

DEPUTY OIL & GAS

DEC 29 1997

*Approved*

Meter Number:95941

Location Name:Jic Contract 148 #34

Location:TN-25 RG-05

SC-14 UL-H

6 - Jicarilla

NMOCD Zone:OUTSIDE

Hazard Ranking Score:00

RECEIVED  
APR 14 1997

OIL CON. DIV  
DEPT. 8

**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**

Meter: 95941 Location: JIC CONTRACT 148#34  
Operator #: 0203 Operator Name: AMCO P/L District: DTITD  
Coordinates: Letter: H Section 14 Township: 25 Range: 5  
Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
Site Assessment Date: 8-17-95 Area: 06 Run: 63

**NMOCD Zone:** (From NMOCD Maps) Inside ☐ (1) Outside ☒ (2)  
**Land Type:** BLM ☐ (1) State ☐ (2) Fee ☐ (3) Indian JICARILLA

**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)

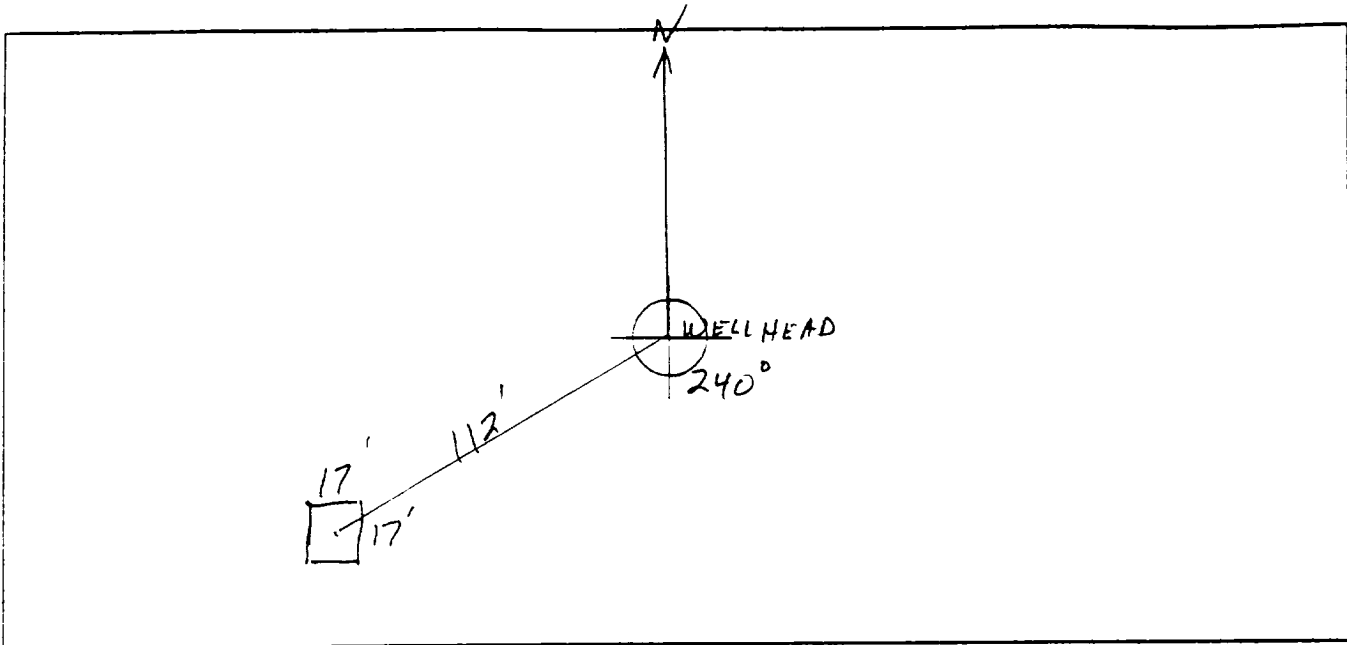
Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☒ (2) > 100'

**TOTAL HAZARD RANKING SCORE:** 0 **POINTS**

Remarks : DIL IN PIT

### ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 240° Footage from Wellhead 112  
b) Length : 17 Width : 17 Depth : 28



Remarks :

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Completed By:

*Andy Carley*  
Signature

8-17-95  
Date

# FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 95941 Location: JIC CONTRACT 148 #34  
 Coordinates: Letter: A Section 14 Township: 25 Range: 5  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Date Started : 8-31-95 Run: 06 63

FIELD OBSERVATIONS

Sample Number(s): NS 83  
 Sample Depth: 19 Feet  
 Final PID Reading 4.0 PID Reading Depth 19 Feet  
 Yes No  
 Groundwater Encountered ☐ ☒ Approximate Depth \_\_\_\_\_ Feet

