

EL PASO FIELD SERVICES PRODUCTION PIT CLOSURE

Risk
TPH
Windmill

Lindrith Unit No. 54
Meter/Line ID – 73846

SITE DETAILS

Legals - Twn: 24N
NMOCD Hazard Ranking: 30
Operator: Meridian

Rng: 02W

Sec: 31 Unit: K
Land Type: Fee
Pit Closure Date: 09/27/95

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 September 27, 1995, to 8 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 and bedrock was encountered at eight feet below ground surface. Approximately 20 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 6 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 278 mg/kg. TPH was above required remediation levels for the Hazard Ranking Score.

On May 1, 1998, a Phase II drill borehole was conducted to 31 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. Headspace analysis indicated an organic vapor content of 0 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.

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 five years.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- Bedrock was encountered at eight feet below ground surface making further remediation impractical.
- Groundwater was not encountered in the excavation or borehole.
- Residual hydrocarbons in the soil will degrade naturally with minimal risk to the environment.
- Based on the Hazard Ranking Score, benzene, total BTEX, and TPH were below required remediation levels for the Hazard Ranking Score.
- Excavated material has been removed from the pit eliminating potential direct contact with livestock and the public.
- Dense, thick clay was encountered at eight feet below the ground surface; therefore, impact to groundwater is unlikely.

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 73846 Location: Lindvith unit #54
 Operator #: 1987 Operator Name: Meridian P/L District: Ofito
 Coordinates: Letter: K Section 31 Township: 24 Range: 02
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____
 Site Assessment Date: 9-13-95 Area: 08 Run: 82

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Inside ☐ (1) Outside ☒ (2)

Land Type: BLM ☐ (1) State ☐ (2) Fee ☒ (3) 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)

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)
Windmill

Horizontal Distance to Surface Water Body
 Less Than 200 Ft (20 points) ☐ (1)
 200 Ft to 1000 Ft (10 points) ☐ (2)
 Greater Than 1000 Ft (0 points) ☒ (3)

Name of Surface Water Body _____
 (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)
 Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 30 POINTS

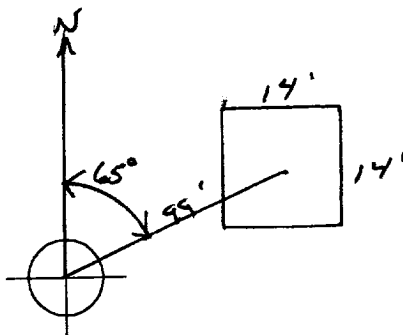
REMARKS

Remarks : Red line & Topo both show outside VZ.
2 pits on loc. 1) Well head blow pit 2) Loc Drip
blow pit to E PNG. will close Loc Drip

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 65° Footage from Wellhead 99'
b) Length : 14' Width : 14' Depth : 2'



REMARKS

Remarks :

photo's 15.30

Completed By:

James F. Turner
Signature

9-13-95
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 73-846 Location: Lindrieth unit #54
 Coordinates: Letter: K Section 31 Township: 24 Range: 02
 Or Latitude _____ Longitude _____
 Date Started : 9-27-95 Run: 08 82

FIELD OBSERVATIONS

Sample Number(s): 13K475
 Sample Depth: 8' Feet
 Final PID Reading 6 PPM PID Reading Depth 8' Feet
 Yes No
 Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 20
 Onsite Bioremediation ☐
 Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ ☐ Tierra
 Other Facility ☐ Name: _____

Pit Closure Date: 9-27-95 Pit Closed By: Philip

REMARKS

Remarks : Arrived dug sample hole pit appeared to
be clean bottom sample was not excavated pit 2 load
re sample B- 80 PPM N- 0 PPM S- 0 PPM E- 0 PPM W- 0 PPM N: 1
Rock at 8'

Signature of Specialist: Morgan Killion



FIELD SERVICES LABORATORY-
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	MK475	947554
MTR CODE SITE NAME:	73846	Lindrith #54
SAMPLE DATE TIME (Hrs):	09-27-95	1315
PROJECT:	Phase I	
DATE OF TPH EXT. ANAL.:	9/28/95	
DATE OF BTEX EXT. ANAL.:	9/28/95	9/28/95
TYPE DESCRIPTION:	VC	Brown coarse Sand

Field Remarks: (N-O)(S-O)(E-O)(W-O)

