

*Denny E. Frost*  
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

*Approved*

Meter Number:93921

Location Name:CARTER COM #1E

Location:TN-27 RG-12

SC-10 UL-P

3 - Navajo

NMOCD Zone:OUTSIDE

Hazard Ranking Score:00

**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.

GENERAL

Meter: 93-921 Location: Carter COM Well Ab. 1E  
 Operator #: 1987 Operator Name: Meridian P/L District: Angel Peak  
 Coordinates: Letter: P Section 10 Township: 27 Range: 12  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 9/14/94 Area: 01 Run: 22

SITE ASSESSMENT

### NMOCD Zone:

(From NMOCD  
Maps)

Inside

Outside

### Land Type:

BLM ☐ (1)

State ☐ (2)

Fee ☐ (3)

Indian Navajo

### 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 Gallegos Canyon

(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

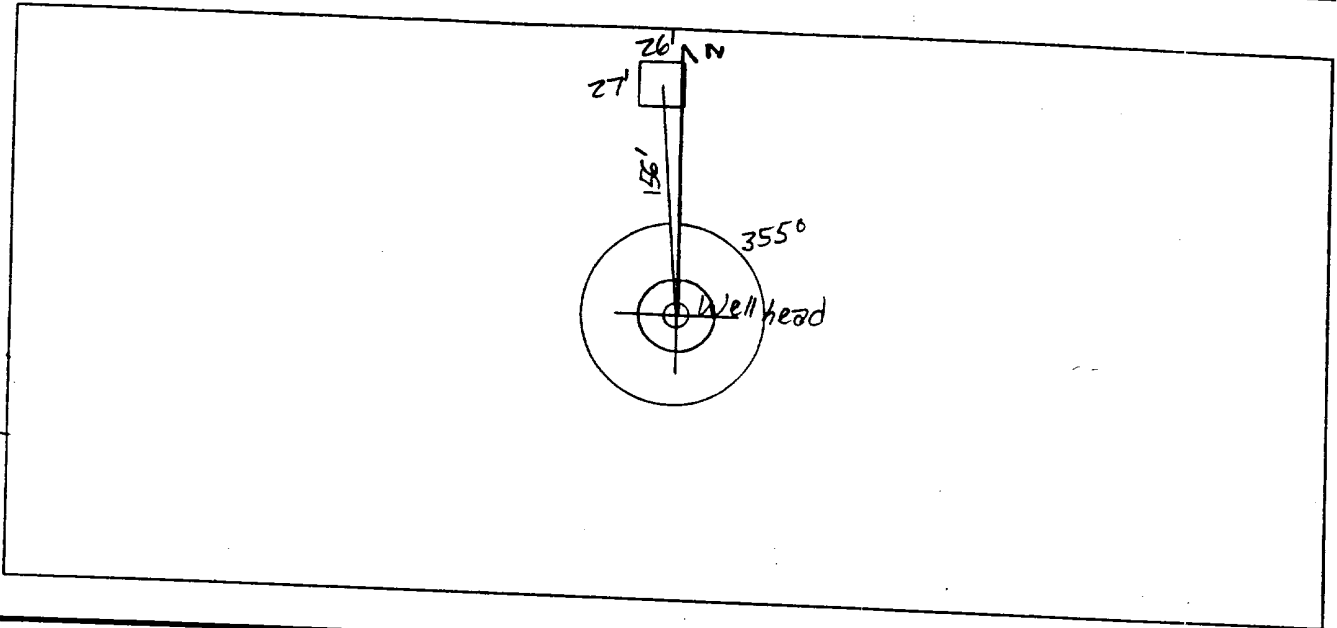
Remarks : Redline Book - Outside Vulnerable Zone Type - Outside  
Three pits, location drip pit is dry. Will close one pit.

PUSH IN

### ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 355° Footage from Wellhead 156'  
b) Length : 27' Width : 26' Depth : 4'

ORIGINAL PIT LOCATION



### Remarks :

Pictures @ 0945, Roll 12  
Dump Truck

REMARKS

Completed By:

Sarah Kelly  
Signature

9/14/94  
Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>93921</u> Location: <u>Carter Comm Well # 1E</u> Coordinates: Letter: <u>P</u> Section <u>10</u> Township: <u>27</u> Range: <u>12</u> Or Latitude _____ Longitude _____ Date Started : <u>10/21/94</u> Run: <u>01</u> <u>22</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>KD345</u> Sample Depth: <u>12'</u> Feet Final PID Reading <u>205</u> PID Reading Depth _____ Feet Yes No Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : Excavation <input type="checkbox"/> Approx. Cubic Yards _____ Onsite Bioremediation <input type="checkbox"/> Backfill Pit Without Excavation <input checked="" type="checkbox"/> Soil Disposition: Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/> Other Facility <input type="checkbox"/> Name: _____ Pit Closure Date: <u>10/22/94</u> Pit Closed By: <u>B.E.I.</u>
<b>REMARKS</b>	Remarks : <u>Dug test hole to 12', Took PID reading Closed pit.</u> _____ _____
Signature of Specialist: <u>Kimmy Deann</u>	



## FIELD SERVICES LABORATORY

### ANALYTICAL REPORT

#### PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

#### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 34/5	946438
MTR CODE   SITE NAME:	93921	N/A
SAMPLE DATE   TIME (Hrs):	10-21-94	0840
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	10-26-94	
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VL	Brown sand

REMARKS:

#### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	9810 <sup>KD 10/26/94</sup> 9820	MG/KG			0.92	28
HEADSPACE PID	205	PPM				
PERCENT SOLIDS	93.4	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By: 

Date: 11/3/94

\*\*\*\*\*  
 Test Method for  
 Oil and Grease and Petroleum Hydrocarbons  
 in Water and Soil  
 Perkin-Elmer Model 1600 FT-IR  
 Analysis Report  
 \*\*\*\*\*

04/10/26 11:31

Sample identification  
 04-432

Initial mass of sample, g  
 1.12

Volume of sample after extraction, ml  
 10.00

Petroleum hydrocarbons, ppm  
 12.1171

Wavelength of hydrocarbons (2930 cm-1)  
 0.1

