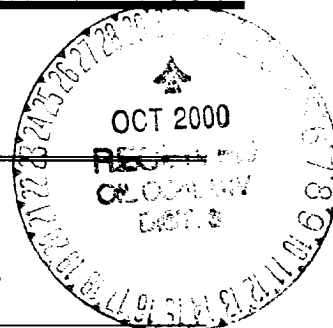


# EL PASO FIELD SERVICES PRODUCTION PIT CLOSURE

Risk - bedrock

Canyon Largo Unit No. 141  
Meter/Line ID - 75731



## SITE DETAILS

Legals - Twn: 25N  
NMOCD Hazard Ranking: 20  
Operator: Meridian

Rng: 6W

Sec: 24 Unit: A  
Land Type: BLM  
Pit Closure Date: 10/27/94

## RATIONALE FOR CLOSURE

The pit noted above was assessed and ranked according to the criteria in the New Mexico Oil Conservation Division's (NMOCD) Unlined Surface Impoundment Closure Guidelines.

A test pit was excavated to 12 feet and a soil sample was collected for field headspace analysis and laboratory analysis for benzene, total BTEX, and TPH. Groundwater was not encountered in the test pit. 50 cubic yards was hauled to a commercial landfarm for treatment. The pit was backfilled and graded in a manner to direct surface runoff away from the pit area. Headspace analysis indicated an organic vapor content of 340 ppm; laboratory analysis indicated a benzene concentration of <1.3 mg/kg, total BTEX concentration of 166 mg/kg, and a TPH concentration of 6670 mg/kg. TPH and BTEX concentrations were above required remediation levels for the Hazard Ranking Score.

A Phase II boring was completed with refusal at 14 feet beneath ground surface and a headspace PID reading of 861 ppm. No laboratory samples were collected.

The Phase III excavation was conducted on November 29, 1995, to 17 feet below ground surface, where bedrock was encountered, and a soil sample was collected for field headspace analysis and laboratory analysis for benzene, total BTEX, and TPH. An additional 198 cubic yards of soil was hauled to a commercial landfarm for treatment. Groundwater was not encountered in the test pit. The pit was backfilled and graded in a manner to direct surface runoff away from the pit area. Headspace analysis indicated an organic vapor content of 234 ppm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, total BTEX concentration of 88.7 mg/kg, and a TPH concentration of 3830 mg/kg. This site was re-assessed on August 28, 2000 because the initial assessment incorrectly identified a wash as a surface water body.

El Paso Field Services Company (EPFS) requests closure of the above mentioned production pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for almost six years.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- Groundwater was not encountered in the test excavation.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.
- Excavated material has been removed from the pit, eliminating potential direct contact with livestock or the public.

## **EL PASO FIELD SERVICES PRODUCTION PIT CLOSURE**

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- Residual hydrocarbons in the soil will degrade by natural attenuation with minimal risk to the environment.
- Bedrock was encountered in the test excavation at 17 feet below ground surface, making vertical contamination migration unlikely and further remediation impractical.
- The pit was excavated to the practical extent of the equipment, according to EPNG's pit closure plan.

### **ATTACHMENT**

Field Pit Assessment Form

Field Pit Remediation/Closure Form Phase III

Revised Field Pit Assessment Form

Field Pit Remediation/Closure Form

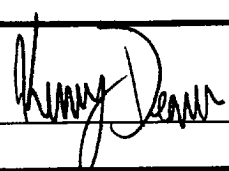
Laboratory Analytical Results

9/12/94 CMC

## FIELD PIT SITE ASSESSMENT FORM

GENERAL		
	Meter: <u>7573</u> Location: <u>Canyon Largo Unit No 141</u> Operator #: <u>2999</u> Operator Name: <u>Meridian</u> P/L District: <u>Ojito</u> Coordinates: Letter: <u>A</u> Section <u>24</u> Township: <u>25</u> Range: <u>6W</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____ Site Assessment Date: <u>7-19-94</u> Area: <u>06</u> Run: <u>62</u>	
SITE ASSESSMENT	<b>NMOCD Zone:</b> (From NMOCD Maps) Inside <input checked="" type="checkbox"/> (1) Outside <input type="checkbox"/> (2)	<b>Land Type:</b> BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____
	<b>Depth to Groundwater</b> Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)	<b>Wellhead Protection Area :</b> 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)
	<b>Horizontal Distance to Surface Water Body</b> Less Than 200 Ft (20 points) <input checked="" type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3) Name of Surface Water Body <u>Gonzales Canyon</u> (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds) Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100' <b>TOTAL HAZARD RANKING SCORE: <u>40</u> POINTS</b>	
REMARKS	Remarks : <u>Redline V-Z. - Inside</u> <u>Topo V-Z. - Inside</u> <u>One pit - dry</u> <u>DIG + HAUL</u>	