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)	278	MG/KG			1.96	25
HEADSPACE PID	6	PPM				
PERCENT SOLIDS	94.1	%				

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

Surrogate Recovery was at
Narrative:

97%

for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Date:

9-29-95

BTEX SOIL SAMPLE WORKSHEET

File	:	947554	Date Printed	:	9/29/95
Soil Mass (g)	:	5.06	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	DF (Analytical)	:	200
Shot Volume (uL)	:	50	DF (Report)	:	0.19763

				Det. Limit
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 0.494
Toluene (ug/L)	:	0.00	Toluene (mg/Kg):	0.000 0.494
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 0.494
p & m-xylene (ug/L)	:	0.18	p & m-xylene (mg/Kg):	0.036 0.988
o-xylene (ug/L)	:	0.00	o-xylene (mg/Kg):	0.000 0.494
			Total xylenes (mg/Kg):	0.036 1.482
			Total BTEX (mg/Kg):	0.036

Phase I

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER # 24324		PROJECT NAME Pit Closure Project		DATE 9-27-95		CONTRACT LABORATORY P. O. NUMBER	
LAB ID		DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBERS OF CONTAINERS	SAMPLE TYPE
947554	9-27-95	13:15	Soil		MK475	1	VC X
947555	9-27-95	14:10	Soil		MK476	1	VC X
REQUESTED ANALYSIS TPH EPA 418.1 BTX EPA 8020 FID PID SEQUENCE # 427 428 REMARKS LINDRITH #54 738516 HILL #3 74771							
RELINQUISHED BY: (Signature) <i>Morgan Hillier</i> DATE/TIME 9-28-95 17:25 RECEIVED BY: (Signature) <i>Julie Diddle</i> DATE/TIME 9-28-95 9:20							
RELINQUISHED BY: (Signature) <i>Morgan Hillier</i> DATE/TIME 9-28-95 17:25 RECEIVED BY: (Signature) <i>Julie Diddle</i> DATE/TIME 9-28-95 9:20							
REQUESTED TURNAROUND TIME: ☐ ROUTINE ☐ RUSH CARRIER CO.							
RESULTS & INVOICES TO: FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P.O. BOX 4990 FARMINGTON, NEW MEXICO 87499							
BILL NO.:							

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road
Farmington, New Mexico 87401
505) 326-2252 FAX (505) 326-2388

Borehole # BH-1
Well # NA
Page 1 of 1

Project Number 19007 Phase 1001.77
Project Name EPFS WELLHEAD PITS
Project Location Linkwith Unit #54 73846

Elevation _____
Borehole Location LTR: K S:31 T:24 R:2
GWL Depth NA
Drilled By K. PADILLA
Well Logged By C. CHANCE
Date Started 5/1/98
Date Completed 5/1/98

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	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM BZ BH S/H			Drilling Conditions & Blow Counts
0										
5										
10	1	10-10.5	8	Backfill to 8'						
				Br clayey SAND, F sand, stiff, dense, dry			0	28	249	1245 hr
									207	
15	2	15-16	6	Redish br weathered SANDSTONE, f-med sand, poorly cemented, dry			0	130	180	1255 hr
									247	3580/6"
										-Drilling hard
20	3	20-21	8	Redish br silty SAND, vF-F sand, v. dense, sl moist			0	190	77	1305 hr
									136	3380/6"
25	4	25-26	8	Gry clayey SAND, vF-F sand, dense, dry			0	107	49	1321 hr
									44	
30	5	30-31	6	DK Gry CLAY, hard, nonplastic, dry			0	31	4	1327 hr
									0	
				TDB 31'						
35										
40										

Comments:

Windmill is < 1000' from pit. CMC 381 (30-31') sent to lab for
BTEX, TPH (8015) No BW encountered BH gravel to surface. Clay at
30' is v hard competent clay layer + appears to be confining

Geologist Signature

Cory Chance



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC381	980335
MTR CODE SITE NAME:	73846	Lindrith Unit #54
SAMPLE DATE TIME (Hrs):	5/1/98	1337
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:		
DATE OF BTEX EXT. ANAL.:	5/7/98	5/7/98
TYPE DESCRIPTION:	VG	SOIL

Field Remarks: 30-31'

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 (MOD.8015)	<20	MG/KG				
HEADSPACE PID	0	PPM				
PERCENT SOLIDS	87.8	%				

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

The Surrogate Recovery was at 103 % for this sample All QA/QC was acceptable.
Negative:

DF = Dilution Factor Used

Approved By:

John Lark

Date:

6/2/98

American Environmental Network, Inc.

