District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

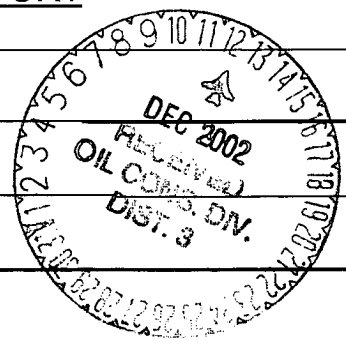
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Risk defined extent of plume

Submit 1 copy to appropriate District Office and 1 copy to the Santa Fe Office

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT



Operator: Meridian Oil Inc Telephone

Address: 30-045-05991

Facility Or: Luthy #2A, Meter 70711
Well Name

Location: Unit or Qtr/Qtr Sec D Sec 1 T 26 R 8 County San Juan

Pit Type: Separator _____ Dehydrator _____ Other Drip

Land Type: BLM X, State _____, Fee _____ Other _____

Pit Location: Pit dimensions: length 21', width 18', depth 3'
(Attach diagram)

Reference: wellhead X, other _____

Footage from reference: 92'

Direction from reference: 310 Degrees X East North _____ of _____ West South _____

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) 10
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)
	No	(0 points) 0
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)
	Greater than 1000 feet	(0 points) 0

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 09/20/94 Date completed: 09/20/94

Remediation Method: (Check all appropriate sections.) Excavation _____ Approx. cubic yards _____

Landfarmed _____ Insitu Bioremediation _____

Other Backfill pit without excavation

Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility) Onsite N/A Offsite N/A

General Description of Remedial Action: 10 yds fill

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location Four walls and center of pit composite

Sample depth 12'

Sample Date 09/20/94 Sample time 16:20

Sample Results

Benzene(ppm) Not reported

Total BTEX(ppm) Not reported

Field headspace(ppm) 236

TPH 7440

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

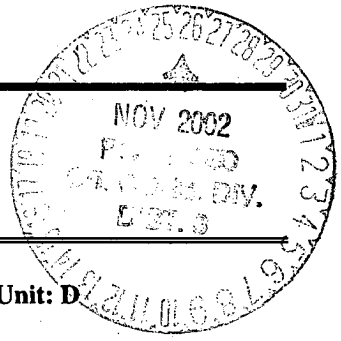
Date 1/8/03

Signature Scott T. Pope

Printed Name and Title Scott T. Pope Senior Env. Scientist

elpaso

PIT CLOSURE REQUEST



Luthy #2A
Meter/Line ID 70711

SITE DETAILS

Legals - Twn: 26N **Rng: 8W** **Sec: 1** **Unit: D**
NMOCD Hazard Ranking: 10 **Land Type: BLM**
Operator: Meridian Oil Inc. **Pit Closure Date: 9/20/94**

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 12 feet (ft) below ground surface (bgs) where 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 236 ppm; laboratory analysis indicated a TPH concentration of 7,440 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 as well as 10 cubic yards of imported clean fill, and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed with refusal at 26 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 25-26 ft bgs. Headspace analysis indicated an organic vapor content of 338 ppm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of 29 mg/kg, and a TPH concentration of 620 mg/kg. The benzene, total BTEX and TPH 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 in combination with the imported clean fill 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 currently complete.
- Groundwater was not encountered in the soil boring at 26 ft bgs; local geologic features indicate the depth to groundwater is greater than 50 ft bgs.
- Bedrock refusal was met at 26 feet below ground surface in the soil boring making further excavation impractical.

- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.
- TPH concentrations in the soil at 25 ft bgs were about 8% of the concentration at 12 ft bgs, and were below the recommended remediation levels for this site. This strong attenuation with depth indicates that residual hydrocarbons will degrade by natural attenuation with minimal risk to the environment.
- Residual hydrocarbons, in the soil will likely degrade by natural attenuation with minimal risk to the environment.

ATTACHMENTS

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

REVISED
FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 70711 Location: LUTHY #2A

Operator #: _____ Operator Name: _____ P/L District: _____

Coordinates: Letter: D Section 1 Township: 26 Range: 8

Or Latitude _____ Longitude _____

Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____

Site Assessment Date: 12/19/97 Area: _____ Run: _____

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)

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, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)

☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 10 POINTS

REMARKS

Remarks : Site has been re-assessed, due to initial assessment including washes as a Surface Water Body. Depth to GW measured to the center of Cottonwood Canyon Wash.

