Denny E. Foust
DEPUTY OIL & GAS INSPECTOR
DEC 22 1997

Meter Number:74302
Location Name:Jicarilla Apache #6 PC
Location:TN-24 RG-05
SC-11 UL-A
6 - Jicarilla
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

RECEIVED

RATIONALE FOR RISK-BASED CLOSURE OF PRODUCTION PITS LOCATED OUTSIDE OF THE VULNERABLE ZONE IN THE SAN JUAN BASIN

This production pit location was ranked according to the criteria in the New Mexico Oil Conservation Division's Unlined Surface Impoundment Closure Guidelines and received a ranking score of zero. The estimated depth to groundwater is greater than 100-feet beneath ground surface (bgs), the pit is not in a well head protection area, and there are no surface water bodies within 1,000 horizontal feet of the pit location.

The primary source, discharge to the pit has been removed. There has been no discharge to the pits for at least 4 years and the pits have been closed for at least one year.

Each pit was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Minimal infiltration of rainfall is expected. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching the residual hydrocarbons.

There is no source material at the ground surface, so direct contact of hydrocarbons with livestock and the populous is not likely.

In general, outside of the vulnerable area and alluvial valleys, bedrock material is generally encountered within 20 feet of the ground surface. Bedrock material in the San Juan Basin consists of interbedded sandstones, shales and clays. According to Freeze and Cherry, 1979, the hydraulic conductivity of the bedrock material are as follows:

Sandstone	10^{-9} to 10^{-13} cm/sec
Shale	10^{-12} to 10^{-16} cm/sec
Clay	10^{-12} to 10^{-15} cm/sec

Based on this information, the residual hydrocarbons should not migrate to groundwater.

Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until the source is gone, therefore minimizing any impact to the environment.

Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

EPFS
EL PASO FIELD SERVICES

FIELD PIT SITE ASSESSMENT FORM

Meter: 74302 Location: JICARILLA APACHE #6 PC
Operator #: 5784 Operator Name: ~~OPERATION~~ M&M PRODUCTION P/L District: OJITO
Coordinates: Letter: A Section 11 Township: 24 Range: 5
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 8-9-95 Area: 06 Run: 51

NMOCD Zone: (From NMOCD Maps)		**Land Type:**	BLM	___ (1)
			State	___ (2)
	Inside	___ (1)	Fee	___ (3)
	Outside	X (2)	Indian	JICARILLA

Depth to Groundwater

Less Than 50 Feet (20 points)	___ (1)
50 Ft to 99 Ft (10 points)	___ (2)
Greater Than 100 Ft (0 points)	X (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) X (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)	X (3)

