

*Derry* **EPES & ASSOCIATES**  
**DEPUTY OIL & GAS INSPECTOR**

JUL 17 1998

Hammond No. 5  
Meter/Line ID - 70084

*Approved*

**SITE DETAILS**

Legals - Twp: 27, Rng: 8  
NMOCD Hazard Ranking: 40  
Operator: Western Oil and Minerals

Sec: 25 Unit: G  
Land Type: BLM

**PREVIOUS ACTIVITIES**

Site Assessment: 5/19/94	Excavation: 6/3/94	Soil Boring: 9/21/95
Monitor Well: N/A	Re-Excavation: N/A -	Geoprobe: N/A

**CONCLUSIONS**

The initial excavation 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 428 ppm at 12 feet bgs. Excavation was terminated and a sample was collected. Sample analysis indicated total BTEX to be below standards at 37 mg/kg, and TPH was above standards at 834 mg/kg. A test boring was drilled in the center of the initial excavation to determine the vertical extent of impact to soil. A gray sand clay was encountered at 12 feet bgs and continued to approximately 17 feet bgs. At 20 feet bgs a light brown fine grained sand was encountered and continued to the termination of the boring at 26 feet bgs. A soil sample was collected for BTEX and TPH analysis at 25-26 feet bgs. Laboratory analysis showed all BTEX compounds to be below detection limits and TPH present at 15.6 mg/kg.

**RECOMMENDATIONS**

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

- The bulk of the impacted soil was removed during the phase 1 excavation.
- Test boring sample results indicated soils below standards 13 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.

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MAR - 9 1998  
**OIL CON. DIV.**  
PAGE 2

## FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: <u>70084</u> Location: <u>HAMMOND NO 5</u> Operator #: <u>9615</u> Operator Name: <u>Western Oil &amp; Minerals</u> P/L District: <u>Blanco</u> Coordinates: Letter: <u>G</u> Section <u>25</u> Township: <u>27</u> Range: <u>8</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: <input checked="" type="checkbox"/> Line Drip: _____ Other: _____ Site Assessment Date: <u>5/19/94</u> Area: <u>03</u> Run: <u>72</u>
SITE ASSESSMENT	<div> <div>NMOCD Zone: (From NMOCD Maps)</div> <div>           Inside <input checked="" type="checkbox"/> (1)            Outside <input type="checkbox"/> (2)         </div> <div>           Land Type: BLM <input checked="" type="checkbox"/> (1)            State <input type="checkbox"/> (2)            Fee <input type="checkbox"/> (3)            Indian _____         </div> </div> <p><b>Depth to Groundwater</b></p> <p>Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1)</p> <p>50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b></p> <p>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><b>Horizontal Distance to Surface Water Body</b></p> <p>Less Than 200 Ft (20 points) <input checked="" type="checkbox"/> (1)</p> <p>200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>Cuerpo Canyon</u></p> <p>(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) &lt; 100' (Navajo Pits Only)  <input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>40</u> <b>POINTS</b></p>
REMARKS	Remarks : <u>Redline-Inside, Vuln-Inside</u> <u>Pit Will Close. Pit Dry</u> <u>Confluence of Cuerpo &amp; Largo Canyons</u> <u>DIG-HAUL</u>

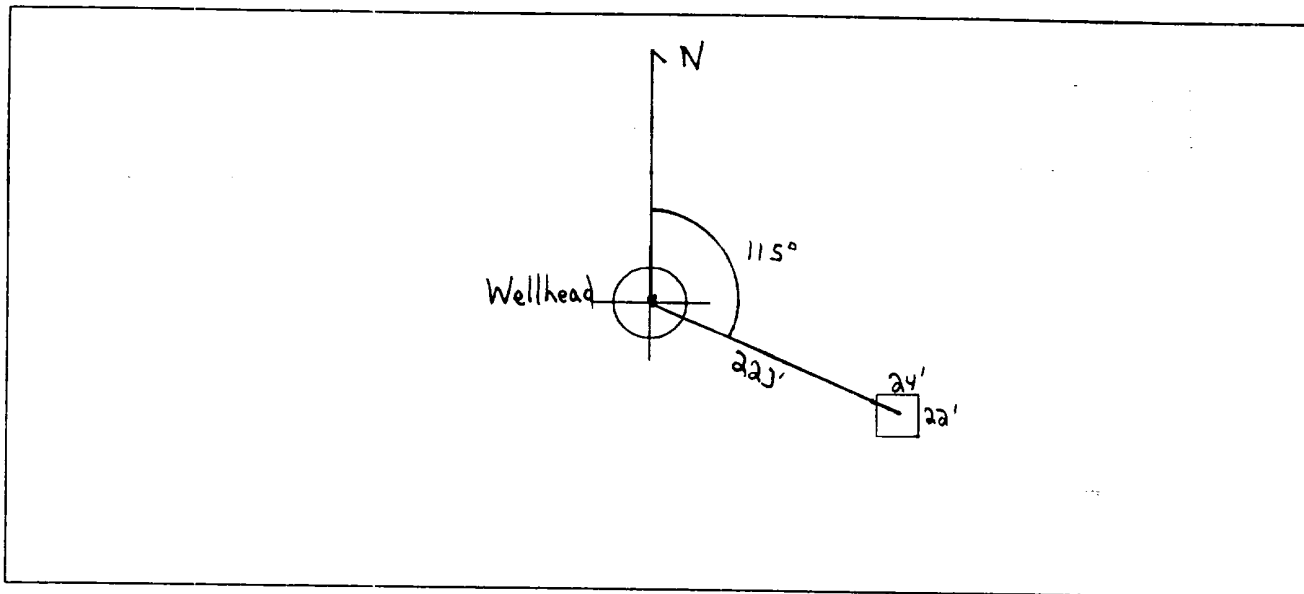
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MAR - 9 1998

