

**3R – 054 - 03**

**PIT CLOSURE**

**07 / 22 / 1992**

32-054-3  
 33-045-21472  
 039 OK  
 94424

District I  
 P.O. Box 1980, Hobbs, NM  
 District II  
 Drawer DD, Artesia, NM 88211  
 District III  
 1000 Rio Brazos Rd, Artesia, NM 87410

State of New Mexico  
 Energy, Minerals and Natural Resources Department

SUBMIT 1 COPY TO  
 APPROPRIATE  
 DISTRICT OFFICE  
 AND 1 COPY TO  
 SANTA FE OFFICE

OIL CONSERVATION DIVISION  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

RECEIVED  
 OCT - 4 1999

**PIT REMEDIATION AND CLOSURE REPORT**  
**OIL CON. DIV.**  
**DIST. 3**

Operator: Amoco Production Company Telephone: (505) 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: VEU # 11  
 Well Name

Location: Unit or Qtr/Qtr Sec D D sec 26 T 28N R 4W county RIO ARRIBA

Pit Type: Separator  Dehydrator  Other Blow

Land Type: BLM , State , Fee , Other UNIT AGMT.

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Pit Location: Pit dimensions: length 35', width 35', depth 8'  
 (Attach diagram)

Reference: wellhead , other

Footage from reference: 255'

Direction from reference: 11 Degrees  East North   
 West South

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Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points)	
	50 feet to 99 feet (10 points)	
	Greater than 100 feet (0 Points)	<u>0</u>

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points)	<u>0</u>
	No (0 points)	

Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points)	
	200 feet to 1000 feet (10 points)	<u>0</u>
	Greater than 1000 feet (0 points)	

RANKING SCORE (TOTAL POINTS): 0

94424-92

94424 BLOW PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 7/22/92

Remediation Method: Excavation  Approx. cubic yards 250  
(Check all appropriate sections) Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_  
Other STOCKPINE

Remediation Location: Onsite  Offsite \_\_\_\_\_  
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: \_\_\_\_\_  
Excavation  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ground Water Encountered: No  Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location see Attached Documents

Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)  
Sample depth 8' (PIT Bottom)  
Sample date 7/21/92 Sample time 1415

Sample Results  
Benzene (ppm) \_\_\_\_\_  
Total BTEX (ppm) \_\_\_\_\_  
Field headspace (ppm) 0.0  
TPH 35.9 ppm

Ground Water Sample: Yes \_\_\_\_\_ No  (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

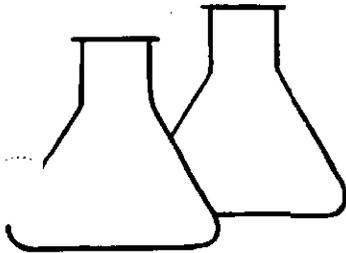
DATE 7/22/92

SIGNATURE B. Shaw

PRINTED NAME AND TITLE

Buddy D. Shaw  
Environmental Coordinator





# ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401  
PHONE: (505) 632-0615 • FAX: (505) 632-1865

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	AMOCO	Project #:	92140
Sample ID:	Bottom Pit	Date Reported:	07-22-92
Laboratory Number:	1997	Date Sampled:	07-21-92
Sample Matrix:	Soil	Date Received:	07-21-92
Preservative:	Cool	Date Analyzed:	07-22-92
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	35.9	5.0

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Valencia Canyon Unit #11 Blow Pit 94424

  
Analyst

  
Review



CLIENT: <u>AMOCO</u>	<b>BLAGG ENGINEERING, INC.</b> P.O. BOX 87, BLOOMFIELD, NM. 87413 (505) 632-1199	LOCATION NO: <u>C4424</u> C.B.C. NO: _____
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**FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION**

