Jenny L. Trust
DEPUTY OIL & GAS INSPECTOR

DEC 2 2 1997

Approved

Meter Number:94388
Location Name:MADDOX WN FEDERAL #4E
Location:TN-30 RG-13
SC-24 UL-D
2 - Federal
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

RECEIVED
APR 1 4 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

FIELD PIT SITE ASSESSMENT FORM

EL PASO FIELD SERVICES

GENERAL

Meter: 94388 Location: MADDOX WN FEDERAL #4E

Operator #: 0286 Operator Name: CONOCO P/L District: KUTZ

Coordinates: Letter: D Section 24 Township: 30 Range: 13

Or Latitude _____ Longitude _____

Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____

Site Visit Date: 3.25.94 Run: 02 31

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)

- Inside Vulnerable Zone ☐
- Outside ☒

Land Type:

- BLM ☒
- State ☐
- Fee ☐
- Indian _____

Depth to Groundwater

- Less Than 50 Feet (20 points) ☐
- 50 Ft to 99 Ft (10 points) ☐
- Greater Than 100 Ft (0 points) ☒

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? ☐ YES (20 points) ☒ NO (0 points)

Horizontal Distance to Surface Water Body

- Less Than 200 Ft (20 points) ☐
- 200 Ft to 1000 Ft (10 points) ☐
- Greater Than 1000 Ft (0 points) ☒

Name of Surface Water Body _____

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

TOTAL HAZARD RANKING SCORE: 0 **POINTS**

REMARKS

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

ORIGINAL PIT LOCATION

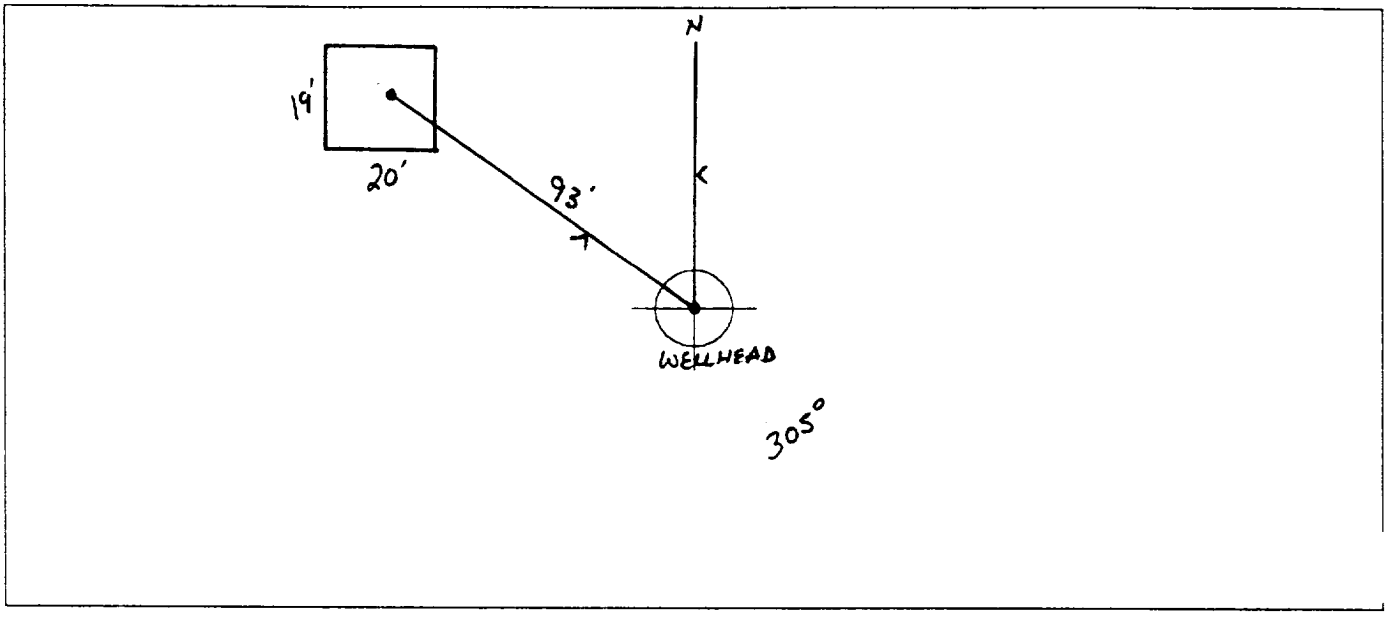
ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 305° Footage to Wellhead 93'

b) Degrees from North _____ Footage to Dogleg _____

Dogleg Name _____

c) Length : 20' Width : 19' Depth : 3'



REMARKS

Remarks :

STARTED TAKING PICTURES AT 7:34 A.M.

END DUMP

Completed By:

Signature

3.25.94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94388 Location: Maddox WN Federal #4E

Coordinates: Letter: D Section 24 Township: 30 Range: 13

Or Latitude _____ Longitude _____

Date Started : 4-21-94 Area: 02 Run: 31

FIELD OBSERVATIONS

Sample Number(s): 940853 KD17 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 322 ppm PID Reading Depth 12' Feet

Yes No

Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☐ (1) Approx. Cubic Yards 0

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☒ (3)

Soil Disposition:

Envirotech ☐ (1) ☒ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 4-21-94 Pit Closed By: BEI

REMARKS

Remarks : Dug test Hole to 12', took PID Reading closed Pit

Signature of Specialist: Kenny Ston

(SP3191) 04/07/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	1CD17	9406853
MTR CODE | SITE NAME:	94388	N/A
SAMPLE DATE | TIME (Hrs):	4/21/94	0930
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	4-22-94	4-22-94
DATE OF BTEX EXT. | ANAL.:	N/A	N/A
TYPE | DESCRIPTION:	VG	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)	692	MG/KG			2.02	28
HEADSPACE PID	322	PPM				
PERCENT SOLIDS	92.1%	%				

-- 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:

DF = Dilution Factor Used

Approved By: John Fowler Date: 4/30/94

********** **********

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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4/04/22 13:13

Sample identification
^0853

Initial mass of sample, g
.020

Volume of sample after extraction, ml
3.000

Petroleum hydrocarbons, ppm
^1.808

Net absorbance of hydrocarbons (2930 cm-1)
.099

Y: Petroleum hydrocarbons spectrum 13:14