

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

DEC 21 1998

CANYON LARGO UNIT #143

Meter/Line ID - 75863

RECEIVED
JUL 2 1998

SITE DETAILS

Legals - Twn: 25 Rng: 06

NMOCD Hazard Ranking: 60

Operator: MERIDIAN OIL INC

Sec: 24

Unit: C

Land Type: 2 - Federal

Pit Closure Date: 10/27/94

OIL CON. DIV.
DIST. 3

RATIONALE FOR RISK-BASED CLOSURE:

The above mentioned production pit was assessed and ranked according to the criteria in the New Mexico Conservation Division's Unlined Surface Impoundment Closure Guidelines.

The primary source, discharge to the pit, has been removed. There has been no discharge to the production pit for at least five years and the pit has been closed for at least three years.

The production pit has been remediated to the practical extent of the trackhoe or to the top of bedrock. Initial laboratory analysis has indicated that the soil remaining at the bottom of the excavation is above standards based on the hazard ranking score. Contaminated soil was removed and transported to an approved landfarm for disposal. The initial excavation was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching any residual hydrocarbons remaining in the soil. Therefore, further mobility of residual hydrocarbons is unlikely.

Since the soil samples from the initial excavation were above standards, a test boring was drilled and a sample was collected to evaluate the vertical extent of impact to soils. Test boring sample results indicated soils below standards beneath the original excavation.

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

- Discharge to the pit has not occurred in over five years and the pit has been closed for over three years.
- The bulk of the impacted soil was removed during the initial excavation.
- The excavation was backfilled with clean soil and graded to divert precipitation away from the excavation area.
- All source material has been removed from the ground surface, eliminating potential direct contact with livestock and the general public.
- Groundwater was not encountered in the initial excavation or test boring; therefore, impact to groundwater is unlikely.
- Soil samples collected beneath the initial excavation were below standards.
- Residual hydrocarbons remaining in the soil at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment.

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 75863 Location: Canyon Largo Unit #143
 Operator #: 2999 Operator Name: Meridina P/L District: Ojito
 Coordinates: Letter: C Section 24 Township: 25 Range: 6W
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: ☒ Line Drip: _____ Other: _____
 Site Assessment Date: 7-19-94 Area: 06 Run: 62

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD
Maps)

Inside

Outside

Land Type:

BLM ☒ (1)

State ☐ (2)

Fee ☐ (3) K6W

Indian Maricopa 7-19
Apache

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 Gonzales Canyon

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks,
 Irrigation Canals, Ditches, Lakes, Ponds)

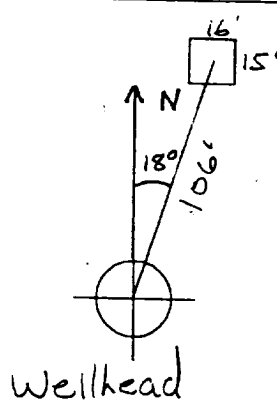
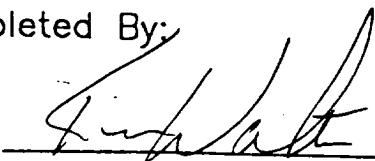
Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)
☒ (2) > 100'

TOTAL HAZARD RANKING SCORE: 60 POINTS

REMARKS

Remarks : Redline v.z. - inside Tapo v.z. - inside

or Two pits - drip pit is dry

ORIGINAL PIT LOCATION	<p style="text-align: center;">ORIGINAL PIT LOCATION</p> <p>Original Pit : a) Degrees from North <u>18</u> Footage from Wellhead <u>106</u> b) Length : <u>16</u> Width : <u>15</u> Depth : <u>1</u></p> <div style="text-align: center;"></div>
REMARKS	<p>Remarks :</p> <p><u>Photos - 5-8 Roll #5</u></p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p> <p> </p>
	<p>Completed By: <u></u></p> <p style="text-align: center;">Signature</p> <p style="text-align: right;"><u>7-19-94</u></p> <p style="text-align: right;">Date</p>