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>75731</u> <sup>KD</sup> <sub>10/27/94</sub> <del>72674</del> Location: <u>Canyon Largo unit #141</u></p> <p>Coordinates: Letter: <u>A</u> Section <u>24</u> Township: <u>25</u> Range: <u>6W</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>10/27/94</u> Run: <u>06</u> <u>62</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>KD 355</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>340 ppm</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes      No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> Approx. Cubic Yards <u>50</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 checked="" type="checkbox"/> <input type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>10/27/94</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></u></p>



CHAIN OF CUSTODY RECORD

Page \_\_\_\_\_ of \_\_\_\_\_

PROJECT NUMBER		PROJECT NAME		PROJECT ANALYSIS		REQUESTED ANALYSIS		CONTRACT LABORATORY P. O. NUMBER	
SAMPLERS: (Signature)		DATE		DATE		DATE		DATE	
LABID	DATE	TIME	MATRIX	SAMPLE NUMBER	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	TPH EPA 418.1	BTEX EPA 8020	REMARKS
64160	10/27/94	0930	Soil	KD 354	1	VC	X	X	320
64161	10/27/94	1330	Soil	KD 355	1	VC	X	X	321
64162	10/27/94	1415	Soil	KD 356	1	VC	X	X	322
[The following rows are crossed out with a large diagonal line.]									
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)	
[Signature]		10/27/94 1700		[Signature]		10/27/94 1700		[Signature]	
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)	
[Signature]				[Signature]				[Signature]	
REQUESTED TURNAROUND TIME: <input type="checkbox"/> ROUTINE <input type="checkbox"/> RUSH				RESULTS & INVOICES TO:					
CARRIER CO.				FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499					
BILL NO.:				505-599-2144 FAX: 505-599-2261					

# Natural Gas Company

## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

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

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 355	946461
MTR CODE   SITE NAME:	75731	N/A
SAMPLE DATE   TIME (Hrs):	10-27-94	1330
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	10-28-94	10-28-94
DATE OF BTEX EXT.   ANAL.:	11-1-94	11-3-94
TYPE   DESCRIPTION:	VC	Dark Brown sand + clay

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 1.3 <del>2.0</del> 1.3	MG/KG	50			
TOLUENE	< 1.3	MG/KG	50			
ETHYL BENZENE	13	MG/KG	50			
TOTAL XYLENES	150	MG/KG	50			
TOTAL BTEX	166	MG/KG				
TPH (418.1)	6670	MG/KG			73	28
HEADSPACE PID	340	PPM				
PERCENT SOLIDS	89.3	%				

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

Ti Surrogate Recovery was at

160

% for this sample All QA/QC was acceptable.

Narrative:

ATI Results attached. Surrogate Recovery is outside ATI QC limits  
Due to matrix interference.

DF = Dilution Factor Used

M.P.

Date:

11/17/94



Analytical Technologies, Inc.

## GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 411303  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
13	946460	NON-AQ	10/27/94	11/01/94	11/02/94	20
14	946461	NON-AQ	10/27/94	11/01/94	11/03/94	50
15	946462	NON-AQ	10/27/94	11/01/94	11/02/94	20
PARAMETER			UNITS	13	14	15
ENZENE			MG/KG	<0.5	<1.3	<0.5
TOLUENE			MG/KG	<0.5	<1.3	19
ETHYLBENZENE			MG/KG	4.4	13	5.3
TOTAL XYLENES			MG/KG	71	150	77

SURROGATE:

BROMOFLUOROBENZENE (%)

106 160\* 61\*

\*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE



Analytical **Technologies, Inc.**

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

ATI I.D. **411303**

November 10, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 11/01/94, 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.

