

*Denny E. Faust*  
DEPUTY OIL & GAS INSPECTOR

DEC 30 1997

*Approved*

Meter Number:90336  
Location Name:S.J. 29-7 #111  
Location:TN-29 RG-07  
SC-31 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.

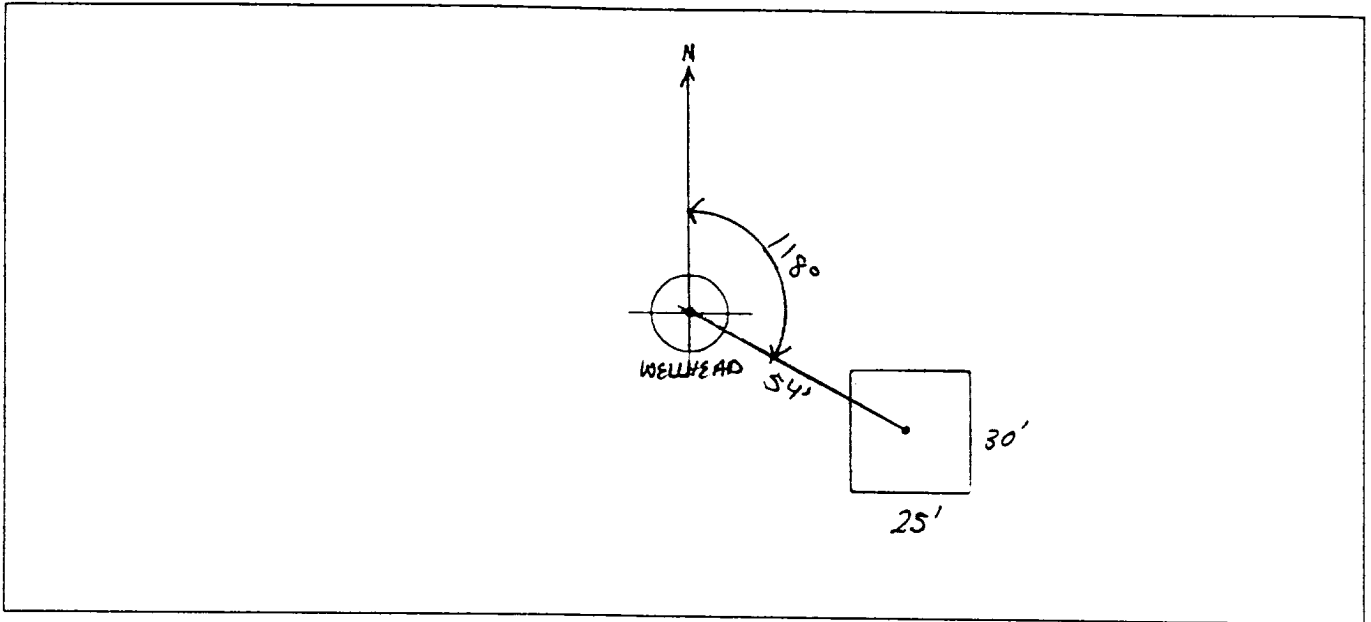
Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.



### ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 118° Footage from Wellhead 54'  
b) Length : 30' Width : 25' Depth : 3'

ORIGINAL PIT LOCATION



REMARKS

Remarks :

PHOTOS - 1219

Completed By:

Robert Thompson

Signature

12-8-94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>90336</u> Location: <u>S.J. 29-7 #111</u></p> <p>Coordinates: Letter: <u>K</u> Section <u>31</u> Township: <u>29</u> Range: <u>7</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>2-22-95</u> Run: <u>13</u> <u>71</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>mk 396</u></p> <p>Sample Depth: <u>3'</u> Feet</p> <p>Final PID Reading <u>251</u> PID Reading Depth <u>3'</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 type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>2-22-95</u> Pit Closed By: <u>RET</u></p>
REMARKS	<p>Remarks : <u>Arrived Dug Sample Hole Hit Sandstone 3'</u></p> <p><u>Soil grayish brown strong Hydrocarbon odor</u></p>
	<p>Signature of Specialist: <u>Morgan Killion</u></p>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

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 396

90336

2-22-95

N/A

2-28-95

VG

946696

N/A

1415

2-28-95

Brown sand and clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	233	MG/KG			2.17	28
HEADSPACE PID	251	PPM				
PERCENT SOLIDS	91.7	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

3-20-95

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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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95/02/28 14:38

Sample Identification

946696

Initial mass of sample, g

0.170

Volume of sample after extraction, ml

25.000

Concentration hydrocarbons, ppm

232.481

Net absorbance of hydrocarbons (1930 cm<sup>-1</sup>)

0.042

