

*Denny*  
DEPUTY CHIEF, BASIN INSPECTOR

DEC 22 1997

*Approved*

Meter Number: 71055  
Location Name: SAN JUAN 31-6 #7  
Location: TN-30 RG-07  
SC-01 UL-G  
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.

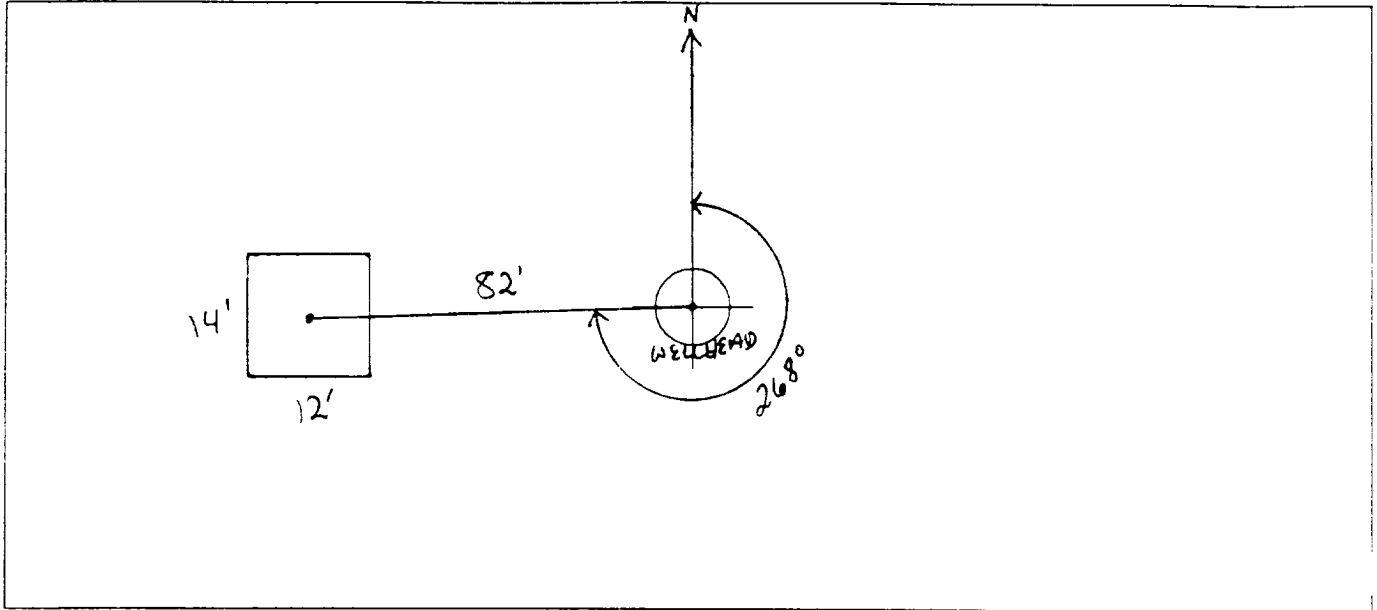
Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

**FIELD PIT SITE ASSESSMENT FORM**

GENERAL	<p>Meter: <u>71055</u> Location: <u>SAN JUAN 31-6 #7</u></p> <p>Operator #: <u>7035</u> Operator Name: <u>PHILLIPS</u> P/L District: <u>BLOOMFIELD</u></p> <p>Coordinates: Letter: <u>6</u> Section <u>1</u> Township: <u>30</u> Range: <u>7</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>6-6-94</u> Area: <u>10</u> Run: <u>82</u></p>
	SITE ASSESSMENT
REMARKS	

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 268° Footage from Wellhead 82'  
 b) Length : 14' Width : 12' Depth : 2'



## Remarks :

TOOK PICTURES AT 2:02 P.M.

END DUMP

Completed By:

Robert Thompson  
 Signature

6.6.94  
 Date

# FL AND PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>71055</u> Location: <u>SAN Juan 31-6 #7</u></p> <p>Coordinates: Letter: <u>G</u> Section <u>1</u> Township: <u>30</u> Range: <u>7</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>7-12-94</u> Area: <u>10</u> Run: <u>22</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>AK120</u></p> <p>Sample Depth: <u>3'</u> Feet</p> <p>Final PID Reading <u>516</u> PID Reading Depth <u>3</u> Feet</p> <p style="text-align: center;">Yes      No</p> <p>Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> (1) Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/> (2)</p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/> (3)</p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> (1) <input type="checkbox"/> (3) Tierra</p> <p>Other Facility <input type="checkbox"/> (2) Name: _____</p> <p>Pit Closure Date: <u>7-12-94</u> Pit Closed By: <u>BEI</u></p>
<b>REMARKS</b>	<p>Remarks : <u>EPNG lines marked soil light gray slight</u></p> <p><u>Hydrocarbon odor H+ sand stone 8'</u></p>
	<p>Signature of Specialist: <u>Morgan Killian</u></p>



**FIELD SERVICES LABORATORY**  
**ANALYTICAL REPORT**  
**PIT CLOSURE PROJECT - Soil**

**SAMPLE IDENTIFICATION**

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

mk 120

945644

71055

N/A

7-12-94

1210

N/A

7-14-94

7/14/94

N/A

N/A

VG

Brown Sand/Clay/Sandstone

REMARKS:

**RESULTS**

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE		MG/KG				
TOLUENE		MG/KG				
ETHYL BENZENE		MG/KG				
TOTAL XYLENES		MG/KG				
TOTAL BTEX		MG/KG				
TPH (418.1)	185	MG/KG			2.09	28
HEADSPACE PID	516	PPM				
PERCENT SOLIDS	92.4	%				

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

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

DF = Dilution Factor Used

ND

7/14/94

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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  
\*\*\*\*\*

04/07/14 10:35

Sample Identification  
045644

Initial mass of sample, g  
1.090

Volume of sample after extraction, ml  
12.000

Petroleum hydrocarbons, ppm  
54.896

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.027

**ILLEGIBLE**