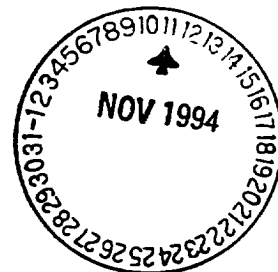
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.  
Project Manager

H. Mitchell Rubenstein, Ph.D.  
Laboratory Manager

MR:jt

Enclosure





# 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 Canyon Largo Unit #14/ 7573/

Elevation \_\_\_\_\_

Borehole Location \_\_\_\_\_

GWL Depth \_\_\_\_\_

Logged By CM CHANCE

Drilled By M. DONOHUE E. Padilla

Date/Time Started 6/5/95 - 1000

Date/Time Completed 6/5/95 - 1040

Well Logged By CM Chance

Personnel On-Site K. Padilla, E. Rivera

Contractors On-Site \_\_\_\_\_

Client Personnel On-Site \_\_\_\_\_

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			Drilling Conditions & Blow Counts
							Units: PPM			
							BZ	BH	HS	
0				Backfill to 12'						
5										
10										
15	1 +	13.5-14 13.5-14	2"	DK Gray silty SAND, VF-F sand, hard, sl moist, odor			0	100	600 861	Refusal @ 13.5 Insufficient sample Volume for lab
20				TDB 14'						
25										
30										
35										
40										

Comments:

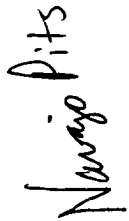
13.5-14' split spoon had strong odor & high PID reading. No sample submitted to lab. Ground BH to surface.

Geologist Signature \_\_\_\_\_

# FIELD PIT REMEDIATION/CLOSURE FORM/PHASE II

Phase III

<b>GENERAL</b>	Meter: <u>75731</u> Location: <u>Canyon Largo unit No. 141</u> Coordinates: Letter: <u>A</u> Section: <u>29</u> Township: <u>25</u> Range: <u>66</u> Or Latitude _____ Longitude _____ Date Started: <u>11/29/95</u> Area: <u>06</u> Run: <u>62</u>
<b>OBSERVATIONS</b>	Sample Number(s): <u>JK149</u> Sample Depth: <u>17'</u> Feet Final PID Reading: <u>234.0</u> PID Reading Depth: <u>17'</u> Feet Yes No Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth: _____ Feet Final Dimensions: Length <u>21'</u> Width <u>15'</u> Depth <u>17'</u>
<b>CLOSURE</b>	Remediation Method: Excavation <input checked="" type="checkbox"/> (1) Approx. Cubic Yards <u>198</u> <sup>11/1/95</sup> Onsite Bioremediation <input type="checkbox"/> (2) Backfill Pit Without Excavation <input type="checkbox"/> (3) Overburden Cubic Yards <u>40 yds</u> Soil Disposition: Envirotech <input checked="" type="checkbox"/> (1) <input type="checkbox"/> (3) Tierra Other Facility <input type="checkbox"/> (2) Name: _____ Pit Closure Date: <u>11/29/95</u> Pit Closed By: <u>Philip</u>
<b>REMARKS</b>	Remarks: <u>Pit PID readings (N-50.4)(S-89.0)(E-99.0)(W-2.1)</u> <u>More Than 100' From Elhemrat Stream</u> <u>no fence ERUG Alton James on site</u> <u>Hit Rock At 17'</u>
Signature of Specialist: <u>James K. Kink</u>	

Page 7 of 7White - Testing Laboratory      Canary - EPNG Lab      Pink - Field Sampler



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JK 149	947814
MTR CODE   SITE NAME:	75731	Canyon Largo Unit #141
SAMPLE DATE   TIME (Hrs):	11-29-95	1315
PROJECT:	Phase I Navajo	
DATE OF TPH EXT.   ANAL:	12/1/95	12/1/95
DATE OF BTEX EXT.   ANAL:	12/1/95	12/1/95
TYPE   DESCRIPTION:	V6	Dark/Brown Sand & Clay

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG				
TOLUENE	2.2 <del>2.7</del> <sup>mh</sup>	MG/KG				
ETHYL BENZENE	15.3	MG/KG				
TOTAL XYLENES	71.2	MG/KG	2	D		
TOTAL BTEX	88.7	MG/KG				
TPH (418.1)	3830	MG/KG			2.03	28
HEADSPACE PID	234.0	PPM				
PERCENT SOLIDS	90.0	%				