OIL CON. DIV.  
DIST. 3

### ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 115° Footage from Wellhead 223'  
 b) Length : 22'24' Width : 22' Depth : 3'  
CMC 5/19/94

ORIGINAL PIT LOCATION



### REMARKS :

Pictures @ 1338 (5-9)  
Dump Truck  
(Sign barely legible)

REMARKS

Completed By:

Cory Chase  
 Signature

5/19/94  
 Date

# **PHASE I EXCAVATION**

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# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>70084</u> Location: <u>Hammond #5</u></p> <p>Coordinates: Letter: <u>G</u> Section <u>25</u> Township: <u>27</u> Range: <u>8</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>6-3-94</u> Area: <u>03</u> Run: <u>72</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>KD 100</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>428 ppm</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes      No</p> <p>Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> (1) Approx. Cubic Yards <u>80</u></p> <p>Onsite Bioremediation <input type="checkbox"/> (2)</p> <p>Backfill Pit Without Excavation <input type="checkbox"/> (3)</p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (3) Tierra</p> <p>Other Facility <input type="checkbox"/> (2) Name: _____</p> <p>Pit Closure Date: <u>6-3-94</u> Pit Closed By: <u>BEI</u></p>
<b>REMARKS</b>	<p>Remarks : <u>Excavated pit to 12', took PID sample, closed pit.</u></p> <p>_____</p> <p>_____</p>
	<p>Signature of Specialist: <u>Kenny Danner</u></p>



## FIELD SERVICES LABORATORY

## ANALYTICAL REPORT

## PIT CLOSURE PROJECT - Soil

## SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD100	945353
MTR CODE   SITE NAME:	70084	N/A
SAMPLE DATE   TIME (Hrs):	6-2-94	1320
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	6-6-94	6/6/94
DATE OF BTEX EXT.   ANAL.:	6/9/94	6/10/94
TYPE   DESCRIPTION:	VC	Brown/grey sand & clay

REMARKS:

## RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	40.50	MG/KG	20			
TOLUENE	40.50	MG/KG	20			
ETHYL BENZENE	2.5	MG/KG	20			
TOTAL XYLENES	33	MG/KG	20			
TOTAL BTEX	37	MG/KG				
TPH (418.1)	<del>830</del> 834	<del>MG/KG</del> <sup>AWD 7/10/94</sup> MG/KG			2.05	28
HEADSPACE PID	428	PPM				
PERCENT SOLIDS	92.0	%				

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

The Surrogate Recovery was at

188

% for this sample All QA/QC was acceptable.

Narrative:

ATI results attached. Surrogate recovery was outside  
ATI QC limits due to matrix interference.

DF = Dilution Factor Used

Approved By:

Date:

7/14/94

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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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94/06/06 14:34

