample analysis indicated total BTEX to be below laboratory detection limits and TPH was above standards at 485 mg/kg. A test boring was drilled in the center of the initial excavation to determine the vertical extent of impact to soils. The soil lithology beneath the initial excavation consisted of brown coarse grained sand, which continued to the termination of the boring at 20 feet bgs. A sample was collected for BTEX and TPH analysis at 18-20 feet bgs. Laboratory analysis showed total BTEX to be below laboratory detection limits and TPH present at 34.9 mg/kg.

**RECOMMENDATIONS**

No further action is recommended at the site for the following reasons:

- Test boring sample results indicated soils below standards 6 feet beneath the initial excavation.
- No groundwater was encountered in the test boring.
- No potential receptors are within 1,000 feet of the site.
- Residual hydrocarbons remaining in the soils at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment.

**RECEIVED**  
**MAR - 9 1998**  
**OIL CON. DIV.**  
**DIST. 3**

# FIELD PIT SITE ASSESSMENT FORM

6

GENERAL	<p>Meter: <u>14051</u> Location: <u>Huerfano Unit No. 98</u>          Operator #: <u><del>14051</del> <sup>2999</sup></u> Operator Name: <u>Meridian</u> P/L District: <u>Ballard</u>          Coordinates: Letter: <u>P</u> Section <u>16</u> Township: <u>26</u> Range: <u>9W</u>          Or Latitude _____ Longitude _____          Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____          Site Assessment Date: <u>6-21-94</u> Area: <u>11</u> Run: <u>91</u></p>
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps) Inside <input checked="" type="checkbox"/> (1) Outside <input type="checkbox"/> (2)</p> <p>Land Type: <u>K6W 6-21-94</u> BLM <input checked="" type="checkbox"/> (1) State <input checked="" type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p>Depth to Groundwater          Less Than 50 Feet (20 points) <input type="checkbox"/> (1)          50 Ft to 99 Ft (10 points) <input checked="" type="checkbox"/> (2)          Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p>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? <input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body          Less Than 200 Ft (20 points) <input type="checkbox"/> (1)          200 Ft to 1000 Ft (10 points) <input checked="" type="checkbox"/> (2)          Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>Reed Canyon Wash</u>          (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)          Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) &lt; 100' (Navajo Pits Only)  <input type="checkbox"/> (2) &gt; 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>20</u> POINTS</p>
REMARKS	<p>Remarks : <u>One pit on location - Dry</u>  <u>Inside V.Z. on Redline &amp; Topo</u></p>

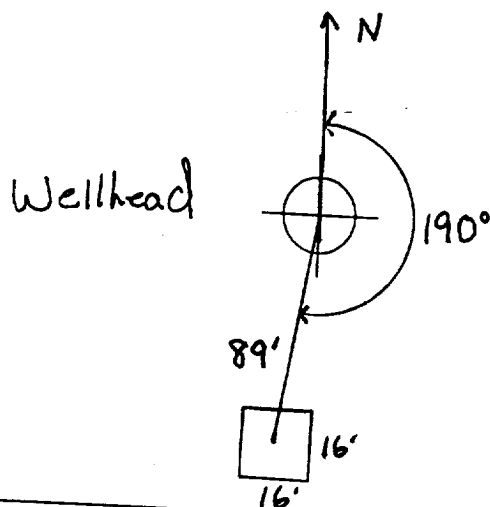
**RECEIVED**  
 MAR - 9 1998  
 OIL CON. DIV.  
 DIST. 3

Dia & Hau

## ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 190 Footage from Wellhead 89  
b) Length : 16 Width : 16 Depth : 3



## REMARKS

Remarks :

Photos - 1246

Bohtail

Completed By:

