District I 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

hedrock Submit 1 copy to appropriate District Office and 1 copy to

and 1 copy to the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company	Telephone	9011	
Address: 30-64	5-07186	DEC 2 RECEA	2002
Facility Or: Riddle F4 MV, Meter 72065 Well Name		DEC 2 RECENT IL CONS DIST.	DIV.
Location: Unit or Qtr/Qtr Sec_B_Sec_2	29 T 29 R 8 County	San Ju	an
Pit Type: Separator Dehydrator	X Other		
Land Type: BLM X, State,	Fee Other		
	_, width <u>21'</u> , depth <u>4'</u> , other		
Direction from reference: 12	25 Degrees X East North	th of	·
	Wes	st Sout	h
Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	st Sout	(20 points) (10 points) (0 points)10_
(Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet 50 feet to 99 feet Greater than 100 feet		(20 points) (10 points)
(Vertical distance from contaminants to seasonal high water elevation of ground water.) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	Yes	(20 points) (10 points) (0 points)10

Date Remediation Starte	ed:08/10/94 Date completed:08/10/94
Remediation Method:	Excavation Approx. cubic yards
(Check all appropriate sections.)	Landfarmed Insitu Bioremediation
	Other Backfill pit without excavation
Remediation Location: (i.e. landfarmed onsite,	Onsite N/A Offsite N/A
name and location of offsite facility)	
,	Remedial Action: EPNG lines marked. Soil gray, strong hydrocarbon odor. Hit sandstone 4'.
General Description of 1	temedial ActionEl NO illes marked. Soil gray, strong hydrocarbon odor. Hit sandstone 4'.
Ground Water Encounter	red: No X Yes Depth
Final Pit: Closure Sampling:	Sample location _ Four walls and center of pit composite
(if multiple samples, attach sample results	
and diagram of sample locations and depths)	Sample depth4'
	Sample Date08/10/94 Sample time09:19
	Sample Results
	Benzene(ppm) Not reported.
	Total BTEX(ppm) Not reported
	Field headspace(ppm) 670
	ТРН6990
Ground Water Sample:	Yes No X (If yes, attach sample results)
I hereby certify that the in	nformation above is true and complete to the best of my knowledge and belief.
Date 1/8/03)	
Signature	Printed Name Scott T. Pope and Title Senior Fall Scientist



Riddle F4 (mv) Meter/Line ID 72065

SITE DETAILS

Legals - Twn: 29N Rng: 8W

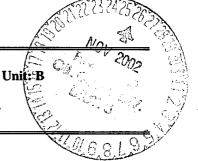
NMOCD Hazard Ranking: 10

Operator: Amoco Production Company

Sec: 29

Land Type: BLM

Pit Closure Date: 8/10/94



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 test pit was excavated to 4 feet (ft) below ground surface (bgs) where sandstone was encountered and a soil sample was collected for field headspace analysis and laboratory analysis for TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 670 ppm; laboratory analysis indicated a TPH concentration 6,990 mg/kg. The headspace analysis and TPH measurement exceeded recommended remediation levels for the Hazard Ranking Score of 10.

No soil was disposed of offsite. The pit was backfilled with site soil, topped with clean soil from the surrounding berms, and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed to refusal at 21 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 20-21 ft bgs. Headspace analysis indicated an organic vapor content of 19 ppm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of <3 mg/kg, and a TPH concentration of <20 mg/kg. The benzene, TPH, and BTEX concentrations were below recommended remediation levels for the Hazard Ranking Score.

No Phase III activities were conducted.

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

- The primary source, discharge to the pit, has been removed for over eight years.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- The clean soil from the berms placed on top of the excavation would limit the potential for direct contact with hazardous constituents by livestock or the public; i.e., current direct contact exposure pathways are unlikely to be completed.
- Groundwater was not encountered in the soil boring at 21 ft bgs; local geologic features indicate the depth to groundwater is greater than 50 ft bgs.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.



