

*Denny E. Fout*  
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

*Approved*

Meter Number: 90986  
Location Name: FEDERAL E #6  
Location: TN-27 RG-08  
SC-13 UL-K  
2 - Federal  
NMOCD Zone: OUTSIDE  
Hazard Ranking Score: 00

RECEIVED  
APR 14 1997

OIL CON. DIV.  
DIST. 3

**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.

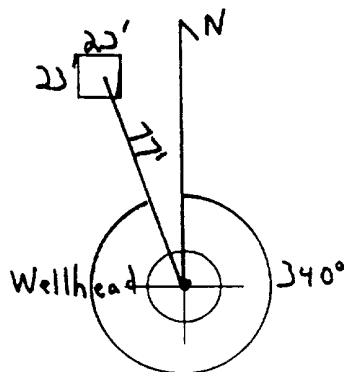
# FIELD PIT SITE ASSESSMENT FORM



GENERAL	<p>Meter: <u>90986</u> Location: <u>Federal E6</u></p> <p>Operator #: <u>0748</u> Operator Name: <u>Bladsoe Petro Corp</u> District: <u>Blanco</u></p> <p>Coordinates: Letter: <u>K</u> Section <u>13</u> Township: <u>27</u> Range: <u>8</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <input checked="" type="checkbox"/> Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>6/6/94</u> Area: <u>03</u> Run: <u>32</u></p>															
	<p><b>NMOCD Zone:</b> (From NMOCD Maps)</p> <p><b>Land Type:</b></p> <table border="0"> <tr> <td>Inside</td> <td><input type="checkbox"/> (1)</td> <td>BLM</td> <td><input checked="" type="checkbox"/> (1)</td> </tr> <tr> <td>Outside</td> <td><input checked="" type="checkbox"/> (2)</td> <td>State</td> <td><input type="checkbox"/> (2)</td> </tr> <tr> <td></td> <td></td> <td>Fee</td> <td><input type="checkbox"/> (3)</td> </tr> <tr> <td></td> <td></td> <td>Indian</td> <td>_____</td> </tr> </table> <p><b>Depth to Groundwater</b></p> <p>Less Than 50 Feet (20 points) <input type="checkbox"/> (1)</p> <p>50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b></p> <p>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><b>Horizontal Distance to Surface Water Body</b></p> <p>Less Than 200 Ft (20 points) <input type="checkbox"/> (1)</p> <p>200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</p> <p>(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) &lt; 100' (Navajo Pits Only)</p> <p><input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p>	Inside	<input type="checkbox"/> (1)	BLM	<input checked="" type="checkbox"/> (1)	Outside	<input checked="" type="checkbox"/> (2)	State	<input type="checkbox"/> (2)			Fee	<input type="checkbox"/> (3)			Indian
Inside	<input type="checkbox"/> (1)	BLM	<input checked="" type="checkbox"/> (1)													
Outside	<input checked="" type="checkbox"/> (2)	State	<input type="checkbox"/> (2)													
		Fee	<input type="checkbox"/> (3)													
		Indian	_____													
REMARKS	<p>Remarks : <u>Redline - Outside, Vuln - Outside</u></p> <p><u>2 pits. Closest Pit has liquid in it</u></p> <p><u>PUSH-IN</u></p>															

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 340° Footage from Wellhead 77'  
 b) Length : 23' Width : ~~28~~ 23' Depth : 5'  
 June 6/6/94



## REMARKS :

Pictures @ IDS 9 (16-19)  
END Dump

Completed By:

Cory Chase  
 Signature

6/6/94  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

## GENERAL

Meter: 90986 Location: Federal E#6  
 Coordinates: Letter: K Section 13 Township: 27 Range: 8  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 8-18-94 Run: 03 32

## FIELD OBSERVATIONS

Sample Number(s): 3K274  
 Sample Depth: 3' Feet  
 Final PID Reading 192 PID Reading Depth 3' Feet  
 Yes No  
 Groundwater Encountered ☐ ☒ Approximate Depth \_\_\_\_\_ Feet

## CLOSURE

Remediation Method :  
 Excavation ☐ Approx. Cubic Yards \_\_\_\_\_  
 Onsite Bioremediation ☐  
 Backfill Pit Without Excavation ☒  
 Soil Disposition:  
 Envirotech ☐ Tierra ☐  
 Other Facility ☐ Name: \_\_\_\_\_  
 Pit Closure Date: 8-18-94 Pit Closed By: BEI

## REMARKS

Remarks : EPNG LINES NOT MARKED SOIL GRAY STRONG  
HYDROCARBON odor HIT SANDSTONE 3'

Signature of Specialist: Moya Killian



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	mk 274	945972
MTR CODE   SITE NAME:	90986	N/A
SAMPLE DATE   TIME (Hrs):	8-18-94	1017
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	8-24-94	8/24/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VG	light grey sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1) 53,100	<del>53,100</del> 192	MG/KG			.13	28
HEADSPACE PID	192	PPM				
PERCENT SOLIDS	89.6	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By: JL

Date: 9/6/94

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

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

MD/CA 11/27

Sample Description:

**ILLEGIBLE**

good!