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>75863</u> Location: <u>CANYON Largo unit #143</u></p> <p>Coordinates: Letter: <u>C</u> Section <u>24</u> Township: <u>25</u> Range: <u>6</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>10-27-94</u> Area: <u>06</u> Run: <u>62</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>K 338</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>256</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> (1) Approx. Cubic Yards <u>80</u></p> <p>Onsite Bioremediation <input type="checkbox"/> (2)</p> <p>Backfill Pit Without Excavation <input type="checkbox"/> (3)</p> <p>Soil Disposition: <u>KOU 10/27/94</u></p> <p>Envirotech <input checked="" type="checkbox"/> (1) <input type="checkbox"/> (3) Tierra</p> <p>Other Facility <input type="checkbox"/> (2) Name: _____</p> <p>Pit Closure Date: <u>10-27-94</u> Pit Closed By: <u>B.E.I</u></p>
REMARKS	<p>Remarks : <u>Some Line markers started Remediating to 12' soil</u></p> <p><u>gray looking with a odor. At 12' soil still the same.</u></p>
	<p>Signature of Specialist: <u>Kelly Pacheco</u></p>



**FIELD SERVICES LABORATORY
ANALYTICAL REPORT**

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 338	946463
MTR CODE SITE NAME:	75863	N/A
SAMPLE DATE TIME (Hrs):	10-27-94	0940
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	10-28-94	10-28-94
DATE OF BTEX EXT. ANAL.:	11-1-94	11-2-94
TYPE DESCRIPTION:	VC	Dark Brown sand + clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.5	MG/KG	20			
TOLUENE	<0.5	MG/KG	20			
ETHYL BENZENE	4.0	MG/KG	20			
TOTAL XYLENES	45.0	MG/KG	20			
TOTAL BTEX	50	MG/KG				
TPH (418.1)	3380	MG/KG			2.08	28
HEADSPACE PID	256	PPM				
PERCENT SOLIDS	83.7	%				

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

The Surrogate Recovery was at 113 % for this sample All QA/QC was acceptable.
Narrative:

ATI Results attached

DF = Dilution Factor Used

Approved By:

Date:

11/17/94

```

*****
1 Test Method for
2 Oil and Grease and Petroleum hydrocarbons
3 in Water and Soil
4
5
6 Perkin-Elmer Model 1600 FT-IR
7 Analysis Report
8
9 *****

```

10 04/10/23 15:49

11 Sample Identification
12 016433

13 Initial mass of sample, g
14 7.087

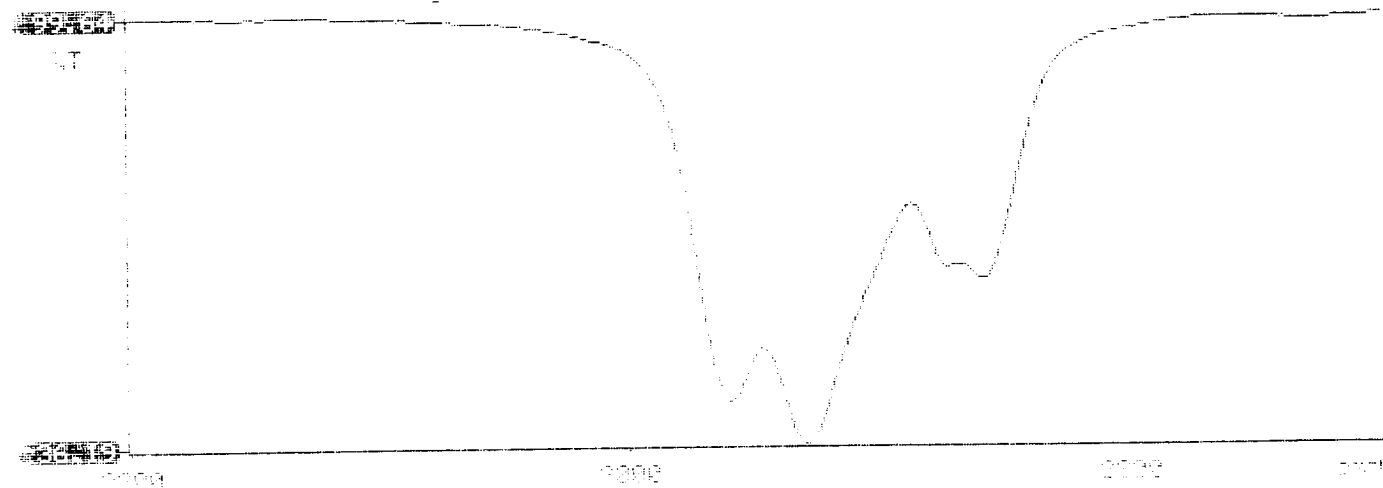
15 Volume of sample after extraction, ml
16 25.000