Signature

6-21-94

Date

# **PHASE I EXCAVATION**



# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>14051</u> Location: <u>Huerfano No 98</u> Coordinates: Letter: <u>P</u> Section <u>16</u> Township: <u>26</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Date Started : <u>8-12-94</u> Run: <u>11</u> <u>91</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>KP 184</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>000</u> PID Reading Depth <u>12'</u> Feet <div style="text-align: center;">Yes      No</div> Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>           Excavation <input type="checkbox"/>            Onsite Bioremediation <input type="checkbox"/>            Backfill Pit Without Excavation <input checked="" type="checkbox"/> </div> <div>           Approx. Cubic Yards <u>0</u>  <input type="checkbox"/>  <input checked="" type="checkbox"/> </div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>           Envirotech <input checked="" type="checkbox"/> <u>8/12/94</u>            Other Facility <input type="checkbox"/> </div> <div> <input type="checkbox"/> Tierra            Name: _____         </div> </div> Pit Closure Date: <u>8-12-94</u> Pit Closed By: <u>B.E.I</u>
<b>REMARKS</b>	Remarks : <u>Some Line markers. Pit looked clean</u> <u>dug A test hole 12' sample 000 closed pit.</u>
	Signature of Specialist: <u>Kelly Padilla</u>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 184	945918
MTR CODE   SITE NAME:	14051	N/A
SAMPLE DATE   TIME (Hrs):	8/12/94	1300
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8/16/94	8/16/94
DATE OF BTEX EXT.   ANAL.:	8/17/94	8/19/94
TYPE   DESCRIPTION:	VG	Brown coarse sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.025	MG/KG	1			
TOLUENE	<0.025	MG/KG	1			
ETHYL BENZENE	<0.025	MG/KG	1			
TOTAL XYLENES	<0.025	MG/KG	1			
TOTAL BTEX	<0.10	MG/KG				
TPH (418.1)	485	MG/KG			2.01	28
HEADSPACE PID	0	PPM				
PERCENT SOLIDS	97.6	%				

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

The Surrogate Recovery was at 99 % for this sample All QA/QC was acceptable.  
Narrative:

ATT results attached.

DF = Dilution Factor Used

Approved By:

J. J.

Date:

9/2/94

\*\*\*\*\*  
 \* Test Method for \*  
 \* Oil and Grease and Petroleum Hydrocarbons \*  
 \* in Water and Soil \*  
 \* Perkin-Elmer Model 1600 FT-IR \*  
 \* Analysis Report \*  
 \*\*\*\*\*

94/05/16 16:42

\* Sample identification

045916

\* Initial mass of sample, g

2.010

\* Volume of sample after extraction, ml

28.000

\* Petroleum hydrocarbons, ppm

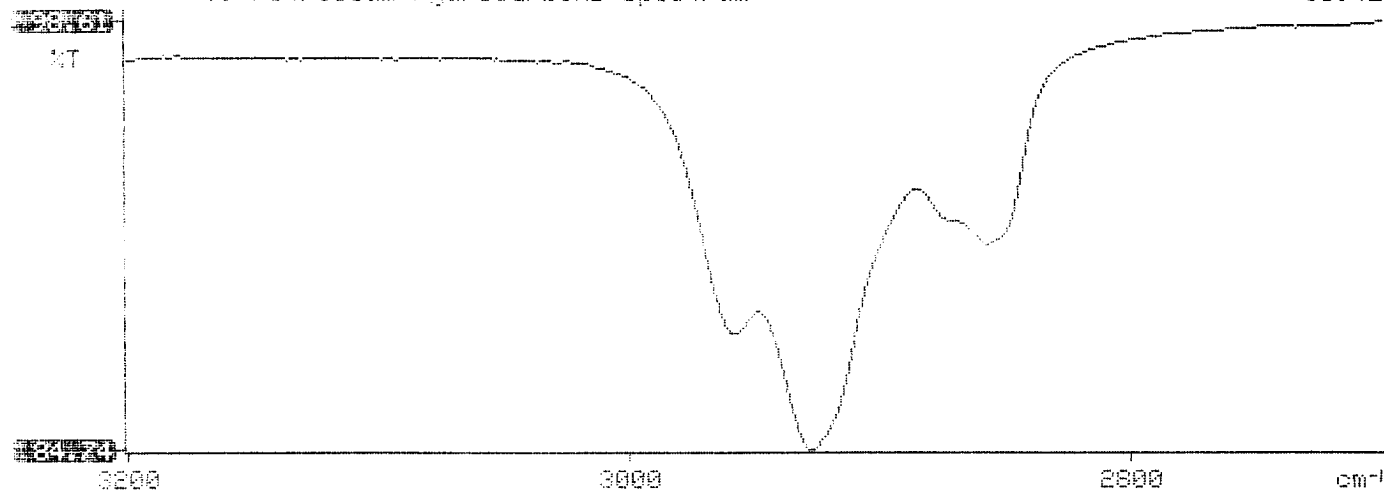
464.930

\* Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)

