

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997 Location Name: Jicarilla Apache Tribal 35 #1

Location: TN-24 RG-05

SC-01 UL-K

6 - Jicarilla

NMOCD Zone: OUTSIDE

Hazard Ranking Score: 00

RECEIVED
APR 14 1997

OIL CON. DIV.
DEC 2

**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

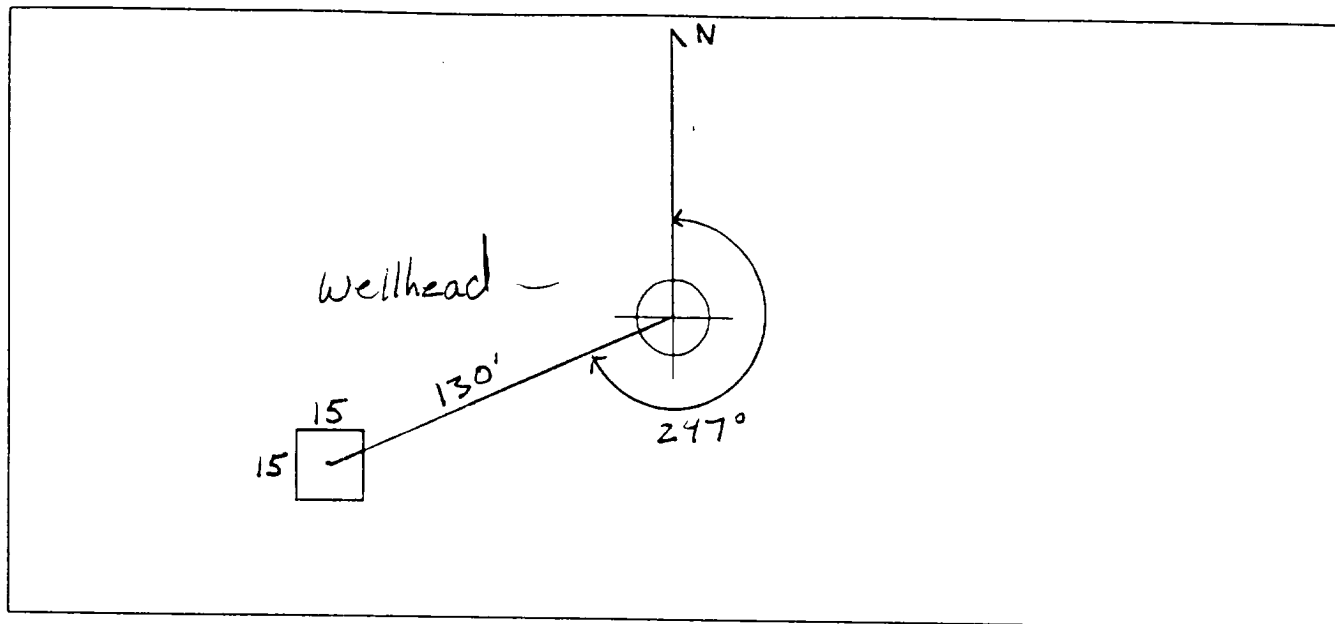
EL PASO FIELD SERVICES

GENERAL	<p>Meter: <u>90697</u> Location: <u>Jicarilla Apache Tribal 35 #1</u> Operator #: <u>0203</u> Operator Name: <u>Amoco</u> P/L District: <u>OJITO</u> Coordinates: Letter: <u>K</u> Section <u>1</u> Township: <u>24N</u> Range: <u>5W</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator <input checked="" type="checkbox"/> Location ^{KGW 7-14-94} Drip <input checked="" type="checkbox"/> Line Drip: _____ Other: _____ Site Assessment Date: <u>7-14-94</u> Area: <u>06</u> Run: <u>51</u></p>
	<p>NMOCD Zone: (From NMOCD Maps) Inside <input type="checkbox"/> (1) Outside <input checked="" type="checkbox"/> (2)</p> <p>Land Type: BLM <input type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian <u>Jicarilla Apache</u></p> <p>Depth to Groundwater Less Than 50 Feet (20 points) <input type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>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? <input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body Less Than 200 Ft (20 points) <input type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____ (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only) <input checked="" type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>0</u> POINTS</p>
REMARKS	<p>Remarks : <u>Redline Book - outside , Vulnerable Zone Topo - outside</u> <u>Three pits - Drip pit is dry has water & oil in it</u> <u>KGW 7-14-94</u></p>

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North ²⁴⁷~~13~~ Footage from Wellhead 130
 b) Length : 15 Width : 15 Depth : 3

ORIGINAL PIT LOCATION



REMARKS

Remarks :

Pictures @ Roll #2 photo 10

Completed By:

[Signature]

Signature

7-14-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 90697 Location: Jicarilla Apache Tribal 35[#]1
 Coordinates: Letter: K Section 1 Township: 24N Range: 5W
 Or Latitude _____ Longitude _____
 Date Started : 9/1/95 Run: 06 51

FIELD OBSERVATIONS

Sample Number(s): JK70
 Sample Depth: 19' Feet
 Final PID Reading 13.0 PID Reading Depth 19' Feet
 Yes No
 Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation

☒ Approx. Cubic Yards 488.27 9/12/95

Onsite Bioremediation

☐ GABRIEL From Jicarilla EPO APPROVED

Backfill Pit Without Excavation

☐

Soil Disposition:

Envirotech

☒

☐

Tierra

Other Facility

☐

Name: _____

Pit Closure Date: 9-7-95

Pit Closed By: Philip

REMARKS

Remarks : Pit Pic Readings: (W-2.0)(S-81.0)(E-0.6)(W-2.0)
Pit size: 25x24x19
Fence size: 22x22x3 No Net
More Than 100' From Ephemeral Stream

Signature of Specialist: James K. Kelly



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JK 70	947391
MTR CODE SITE NAME:	90697	Jicarilla Apache Tribal 35 #1
SAMPLE DATE TIME (Hrs):	09-01-95	1221
PROJECT:	Jic Pits	
DATE OF TPH EXT. ANAL.:	9-5-95	
DATE OF BTEX EXT. ANAL.:	9/6/95	9/10/95
TYPE DESCRIPTION:	VG	DARK Brown SANDY CLAY

Field Remarks: (N-2.0)(S-81.0)(E-0.6)(W-2.0)

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 5	MG/KG				
TOLUENE	< 5	MG/KG				
ETHYL BENZENE	< 5	MG/KG				
TOTAL XYLENES	< 15	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	123	MG/KG			2.01	28
HEADSPACE PID	13	PPM				
PERCENT SOLIDS	87.6	%				

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

The Surrogate Recovery was at
Narrative:

90%

for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

Date: 9-11-95

```

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

```

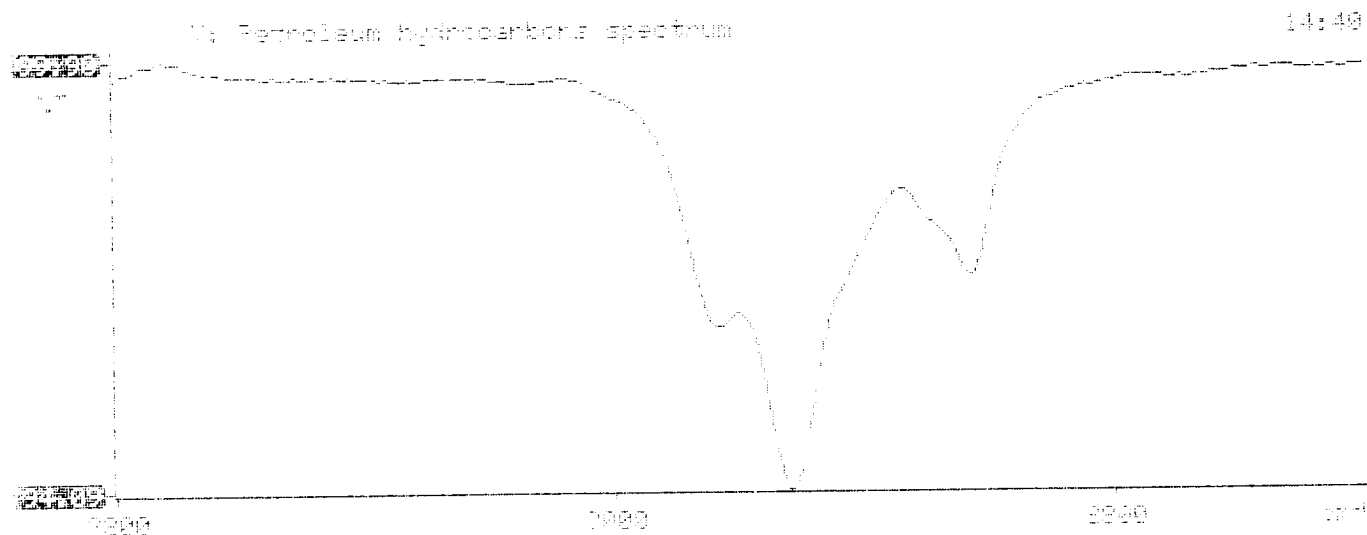
95/09/03 14:39

Sample Identification
047391

Initial mass of sample, g
1.010

Volume of sample after extraction, ml
13.000

Petroleum hydrocarbons, ppm
22.907
Net absorbance of hydrocarbons (2930 cm-1)
0.025



BTEX SOIL SAMPLE WORKSHEET

File	:	947391	Date Printed	:	9/11/95
Soil Mass (g)	:	4.98	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	20	DF (Analytical)	:	200
Shot Volume (uL)	:	100	DF (Report)	:	0.20080

			Det. Limit	
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 0.502
Toluene (ug/L)	:	0.00	Toluene (mg/Kg):	0.000 0.502
Ethylbenzene (ug/L)	:	0.64	Ethylbenzene (mg/Kg):	0.129 0.502
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000 1.004
o-xylene (ug/L)	:	1.20	o-xylene (mg/Kg):	0.241 0.502
			Total xylenes (mg/Kg):	0.241 1.506
			Total BTEX (mg/Kg):	0.369

EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\090795-1.010
 Method : C:\LABQUEST\METHODS\9001.MET
 Sample ID : 947391,4.98G,100U
 Acquired : Sep 10, 1995 17:42:46
 Printed : Sep 10, 1995 18:09:09
 User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.410	0	0.0000
a,a,a TFT	4.903	3249039	94.0853
TOLUENE	6.740	157224	-0.2365
ETHYLBENZENE	10.520	66546	0.6373
M & P XYLENE	10.873	400937	-2.8007
O XYLENE	11.933	55455	1.2000
BFB	13.413	54124740	90.3205