17 Petroleum hydrocarbons, ppm
18 7376.677

19 Net absorbance of hydrocarbons (2930 cm⁻¹)
20 0.432

21 Petroleum hydrocarbons spectrum

15:49



ILLEGIBLE



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



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
16	946463	NON-AQ	10/27/94	11/01/94	11/02/94	20
17	946464	NON-AQ	10/27/94	11/01/94	11/03/94	20
PARAMETER			UNITS	16	17	
BENZENE			MG/KG	<0.5	<0.5	
TOLUENE			MG/KG	<0.5	<0.5	
ETHYLBENZENE			MG/KG	4.0	<0.5	
TOTAL XYLENES			MG/KG	45	3.9	

SURROGATE:

BROMOFLUOROBENZENE (%) 113 67

PHASE II

RECORD OF SUBSURFACE EXPLORATION

PHILLIP 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 177
Project Location Canyon Largo Unit 145 75863

Elevation _____
Borehole Location _____
GWL Depth _____
Logged By CM CHANCE
Drilled By M. DONOHUE - K. Padilla
Date/Time Started 6/5/95 - 1105
Date/Time Completed 6/5/95 - 1205

Well Logged By CM Chance
Personnel On-Site K. Padilla, F. 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 Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	HS	
0				Backfill to 12'						
5										
10										
15	1	15-17	4"	Blk silty SAND, vf-f sand, tr med sand, dense, strong adn			Δ	180	521 652	1115 hr Hard Drilling
20	2	20-21	2"	Br Sandstone, vf sand, sl crystalline v. hard, sl moist			○	50	NA	1131 Refusal @ 21'
25				TDB 21'						
30										
35										
40										

Comments: 20-21' sample (CMC 36) sent to lab. Not enough sample volume for Headspace + lab sample. Took lab sample. BH grouted to surface. Refusal @ 21'.

Geologist Signature _____



Phase II

Analysis of Soil Samples

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

Field ID

Lab ID

SAMPLE NUMBER:

cmc 36

a46870

MTR CODE | SITE NAME:

75863

N/A

SAMPLE DATE | TIME (Hrs):

6-5-95

1131

SAMPLED BY:

N/A

DATE OF TPH EXT. | ANAL:

6-7-95

6-7-95

DATE OF BTEX EXT. | ANAL:

6-8-95

6-12-95

TYPE | DESCRIPTION:

VG

Brown sandstone

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	20.025	MG/KG	1			
TOLUENE	20.025	MG/KG	1			
ETHYL BENZENE	20.025	MG/KG	1			
TOTAL XYLENES	0.061	MG/KG	1			
TOTAL BTEX	0.136	MG/KG				
TPH (418.1)	45.0	MG/KG			2.01	28
HEADSPACE PID	N/A	PPM				
PERCENT SOLIDS	91.6	%				

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

The Surrogate Recovery was at 88 % for this sample All QA/QC was acceptable.
Narrative:

ATI Results attached.

