

*Denny E. Faust*  
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

*Approval*

Meter Number:75941

Location Name:E.E. ELLIOTT B #13

Location:TN-30 RG-09

SC-34 UL-B

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.

**FIELD PIT SITE ASSESSMENT FORM**

**GENERAL**

Meter: 75941 Location: EE. ELLIOT B #13  
 Operator #: 0203 Operator Name: Amoco P/L District: BLOOMFIELD  
 Coordinates: Letter: B Section 34 Township: 30 Range: 9  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip:  Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 4.18.94 Area: 10 Run: 43

**SITE ASSESSMENT**

**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

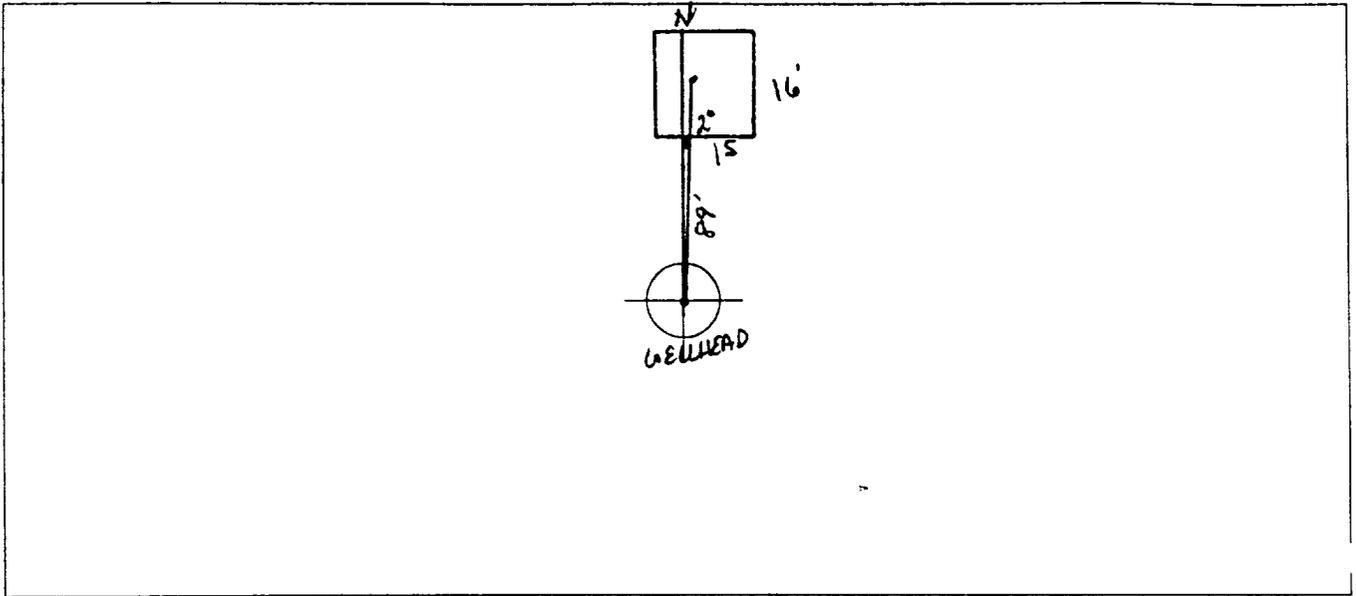
**REMARKS**

Remarks : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS ON A HILL.

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 2° Footage from Wellhead 89'  
b) Length : 16' Width : 15' Depth : 2'

ORIGINAL PIT LOCATION



REMARKS

Remarks :

STARTED TAKING PICTURES AT 12:12 P.M.