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 70711 Location: Luthy No. 2-A
Operator #: 2999 Operator Name: MOI P/L District: Ballard
Coordinates: Letter: D Section 1 Township: 26 Range: 8
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: ✓ Line Drip: ___ Other: _____
Site Assessment Date: 6/13/94 Area: 07 Run: 51

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)

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 Cottonwood Canyon (off of Largo)
(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 : Redline Book – Outside, Vulnerable Zone Topo – Outside
1 Pit. Will close Pit by

PUSH-IN

Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	VW 312	946176
MTR CODE | SITE NAME:	70711	N/A
SAMPLE DATE | TIME (Hrs):	9-20-94	1620
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	9-22-94	9-22-94
DATE OF BTEX EXT. | ANAL.:	N/A	N/A
TYPE | DESCRIPTION:	VG	Dark brown sand & clay

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	7440	MG/KG			.99	25
HEADSPACE PID	236	PPM				
PERCENT SOLIDS	76.5	%				

-- TPH is by EPA Method 418.1 --

Narrative: _____

DF = Dilution Factor Used

Approved By: _____ Date: 9/30/94

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 70211 Location: Luthy #2-A

Coordinates: Letter: D Section 1 Township: 26 Range: 8

Or Latitude _____ Longitude _____

Date Started : 9-20-94 Run: 07 51

FIELD OBSERVATIONS

Sample Number(s): VW312 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 236 PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☐ Approx. Cubic Yards _____

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☒

Soil Disposition:

Envirotech ☐ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 9-20-94 Pit Closed By: BEZ

REMARKS

Remarks : 10 yds Fill

Signature of Specialist: Vale Wilson

(SP3191) 03/16/94

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER	PROJECT NAME												CONTRACT LABORATORY P. O. NUMBER
	Pit Closure Project # 24324												
SAMPLERS: (Signature) Vale Wilson		DATE: 9-20-94			TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS						
LAB ID	DATE	TIME	MATRIX	SAMPLE NUMBER			TPH EPA 418.1	BTEX EPA 8020				Seq #	REMARKS
94 6168	9.20.94	920	Soil	VW304	1	VG	X					372	
94 6169	9.20.94	1000	Soil	VW305	1	VG	X					373	
94 6170	9.20.94	1130	Soil	VW306	1	VG	X					374	
94 6171	9.20.94	1215	Soil	VW307	1	VG	X					375	
94 6172	9.20.94	1300	Soil	VW308	1	VG	X					376	
94 6173	9.20.94	1345	Soil	VW309	1	VG	X					377	
94 6174	9.20.94	1430	Soil	VW310	1	VG	X					378	
94 6175	9.20.94	1530	Soil	VW311	1	VG	X					379	
94 6176	9.20.94	1620	Soil	VW312	1	VG	X					380	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Vale Wilson	9-20-94 1750	Brenda Riess	Brenda Riess	9/21/94 1040	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH _____

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
505-599-2144 FAX: 505-599-2261

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

FM-08-0565A (Rev. 03-94)

Phase II Drilling

El Paso Natural Gas Company

CHAIN OF CUSTODY RECORD

12-30-98 Anal.
12-30-98 Chm.
12-30-98 Appr.

Page 1 of 1

PROJECT NUMBER	PROJECT NAME
# 24324	Pit Closure Project

SAMPLERS: (Signature) Holly Bradley DATE: 11/10/98

LAB ID	DATE	TIME	MATRIX	FIELD ID	TOTAL NUMBER OF CONTAINERS	SAMPLE TYPE	REQUESTED ANALYSIS: TPH EPA 418.1	BTEX EPA 8020	LAB PID	TPH 8015	FIELD PID	SEQUENCE #	REMARKS
980777	11/10/98	1310	Soil	HAB67	1	VG		✓		✓	388	67	Luthy #2A 7071 25-26'

HAB
11/11/98

CONTRACT LABORATORY P. O. NUMBER

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Holly Bradley	11/10/98 1445			11/13/98 0940	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED OF LABORATORY BY: (Signature)
				11-13-98 0937	Dennis Bird

REQUESTED TURNAROUND TIME:
☐ ROUTINE ☐ RUSH

CARRIER CO.