Name of Surface Water Body 0

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

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

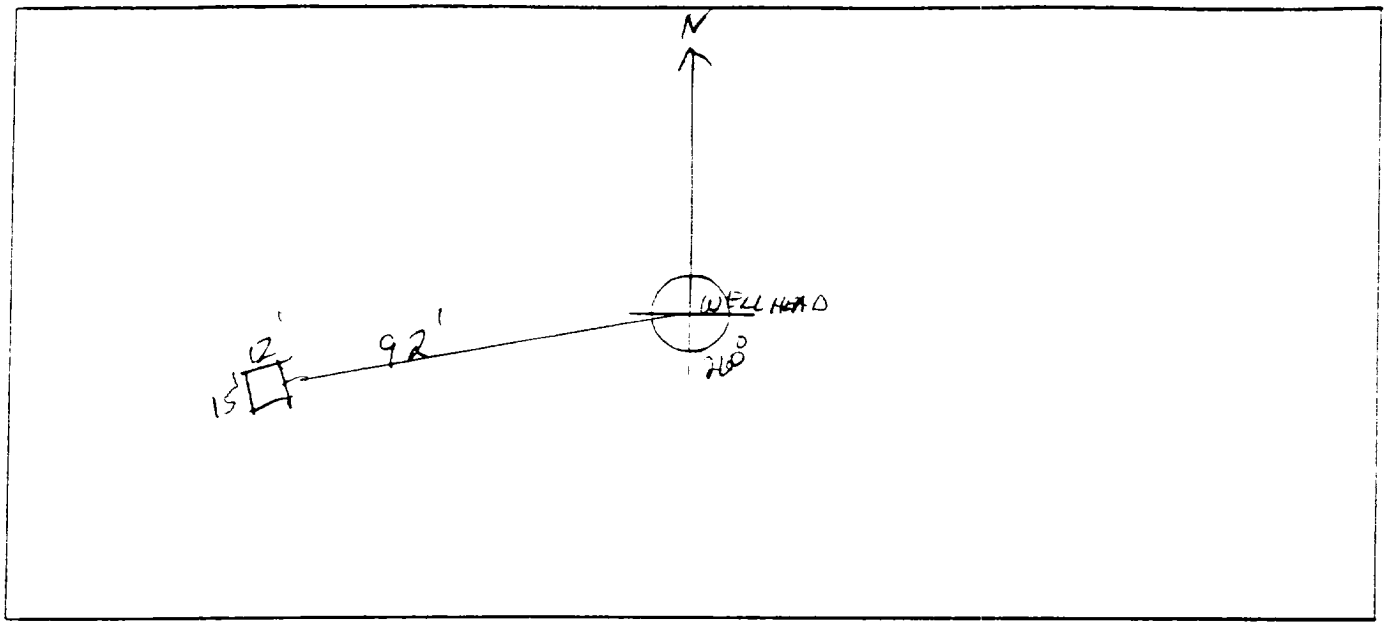
TOTAL HAZARD RANKING SCORE: 0 POINTS

Remarks : P&A

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 360° 92 Footage from Wellhead 92'

b) Length : 15' Width : 12' Depth : 24"



Remarks :

Completed By:

Signature

8-9-95

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 24302 Location: Jicarilla Apache #6 PC

Coordinates: Letter: A Section 11 Township: 24 Range: 5

Or Latitude _____ Longitude _____

Date Started : 8/31/95 Run: 06 51

FIELD OBSERVATIONS

Sample Number(s): JK68 _____ _____ _____

Sample Depth: 8' Feet

Final PID Reading 7.2 PID Reading Depth 8' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

- ☐ Excavation — Approx. Cubic Yards 0 13 9/12/95
- ☐ Onsite Bioremediation — Material From Jicarilla E.P.O. approved closure 9-6-95
- ☒ Backfill Pit Without Excavation

Soil Disposition:

- ☐ Envirotech
- ☐ Tierra
- ☐ Other Facility — Name: _____

Pit Closure Date: 9-7-95 Pit Closed By: Philip

REMARKS

Remarks : Did Not Excavat More Than 100' From Ephemral stream EPNG on Site Fence size: 21X18X3

Signature of Specialist: Jason K Kirby

El Paso Natural Gas Company

SPLIT

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID RB9/1/95
SAMPLE NUMBER:	JK68	9473765
MTR CODE | SITE NAME:	74302	Jic. Apache #6 PC
SAMPLE DATE | TIME (Hrs):	08-31-95	1430
PROJECT:	Jic Pits	
DATE OF TPH EXT. ANAL.:	9-5-95	
DATE OF BTEX EXT. ANAL.:	9/1/95	9/5/95
TYPE | DESCRIPTION:	V6	DARK BROWN SANDY CLAY

REMARKS: no wall reading

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS DF	Q	M(g)	V(ml)	ATI Results
BENZENE	< 5	MG/KG					<0.025
TOLUENE	< 5	MG/KG					<0.025
ETHYL BENZENE	< 5	MG/KG					<0.025
TOTAL XYLENES	< 15	MG/KG					<0.025
TOTAL BTEX	< 3	MG/KG					<0.025
TPH (418.1)	<10 ~~< 32~~ 290 RD 9/6/95	MG/KG			2.05	10	<0.10
HEADSPACE PID	7.2	PPM					not run
PERCENT SOLIDS	95.3	%					Surrogate % 117
							Dilution Factor 1

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

The Surrogate Recovery was at 84% for this samp All QA/QC was acceptable.