Sample identification  
945357

Initial mass of sample, g  
2.050

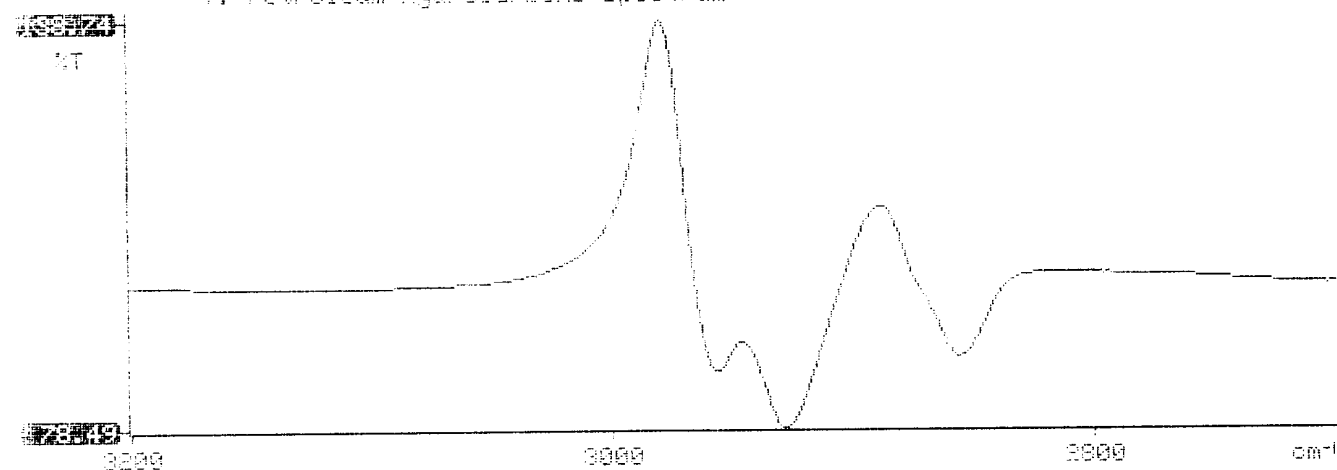
Volume of sample after extraction, ml  
22.000

Petroleum hydrocarbons, ppm  
613.633

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.105

Y: Petroleum hydrocarbons spectrum

14:35





Analytical **Technologies, Inc.**

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

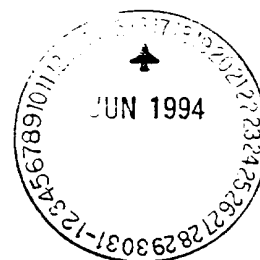
ATI I.D. **406331**

June 15, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin



On **06/08/94**, 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:jd

Enclosure





## GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 406331  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
10	945352	NON-AQ	06/03/94	06/09/94	06/10/94	25
11	945353	NON-AQ	06/03/94	06/09/94	06/10/94	20
12	945359	NON-AQ	06/06/94	06/09/94	06/11/94	1

PARAMETER	UNITS	10	11	12
BENZENE	MG/KG	<0.62	<0.50	<0.025
TOLUENE	MG/KG	<0.62	<0.50	<0.025
ETHYLBENZENE	MG/KG	2.5	2.5	<0.025
TOTAL XYLENES	MG/KG	32	33	0.066

## SURROGATE:

BROMOFLUOROBENZENE (%) 193\* 188\* 99

\*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

# PHASE II

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# RECORD OF SUBSURFACE EXPLORATION

## PHILIP ENVIRONMENTAL

4000 Monroe Road

Farmington, New Mexico 87401

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

Borehole # BH-1

Well #

Page 1 of 1

Project Name

EPNG PITS

Project Number

14509

Phase

6000.77

Project Location

Hammond No. 5 70084

Well Logged By

CM Chance

Personnel On-Site

E. Rivera, D. Charlie

Contractors On-Site

Client Personnel On-Site

Drilling Method

4 1/4 I.D. HSA

Air Monitoring Method

PID, CGI

Elevation

Borehole Location QG-S25-T27-R8

GWL Depth

Logged By

CM Chance

Drilled By

K Padilla

Date/Time Started

9/21/95-1450

Date/Time Completed

9/21/95-1600

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: <u>BPM</u> BZ BH HS			Drilling Conditions & Blow Counts
0				Backfill rd 12'						
5										
10										
15	1	15-17	14"	DK Gry sandy CLAY, vF sand, v. stiff, nonplastic, dry		0	8	110 659		-1458 hr
20	2	20-21	6"	lt br SAND, vF-F sand, med dense, dry		0	12	304 542		-1505 -Hard dring.
25	3	25-26	4"	AA		3		6 0		-1515
30				TDB 26'						
35										
40										

Comments:

CMC 119 (25-26') sent to lab (BTEX, TPH). BH grouted to surface.  
Sample bagged & iced prior to containerizing

Geologist Signature

Corey Chance



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC119	947515
MTR CODE   SITE NAME:	70024	Hammond No. 5
SAMPLE DATE   TIME (Hrs):	09-21-95	1515
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	9-22-95	
DATE OF BTEX EXT. ANAL.:	9/22/95	9/25/95
TYPE   DESCRIPTION:	VG	Light brown sand & sand stone

