

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

Approved

Meter Number:94430
Location Name:LA LEE ANN #1
Location:TN-27 RG-13
SC-28 UL-B
3 - Navajo
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

EPES

EL PASO FIELD SERVICES

GENERAL

Meter: 94-430 Location: La Lee Ann #1
 Operator #: 1862 Operator Name: Dugan P/L District: Angel Peak
 Coordinates: Letter: B Section: 28 Township: 27 Range: 13
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
 Site Assessment Date: 9/14/94 Area: 01 Run: 11

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 Hugh Wash

(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

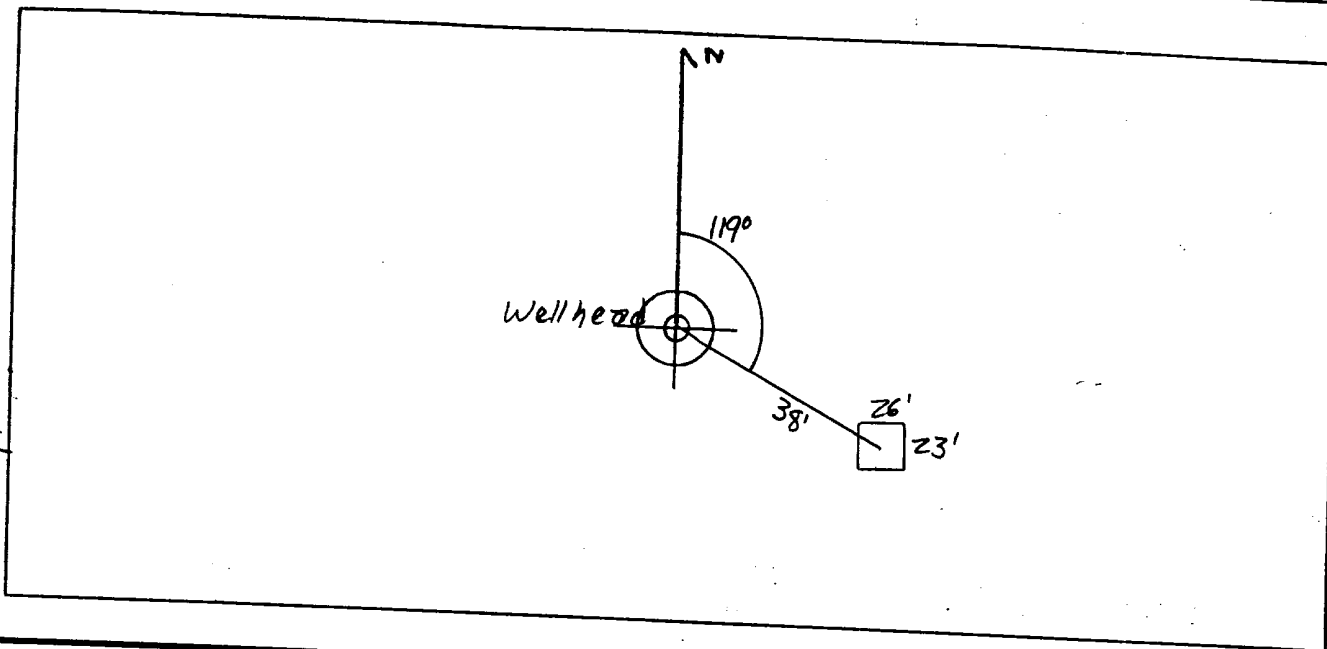
Remarks : Redline Book - Outside Valuable Zone - Outside
One pit, pit is dry. Will close one pit.

PUSH IN

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 119° Footage from Wellhead 38'
b) Length : 26' Width : 23' Depth : 4'

ORIGINAL PIT LOCATION



Remarks :

Pictures @ 1117, Roll 2
Dump Truck

REMARKS

Completed By:

David Kelly
Signature

9/14/94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>94430</u> Location: <u>La Lee ANN #1</u> Coordinates: Letter: <u>B</u> Section <u>28</u> Township: <u>27</u> Range: <u>13</u> Or Latitude _____ Longitude _____ Date Started : <u>10-21-94</u> Area: <u>01</u> Run: <u>11</u>
FIELD OBSERVATIONS	Sample Number(s): <u>KP 327</u> Sample Depth: <u>6'</u> Feet Final PID Reading <u>080</u> PID Reading Depth <u>6'</u> 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: <u>10-21-94</u> Pit Closed By: <u>B.E.I</u>
REMARKS	Remarks : <u>Some Line markers At 6' Hit SANDSTONE.</u> _____ _____
	Signature of Specialist: <u>Kelly Pedilla</u>



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 327	946443
MTR CODE SITE NAME:	94430	N/A
SAMPLE DATE TIME (Hrs):	10-21-94	1300
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	10-26-94	
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE DESCRIPTION:	VG	Light brown sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	17800	MG/KG			0.33	28
HEADSPACE PID	80	PPM				
PERCENT SOLIDS	90.2	%				

-- 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 *

94/10/26 11:34

Sample identification
 946443

Initial mass of sample, g
 0.330

Volume of sample after extraction, ml
 20.000

Petroleum hydrocarbons, ppm
 17771.015

Net absorbance of hydrocarbons (2930 cm⁻¹)
 0.360