AEN I.D. 805329

May 21, 1998

EL PASO FIELD SERVICES
770 WEST NAVAJO
FARMINGTON, NM 87401



Project Name PHASE II DRILLING
Project Number (none)

Attention: JOHN LAMBDIN

On 5/8/98 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **non-aq** 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.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: mt

Enclosure

American Environmental Network, Inc.

CLIENT	: EL PASO FIELD SERVICES	AEN I.D.	: 805329
PROJECT #	: (none)	DATE RECEIVED	: 5/8/98
PROJECT NAME	: PHASE II DRILLING	REPORT DATE	: 5/21/98
AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	980330	NON-AQ	4/29/98
02	980331	NON-AQ	4/29/98
03	980333	NON-AQ	4/30/98
04	980334	NON-AQ	4/30/98
05	980335	NON-AQ	5/1/98
06	980336	NON-AQ	5/4/98
07	980337	NON-AQ	5/4/98
08	980353	NON-AQ	5/6/98
09	980354	NON-AQ	5/5/98

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
 CLIENT : EL PASO FIELD SERVICES
 PROJECT # : (none)
 PROJECT NAME : PHASE II DRILLING

AEN I.D.: 805329

SAMPLE		MATRIX	DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980334	NON-AQ	4/30/98	5/12/98	5/14/98	1
05	980335	NON-AQ	5/1/98	5/12/98	5/14/98	1
06	980336	NON-AQ	5/4/98	5/12/98	5/14/98	1
PARAMETER		DET. LIMIT	UNITS	04	05	06
FUEL HYDROCARBONS, C6-C10		10	MG/KG	< 10	< 10	< 10
FUEL HYDROCARBONS, C10-C22		5.0	MG/KG	< 5.0	< 5.0	8.5
FUEL HYDROCARBONS, C22-C36		5.0	MG/KG	< 5.0	< 5.0	< 5.0
CALCULATED SUM:						8.5

SURROGATE:
 O-TERPHENYL (%) 123 138 148
 SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:
 N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)	AEN I.D.	: 805329
BLANK I.D.	: 051298	DATE EXTRACTED	: 5/12/98
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 5/13/98
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: PHASE II DRILLING		

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
SURROGATE:		122
TERPHENYL (%)		
SURROGATE LIMITS	(80 - 151)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)	AEN I.D.	: 805329
MSMSD #	: 805321-01	DATE EXTRACTED	: 5/12/98
CLIENT	: EL PASO FIELD SERVICES	DATE ANALYZED	: 5/13/98
PROJECT #	: (none)	SAMPLE MATRIX	: NON-AQ
PROJECT NAME	: PHASE II DRILLING	UNITS	: MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
FUEL HYDROCARBONS	<5.0	100	117	117	111	111	5	(56 - 148)	20

CHEMIST NOTES:

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

DATE: 2/7/98 PAGE: 1 OF 1

COMPANY: E1 PASO Field Services

ADDRESS: 770 W. NAVAJO

PHONE: (505) 599-2144

FAX: (505) 599-2261

BILL TO: Abouls

COMPANY: _____

ADDRESS: _____

Petroleum Hydrocarbons (418.1) TRPH
(MOD.8015) Diesel/Direct/Inject

(M8015) Gas/Purge & Trap
Gasoline/BTEX & MTBE (M8015/8020)
BTEX/MTBE (8020)
BTEX & Chlorinated Aromatics (602/8020)
BTEX/MTBE/EDC & EDB (8020/8010/Short)
Chlorinated Hydrocarbons (601/8010)

504	EDB ☐ / DBCP ☐
Polynuclear Aromatics (610/8310)	
Volatile Organics (624/8240) GC/MS	
Volatile Organics (8260) GC/MS	
Pesticides/PCB (608/8080)	
Herbicides (615/8150)	
Base/Neutral/Acid Compounds GC/MS (625/8270)	

General Chemistry:

Priority Pollutant Metals (13)
Target Analyte List Metals (23)
RCRA Metals (8)
RCRA Metals by TCLP (Method 1311)
Metals:

980330	4/29/98	1050	Soil
980331	4/29/98	1540	
980333	4/30/98	1320	
980334	4/30/98	1602	
980335	5/1/98	1337	
980336	5/4/98	1203	
980337	5/4/98	1453	
980353	5/6/98	1437	
980354	5/5/98	1540	✓

A grid of graph paper with a decorative border at the top consisting of a series of 'X' marks. The grid is composed of 20 columns and 30 rows. The top row is decorated with a series of 'X' marks, alternating between the top and bottom lines of the grid. The 'X' marks are formed by two intersecting diagonal lines. The grid is otherwise empty.

