

*Denny E. Faust*  
**DEPUTY OIL & GAS INSPECTOR**

**DEC 29 1997**

*Approved*

**Meter Number: 94389**  
**Location Name: Jicarilla 35 #14**  
**Location: TN-25 RG-05**  
**SC-35 UL-K**  
**6 - Jicarilla**  
**NMOCD Zone: OUTSIDE**  
**Hazard Ranking Score: 00**

**RECEIVED**  
**APR 14 1997**

**ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED**

**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**

GENERAL

Meter: 94389 Location: JICARILLA 35 #14  
Operator #: 1987 Operator Name: MERIDIAN P/L District: OJITO  
Coordinates: Letter: K Section 35 Township: 25 Range: 5  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator ☒ Location Drip: \_\_\_\_\_ Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 10-4-95 Area: \_\_\_\_\_ Run: \_\_\_\_\_

SITE ASSESSMENT

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

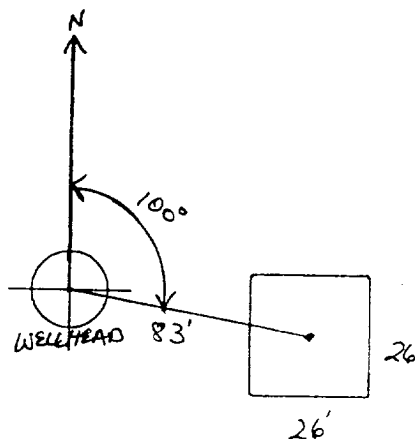
REMARKS

Remarks : REDLINE & TOPO SHOW LOCATION OUTSIDE V.Z. THERE ARE TWO PITS ON THIS LOCATION. ONE IS A DEHYDRATOR PIT AND BELONGS TO EPNG. THE OTHER IS A SEPERATOR PIT AND BELONGS TO THE OPERATOR. WILL CLOSE EPNGS PIT. PUSH IN

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 100° Footage from Wellhead 83'  
b) Length : 26' Width : 26' Depth : 2'



REMARKS

Remarks :

PHOTOS - 1152

Completed By:

Robert Thompson  
Signature

10-4-95  
Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>94389</u> Location: <u>Jicarilla 35 #14</u></p> <p>Coordinates: Letter: <u>K</u> Section <u>35</u> Township: <u>25</u> Range: <u>5</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>10/9/95</u> Run: <u>06</u> <u>63</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>JK 96</u> <u>JK 97</u> <u>JK 98</u></p> <p>Sample Depth: <u>11'</u> Feet</p> <p>Final PID Reading <u>1.1</u> PID Reading Depth <u>11'</u> Feet</p> <p>Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> Approx. Cubic Yards <u>216</u> <u>lt 10/18/95</u></p> <p>Onsite Bioremediation <input type="checkbox"/> <u>Gabriel Lic. F.P.O. approved.</u></p> <p>Backfill Pit Without Excavation <input type="checkbox"/> <u>closure 10-9-95</u></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input checked="" type="checkbox"/> Name: <u>JICARILLA LAND FARM L.L.P.</u></p> <p>Pit Closure Date: <u>10-11-95</u> Pit Closed By: <u>Philip</u></p>
REMARKS	<p>Remarks : <u>Pit Pid Readings (N-1.4) (S-200) (E-39.6) (W-8.7)</u></p> <p><u>Pit size 24x24x11</u></p> <p><u>Fence size 29x29x3</u> <u>No Net</u></p> <p><u>more Than 100' from Ethemral Stream</u></p> <p>Signature of Specialist: <u>[Signature]</u></p>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JK96	947610
MTR CODE   SITE NAME:	94389	Jicarilla 35 #14
SAMPLE DATE   TIME (Hrs):	10-09-95	1030
PROJECT:	Jic Pits	
DATE OF TPH EXT.   ANAL.:	10/11/95	
DATE OF BTEX EXT.   ANAL.:	10/10/95	10/10/95
TYPE   DESCRIPTION:	VG	Light brown sand.

Field Remarks: (N-1.4)(S-20.0)(E-34.6)(W-8.7)

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)	< 10	MG/KG			2.04	2.8
HEADSPACE PID	1.1	PPM				
PERCENT SOLIDS	94.4	%				

-- 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

Approved By:

D.P.

