

*Samuel L. Frost*  
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

*Approved*

Meter Number: 93316  
Location Name: Jicarilla 35 #8  
Location: TN-25 RG-05  
SC-36 UL-I  
6 - Jicarilla  
NMOCD Zone: OUTSIDE  
Hazard Ranking Score: 00

**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.

# FIELD PIT SITE ASSESSMENT FORM

Meter: 93316 Location: Spicarella 35 # 8  
Operator #: 1987 Operator Name: Meridian P/L District: Opito  
Coordinates: Letter: I Section 36 Township: 25 Range: 05  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator X Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 9-11-95 Area: 06 Run: 51

(From NMOCD  
Maps)

**Land Type:**

BLM ☐ (1)

State ☐ (2)

Fee ☐ (3)

Indian Sicarilla 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 \_\_\_\_\_

(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'

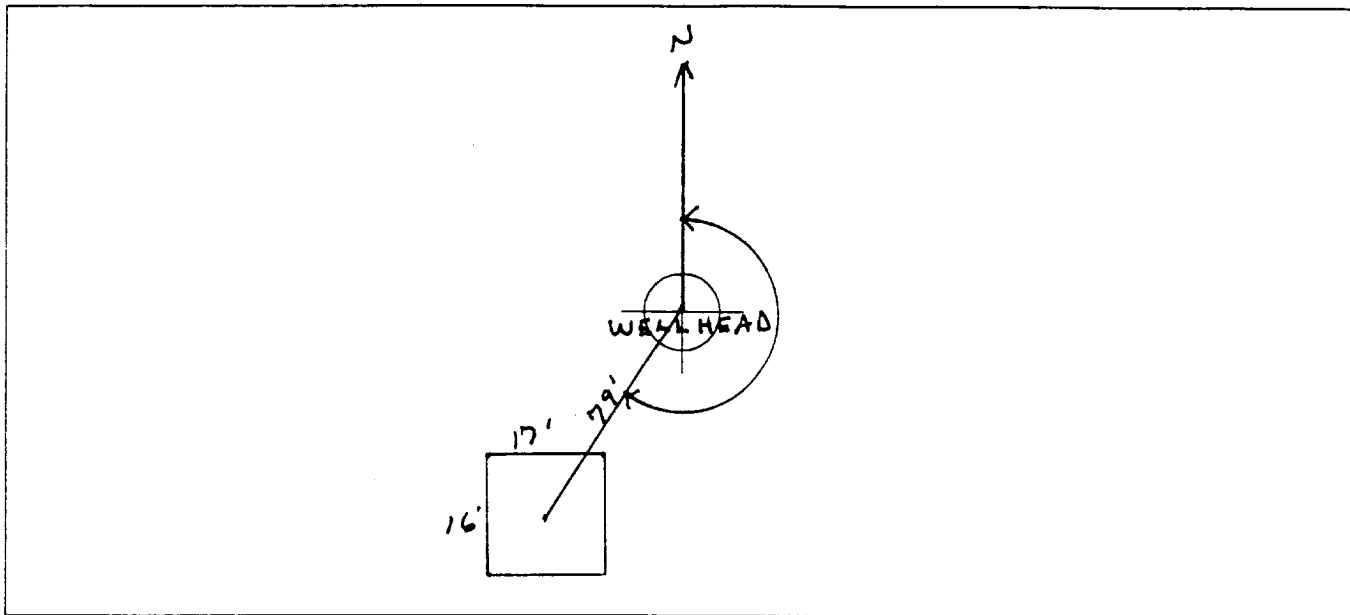
**TOTAL HAZARD RANKING SCORE: 0 POINTS**

Remarks : Redline + Topo Both show outside UZ. 2 pits on Location Separator Storage Tank pit with Liner, and Old Dehy pit belongs to Eprg Will close old Dehy pit.

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 213° Footage from Wellhead 79'  
b) Length : 17' Width : 16' Depth : 3'



REMARKS

Remarks :

photos - 4 pict 15:15

Completed By:

James L. Fenner  
Signature

9-11-95  
Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>933/6</u> Location: <u>Jicarilla 35<sup>#8</sup></u> Coordinates: Letter: <u>I</u> Section <u>36</u> Township: <u>25</u> Range: <u>05</u> Or Latitude _____ Longitude _____ Date Started : <u>9/19/95</u> Run: <u>06 51</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>JK84</u> Sample Depth: <u>6</u> Feet Final PID Reading <u>139.0</u> PID Reading Depth <u>6</u> Feet Yes No Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>           Excavation            Onsite Bioremediation            Backfill Pit Without Excavation         </div> <div> <input checked="" type="checkbox"/> Approx. Cubic Yards <u>100 LT 9/27/95</u>  <input type="checkbox"/> <u>Labrial Jicarilla F.P.O. approved</u>  <input type="checkbox"/> <u>closure 9-21-95</u> </div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>           Envirotech <input checked="" type="checkbox"/>            Other Facility <input type="checkbox"/> </div> <div> <input type="checkbox"/> Tierra            Name: _____         </div> </div> Pit Closure Date: <u>9-22-95</u> Pit Closed By: <u>Philip</u>
<b>REMARKS</b>	Remarks : <u>Pit Pit Readings (N-29.5) (S-0) (E-16.2) (W-7.8)</u> <u>Pit site 24x17x5</u> <u>Pit Rock at 6'</u> <u>Fence size 20x19x3</u> <u>No Net</u> <u>more than 100 from Ephemeral stream</u> <u>SPRAY PIT WITH SOIL ENHANCER 9-22-95</u> Signature of Specialist: <u>[Signature]</u>