4/11

EN Inc.: American Environmental Network (NM), Inc. • 2709-D Pan American Freeway, NE • Albuquerque, NM 87110 • 505/263-1100 • Fax 505/263-1101 • E-mail: info@americanenvironmental.org

JE, New Mexico 87107

DISTRIBUTION: White, Canary

1. Pink - ORIGINATOR

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
CLIENT : EL PASO FIELD SERVICES
PROJECT # : (none)
PROJECT NAME : PHASE II DRILLING

AEN I.D.: 805329

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	980334	NON-AQ	4/30/98	5/12/98	5/14/98	1
05	980335	NON-AQ	5/1/98	5/12/98	5/14/98	1
06	980336	NON-AQ	5/4/98	5/12/98	5/14/98	1

PARAMETER	DET. LIMIT	UNITS	04	05	06
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	MG/KG	< 5.0	< 5.0	8.5
FUEL HYDROCARBONS, C22-C36	5.0	MG/KG	< 5.0	< 5.0	< 5.0
CUMULATED SUM:					8.5

SURROGATE:
O-TERPHENYL (%) 123 138 148
SURROGATE LIMITS (66 - 151)

CHEMIST NOTES:
N/A

BTEX SOIL SAMPLE WORKSHEET

File	:	980335	Date Printed	:	5/8/98	
Soil Mass (g)	:	5.08	Multiplier (L/g)	:	0.00098	
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		200	
Shot Volume (uL)	:	50	CAL FACTOR (Report):		0.19685	
			DILUTION FACTOR:	1	Det. Limit	
Benzene (ug/L)	:	<0.5	Benzene (mg/Kg):	#VALUE!	0.492	
Toluene (ug/L)	:	<0.5	Toluene (mg/Kg):	#VALUE!	0.492	
Ethylbenzene (ug/L)	:	<0.5	Ethylbenzene (mg/Kg):	#VALUE!	0.492	
p & m-xylene (ug/L)	:	<1.0	p & m-xylene (mg/Kg):	#VALUE!	0.984	
o-xylene (ug/L)	:	<0.5	o-xylene (mg/Kg):	#VALUE!	0.492	
			Total xylenes (mg/Kg):	#VALUE!	1.476	
			Total BTEX (mg/Kg):	#VALUE!		

PROJECT _____

sample . Pan wt - Smp wt . Pan + Dry . Dry wt . % Solids

3/26/98

980253	2.61 - 11.97 = 9.36	11.05	8.44	90.2 %
980253 dup	2.65 - 11.94 = 9.29	10.99	8.34	89.8
980254	2.64 - 12.33 = 9.69	9.69 11.36	8.72	90.0

4/28/98

980324	2.63 - 10.92 = 8.29	10.50	7.87	94.9 %
980324 dup	2.61 - 9.38 = 6.77	9.06	6.45	95.3 %
980325	2.64 - 11.04 = 8.40	10.51	7.87	93.7

5/7/98

980330	2.65 - 11.00 = 8.35	10.68	7.43	89.0 %
980331	2.65 - 11.50 = 8.85	10.65	8	90.4
980333	2.63 - 11.88 = 9.25	11.08	8.45	91.4
980334	2.62 - 11.20 = 8.58	10.39	7.77	90.6
980335	2.64 - 11.76 = 9.12	10.65	8.01	87.8
980336	2.63 - 11.46 = 8.83	11.02	8.39	95.0 %
980337	2.63 - 11.09 = 8.46	10.57	7.94	93.9
980353	2.64 - 10.51 = 7.87	10.08	7.44	94.5
980353 dup	2.63 - 10.00 = 7.37	9.61	6.98	94.7
980354	2.63 - 11.14 = 8.51	10.36	7.73	90.8

Continued on Page _____

Read and Understood By _____

Signed _____

Date _____

Signed _____

Date _____

Phase II Drilling

CHAIN OF CUSTODY RECORD

B-5-98 Done
6-8-98 Acc.

Page 2

[illegible]