Narrative: ATI Results attached

DF = Dilution Factor Used

Approved By: _____ Date: _____

****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil

Perkin-Elmer Model 1600 FT-IR
Analysis Report
****

95/09/05 11:59

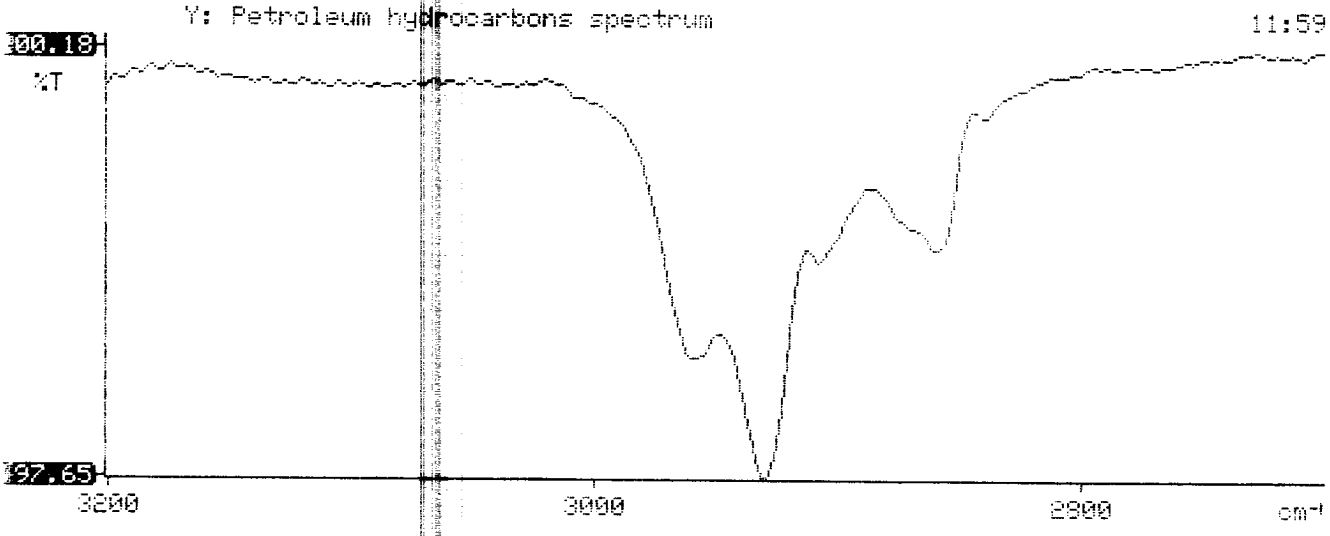
Sample identification
947375

Initial mass of sample, g
2.050

Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
2.897

Net absorbance of hydrocarbons (2930 cm-1)
0.011



BTEX SOIL SAMPLE WORKSHEET

File	947375	**Date Printed**	9/6/95
Soil Mass (g)	5.11	**Multiplier (L/g)**	0.00098
Extraction vol. (mL)	20	**DF (Analytical)**	200
Shot Volume (uL)	100	**DF (Report)**	0.19569

