

Denny E. Frost
DEPUTY OIL CON. INSPECTOR

DEC 2 1997

Meter Number: 71720
Location Name: FANNIN #1
Location: TN-29 RG-10
SC-07 UL-B
2 - Federal
NMOCD Zone: OUTSIDE
Hazard Ranking Score: 00

RECEIVED
APR 14 1997

OIL CON. DIV.
DIST. 3

Approval

**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: 71720 Location: FANNIN #1
Operator #: 2999 Operator Name: MERIDIAN P/L District: BLOOMFIELD
Coordinates: Letter: B Section 7 Township: 29 Range: 10
Or Latitude _____ Longitude _____
Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
Site Assessment Date: 5-2-94 Area: 10 Run: 73

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD
Maps)

Inside

Outside

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

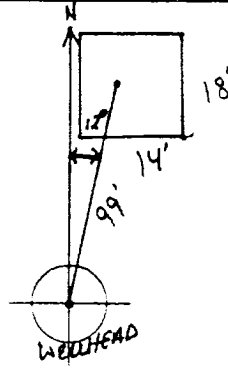
REMARKS

Remarks : ONLY PIT ON LOCATION. PIT IS DRY. REDLINE AND TOPO CONFIRMED
LOCATION TO BE OUTSIDE THE U.Z.

PUSH IN

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 12° Footage from Wellhead 99'
b) Length : 18' Width : 14' Depth : 3'



REMARKS :

TOOK PICTURES AT 11:36 A.M.

END DUMP

Completed By:

Robert Champion
Signature

5.2.94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 71720 Location: Fannin #1

Coordinates: Letter: B Section 7 Township: 29 Range: 10

Or Latitude _____ Longitude _____

Date Started : 6-10-94 Area: 10 Run: 73

FIELD OBSERVATIONS

Sample Number(s): VW191

Sample Depth: 10' Feet

Final PID Reading 221 PID Reading Depth 10' 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: 6-10-94 Pit Closed By: BEZ

REMARKS

Remarks : E.P.I.G. line markers Sandstone 10'

Signature of Specialist: Vale Wilson

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

N/A

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)	<10	MG/KG			2.09	28
HEADSPACE PID	221	PPM				
PERCENT SOLIDS	90.6	%				

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

The Surrogate Recovery was at
Narrative:

N/A

% for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

John F. L. L.

7/14/04

 Test Method for
 Oil and Grease and Petroleum Hydrocarbons
 in Water and Soil

Ferkin-Elmer Model 1600 FT-IR
 Analysis Report

74/06/13 12:36

Sample Identification
 745430

Initial mass of sample, g
 1.070

Volume of sample after extraction, ml
 13.800

Petroleum Hydrocarbons ppm
 1000000

Net mass range of hydrocarbons (2930-1300)
 0.000