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG				
TOLUENE	< 0.5	MG/KG				
ETHYL BENZENE	< 0.5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	15.6	MG/KG			2.0	28
HEADSPACE PID	0	PPM				
PERCENT SOLIDS	73.8	%				

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

The Surrogate Recovery was at  
Narrative:

98%

for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Approved By:

*J.P.*

Date:

9-29-95

\*\*\*\*\*  
 Test Method for  
 Oil and Grease and Petroleum Hydrocarbons  
 in Water and Soil  
 \*\*\*\*\*

Perkin-Elmer Model 1600 FT-IR  
 Analysis Report  
 \*\*\*\*\*

95/07/22 14:45

\* Sample identification  
 947515

\* Initial mass of sample, g  
 2.000

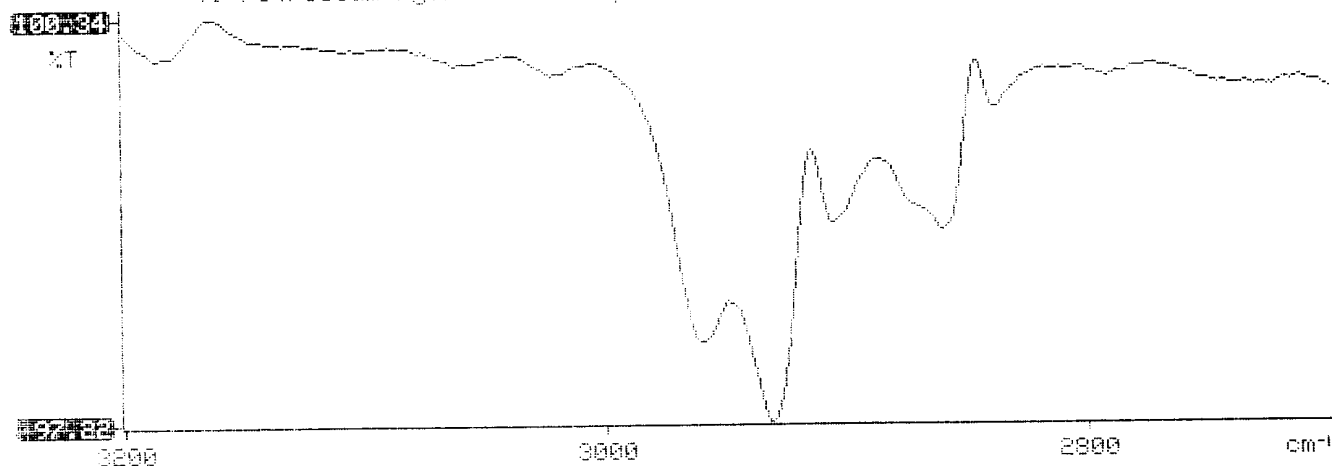
\* Volume of sample after extraction, ml  
 28.000

\* Petroleum hydrocarbons, ppm  
 15.601

\* Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
 0.012

Y: Petroleum hydrocarbons spectrum

14:45



## BTEX SOIL SAMPLE WORKSHEET

File	:	947515	Date Printed	:	9/26/95
Soil Mass (g)	:	4.95	Multiplier (L/g)	:	0.00101
Extraction vol. (mL)	:	10	DF (Analytical)	:	200
Shot Volume (uL)	:	50	DF (Report)	:	0.20202

				Det. Limit	
Benzene (ug/L)	:	0.15	Benzene (mg/Kg):	0.030	0.505
Toluene (ug/L)	:	0.17	Toluene (mg/Kg):	0.034	0.505
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000	0.505
p & m-xylene (ug/L)	:	0.58	p & m-xylene (mg/Kg):	0.117	1.010
o-xylene (ug/L)	:	0.15	o-xylene (mg/Kg):	0.030	0.505
			Total xylenes (mg/Kg):	0.147	1.515
			Total BTEX (mg/Kg):	0.212	

# EL PASO NATURAL GAS

## EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM000\092595-0.006  
 Method : C:\LABQUEST\METHODS\9000.MET  
 Sample ID : 947515,4.95G,50U  
 Acquired : Sep 25, 1995 14:44:57  
 Printed : Sep 25, 1995 15:15:21  
 User : MARLON

### Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.170	56840	0.1519
a,a,a-TFT	10.503	8945623	102.2523
TOLUENE	12.917	61911	0.1701
ETHYLBENZENE	17.170	0	0.0000
M,P-XYLENES	17.613	230731	0.5751
O-XYLENE	18.780	50065	0.1529
BFB	19.860	53414960	97.9945