PIT CLOSURE REQUEST

- Benzene, total BTEX, and TPH concentrations in the soil sample collected at the base of the Phase II soil boring at 20 ft bgs were non-detect, indicating that no significant downward constituent migration is occurring.
- Bedrock refusal was encountered at 4 feet bgs in the test pit and at 21 feet bgs in the soil boring
 making additional excavation impractical and further downward migration of residual hydrocarbons
 unlikely.

ATTACHMENTS

Field Pit Assessment Form Revised Field Pit Assessment Form Field Pit Remediation/Closure Form Phase II Soil Boring Log Laboratory Analytical Results

REVISEDFIELD PIT SITE ASSESSMENT FORM

GENERA	Meter: 72065 Location: Riddle F Operator #: Operator Name:_ Coordinates: Letter: B Section 29 Or Latitude Location Dri Site Assessment Date: 4/12/98	P/L District: Township: 요含 Range: _ ター itude ip: Line Drip: Other:				
·	NMOCD Zone: (From NMOCD Maps) Inside Outside	Land Type: BLM \(\) (1) State \(\) (2) □ (1) Fee \(\) (3) ∑ (2) Indian				
	Depth to Groundwater Less Than 50 Feet (20 points) 50 Ft to 99 Ft (10 points) Greater Than 100 Ft (0 points)	☐ (1) ☒ (2) ☐ (3)				
ASSESSME	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)					
SITE AS	Horizontal Distance to Surface Water Bo Less Than 200 Ft (20 points) 200 Ft to 1000 Ft (10 points) Greater Than 1000 Ft (0 points) Name of Surface Water Body	ody ☐ (1) ☐ (2) ☐ (3)				
	(Surface Water Body: Perennial Rivers, Stre Ditches, Lakes, Ponds) Distance to Nearest Ephemeral Stream	ams, Creeks, Irrigation Canals, (1) < 100' (Navajo Pits Only) (2) > 100'				
	TOTAL HAZARD RANKING SCORE:	10 POINTS				
REI RKS		ue to initial assessment including washes				

(assess) 12/16/97

FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: 7205 Location: Ridle F4 (MV) Operator #: 0203 Operator Name: America P/L District: Blanco Coordinates: Letter: B Section 29 Township: 28 Range: 8 Or Latitude Longitude Congitude Other: Other: Other: Site Assessment Date: Area: 03 Run: 82					
	NMOCD Zone: Land Type: PIM X (1)					
	Land Type. DLIN AT (1)					
	(From NMOCD State ☐ (2) Maps) Inside ☐ (1) Fee ☐ (3)					
	Outside (2) 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)					
L	Wellhead Protection Area:					
Œ	Is it less than 1000 ft from wells, springs, or other sources of					
SSN	fresh water extraction?, or; Is it less than 200 ft from a private					
ASSESSMENT	domestic water source? (1) YES (20 points) (2) NO (0 points)					
AS	Horizontal Distance to Surface Water Body					
囝	Less Than 200 Ft (20 points) (1)					
SITE	200 Ft to 1000 Ft (10 points) (2)					
	Greater Than 1000 Ft (0 points) (3)					
	Name of Surface Water Body Largo 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)					
	$\square (2) > 100'$					
	MOMAT TIADA DANTES COOL					
ZK.	Remarks: Realine-Inside, Vuln-Outside					
AAF	4pits. Will closed Both Rey (close lon MV 4) on PC)					
REMARKS						
	1 (SP3190) 04/08/94					

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: 72065 Location: Ridle F 4 (MV) Coordinates: Letter: B Section 29 Township: 28 Range: 8 Or Latitude Longitude Date Started: 8-10-94 Run: 03 82
FIELD OBSERVATIONS	
CLOSURE	
REMARKS	Remarks: <u>Efut lives marked</u> Soil tray strong Hyprocerton ador Hit send stone 4' Signature of Specialist: Morgan Killian