CLOSURE

Remediation Method :  
 Excavation ☒ Approx. Cubic Yards 280 282 9/12/95  
 Onsite Bioremediation ☐ GABRIEL FROM LUCARILLA E.P.O.  
 Backfill Pit Without Excavation ☐ Approved closure 9-6-95  
 Soil Disposition:  
 Envirotech ☒ Tierra ☐  
 Other Facility ☐ Name: \_\_\_\_\_  
 Pit Closure Date: 9-8-95 Pit Closed By: Philip

REMARKS

Remarks : PID WALL READINGS: (N-4.8)(S-0.2)(E-2.7)(W-4.5)  
PH SIZE 19X18X19 LESS THAN 100' FROM EPHEMERAL STREAM  
EPNG. (NORMAN) ONSITE  
FENCE SIZE: 28X28X3

Signature of Specialist: Nicholas Schmalitz



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	NS 83	947377
MTR CODE   SITE NAME:	95941	Jic Contract 148 #34
SAMPLE DATE   TIME (Hrs):	08-31-95	1200
PROJECT:	Jic Pits	
DATE OF TPH EXT.   ANAL:	9-5-95	
DATE OF BTEX EXT.   ANAL:	9/1/95	9/6/95
TYPE   DESCRIPTION:	V6	DARK BROWN SAND + CLAY

Field Remarks: (N-4.8)(S-0.2)(E-2.7)(W-4.5)

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 5	MG/KG				
TOLUENE	< 5	MG/KG				
ETHYL BENZENE	< 5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	177	MG/KG			209	28
HEADSPACE PID	4.0	PPM				
PERCENT SOLIDS	94.0	%				

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

The Surrogate Recovery was at 85% for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

LD

9-11-95

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Test Method for  
Oil and Grease and Petroleum Hydrocarbons  
in Water and Soil  
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Perkin-Elmer Model 1600 FT-IR  
Analysis Report  
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95/09/05 13:23

Sample identification  
947377

Initial mass of sample, g  
2.090

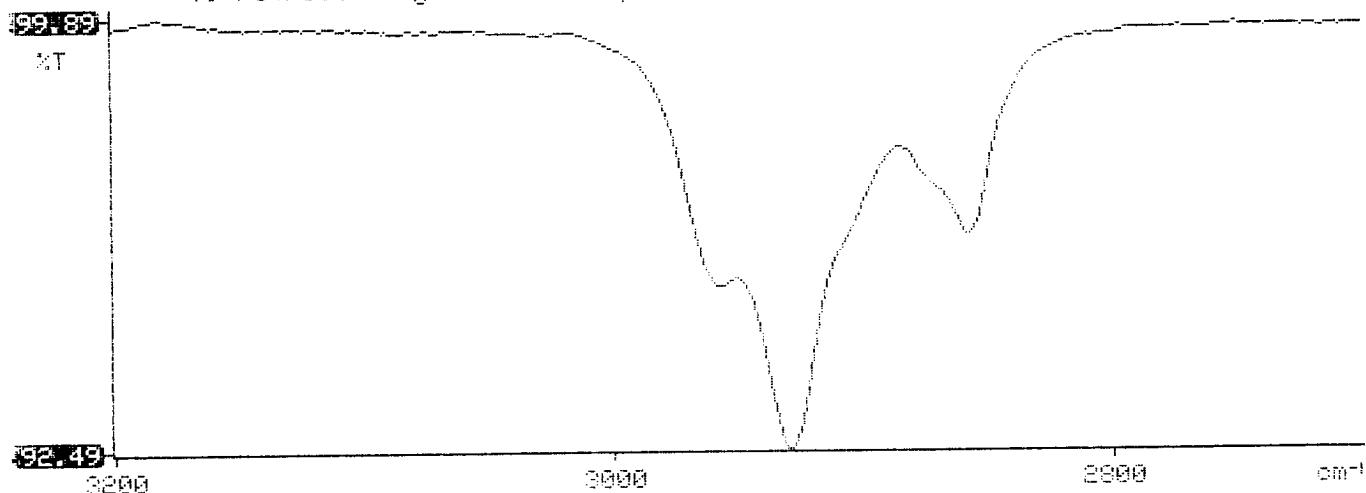
Volume of sample after extraction, ml  
28.000