DF = Dilution Factor Used

Approved By:

Date:

6/28/95

```

*****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil
*****
Beckin-Elmer Model 1600 FT-IR
Analytic Report
*****

```

11/01/97 11:29

1 Sample Identification

10017

2 Initial mass of sample, g

0.010

3 Volume of sample after extraction, ml

32.000

4 Petroleum hydrocarbons, ppm

43.040

5 Net absorbance of hydrocarbons (2930 cm⁻¹)

0.015

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

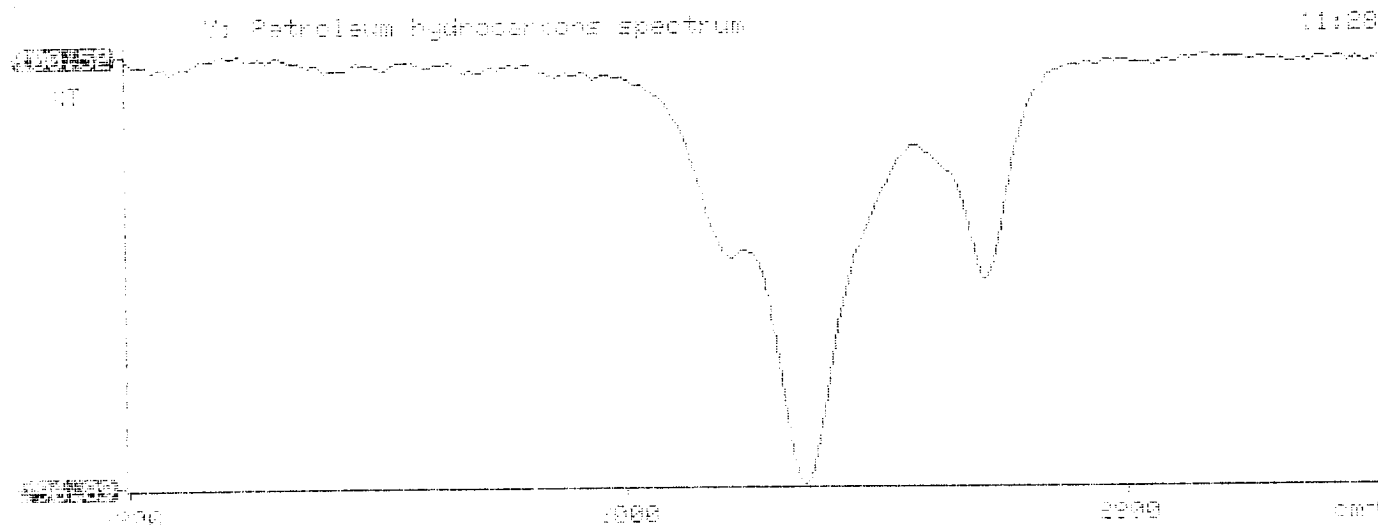
51

52

53

54

55



ILLEGIBLE



Analytical **Technologies**, Inc.

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

ATI I.D. 506330

June 13, 1995

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 06/08/95, 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.

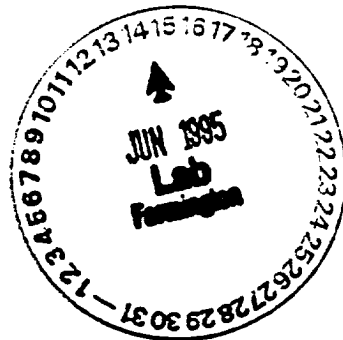
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX, (EPA 8020)
 CLIENT : EL PASO NATURAL GAS ATI I.D.: 506330
 PROJECT # : 24324
 PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946869	NON-AQ	06/05/95	06/08/95	06/12/95	1
05	946870	NON-AQ	06/05/95	06/08/95	06/12/95	1
06	946876	NON-AQ	06/06/95	06/08/95	06/12/95	1
PARAMETER			UNITS	04	05	06
BENZENE			MG/KG	<0.025	<0.025	<0.025
TOLUENE			MG/KG	<0.025	<0.025	<0.025
ETHYLBENZENE			MG/KG	<0.025	<0.025	<0.025
TOTAL XYLENES			MG/KG	<0.025	0.061	<0.025

SURROGATE:

BROMOFLUOROBENZENE (%) 90 88 94