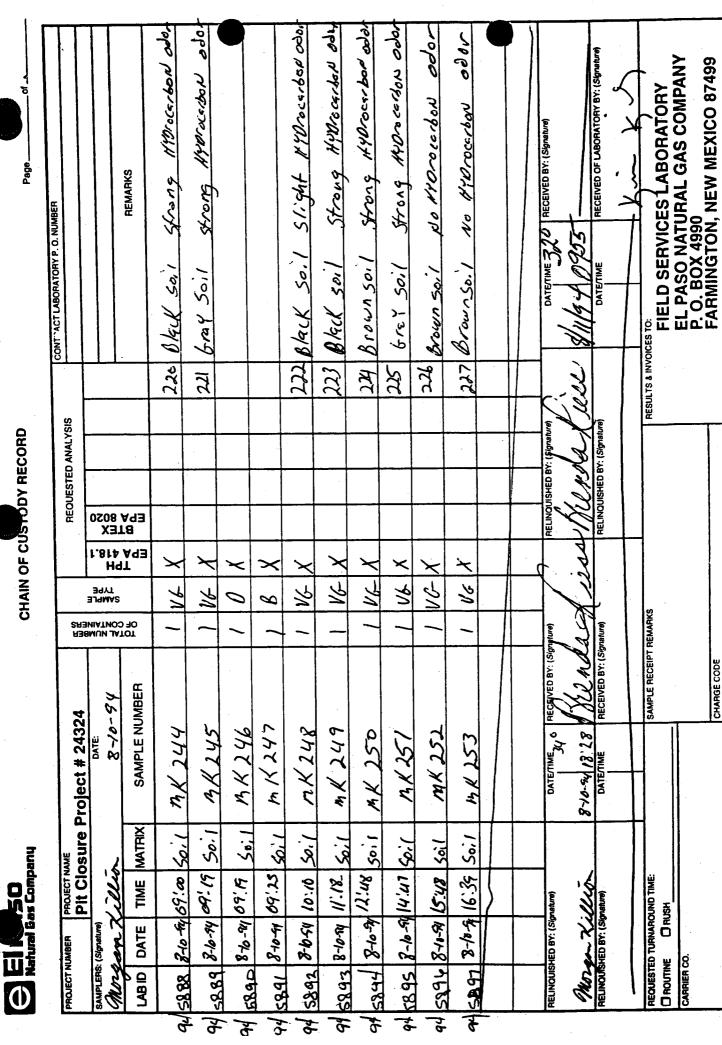
FIELD SERVICES LABORATORY ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

	SAMPLE	IDENTIFICA	TION		
	Field	ID .		Leb ID	
SAMPLE NUMBER:	mk 24	/s	94	5889	
MTR CODE SITE NAME:	7201			N/A	
SAMPLE DATE TIME (Hrs):	8-10-	1		5919	
SAMPLED BY:		N	/A		
DATE OF TPH EXT. ANAL.:	8-11-9	4	8-1	1-94	
DATE OF BTEX EXT. ANAL.:	2114	<u> </u>	ا بم		
TYPE DESCRIPTION:	V.6	·	light Fre	ey sand & clay	
			0 ()	1	
REMARKS: _					
		RESULTS			<u>.</u>
		NLSOL 13			
PARAMETER (A)	RESULT	UNITS		QUALIFIERS	
			DF	Q M(g) V(ml)	1
TPH (418.1)	6990	MG/KG		1.43 28	
HEADSPACE PID	670	PPM			
PERCENT SOLIDS	93.6	%			
		TPH is by EPA Metho	od 418.1		_
arrative:			· ·		
				·	
F = Dilution Factor Used	`				







White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler

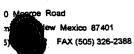
BILL NO:

FAX: 505-599-2261

505-599-2144

ECORD OF SUBSURFACE EXPLORATION

LIP SERVICES CORP.