LOCATION: NAME: <u>VCU</u>	WELL #: <u>11</u>	PITS: <u>BLOW</u>	DATE STARTED: <u>11-18-97</u>
QUAD/UNIT: <u>D</u>	SEC: <u>26</u>	TWP: <u>29N</u>	RNG: <u>4W</u>
PM: <u>NM</u>	CNTY: <u>RA</u>	ST: <u>NM</u>	DATE FINISHED: _____
QTR./FOOTAGE: _____	CONTRACTOR: _____	ENVIRONMENTAL SPECIALIST: <u>JCE</u>	

SOIL REMEDIATION:  
 REMEDIATION SYSTEM: STOCKPILE (LANDFARM) APPROX. CUBIC YARDAGE: 250  
 LAND USE: RANGE LIFT DEPTH (ft): \_\_\_\_\_

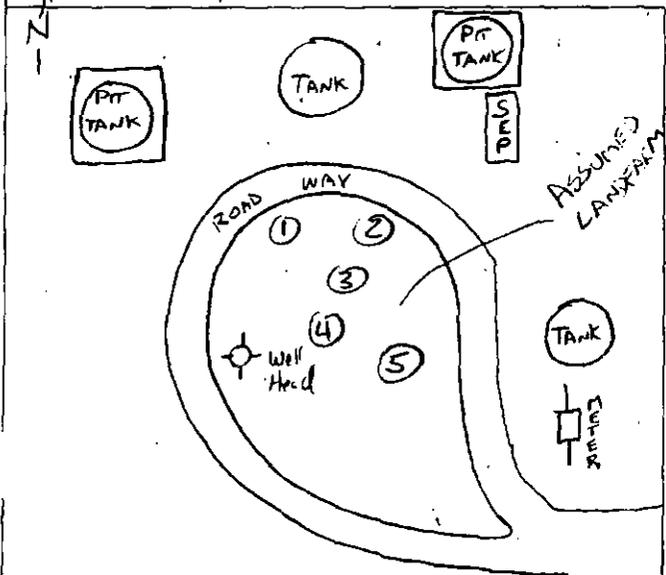
**FIELD NOTES & REMARKS:**

DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000  
 NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

**FIELD 418.1 CALCULATIONS**

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	ML. FREON	DILUTION	READING	CALC. ppm
<u>1215</u>	<u>LF-1</u>	<u>1936</u>	<u>5.0</u>	<u>20.0</u>	<u>4x</u>	<u>114</u>	<u>456</u>

**SKETCH/SAMPLE LOCATIONS**

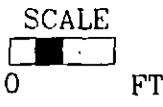


**OVM RESULTS**

SAMPLE ID	FIELD HEADSPACE P10 (ppm)
<u>LF-1</u>	<u>0.0</u>

**LAB SAMPLES**

SAMPLE ID	ANALYSIS	TIME	RESULTS



TRAVEL NOTES: CALLOUT: \_\_\_\_\_ ONSITE: \_\_\_\_\_

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1  
TOTAL PETROLEUM HYDROCARBONS**

Client:	AMOCO	Project #:	
Sample ID:	Landfarm	Date Analyzed:	11-19-97
Project Location:	VCU # 11	Date Reported:	11-19-97
Laboratory Number:	TPH-1936	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	460	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	608	568	6.80

\*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Landfarm Composite Sample

J. C. Blagg  
Analyst

Alison Jelf  
Review

**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413  
Phone: (505)632-1199 Fax: (505)632-3903

**Field TPH-Worksheet**

Max Characters:

\*\*\*\*\*

Client:	AMOCO	Project #:	
Sample ID:	Landfarm	Date Analyzed:	11-19-97
Project Location:	VCU # 11	Date Reported:	11-19-97
Laboratory Number:	TPH-1936	Sample Matrix:	Soil

Sample Weight:	5.00 grams
Volume Freon:	20.00 mL
Dilution Factor:	1 (unitless)
TPH Reading:	114 mg/kg

TPH Result:	456.0 mg/kg
Reported TPH Result:	460 mg/kg
Actual Detection Limit:	20.0 mg/kg
Reported Detection Limit:	20 mg/kg

QA/QC:	Original TPH mg/kg	Duplicate TPH mg/kg	% Diff.
	----- 608	----- 568	----- 6.80

