

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

Approved

Meter Number: 95928

Location Name: Jicarilla Contract 148 #33

Location: TN-25 RG-05

SC-15 UL-H

6 - Jicarilla

NMOCD Zone: OUTSIDE

Hazard Ranking Score: 00

RECEIVED
IN
APR 14 1997
OIL & GAS DIV.
DEC 29

**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

EPFS
EL PASO FIELD SERVICES

GENERAL

Meter: 9S928 Location: JICARILLA CONTRACT 148 # 33
 Operator #: 0203 Operator Name: Amoco P/L District: OSITO
 Coordinates: Letter: H Section 15 Township: 25 Range: 5
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: ☒ Line Drip: _____ Other: _____
 Site Assessment Date: 8-21-95 Area: 06 Run: 63

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

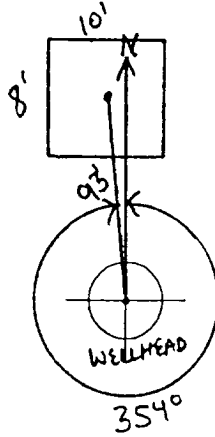
Remarks : REDUNE & TOPO SHOW LOCATION OUTSIDE V.I.Z. FOUR PITS ON THIS LOCATION. LOCATION DRIP PIT BELONGS TO EPNG. WILL CLOSE PIT. THE OTHER THREE PITS BELONG TO THE OPERATOR.

PUSH IN

(CONTINUED) 04/08/94

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 354° Footage from Wellhead 93'
 b) Length : 10' Width : 8' Depth : 2'



ORIGINAL PIT LOCATION

Remarks :

PHOTOS- 1238

REMARKS

Completed By:

Robert Champion
 Signature

8.21.95
 Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>9598</u> Location: <u>Jicarilla contract 148 #53</u> Coordinates: Letter: <u>H</u> Section <u>15</u> Township: <u>2S</u> Range: <u>5</u> Or Latitude _____ Longitude _____ Date Started : <u>8/30/95</u> Run: <u>06</u> <u>63</u>
FIELD OBSERVATIONS	Sample Number(s): <u>J/K 63</u> ^{64 RLB} ₉₋₁₂₋₉₅ Sample Depth: <u>6</u> Feet Final PID Reading <u>113.0</u> PID Reading Depth <u>6'</u> Feet Groundwater Encountered ☐ Yes ☒ No Approximate Depth _____ Feet
CLOSURE	Remediation Method : Excavation ☒ Approx. Cubic Yards <u>217.3 9/11/95</u> Onsite Bioremediation ☐ <u>Excluded From Jicarilla E.P.O.</u> Backfill Pit Without Excavation ☐ <u>Approved closure 9-6-95</u> Soil Disposition: Envirotech ☒ Tierra ☐ Other Facility ☐ Name: _____ Pit Closure Date: <u>9-8-95</u> Pit Closed By: <u>Philip</u>
REMARKS	Remarks : <u>Pit PID Readings (N-54.4)(S-10.6)(E-49.9)(W-2.9)</u> <u>Pit size 29x23x6 SPRAYED PIT WITH SOIL ENHANCER 9-6-95</u> <u>Fence size 26x24x3 Net yes</u> <u>more than 100' From Ephemeral Stream</u> Signature of Specialist: <u>J. K. Key</u>



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JK 64	947367
MTR CODE SITE NAME:	95928	Jicarilla Contract 148#33
SAMPLE DATE TIME (Hrs):	08-30-95	1145
PROJECT:	Jic Pits	
DATE OF TPH EXT. ANAL.:	8-31-95	
DATE OF BTEX EXT. ANAL.:	9/1/95	9/5/95
TYPE DESCRIPTION:	VG	LIGHT BROWN SAND/CLAY

Field Remarks: (N-54.4)(S-10.6)(E-49.9)(W-2.9)