Date:

10-13-95

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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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95/10/11 13:46

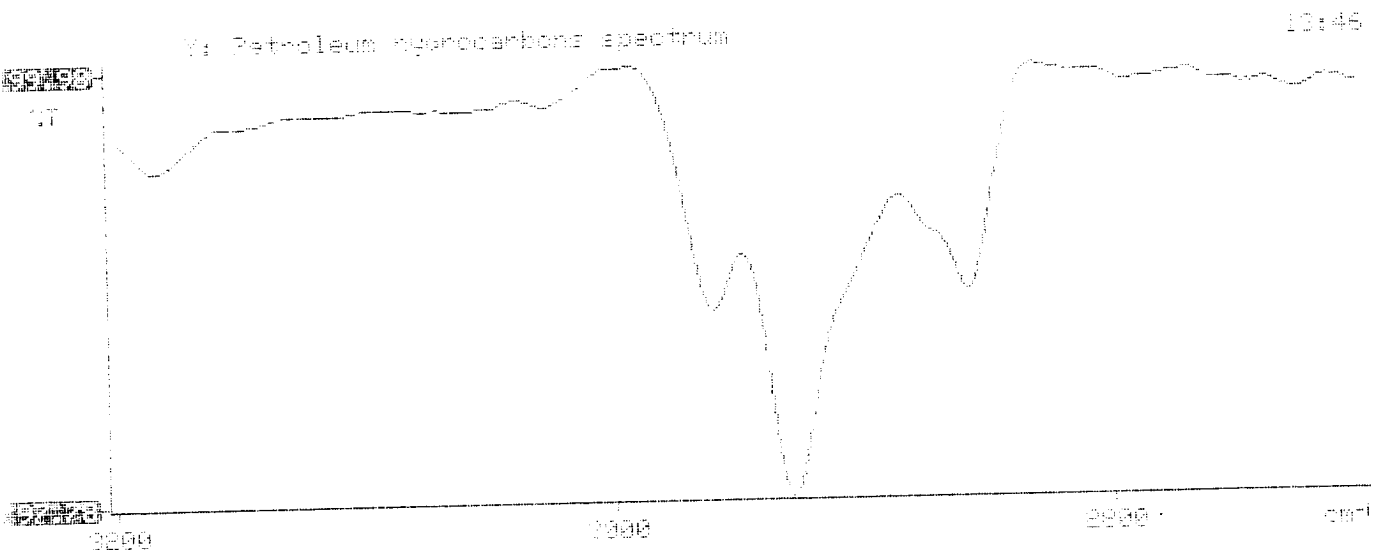
Sample identification  
747610

Initial mass of sample, g  
2.040

Volume of sample after extraction, ml  
28.000

Petroleum hydrocarbons, ppm  
-13.331

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.009



## BTEX SOIL SAMPLE WORKSHEET

File	:	947610	Date Printed	:	10/11/95
Soil Mass (g)	:	5.07	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	DF (Analytical)	:	200
Shot Volume (uL)	:	50	DF (Report)	:	0.19724

				Det. Limit
Benzene (ug/L)	:	0.17	Benzene (mg/Kg):	0.034 0.493
Toluene (ug/L)	:	0.26	Toluene (mg/Kg):	0.051 0.493
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 0.493
p & m-xylene (ug/L)	:	0.29	p & m-xylene (mg/Kg):	0.057 0.986
o-xylene (ug/L)	:	0.00	o-xylene (mg/Kg):	0.000 0.493
			Total xylenes (mg/Kg):	0.057 1.479
			Total BTEX (mg/Kg):	0.142

# EL PASO NATURAL GAS

## EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM000\101095-0.011  
 Method : C:\LABQUEST\METHODS\10-092095.MET  
 Sample ID : 947610,5.07G,50U  
 Acquired : Oct 10, 1995 18:37:05  
 Printed : Oct 10, 1995 19:07:31  
 User : MARLON

### Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.197	63033	0.1685
a,a,a-TFT	10.550	9162807	104.7348
TOLUENE	12.967	94257	0.2590
ETHYLBENZENE	17.170	0	0.0000
M,P-XYLENES	17.680	117551	0.2930
O-XYLENE	18.710	0	0.0000
BFB	19.897	52731500	96.7407