Comments: \*\*\*\*\*Max Characters\*\*\*\*\*

Comments: Landfarm Composite Sample

# EL PASO FIELD SERVICES PRODUCTION PIT CLOSURE

Risk  
BTEX  
TPH

Valencia Canyon #11  
Meter/Line ID - 90063

## SITE DETAILS

Legals - Twn: 28N  
NMOCD Hazard Ranking: 20  
Operator: Amoco

Rng: 4W

Sec: 26

Unit: D

Land Type: US Forest Service

Pit Closure Date: 06/29/94

OCT 2000

## RATIONALE FOR RISK-BASED 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 Phase I excavation was conducted on June 29, 1994, to 12 feet below ground surface 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. Approximately 90 cubic yards of excavated material was removed for landfarming and sent to an OCD approved centralized site. 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 433 ppm; laboratory analysis indicated a benzene concentration of 3.2 mg/kg, a total BTEX concentration of 204 mg/kg, and a TPH concentration of 2590 mg/kg. TPH and total BTEX were above required remediation levels for the Hazard Ranking Score.

On June 27, 1995, a Phase II borehole was conducted to 30 feet below ground surface where bedrock was encountered. Groundwater was not encountered in the borehole. The borehole was grouted to the surface in a manner to direct surface runoff away from the pit area.

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 six years.
- The pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- Groundwater was not encountered in the excavations or borehole.
- Residual hydrocarbons in the soil will degrade naturally with minimal risk to the environment.
- Bedrock was encountered at 30 feet below ground surface; consequently, impact to groundwater is unlikely.
- Excavated material has been removed from the pit eliminating potential direct contact with livestock and the public.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.
- The pit was excavated to the practical extent of the equipment, according to EPNG's pit closure plan.

