Denny G. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

Approved

Meter Number:95927
Location Name:Jicarilla Contract 148 #32
Location:TN-25 RG-05
SC-14 UL-D
6 - Jicarilla
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

EL PASO FIELD SERVICES

GENERAL

Meter: 95927 Location: JICARILLA CONTRACT 148 #32
Operator #: 0203 Operator Name: Amoco P/L District: OJITO
Coordinates: Letter: D Section 14 Township: 25 Range: 5
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X 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 : REDLINE & TOPO SHOW LOCATION OUTSIDE V.Z. FOUR PITS ON THIS LOCATION. LOCATION DRIP PIT BELONGS TO EPNG. WILL CLOSE PIT. THE THREE OTHER PITS BELONG TO THE OPERATOR.

PUSH IN

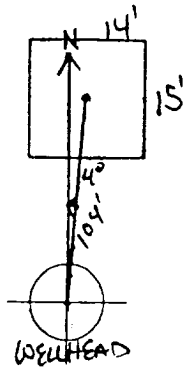
(SOP1991) 04/08/94

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 4° Footage from Wellhead 104'

b) Length : 15' Width : 14' Depth : 2'



REMARKS

Remarks :

PHOTOS - 1252

Completed By:

Robert Thompson
Signature

8·21·95
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 95922 Location: Jicarilla contract 148 #32

Coordinates: Letter: D Section 14 Township: 25 Range: 5

Or Latitude ______ Longitude ______

Date Started : 8/30/95 Run: 06 63

FIELD OBSERVATIONS

Sample Number(s): JK65 ______ ______ ______

Sample Depth: 13' Feet

Final PID Reading 351.0 PID Reading Depth 13' Feet

Groundwater Encountered Yes ☐ No ☒ Approximate Depth ______ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 346 ?? 9/10/95

Onsite Bioremediation ☐ Gabrial From Jicarilla E.P.O. Approved closure 9-6-95

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ Tierra ☐

Other Facility ☐ Name: ______

Pit Closure Date: 9-8-95 Pit Closed By: Philip

REMARKS

Remarks : Pit Pid Readings (N-19.8) (S-17.6) (E-2.9) (W-4.5)
Pit size: 20 X 17 X 13 SPRAYED PIT WITH Soil enhancer 9-6-95
Fence size: 25X23X3 Net yes
More than 100' From Ephemral strem

Signature of Specialist: [signature]

(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:	JK65	947368
MTR CODE | SITE NAME:	95927	Jicarilla Contract 148 #32
SAMPLE DATE | TIME (Hrs):	08-30-95	1428
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 GRAY/SAND & SANDSTONE

Field Remarks: (N-19.8)(S-17.6)(E-2.9)(W-4.5)

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)	67.8	MG/KG			2.07	25
HEADSPACE PID	351.0	PPM				
PERCENT SOLIDS	87.6	%				

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

The Surrogate Recovery was at 91% for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

QD

9-7-95

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

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

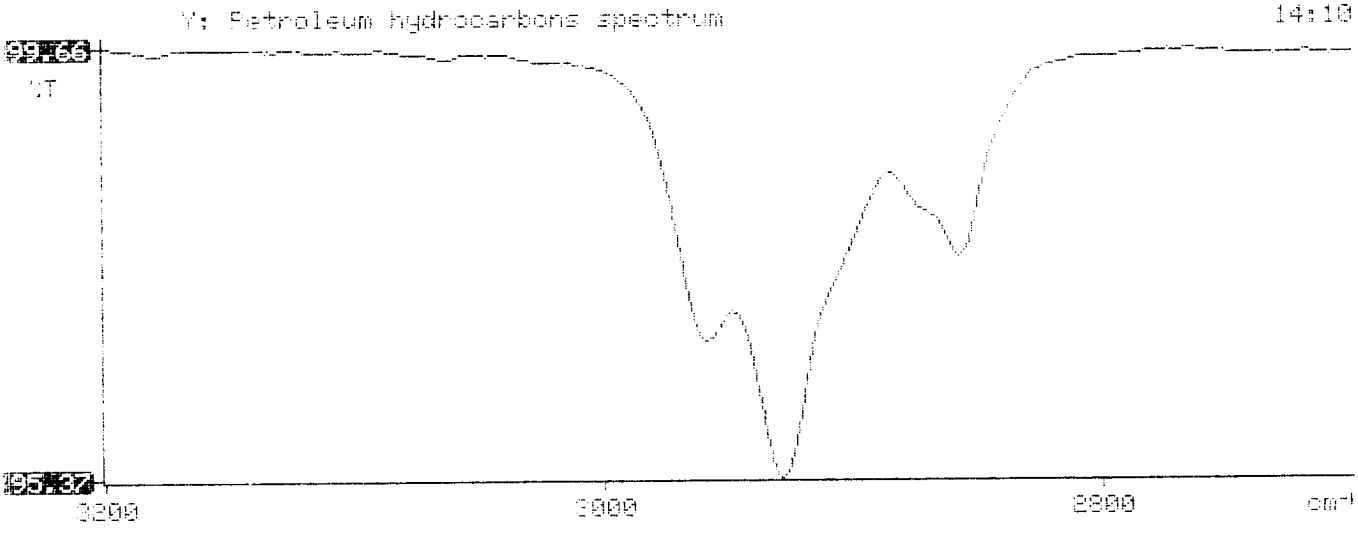
95/08/31 14:10

Sample identification
47368

Initial mass of sample, g
2.090

Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
7.775
Net absorbance of hydrocarbons (2930 cm-1)
0.019



BTEX SOIL SAMPLE WORKSHEET

File	947368	**Date Printed**	9/6/95		
Soil Mass (g)	4.94	**Multiplier (L/g)**	0.00101		
Extraction vol. (mL)	20	**DF (Analytical)**	400		
Shot Volume (uL)	50	**DF (Report)**	0.40486		
					Det. Limit
Benzene (ug/L)	0.00	**Benzene (mg/Kg):**	**0.000**		1.012
Toluene (ug/L)	0.00	**Toluene (mg/Kg):**	**0.000**		1.012
Ethylbenzene (ug/L)	0.00	**Ethylbenzene (mg/Kg):**	**0.000**		1.012
p & m-xylene (ug/L)	0.00	p & m-xylene (mg/Kg):	0.000		2.024
o-xylene (ug/L)	0.00	o-xylene (mg/Kg):	0.000		1.012
		Total xylenes (mg/Kg):	**0.000**		3.036
		Total BTEX (mg/Kg):	**0.000**		

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\090595-1.017
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 947368,4.94G,50U
Acquired : Sep 04, 1995 20:58:38
Printed : Sep 04, 1995 21:24:56
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.390	0	0.0000
a,a,a TFT	4.963	2059930	86.5550
TOLUENE	6.803	196488	-0.2870
ETHYLBENZENE	10.540	0	0.0000
M & P XYLENE	10.930	362510	-2.2067
O XYLENE	11.877	0	0.0000
BFB	13.477	31897012	90.8108