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

The Surrogate Recovery was at  
Narrative:

98% / 104% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Approved By:

Date:

12/4/95

## BTEX SOIL SAMPLE WORKSHEET

<b>File</b>	<b>:</b>	<b>947814</b>	<b>Date Printed</b>	<b>:</b>	<b>12/2/95</b>
<b>Soil Mass (g)</b>	<b>:</b>	<b>4.97</b>	<b>Multiplier (L/g)</b>	<b>:</b>	<b>0.00101</b>
<b>Extraction vol. (mL)</b>	<b>:</b>	<b>10</b>	<b>CAL FACTOR (Analytical)</b>	<b>:</b>	<b>400</b>
<b>Shot Volume (uL)</b>	<b>:</b>	<b>25</b>	<b>CAL FACTOR (Report)</b>	<b>:</b>	<b>0.40241</b>
			<b>DILUTION FACTOR:</b>	<b>2</b>	<b>Det. Limit</b>
<b>Benzene (ug/L)</b>	<b>:</b>	<b>0.00</b>	<b>Benzene (mg/Kg):</b>	<b>0.000</b>	<b>1.006</b>
<b>Toluene (ug/L)</b>	<b>:</b>	<b>6.60</b>	<b>Toluene (mg/Kg):</b>	<b>2.656</b>	<b>1.006</b>
<b>Ethylbenzene (ug/L)</b>	<b>:</b>	<b>33.33</b>	<b>Ethylbenzene (mg/Kg):</b>	<b>13.412</b>	<b>1.006</b>
<b>p &amp; m-xylene (ug/L)</b>	<b>:</b>	<b>137.00</b>	<b>p &amp; m-xylene (mg/Kg):</b>	<b>55.131</b>	<b>2.012</b>
<b>o-xylene (ug/L)</b>	<b>:</b>	<b>39.97</b>	<b>o-xylene (mg/Kg):</b>	<b>16.085</b>	<b>1.006</b>
			<b>Total xylenes (mg/Kg):</b>	<b>71.215</b>	<b>3.018</b>
			<b>Total BTEX (mg/Kg):</b>	<b>87.284</b>	

# BTEX SOIL SAMPLE WORKSHEET

<b>File</b>	<b>:</b>	<b>947814</b>	<b>Date Printed</b>	<b>:</b>	<b>12/2/95</b>
<b>Soil Mass (g)</b>	<b>:</b>	<b>4.97</b>	<b>Multiplier (L/g)</b>	<b>:</b>	<b>0.00101</b>
<b>Extraction vol. (mL)</b>	<b>:</b>	<b>10</b>	<b>CAL FACTOR (Analytical)</b>	<b>:</b>	<b>200</b>
<b>Shot Volume (uL)</b>	<b>:</b>	<b>50</b>	<b>CAL FACTOR (Report)</b>	<b>:</b>	<b>0.20121</b>

		<b>DILUTION FACTOR:</b>	<b>1</b>	<b>Det. Limit</b>
<b>Benzene (ug/L)</b>	<b>:</b>	<b>0.00</b>	<b>Benzene (mg/Kg):</b>	<b>0.000</b> 0.503
<b>Toluene (ug/L)</b>	<b>:</b>	<b>11.16</b>	<b>Toluene (mg/Kg):</b>	<b>2.245</b> 0.503
<b>Ethylbenzene (ug/L)</b>	<b>:</b>	<b>75.87</b>	<b>Ethylbenzene (mg/Kg):</b>	<b>15.266</b> 0.503
<b>p &amp; m-xylene (ug/L)</b>	<b>:</b>	<b>179.97</b>	<b>p &amp; m-xylene (mg/Kg):</b>	<b>36.211</b> 1.006
<b>o-xylene (ug/L)</b>	<b>:</b>	<b>75.18</b>	<b>o-xylene (mg/Kg):</b>	<b>15.127</b> 0.503
			<b>Total xylenes (mg/Kg):</b>	<b>51.338</b> 1.509
			<b>Total BTEX (mg/Kg):</b>	<b>68.849</b>

over  
mh