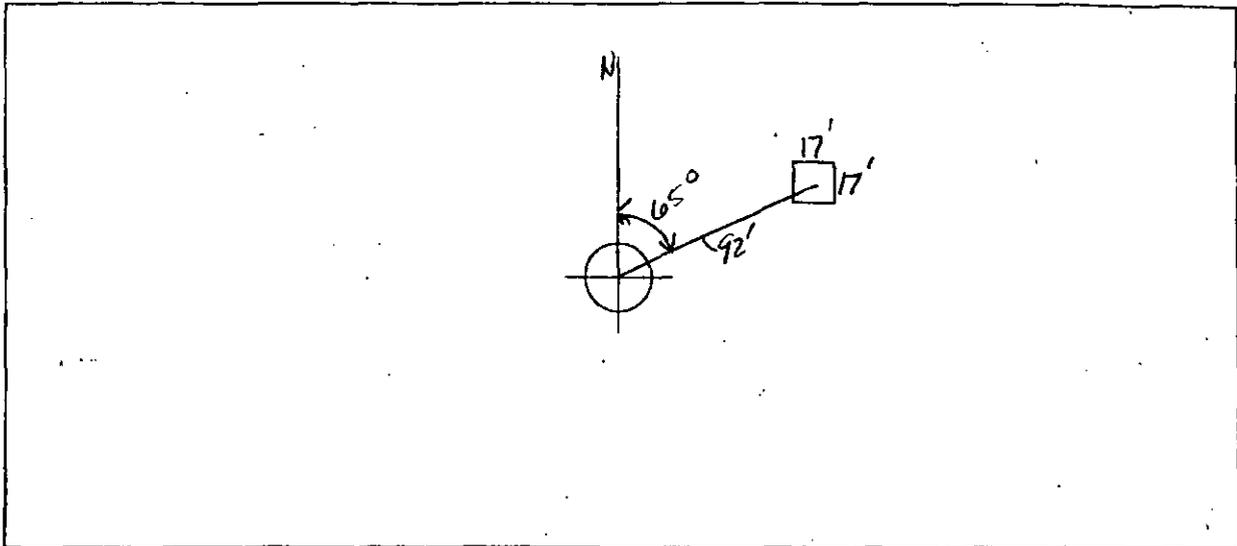
## FIELD PIT SITE ASSESSMENT FORM

<b>GENERAL</b>	<p>Meter: <u>9063</u> Location: <u>VALENCIA CANYON #11</u></p> <p>Operator #: <u>0203</u> Operator Name: <u>AMOCO</u> P/L District: <u>BLOOMFIELD</u></p> <p>Coordinates: Letter: <u>D</u> Section <u>26</u> Township: <u>28</u> Range: <u>4</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>5-15-94</u> Area: <u>10</u> Run: <u>62</u></p>
<b>SITE ASSESSMENT</b>	<p><b>NMOCD Zone:</b> (From NMOCD Maps)</p> <p style="margin-left: 40px;">Inside <input checked="" type="checkbox"/> (1)</p> <p style="margin-left: 40px;">Outside <input type="checkbox"/> (2)</p> <p><b>Land Type:</b></p> <p style="margin-left: 40px;">BLM <input type="checkbox"/> (1)</p> <p style="margin-left: 40px;">State <input type="checkbox"/> (2)</p> <p style="margin-left: 40px;">Fee <input type="checkbox"/> (3)</p> <p style="margin-left: 40px;">Indian <input type="checkbox"/> _____</p> <p style="margin-left: 40px;">FOREST <input checked="" type="checkbox"/></p> <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 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 checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</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)</p> <p style="margin-left: 40px;"><input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>20</u> POINTS</p>
<b>REMARKS</b>	<p>Remarks : <u>2 PITS ON LOCATION, ONE PIT TO CLOSE</u></p>

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 65° Footage from Wellhead 89'  
b) Length : 17' Width : 17' Depth : 2'

ORIGINAL PIT LOCATION



REMARKS

Remarks :

PHOTOGRAPHS AH-7(1-4)

Completed By:

*W. A. Hines*

Signature

5-15/94

Date

**FIELD PIT REMEDIATION/CLOSURE FORM**

<b>GENERAL</b>	Meter: <u>90063</u> Location: <u>VALENCIA CANYON #11</u> Coordinates: Letter: <u>D</u> Section <u>26</u> Township: <u>28</u> Range: <u>4</u> Or Latitude _____ Longitude _____ Date Started : <u>6-29-94</u> Area: <u>10</u> Run: <u>62</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>KP# 113</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>433</u> PID Reading Depth <u>12'</u> Feet Yes No Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth. _____ Feet
<b>CLOSURE</b>	Remediation Method : Excavation <input checked="" type="checkbox"/> (1) Approx. Cubic Yards <u>90</u> Onsite Bioremediation <input type="checkbox"/> (2) Backfill Pit Without Excavation <input type="checkbox"/> (3) Soil Disposition: Envirotech <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (3) Tierra Other Facility <input type="checkbox"/> (2) Name: _____ Pit Closure Date: <u>6-29-94</u> Pit Closed By: <u>B.E.I</u>
<b>REMARKS</b>	Remarks : <u>Some line markers started Remediating to 12'</u> <u>Soil Turned DARK GRAY. with A smell. At 12' Soil still</u> <u>the same.</u>
	Signature of Specialist: <u>Kelly Padilla</u>



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP112	945553
MTR CODE   SITE NAME:	90063	N/A
SAMPLE DATE   TIME (Hrs):	6-29-94	1019
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	6-30-94	6/30/94
DATE OF BTEX EXT.   ANAL.:	7/7/94	7/7/94
TYPE   DESCRIPTION:	VC	Dark brown fine sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	3.2	MG/KG	20			
TOLUENE	45	MG/KG	20			
ETHYL BENZENE	16	MG/KG	20			
TOTAL XYLENES	140	MG/KG	20			
TOTAL BTEX	204	MG/KG				
TPH (418.1)	2590	MG/KG			2.04	28
HEADSPACE PID	433	PPM				
PERCENT SOLIDS	87.0	%				

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

The Surrogate Recovery was at 195 <sup>Approx 6/30/94</sup> % 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:

J.P.