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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	DK84	947493
MTR CODE   SITE NAME:	93316	Jicarilla 35 #8
SAMPLE DATE   TIME (Hrs):	09-19-95	1430
PROJECT:	Jic Pits	
DATE OF TPH EXT.   ANAL.:	9-20-95	
DATE OF BTEX EXT.   ANAL.:	9/20/95	9/22/95 / 9/26/95 9/26/95
TYPE   DESCRIPTION:	YG	Light grey Sand and clay

Field Remarks: (N-29.5)(S-0)(E-16.2)(W-7.8)

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	2.5	MG/KG				
TOTAL BTEX	2.5	MG/KG				
TPH (418.1)	502	MG/KG			2.04	28
HEADSPACE PID	139	PPM				
PERCENT SOLIDS	92.5	%				

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

The Surrogate Recovery was at 97% for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Date: 9-29-95

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*****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil.
Perkin-Elmer Model 1600 FT-IR
Analysis Report
*****

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95/09/20 14:49

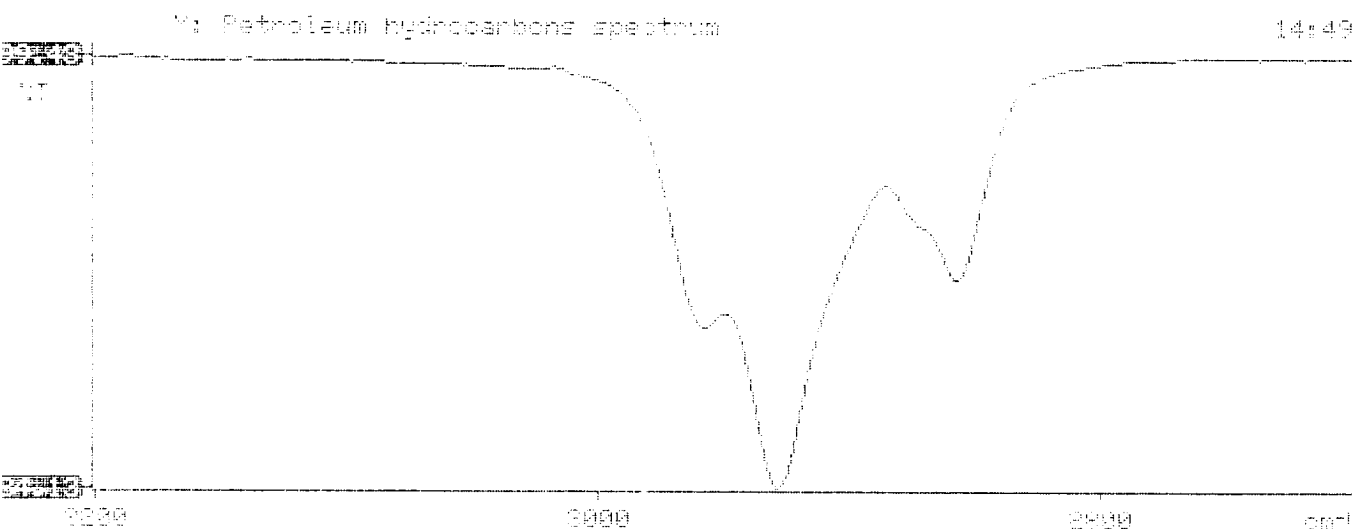
Sample identification  
047493

Initial mass of sample, g  
1.040

Volume of sample after extraction, ml  
2.000

Petroleum hydrocarbons, ppm  
101.761

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
1.072



## BTEX SOIL SAMPLE WORKSHEET

File	:	947493	Date Printed	:	9/26/95
Soil Mass (g)	:	5.00	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	10	DF (Analytical)	:	200
Shot Volume (uL)	:	50	DF (Report)	:	0.20000

				Det. Limit
Benzene (ug/L)	:	0.20	Benzene (mg/Kg):	0.040 0.500
Toluene (ug/L)	:	0.45	Toluene (mg/Kg):	0.090 0.500
Ethylbenzene (ug/L)	:	0.94	Ethylbenzene (mg/Kg):	0.188 0.500
p & m-xylene (ug/L)	:	9.47	p & m-xylene (mg/Kg):	1.894 1.000
o-xylene (ug/L)	:	2.84	o-xylene (mg/Kg):	0.568 0.500
			Total xylenes (mg/Kg):	2.462 1.500
			Total BTEX (mg/Kg):	2.780

# EL PASO NATURAL GAS

## EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM000\947493  
 Method : C:\LABQUEST\METHODS\9000.MET  
 Sample ID : 947493,5.00G,50U  
 Acquired : Sep 26, 1995 09:51:09  
 Printed : Sep 26, 1995 10:30:13  
 User : MARLON

### Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.150	75291	0.2012
a,a,a-TFT	10.463	8442813	96.5050
TOLUENE	12.867	162410	0.4462
ETHYLBENZENE	17.187	316388	0.9398
M,P-XYLENES	17.567	3689809	9.4656
O-XYLENE	18.737	925323	2.8445
BFB	19.807	52646108	96.5840