0.063

Y: Petroleum hydrocarbons spectrum

16:42







Analytical **Technologies**, Inc.

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

ATI I.D. 408364

August 24, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

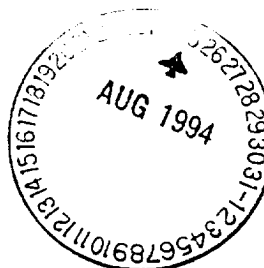
On 08/17/94, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

H. Mitchell Rubenstein, Ph.D.  
Laboratory Manager

MR:jt

Enclosure





Analytical Technologies, Inc.

## GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408364  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
16	945917	NON-AQ	08/12/94	08/17/94	08/23/94	1
17	945918	NON-AQ	08/12/94	08/17/94	08/19/94	1
18	945919	NON-AQ	08/12/94	08/17/94	08/19/94	1

PARAMETER	UNITS	16	17	18
BENZENE	MG/KG	<0.025	<0.025	<0.025
TOLUENE	MG/KG	<0.025	<0.025	0.062
ETHYLBENZENE	MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES	MG/KG	<0.025	<0.025	<0.025

### SURROGATE:

BROMOFLUOROBENZENE (%) 88 99 90

# PHASE II



# RECORD OF SUBSURFACE EXPLORATION

## PHILIP ENVIRONMENTAL

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

JWK28

Borehole # BH-1

Well #

Page 1 of 1

Project Name EPNG Pits

Project Number 14509 Phase 6000.77

Project Location Huerfano Unit No 98

14051

Well Logged By Jeff W. Kindley

Personnel On-Site G. Sudduth, D. Roberts, H. Kell

Contractors On-Site

Client Personnel On-Site

Elevation

Borehole Location T26, R9W, S16, P

GWL Depth

Logged By Jeff W. Kindley

Drilled By G. Sudduth

Date/Time Started 08/18/95 1112

Date/Time Completed 08/18/95 1145

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S	
0				Back Fill material to 12'						
5										
10										
15										
20	1	18-20'	1.3 2.0	SW, brown sand, coarse grained, moist, hard, very dense, no odor Boring terminated at 20'						2/0 1125 60 Blows per Foot.
25										
30										
35										
40										

Comments:

Sample interval 18' to 20'. Analysis is BTEX and TPH. BH  
grouted to the surface.

Geologist Signature

Jeff W. Kindley



## FIELD SERVICES LABORATORY

## ANALYTICAL REPORT

## PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

## SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JWK 28	94728+2 <sup>RB8/21/95</sup>
MTR CODE   SITE NAME:	14051	Huerfano Unit No. 98
SAMPLE DATE   TIME (Hrs):	08-18-95	<sup>RB8/21/95</sup> <del>10:50</del> 11:25
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	8/21/95	8-21-95
DATE OF BTEX EXT.   ANAL.:	8/23/95	8/23/95
TYPE   DESCRIPTION:	VG	Proctor Sand & clay

Field Remarks: \_\_\_\_\_

## RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< .5	MG/KG				
TOLUENE	< .5	MG/KG				
ETHYL BENZENE	< .5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	<sup>RB8/23/95</sup> <del>35</del> 34.9	MG/KG			2.04	28
HEADSPACE PID	<sup>RB8/21/95</sup> <del>10</del>	PPM				
PERCENT SOLIDS	95.1	%				

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

The Surrogate Recovery was at 106 % for this sample All QA/QC was acceptable.  
Narrative: \_\_\_\_\_