Date:

7/17/94



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO.      ATI I.D.: 107301  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
10	945552	NON-AQ	06/29/94	07/07/94	07/07/94	1
11	945553	NON-AQ	06/29/94	07/07/94	07/07/94	20

PARAMETER	UNITS	10	11
BENZENE	MG/KG	<0.025	3.2
TOLUENE	MG/KG	<0.025	45
METHYLBENZENE	MG/KG	<0.025	16
TOTAL XYLENES	MG/KG	0.030	140

SURROGATE:

BROMOFLUOROBENZENE (%)      90      195\*

\*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. 407301

July 12, 1994

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



Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 07/01/94, 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

CHAIN OF CUSTODY RECORD

PROJECT NUMBER		PROJECT NAME					TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS				CONTRACT LABORATORY P. O. NUMBER	
11957		Pit Closure Project # 24324							TPH EPA 418.1	BTEX EPA 8020				
SAMPLERS: (Signature)		DATE:		LAB ID		DATE	TIME	MATRIX	SAMPLE NUMBER					REMARKS
<i>Kelly Padilla</i>		6-29-94												
<i>Kelly Padilla</i>		6-29-94		94 5557		6-29-94	1019	soil	KP# 113	1	VC	X	X	101
<i>Kelly Padilla</i>		6-29-94		<del>6-26-94</del>		<del>6-29-94</del>	<del>KP</del>	<del>soil</del>	<del>KP# 114</del>	<del>1</del>	<del>VC</del>	<del>X</del>	<del>X</del>	<del>102</del>
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		
<i>Kelly Padilla</i>		6-29-94 1830		<i>Brenda Liss</i>		6/30/94 0915		<i>Brenda Liss</i>		6/30/94 0915		<i>Kim Kish</i>		
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED OF LABORATORY BY: (Signature)		
												<i>Kim Kish</i>		
REQUESTED TURNAROUND TIME: <input type="checkbox"/> ROUTINE <input type="checkbox"/> RUSH				SAMPLE RECEIPT REMARKS				RESULTS & INVOICES TO:						
CARRIER CO.				CHARGE CODE				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						

**RECORD OF SUBSURFACE EXPLORATION**

Philip Environmental Services Corp.  
 4000 Monroe Road  
 Farmington, New Mexico 87401  
 (505) 326-2282 FAX (505) 326-2388

Borehole # BH-1  
 Well # \_\_\_\_\_  
 Page 1 of 1

Project Name EPNG Pits  
 Project Number 14509 Phase 99+ 2000  
 Project Location Valencia Canyon #11, 90063

Elevation \_\_\_\_\_  
 Borehole Location T29, R4, S. 26, P  
 GWL Depth \_\_\_\_\_  
 Logged By S. Kelly  
 Drilled By K. Padillo  
 Date/Time Started 6/27/95, 0955  
 Date/Time Completed 6/27/95, 1100

Well Logged By S. Kelly  
 Personnel On-Site K. Padilla, F. Rivera, D. Charley  
 Contractors On-Site \_\_\_\_\_  
 Client Personnel On-Site \_\_\_\_\_  
 Drilling Method 4 1/4" ID HSP  
 Air Monitoring Method CGI, PID

Depth (feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
							BZ	BH	5/115	
0				Backfill to 12'						
15	1	15-17	1.2'	SAND, brown, fine to med grain, loose, damp.		18	0	0	352 / 664	0905
20	2	20-22	.7'	clayey SAND, fine sand, trace silt, dk. brown, loose damp.		23			319 / 551	0915
25	3	25-27	.3'	silty SAND, light tan, fine sand, 10-25% silt, very dense					595 / 972	0925 spoon only driven 2" feels like weathered rock
30	4	30-32	.15'	SAND, w/ trace clay.			13	113	311 / 610	0943 spoon only driven 2"
35				BOH- 30'						
40										

Comments: Auger refusal at 30' No sample taken due to high headspace readings at refusal. BH grouted to surface

Geologist Signature Sarah Kelly