

*Denny S. Fort*  
**DEPUTY OIL & GAS INSPECTOR**

DEC 29 1997

*Approved*

Meter Number: 71341  
Location Name: HUERFANITO UNIT #14  
Location: TN-26 RG-09  
SC-01 UL-O  
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.

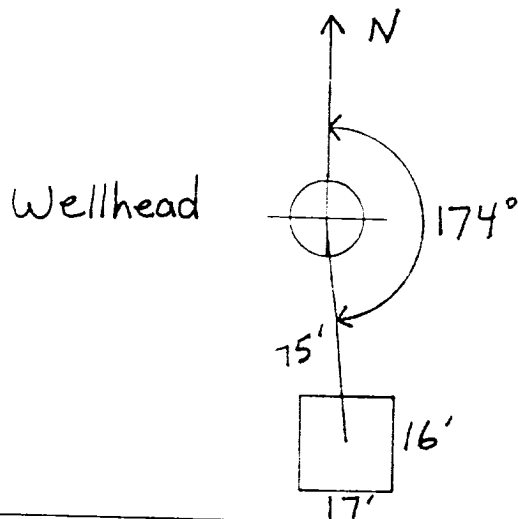
Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until the source is gone, therefore minimizing any impact to the environment.

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 174° Footage from Wellhead 75  
b) Length : 17 Width : 16 Depth : 3



Remarks :

Photos - 1003

Bobtail

Completed By:

K. H. White

Signature

6-22-94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>71341</u> Location: <u>Huerfano # 14</u> Coordinates: Letter: <u>0</u> Section <u>1</u> Township: <u>26</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Date Started : <u>9-29-94</u> Run: <u>11</u> <u>91</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>VW351</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>217</u> PID Reading Depth <u>12'</u> Feet <div style="text-align: center;">Yes      No</div> Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>           Excavation            Onsite Bioremediation            Backfill Pit Without Excavation         </div> <div style="text-align: right;"> <input type="checkbox"/> Approx. Cubic Yards _____  <input type="checkbox"/>  <input checked="" type="checkbox"/> </div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>           Envirotech <input type="checkbox"/>            Other Facility <input type="checkbox"/> </div> <div> <input type="checkbox"/> Tierra            Name: _____         </div> </div> Pit Closure Date: <u>9-29-94</u> Pit Closed By: <u>BEZ</u>
<b>REMARKS</b>	Remarks : <u>12' sandstone</u> <u>10 yds F-11</u> _____ _____
	Signature of Specialist: <u>Nick Wilson</u>



## 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:

vw 351	946261
71341	N/A
9-29-94	0920
N/A	
10-3-94	
N/A	N/A
VG	Fine Sand & Clay

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	48 + 151 150	10/4/94 MG/KG			2.00	28
HEADSPACE PID	217	PPM				
PERCENT SOLIDS	87.7	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

10/6/94

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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
*****

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94/10/03 18:56

Sample identification  
P46261

Initial mass of sample, g  
1.950

Volume of sample after extraction, ml  
29.000

Petroleum hydrocarbons, ppm  
150.595

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.029

Y: Petroleum hydrocarbons spectrum

18:56