DF = Dilution Factor Used

Approved By: Date: 8/28/95

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*****
*                               *
*      Test Method for         *
*      Oil and Grease and Petroleum Hydrocarbons      *
*      in Water and Soil      *
*                               *
*      Perkin-Elmer Model 1600 FT-IR                  *
*      Analysis Report                               *
*                               *
*****

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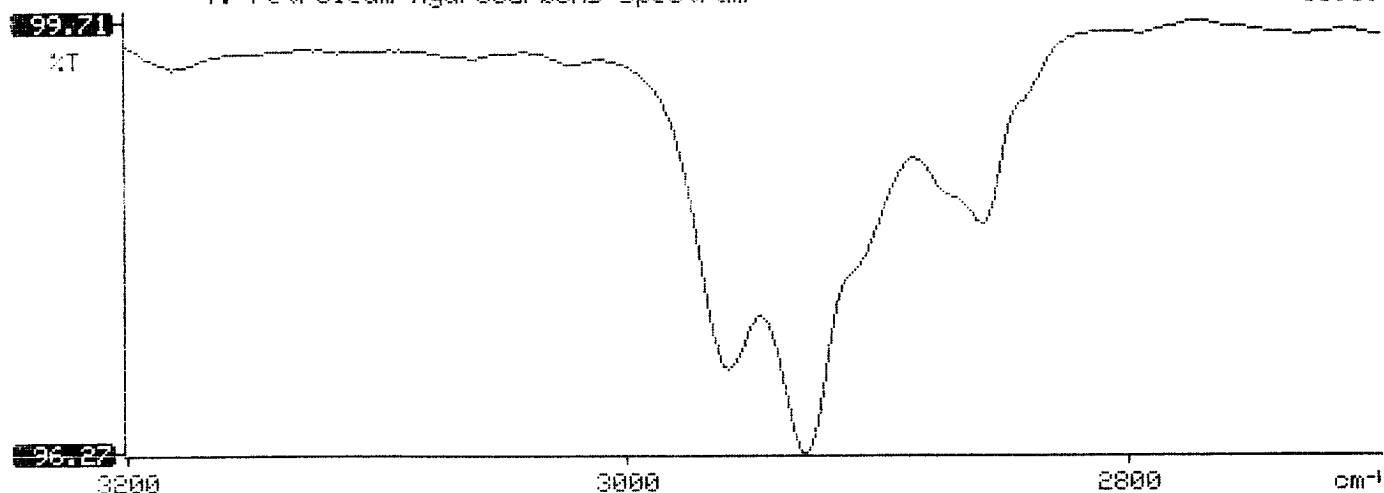
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* 95/08/21 15:59
*
* Sample identification
* 947282
*
* Initial mass of sample, g
* 2.040
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 34.893
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.015
*
*
*

```

Y: Petroleum hydrocarbons spectrum

15:59



# BTEX SOIL SAMPLE WORKSHEET

File	:	947282	Date Printed	:	8/26/95
Soil Mass (g)	:	5.02	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	20	DF (Analytical)	:	200
Shot Volume (uL)	:	100	DF (Report)	:	0.19920

				Det. Limit
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 0.498
Toluene (ug/L)	:	0.00	Toluene (mg/Kg):	0.000 0.498
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 0.498
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000 0.996
o-xylene (ug/L)	:	0.00	o-xylene (mg/Kg):	0.000 0.498
			Total xylenes (mg/Kg):	0.000 1.494
			Total BTEX (mg/Kg):	0.000



# EL PASO NATURAL GAS

## EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\082395-1.019  
 Method : C:\LABQUEST\METHODS\9001.MET  
 Sample ID : 947282,5.02G,100U  
 Acquired : Aug 24, 1995 03:16:10  
 Printed : Aug 24, 1995 03:42:23  
 User : MARLON

### Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.440	0	0.0000
a,a,a TFT	4.917	4723521	90.8200
TOLUENE	6.747	63593	-0.5716
ETHYLBENZENE	10.513	0	0.0000
M & P XYLENE	10.857	0	0.0000
O XYLENE	11.957	0	0.0000
BFB	13.387	76093040	105.6353

C:\LABQUEST\CHROM001\082395-1.019 - Channel A