Petroleum hydrocarbons, ppm  
177.062

Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
0.033

Y: Petroleum hydrocarbons spectrum

13:24



# EL PASO NATURAL GAS

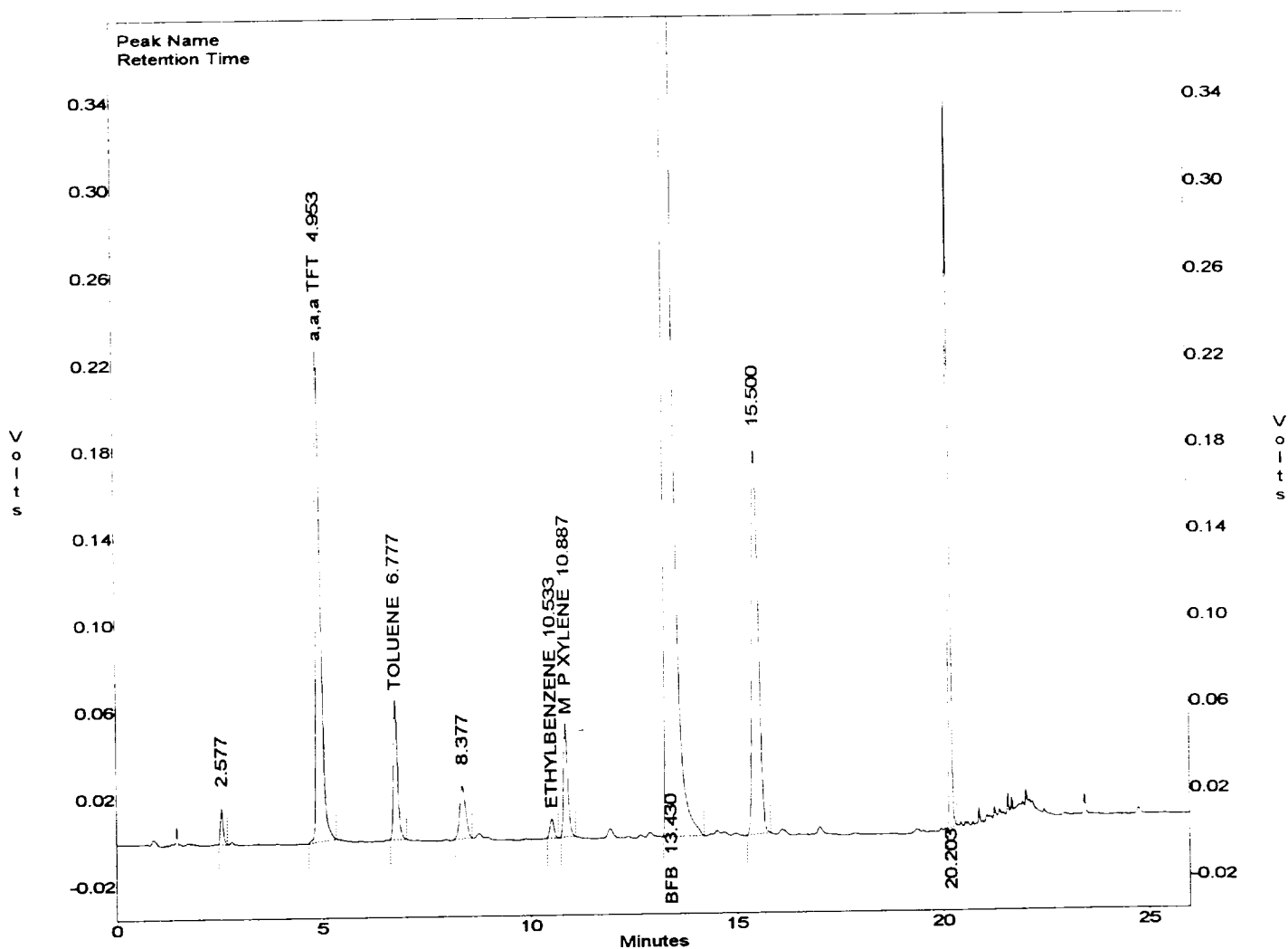
## EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\090695-1.007  
 Method : C:\LABQUEST\METHODS\9001.MET  
 Sample ID : 947377,5.01G,100U  
 Acquired : Sep 05, 1995 12:21:10  
 Printed : Sep 05, 1995 12:47:35  
 User : MARLON

### Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.390	0	0.0000
a,a,a TFT	4.953	1881949	79.0765
TOLUENE	6.777	441663	1.2135
ETHYLBENZENE	10.533	61391	-0.1993
M & P XYLENE	10.887	373167	-2.1411
O XYLENE	11.877	0	0.0000
BFB	13.430	29956096	85.2850

C:\LABQUEST\CHROM001\090695-1.007 -- Channel A



## BTEX SOIL SAMPLE WORKSHEET

File	:	947377	Date Printed	:	9/7/95
Soil Mass (g)	:	5.01	Multiplier (L/g)	:	0.00100
Extraction vol. (mL)	:	20	DF (Analytical)	:	200
Shot Volume (uL)	:	100	DF (Report)	:	0.19960

			Det. Limit	
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 0.499
Toluene (ug/L)	:	1.21	Toluene (mg/Kg):	0.242 0.499
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 0.499
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000 0.998
o-xylene (ug/L)	:	0.00	o-xylene (mg/Kg):	0.000 0.499
			Total xylenes (mg/Kg):	0.000 1.497
			Total BTEX (mg/Kg):	0.242