

Deming Field
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

Meter Number: 75830
Location Name: FLORANCE B #2
Location: TN-30 RG-09
SC-22 UL-B
2 - Federal
NMOCD Zone: OUTSIDE
Hazard Ranking Score: 00

RECEIVED
APR 1 1998
OIL & GAS
DIVISION

**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.

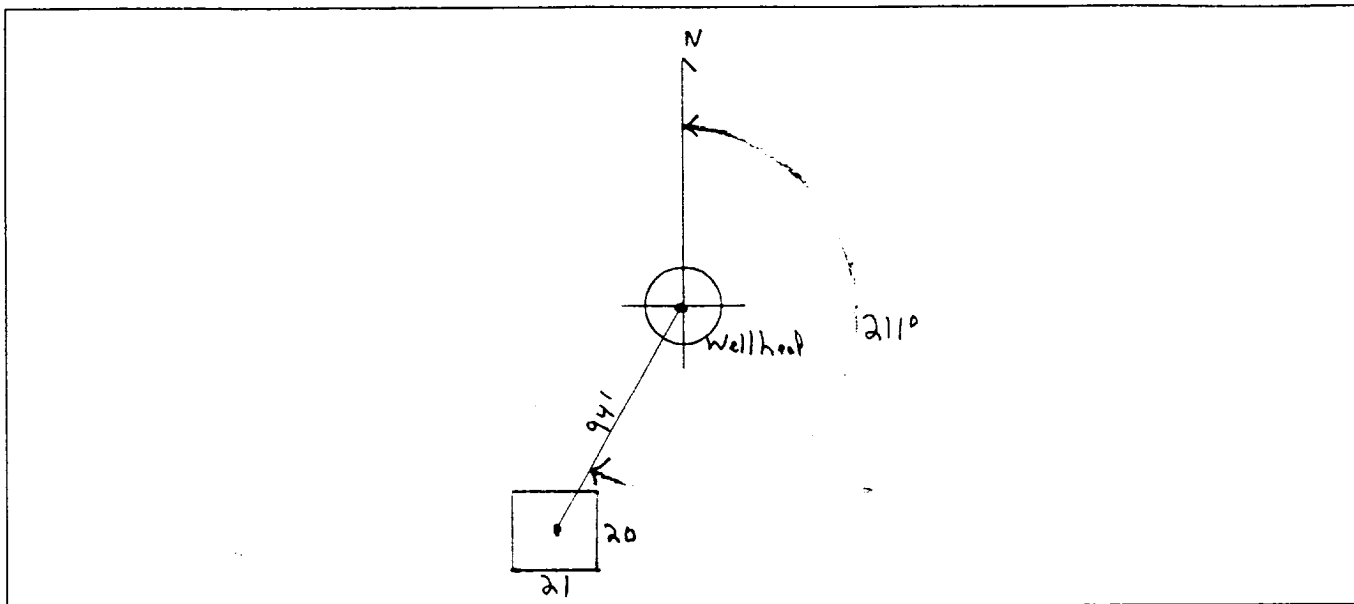
FIELD PIT SITE ASSESSMENT FORM

GENERAL	<p>Meter: <u>75800</u> Location: <u>Florencia B #2</u></p> <p>Operator #: <u>0203</u> Operator Name: <u>Amosa</u> P/L District: <u>Bloomfield</u></p> <p>Coordinates: Letter: <u>B</u> Section <u>22</u> Township: <u>30</u> Range: <u>9</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>4/25/94</u> Area: <u>10</u> Run: <u>33</u></p>
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps)</p> <p style="margin-left: 150px;">Inside <input type="checkbox"/> (1) Outside <input checked="" type="checkbox"/> (2)</p> <p>Land Type: BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p>Depth to Groundwater</p> <p>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</p> <p>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 _____</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) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>0</u> POINTS</p>
REMARKS	<p>Remarks : <u>Pit wet. Only pit</u></p> <p style="text-align: right; margin-top: 20px;">Push In</p>

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 211° Footage from Wellhead 94
 b) Length : 21 Width : 20 Depth : 2

ORIGINAL PIT LOCATION



REMARKS

Remarks :

Pictures taken at 12:18 p.m.

End Dump

Completed By:

Corey Chase
 Signature

4/25/94
 Date

GENERAL

Meter: 75830 Location: Florange B#2

Coordinates: Letter: B Section 22 Township: 30 Range: 9

Or Latitude _____ Longitude _____

Date Started 5-18-94 Area: 10 Run: 33

FIELD OBSERVATIONS

Sample Number(s): VW101

Sample Depth: 3' Feet

Final PID Reading 189 PID Reading Depth 3' Feet

Yes No

Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☐ (1) Approx. Cubic Yards _____

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☒ (3)

Soil Disposition:

Envirotech ☐ (1) ☐ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 5-18-94 Pit Closed By: LEI

REMARKS

Remarks : EPN's line markers - sandstone 3'

Signature of Specialist: Vale Wilson



FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	VW 101	945222
MTR CODE SITE NAME:	75830	N/A
SAMPLE DATE TIME (Hrs):	5-18-94	1000
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL:	5-19-94	5/19/94
DATE OF BTEX EXT. ANAL:	N/A	N/A
TYPE DESCRIPTION:	VG	grey coarse sand

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	→ 37,100	MG/KG				
TPH (418.1)	37100 37100 5/12/94	MG/KG			0.2E	28
HEADSPACE PID	189	PPM				
PERCENT SOLIDS	91.7	%				

— 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

Approved By:

John Subedi

Date:

6/15/94

Perkin-Elmer Model 1600 FT-IR
Analysis Report

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The number of transformed cells was determined by the number of colonies growing on the selective medium. The results are the mean of three independent experiments. Error bars represent standard deviation.

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The *Agrobacterium* strains were grown in YEA medium at 28°C for 24 h. The cell concentration of the strains was adjusted to 1.0 × 10⁸ cells/ml. The cell suspension was mixed with the plant tissue and the transformation efficiency was determined. The results are shown as the mean ± SD of three independent experiments. The asterisk indicates a significant difference (*P* < 0.05) between the two strains.

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The *Agrobacterium* strains were grown in YEA medium at 28 °C for 24 h. The cell concentration was adjusted to 1.0 × 10⁸ cells/ml. The cells were then mixed with the plant tissue and the transformation efficiency was determined. The results are shown as the mean ± SD of three independent experiments. The transformation efficiency was significantly different from the control (p < 0.05) as determined by the Student's *t*-test.

$\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{4}$