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 1	MG/KG	2	D		
TOLUENE	< 1	MG/KG	2	D		
ETHYL BENZENE	< 1	MG/KG	2	D		
TOTAL XYLENES	< .3	MG/KG	2	D		
TOTAL BTEX	< 6	MG/KG	2	D		
TPH (418.1)	138	MG/KG			203	28
HEADSPACE PID	113.0	PPM				
PERCENT SOLIDS	91.2	%				

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

The Surrogate Recovery was at 93% for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

1 D

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

Perkin-Elmer Model 1600 FT-IR
Analysis Report

95/08/31 14:08

Sample identification
947367

Initial mass of sample, g
2.030

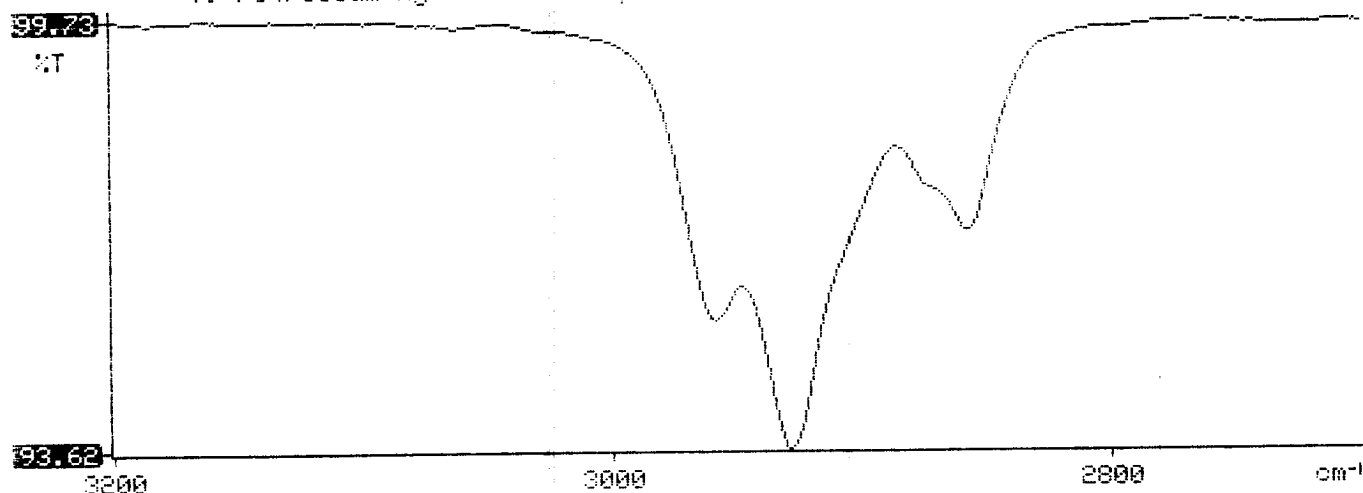
Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
137.561

Net absorbance of hydrocarbons (2930 cm⁻¹)
0.027

Y: Petroleum hydrocarbons spectrum

14:08



BTEX SOIL SAMPLE WORKSHEET

File	:	947367	Date Printed	:	9/6/95
Soil Mass (g)	:	4.98	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	20	DF (Analytical)	:	400
Shot Volume (uL)	:	50	DF (Report)	:	0.40161

			Det. Limit	
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 1.004
Toluene (ug/L)	:	0.00	Toluene (mg/Kg):	0.000 1.004
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 1.004
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000 2.008
o-xylene (ug/L)	:	0.00	o-xylene (mg/Kg):	0.000 1.004
			Total xylenes (mg/Kg):	0.000 3.012
			Total BTEX (mg/Kg):	0.000

EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\090595-1.016
 Method : C:\LABQUEST\METHODS\9001.MET
 Sample ID : 947367,4.98G,50U
 Acquired : Sep 04, 1995 20:22:10
 Printed : Sep 06, 1995 14:01:25
 User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.390	0	0.0000
a,a,a TFT	4.990	2075218	87.1973
TOLUENE	6.813	196573	-0.2865
ETHYLBENZENE	10.513	0	0.0000
M & P XYLENE	10.927	361421	-2.2134
O XYLENE	11.877	0	0.0000
BFB	13.467	32719570	93.1526