END DUMP

Completed By:

Robert Champion

Signature

4.18.94

Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 75941 Location: EE. Elliott B#13  
 Coordinates: Letter: B Section 34 Township: 30 Range: 9  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 5-31-94 Area: 10 Run: 43

FIELD OBSERVATIONS

Sample Number(s): VW150  
 Sample Depth: 12' Feet  
 Final PID Reading 335 PID Reading Depth 12' 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: 5-31-94 Pit Closed By: BEI

REMARKS

Remarks : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature of Specialist: Vale Wilson



**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	11W150	945307
MTR CODE   SITE NAME:	75941	N/A
SAMPLE DATE   TIME (Hrs):	5/31/94	0955
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	6/10/94	6/10/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	UG	Brown Coarse Sand

REMARKS: Return TPH

**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)	291	MG/KG			2.31	28
HEADSPACE PID	335	PPM				
PERCENT SOLIDS	97.1	%				

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

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

DF = Dilution Factor Used

Approved By: John Sardi

Date: 6/16/94



**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	VW150	945307
MTR CODE   SITE NAME:	75941	N/A
SAMPLE DATE   TIME (Hrs):	5-31-94	0955
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	6-2-94	6/2/94
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	V G	Brown 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		MG/KG				
TPH (418.1)	50	MG/KG			1.97	2.8
HEADSPACE PID	335	PPM				
PERCENT SOLIDS	97.1	%				

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

The Surrogate Recovery was at \_\_\_\_\_ % for this sample All QA/QC was acceptable.

Narrative: TPH result suspect - rerun TPH 6/10/94.

DF = Dilution Factor Used

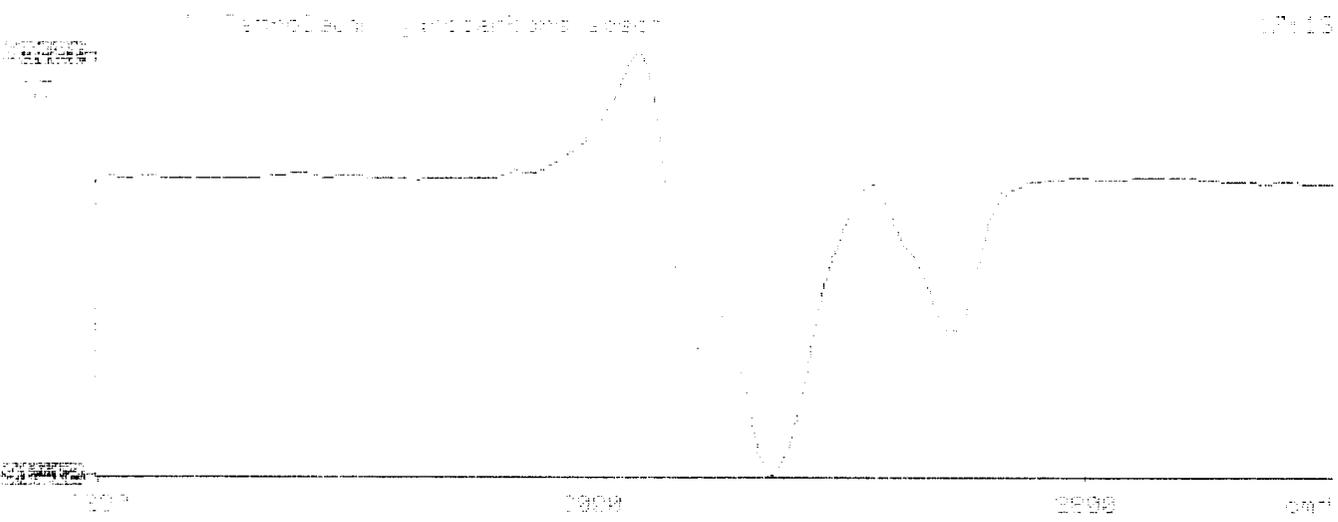
Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

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

74/06/10 17:13

Sample Identification  
"8570"  
Initial mass of sample, g  
Volume of sample used for extraction, ml  
Concentration of hydrocarbons, ppm  
Percentage of hydrocarbons (IITD used)



**ILLEGIBLE**