

*Denny E. Faust*  
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

Meter Number: 90795  
Location Name: GARTNER #2  
Location: TN-30 RG-08  
SC-29 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.

**EPFS**  
**EL PASO FIELD SERVICE**

Meter: 9079S Location: BARTNER #2  
Operator #: 0203 Operator Name: Amoco P/L District: BLOOMFIELD  
Coordinates: Letter: X<sup>4-28-94</sup> Section 29 Township: 30 Range: 8  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 4-28-94 Area: 10 Run: 22 41  
<sub>4-28-94</sub>

**NMOCD Zone:** (From NMOCD Maps) Inside ☐ (1) Outside ☒ (2)

**Land Type:** BLM ☒ (1) State ☐ (2) Fee ☐ (3) Indian \_\_\_\_\_

**Depth to Groundwater**  
Less Than 50 Feet (20 points) ☐ (1)  
50 Ft to 99 Ft (10 points) ☐ (2)  
Greater Than 100 Ft (0 points) ☒ (3)

**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? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

**Horizontal Distance to Surface Water Body**  
Less Than 200 Ft (20 points) ☐ (1)  
200 Ft to 1000 Ft (10 points) ☐ (2)  
Greater Than 1000 Ft (0 points) ☒ (3)

Name of Surface Water Body \_\_\_\_\_  
(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☐ (2) > 100'

**TOTAL HAZARD RANKING SCORE:** 0 **POINTS**

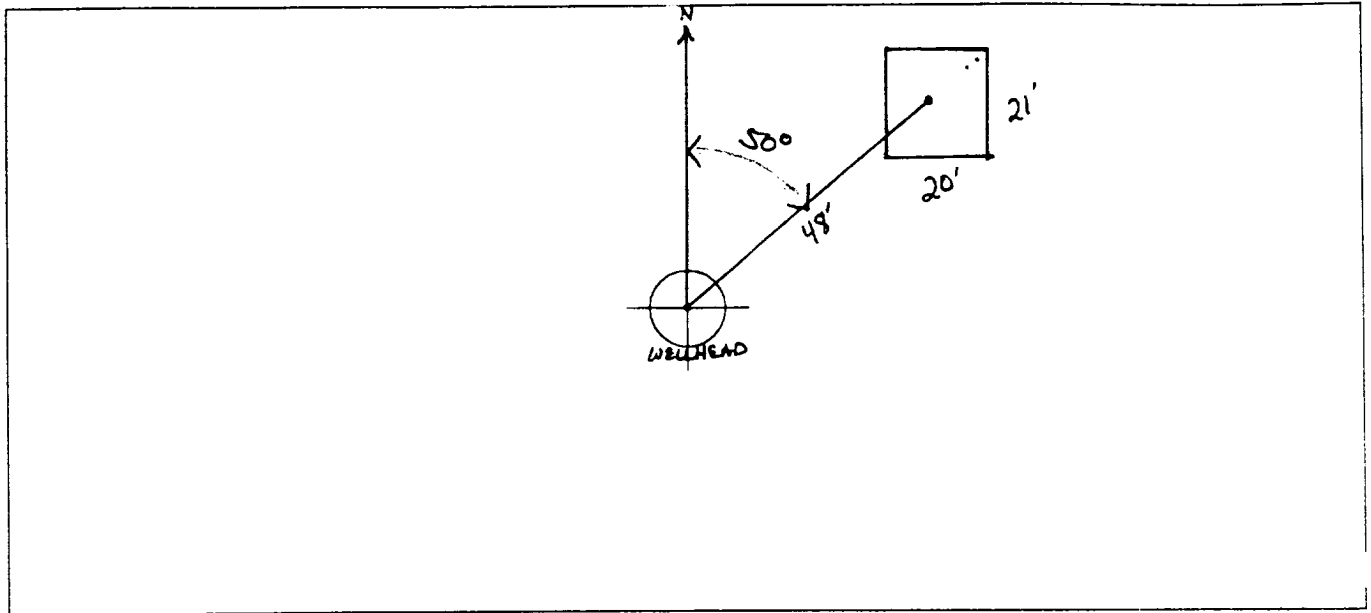
Remarks : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS  
LOCATION IS WAY UP ON TOP OF A MESA. REDLINE AND TOPO CONFIRMED  
LOCATION TO BE OUTSIDE ZONE.

PUSH IN

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 50° Footage from Wellhead 48'  
b) Length : 21' Width : 20 Depth : 3'



REMARKS

Remarks :

TOOK PICTURES AT 1:29 P.M.

END DUMP

Completed By:

Signature

4.28.94

Date

GENERAL	Meter: <u>40795</u> Location: <u>Gartner #2</u> Coordinates: Letter: <u>6</u> Section <u>29</u> Township: <u>30</u> Range: <u>8</u> Or Latitude _____ Longitude _____ Date Started : <u>5-20-94</u> Area: <u>10</u> Run: <u>41</u>
FIELD OBSERVATIONS	Sample Number(s): <u>VW130</u> Sample Depth: <u>9'</u> Feet Final PID Reading <u>201</u> PID Reading Depth <u>9'</u> Feet <div style="text-align: center;">Yes      No</div> Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet
CLOSURE	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>Excavation</div> <div><input type="checkbox"/> (1) Approx. Cubic Yards _____</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Onsite Bioremediation</div> <div><input type="checkbox"/> (2)</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Backfill Pit Without Excavation</div> <div><input checked="" type="checkbox"/> (3)</div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>Envirotech</div> <div><input type="checkbox"/> (1)</div> <div><input type="checkbox"/> (3) Tierra</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Other Facility</div> <div><input type="checkbox"/> (2) Name: _____</div> </div> Pit Closure Date: <u>5-20-94</u> Pit Closed By: <u>BEI</u>
REMARKS	Remarks : <u>Pit had a lot of oil in it. Checked with RC said stir it up if possible &amp; bury it. 9' h.t. rock</u>
Signature of Specialist: <u>Vale Wilson</u>	



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

#### PIT CLOSURE PROJECT - Soil

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	VW130	945264
MTR CODE SITE NAME:	90795	N/A
SAMPLE DATE TIME (Hrs):	5-20-94	1445
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL:	5/24/94	5/24/94
DATE OF BTEX EXT. ANAL:	N/A	N/A
TYPE DESCRIPTION:	VG	dry sand & clay

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)	3500	MG/KG			2.08	28
HEADSPACE PID	201	PPM				
PERCENT SOLIDS	89.3	%				

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

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

F = Dilution Factor Used

Approved By: John Lardner

Date: 6/16/94

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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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04/05/24 10:42

Sample identification  
045264

Initial mass of sample, g  
1.030

Volume of sample after extraction, ml  
13.000

Petroleum hydrocarbons, ppm  
1304.065  
Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.444