Project Number 19643 Phâse 1001.77

Project Name EPFS PITS >10

Project Location Riddle F4AV 72065

evation

rehole Location LTR: \$\mathbb{S}\$: \$\mathbb{Z}\$? \$\mathbb{T}\$: \$\mathbb{Z}\$ \$\mathbb{T}\$: \$\mathbb{Z}\$ \$\mathbb{T}\$: \$\mathbb{N}\$ \$\mathbb{

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS						
0				Excavation Sample Collected At 4'						BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
10	,	lail	12	LT BR SANDSTONE, fine sand low cemenstation, day	i		0	254	499 350	1053 hRS
	2	15-16	1	LT GF SILTSTONE, low census DRY			0	3	173 33	1112 hrs hard Leilling
20	3	20-21	12	LT GR SILTS TO NE, lan CEMEN MATION, dry			0	15	1	1133 hRS
25			*	TOBZI						
30						÷				Ä
35										

C nts:

HAB48 20-21 SENT tO 1A6 FOR TPH, BTEX GW NOT ENCOUNTERED. BH GROUTED TO SUFFACE

Geologist Signature

H. Bradlung



Phase II Dilling GHAIN OF CUSTODY RECORD 12.3. 9 8 Chan.

Page_

20-21 RECEIVED OF LABORATORY BY: (Signal Jre) FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P. O. BOX 4990 FARMINGTON, NEW MEXICO 87499 RECEIVED BY: (Signature) RIDDIEFY MV 72065 REMARKS CONTRACT LABORATORY P. O. NUMBER 2030 34/2/01 DATE/TIME DATE/TIME Ó RESULTS & INVOICES # SEGNENCE 72 OID PRIS SIOS HOL <u>a</u> REQUESTED ANALYSIS RELINQUISHED BY: (Signature) RELINQUISHED BY: (Signature) OIN BAJ Joke X3T8 6208 A93 FPA 418.1 HdT John SAMPLE 39YT 2 POOL + TURK TOTAL NUMBERS OF CONTAINERS SAMPLE RECEIPT REMARKS RECEIVED BY: (Signature) p/22/98 CHARGE CODE FIELD ID (BA1471 8/22/01 DATE: PIT CLOSURE Project tolly backery TIME MATRIX Ē 10/24/4 1133 DATE REQUESTED TURNAROUND TIME: O RUSH SAMPLERS: (Signature) 80752 PROJECT NUMBER # 24324 LABID PROUTINE CARRIER CO. BILL NO.:

White - Testing Laboratory Canary - EPNG Lab Pink - Field Sampler

CLA ON ORDER & IN.

FAX: 505-599-2261



FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB48	980752
MTR CODE SITE NAME:	72065	Riddle F4 MV
SAMPLE DATE TIME (Hrs):	10/22/98	1133
PROJECT:	Phase	l Drilling
DATE OF TPH EXT. ANAL.:	10/30/98	10/30/98
DATE OF BTEX EXT. ANAL.:	10/26/98	10/26/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 20-21'

RESULTS

PARAMETER	RESULT	UNITS		OUALIFIE	RS.	
			DF .	- C	MIN	Mul
BENZENE	<0.5	MG/KG				
TOLUENE	<0.5	MG/KG		ļ		
ETHYL BENZENE	<0.5	MG/KG				
TOTAL XYLENES	<1.5	MG/KG	·			
TOTAL BTEX	<3	MG/KG				
TPH (MOD.8015)	<20	MG/KG				
HEADSPACE PID	19	PPM				
PERCENT SOLIDS	93.2	%				

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

	IFH IS DY EFA MEM	ON 410.1 and DIEA is by EFA MC	and 8020	
The Surrogate Recovery was at	106.5	% for this sample	All QA/QC was acceptable.	
Narrative:				• •
DF = Dilution Factor Used	0			
Approved By:	atoli	<u> </u>	Date: 11/20/98	





GAS CHROMOTOGRAPHY RESULTS

TEST

: EPA 8015 MODIFIED (DIRECT INJECT)

CLIENT

: EL PASO FIELD SERVICES

PINNACLE I.D.: 810097

PROJECT#

: (none)