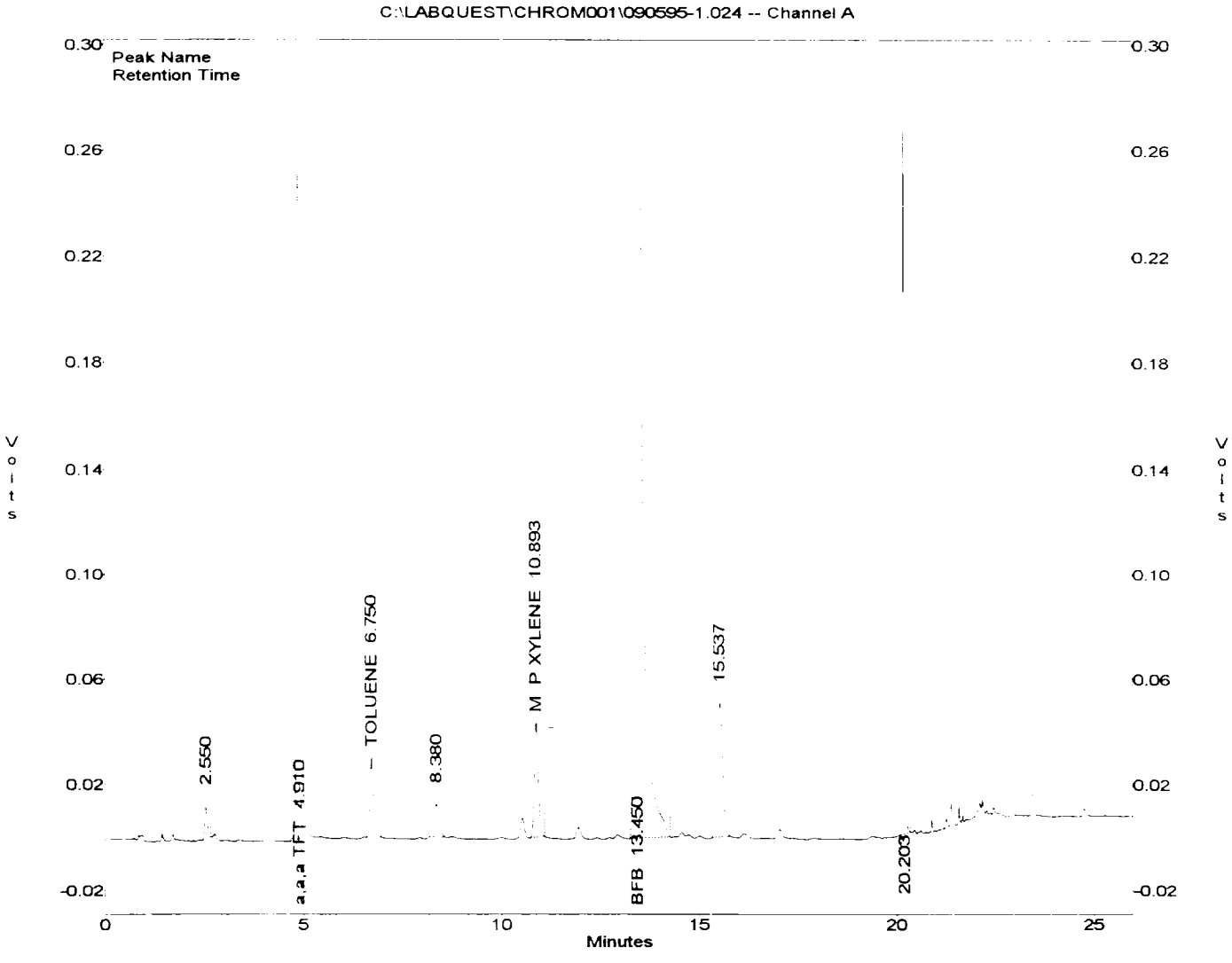
				Det. Limit
Benzene (ug/L)	0.00	**Benzene (mg/Kg):**	**0.000**	0.489
Toluene (ug/L)	0.00	**Toluene (mg/Kg):**	**0.000**	0.489
Ethylbenzene (ug/L)	0.00	**Ethylbenzene (mg/Kg):**	**0.000**	0.489
p & m-xylene (ug/L)	0.00	p & m-xylene (mg/Kg):	0.000	0.978
o-xylene (ug/L)	0.00	o-xylene (mg/Kg):	0.000	0.489
		Total xylenes (mg/Kg):	**0.000**	1.468
		Total BTEX (mg/Kg):	**0.000**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\090595-1.024
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 947375,5.11G,100U
Acquired : Sep 05, 1995 01:11:00
Printed : Sep 05, 1995 01:37:18
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.390	0	0.0000
a,a,a TFT	4.910	1805531	75.8655
TOLUENE	6.750	193342	-0.3063
ETHYLBENZENE	10.540	0	0.0000
M & P XYLENE	10.893	301576	-2.5816
O XYLENE	11.877	0	0.0000
BFB	13.450	29607542	84.2927



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 509320

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/JIC PITS

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	947375	NON-AQ	08/31/95	09/08/95	09/12/95	1

PARAMETER	UNITS	01
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025
SURROGATE:		
BROMOFLUOROBENZENE (%)		117

Analytical Technologies, Inc.

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

ATI I.D. **509320**

September 12, 1995

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

Project Name/Number: PIT CLOSURE/JIC PITS 24324

Attention: John Lambdin

On **09/07/95**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** sample(s). The sample(s) 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.
Laboratory Manager

MR:jt

Enclosure