Denny G. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

Approved

Meter Number:94473
Location Name:J APACHE C #3
Location:TN-24 RG-05
SC-35 UL-D
6 - Jicarilla
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.

EL PASO FIELD SERVICES

FIELD PIT SITE ASSESSMENT FORM

7

GENERAL

Meter: 94473 Location: J Apache 'C' Well #3
Operator #: 0124 Operator Name: Amanda P/L District: Ojito
Coordinates: Letter: D Section 35 Township: 24N Range: 05W
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 7-12-94 Area: 08 Run: 81

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)
Inside ☐ (1)
Outside ☒ (2)

Land Type:
BLM ☐ (1)
State ☐ (2)
Fee ☐ (3)
Indian Jicarilla Apache

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

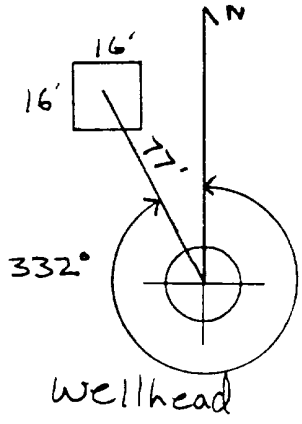
Remarks : Redline Book - outside Vulnerable Zone Topo - outside
one pit on location
Pasture

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 332 Footage from Wellhead 77

b) Length : 16 Width : 16 Depth : 3



REMARKS

Remarks :

Pictures @ Photos @ 1313 hrs

Completed By:

T Watt

Signature

7-12-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94473 Location: J APACHE 'C' WELL #3

Coordinates: Letter: D Section 35 Township: 24N Range: 05W

Or Latitude _____ Longitude _____

Date Started : 10-2-95 Run: 08 81

FIELD OBSERVATIONS

Sample Number(s): 05103 _____ _____ _____

Sample Depth: 4 Feet

Final PID Reading 7.0 PID Reading Depth 4 Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

- Excavation ☐ Approx. Cubic Yards 0 LT 10/18/95
- Onsite Bioremediation ☐ Gabrial Jic E.R.C. approved closure 10-9-95
- Backfill Pit Without Excavation ☒

Soil Disposition:

- Envirotech ☐
- ☐ Tierra
- Other Facility ☐ Name: _____

Pit Closure Date: 10-10-95 Pit Closed By: Philip

REMARKS

Remarks : HIT ROCK @ 4 foot SAMPLED PID READING 7ppm NO DIRT HAULED PUSHIN. PIT LISTED OUTSIDE W.V. ZONE. E.P.N.G. (NORMAN) ONSITE MORE THAN 100' FROM EPHEMERAL STREAM. FENCE 28x28x3

Signature of Specialist: Bobby Schmaltz

(SP3191) 03/16/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	NS103	947572
MTR CODE | SITE NAME:	94473	Apache 'C' Well #3
SAMPLE DATE | TIME (Hrs):	10-02-95	1345
PROJECT:	Jic Pits	
DATE OF TPH EXT. | ANAL.:		
DATE OF BTEX EXT. | ANAL.:	10/3/95	10/3/95
TYPE | DESCRIPTION:	VG	

Field Remarks: No wall PID readings.

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG				
TOLUENE	< 0.5	MG/KG				
ETHYL BENZENE	< 0.5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	43.3	MG/KG			2.05	
HEADSPACE PID	7.0	PPM				
PERCENT SOLIDS	81.2	%				

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

The Surrogate Recovery was at 100 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 10-4-95

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

Perkin-Elmer Model 1600 FT-IR
Analysis Report
****

[illegible] 15:36

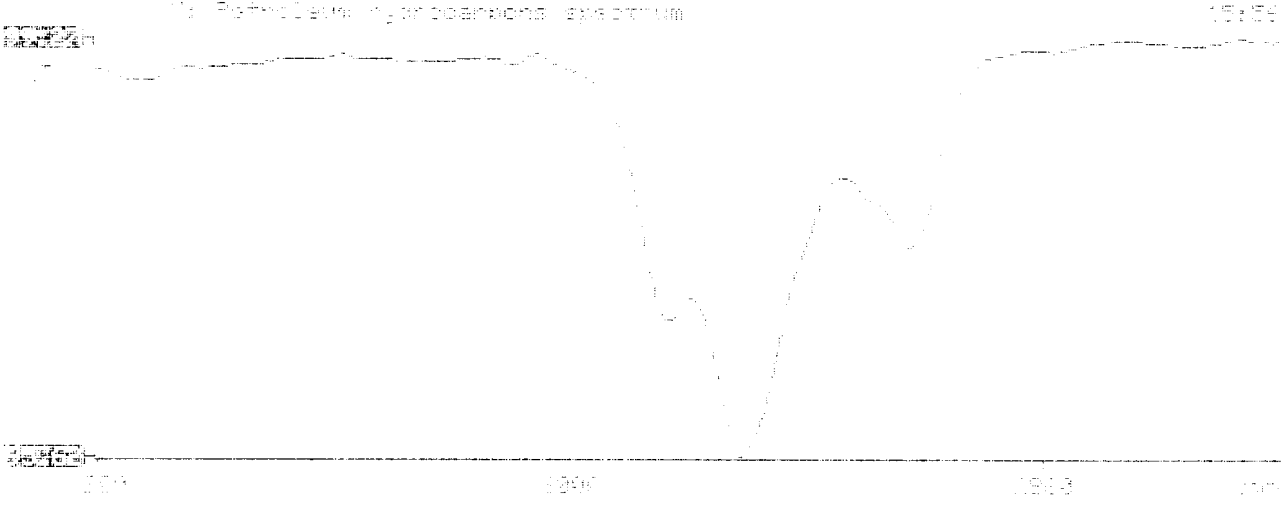
Sample Identification
[illegible]

Weight of sample, g
[illegible]

Volume of sample after extraction, ml
[illegible]

Petroleum Hydrocarbons, ppm
[illegible] Petroleum Hydrocarbons (2930 cm-1)
[illegible]

[illegible] Petroleum Hydrocarbons Spectrum 15:36



BTEX SOIL SAMPLE WORKSHEET

File	: 947572	**Date Printed**	: 10/4/95		
Soil Mass (g)	: 5.21	**Multiplier (L/g)**	: 0.00096		
Extraction vol. (mL)	: 10	**DF (Analytical)**	: 200		
Shot Volume (uL)	: 50	**DF (Report)**	: 0.19194		

				Det. Limit
Benzene (ug/L)	: 0.00	**Benzene (mg/Kg):**	**0.000**	0.480
Toluene (ug/L)	: 0.25	**Toluene (mg/Kg):**	**0.048**	0.480
Ethylbenzene (ug/L)	: 0.00	**Ethylbenzene (mg/Kg):**	**0.000**	0.480
p & m-xylene (ug/L)	: 0.49	p & m-xylene (mg/Kg):	0.094	0.960
o-xylene (ug/L)	: 0.00	o-xylene (mg/Kg):	0.000	0.480
		Total xylenes (mg/Kg):	**0.094**	1.440
		Total BTEX (mg/Kg):	**0.142**