· PHASE II DRII LING

PROJECT	NAME	: PHASE II DKI	LLING				
SAMPLE				DATE	DATE	DATE	DIL.
ID.#	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	980754		NON-AQ	10/22/98	10/30/98	10/30/98	1
	980753		NON-AQ	10/22/98	10/30/98	10/30/98	1
02	980751	**	NON-AQ	10/21/98	10/30/98	10/30/98	1
03 PARAMET		DET. LIMIT		IITS	01	02	03
	PROCARBONS, C6-C10	10	MG	/KG	< 10	< 10	16
	PROCARBONS, C10-C22	5.0	MG	/KG	< 5.0	< 5.0	150
	PROCARBONS, C22-C36	5.0	MG	/KG	< 5.0	< 5.0	< 5.0
CULA	TED SUM:		• •				166.0
		*.					
SURROG					126	129	91
O-TERPH	• •				120	123	J 1
SURROG	ATE LIMITS	(66 - 151)			•		

CHEMIST NOTES: N/A



2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413

PINNACLE I.D.: 810097

GAS CHROMOTOGRAPHY RESULTS

TEST

: EPA 8015 MODIFIED (DIRECT INJECT)

CLIENT

: EL PASO FIELD SERVICES

PROJECT#

: (none)

PHASE ILDRILLING

PROJECT	NAME	: PHASE II DRI	LLING			•	
SAMPLE			•	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980752		NON-AQ	10/22/98	10/30/98	10/30/98	1
PARAMET	ER	DET. LIMIT	UN	NITS	04		
FUEL HYD	ROCARBONS, C6-C10	10	MG	S/KG	< 10		
FUEL HYD	ROCARBONS, C10-C22	5.0	MG	S/KG	< 5.0		
FUEL HYD	ROCARBONS, C22-C36	5.0	MG	S/KG	< 5.0	•	•
CALCULA	TED SUM:						

RROGATE: ERPHENYL (%) SURROGATE LIMITS

114

(66 - 151)

CHEMIST NOTES:

N/A





GAS CHROMOTOGRAPHY RESULTS **REAGENT BLANK**

TEST

: EPA 8015 MODIFIED (DIRECT INJECT)

BLANK I.D.

: 103098

PINNACLE I.D.

: 810097

CLIENT

: EL PASO FIELD SERVICES

DATE EXTRACTED

: 10/30/98

PROJECT#

: (none)

DATE ANALYZED

: 10/30/98

PROJECT NAME

: PHASE II DRILLING

SAMPLE MATRIX

: NON-AQ

PARAMETER	UNITS		
FUEL HYDROCARBONS, C6-C10	MG/KG	< 10	
FUEL HYDROCARBONS, C10-C22	MG/KG	< 5.0	
FUEL HYDROCARBONS, C22-C36	MG/KG	< 5.0	
SUPPOGATE			

ERPHENYL (%)

114

ROGATE LIMITS

(80 - 151)

CHEMIST NOTES:

N/A

BTEX SOIL SAMPLE WORKSHEET

File :	980752	Date Printed :	10/27/98	
Soil Mass (g):	5.04	Multiplier (L/g) :	0.00099	
Extraction vol. (mL):	10	CAL FACTOR (Analytical):	200	
Shot Volume (uL):	50	CAL FACTOR (Report):	0.19841	
		DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L) :	<0.5	Benzene (mg/Kg):	#VALUE!	0.496
Toluene (ug/L):	<0.5	Toluene (mg/Kg):		0.496

Ethylbenzene (ug/L): <0.5

p & m-xylene (ug/L) : <1.0

o-xylene (ug/L): <0.5

p & m-xylene (mg/Kg): #VALUE! 0.992 o-xylene (mg/Kg): #VALUE! 0.496 Total xylenes (mg/Kg): #VALUE! 1.488

0.496

Total BTEX (mg/Kg): #VALUE!

Ethylbenzene (mg/Kg): #VALUE!