BILL NO.:

SAMPLE RECEIPT REMARKS: COOL & INTACT 34°F

CHARGE CODE

RESULTS & INVOICES TO:

FIELD SERVICES LABORATORY
EL PASO NATURAL GAS COMPANY
P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
505-599-2144 FAX: 505-599-2261

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

FM-08-0565 A (Rev. 05-94)

EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	HAB67	980797
MTR CODE | SITE NAME:	70711	Luthy #2A
SAMPLE DATE | TIME (Hrs):	11/11/98	1310
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. | ANAL.:	11/18/98	11/25/98
DATE OF BTEX EXT. | ANAL.:	11/16/98	11/16/98
TYPE | DESCRIPTION:	VG	SOIL

Field Remarks: 25-26'

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS DF	Q	M(g)	V(ml)
BENZENE	<0.5	MG/KG				
TOLUENE	<0.5	MG/KG				
ETHYL BENZENE	2.23	MG/KG				
TOTAL XYLENES	26.6	MG/KG				
TOTAL BTEX	55.5	MG/KG				
TPH (MOD.8015)	620	MG/KG				
HEADSPACE PID	388	PPM				
PERCENT SOLIDS	89.2	%				

-- TPH is by EPA Method 8015 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 119.0 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: John Loehr Date: 12/13/98

PINNACLE LABORATORIES

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

GAS CHROMATOGRAPHY RESULTS

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

PINNACLE I.D.: 811047

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	980795	NON-AQ	11/9/98	11/18/98	11/25/98	20
02	980796	NON-AQ	11/9/98	11/18/98	11/25/98	1
03	980797	NON-AQ	11/11/98	11/18/98	11/25/98	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
FUEL HYDROCARBONS, C6-C10	15	**MG/KG**	**3000**	< 15	**540**
FUEL HYDROCARBONS, C10-C22	5.0	**MG/KG**	**2000**	< 5.0	**80**
FUEL HYDROCARBONS, C22-C36	5.0	**MG/KG**	**410**	< 5.0	< 5.0
CALCULATED SUM:			**5410**		**620**
SURROGATE: O-TERPHENYL (%)			N/A *	87	93
SURROGATE LIMITS	(66 - 151)				

CHEMIST NOTES:
* - SURROGATE RECOVERY NOT OBTAINABLE DUE TO NECESSARY SAMPLE DILUTION.

BTEX SOIL SAMPLE WORKSHEET

File :	980797	**Date Printed** :	11/18/98
Soil Mass (g) :	5.02	**Multiplier (L/g)** :	0.00100
Extraction vol. (mL) :	10	**CAL FACTOR (Analytical):**	200
Shot Volume (uL) :	50	**CAL FACTOR (Report):**	0.19920

		DILUTION FACTOR:	**1**	**Det. Limit**
Benzene (ug/L) :	<0.5	**Benzene (mg/Kg):**	**#VALUE!**	0.498
Toluene (ug/L) :	<0.5	**Toluene (mg/Kg):**	**#VALUE!**	0.498
Ethylbenzene (ug/L) :	11.20	**Ethylbenzene (mg/Kg):**	**2.231**	0.498
p & m-xylene (ug/L) :	110	p & m-xylene (mg/Kg):	22.002	0.996
o-xylene (ug/L) :	23.16	o-xylene (mg/Kg):	4.613	0.498
		Total xylenes (mg/Kg):	**26.614**	1.494
		Total BTEX (mg/Kg):	**55.460**	

CORD OF SUBSURFACE EXPLORATION

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

SERVICES CORP.

[redacted] Road
[redacted] Mexico 87401
[redacted] FAX (505) 326-2388

Project Number 19643 Phase 1001.77
Project Name EPFS PITS >10
Project Location LUTHY NO. 2-A 70711

tion
ıole Location LTR: D S: 1 T: 26 R: B
Depth NA
d By K. PADILLA
Logged By H. BRADBURY
Started 11/11/98
Completed 11/11/98

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

ıpth eet)	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/HS	Drilling Conditions & Blow Counts
0										BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5										
10				EXCAVATION SAMPLE COLLECTED AT 12'						
	1	15-16	12	LT BR SANDSTONE. FINE SAND. LOW CEMENTATION. dry			8	3	368 510	1245 hrs HARD DRILLING
20	2	20-21	12	LT BR SANDSTONE. FINE SAND. MOD CEMENTATION. dry			1	36	419 286	1255 hrs.
25	3	25-26	12	LT GR SANDSTONE. FINE SAND. MOD CEMENTATION. dry			1	3	218 388	1310 hrs
				TOB 26'						
30										
35										
40										

[redacted]s: HAB67 (25-26) SENT to lab FOR TPH, BTEX. GW NOT ENCOUNTERED. BH GROUTED TO SURFACE
AUGER REFUSAL AT 25'

Geologist Signature H. Bradbury

8/18/98\Drillog