

Denny E. Frost
DEPUTY OIL & GAS INSPECTOR
INSPECTOR

DEC 22 1997

Approved

Meter Number: 92073
Location Name: PINON MESA CPD #1
Location: TN-31 RG-14
SC-35 UL-P
3 - Navajo
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

GENERAL

Meter: 92073 Location: PIÑON MESA CPD #1 ^(WELLHEAD PINON MESA A #4)
Operator #: 2999 Operator Name: MERIDIAN P/L District: KUTZ
Coordinates: Letter: P Section: 35 Township: 31 Range: 14
Or Latitude _____ Longitude _____
Pit Type: Dehydrator _____ Location Drip: ☒ Line Drip: _____ Other: _____
Site Assessment Date: 1.9.95 Area: 02 Run: 42

SITE ASSESSMENT

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

Land Type: BLM ☐ (1) State ☐ (2) Fee ☐ (3) Indian WATE MTN. RESERVATION

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

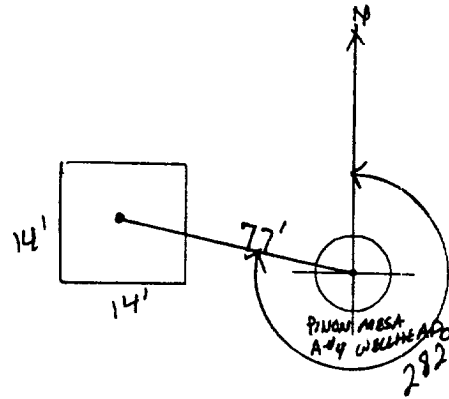
REMARKS

Remarks : REDLINE & TOPO SHOW LOCATION OUTSIDE V.Z. ONLY PIT ON LOCATION.
PIT IS A LOCATION DRIP. BELONGS TO EL PASO. WILL CLOSE PIT.

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 282° Footage from Wellhead 77'
b) Length : 14' Width : 14' Depth : 3'



REMARKS

Remarks :

PHOTOS - 1057

MEASURED DISTANCE FROM PIT TO THE PINON MESA A#4 WELLHEAD.

Completed By:

Robert Thompson
Signature

1-9-95
Date

FIELD PIT REMEDIATION/CLOSURE FORM

| | |
|---------------------------|---|
| GENERAL | Meter: <u>92073</u> Location: <u>Pinon Mesa CPD #1</u> (<u>Well Head Pinon Mesa A #4</u>) Coordinates: Letter: <u>P</u> Section <u>35</u> Township: <u>31</u> Range: <u>14</u> Or Latitude _____ Longitude _____ Date Started : <u>10-19-95</u> Run: <u>02</u> <u>42</u> |
| FIELD OBSERVATIONS | Sample Number(s): <u>4P60</u> _____ Sample Depth: <u>12</u> Feet Final PID Reading <u>1 ppm</u> PID Reading Depth <u>12</u> Feet <div style="text-align: center;">Yes No</div> Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet |
| CLOSURE | Remediation Method : <div style="display: flex; justify-content: space-between;"> <div> Excavation Onsite Bioremediation Backfill Pit Without Excavation </div> <div style="text-align: right;"> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> </div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div> Envirotech Other Facility </div> <div style="text-align: right;"> <input type="checkbox"/> <input type="checkbox"/> </div> <div style="text-align: right;"> <input checked="" type="checkbox"/> Tierra Name: _____ </div> </div> Pit Closure Date: <u>10-19-95</u> Pit Closed By: <u>Philip Env.</u> |
| REMARKS | Remarks : <u>Dug to 12 ft took VG sample, read on PID was 1 ppm, Back Filled pit used 20 yds Backfill.</u> _____ _____ |
| | Signature of Specialist: <u>James J. Tenore</u> |



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

| | Field ID | Lab ID |
|----------------------------|----------|-------------------|
| SAMPLE NUMBER: | JP60 | 947680 |
| MTR CODE SITE NAME: | 92073 | Pinon Mesa #1 CPD |
| SAMPLE DATE TIME (Hrs): | 10-19-95 | 0950 |
| PROJECT: | Phase I | |
| DATE OF TPH EXT. ANAL.: | 10/20/95 | |
| DATE OF BTEX EXT. ANAL.: | 10/20/95 | 10/20/95 |
| TYPE DESCRIPTION: | VG | Pinon Mesa #1 CPD |

Field Remarks:

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) | 53.0 | MG/KG | | | 1.9E | 28 |
| HEADSPACE PID | 1 | PPM | | | | |
| PERCENT SOLIDS | 91.3 | % | | | | |

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

The Surrogate Recovery was at 107% for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

Approved By: John Satch

Date: 10/24/95

BTEX SOIL SAMPLE WORKSHEET

| | | | | | |
|----------------------|---|--------|--------------------------|---|----------|
| File | : | 947680 | Date Printed | : | 10/23/95 |
| Soil Mass (g) | : | 5.01 | Multiplier (L/g) | : | 0.00100 |
| Extraction vol. (mL) | : | 10 | CAL FACTOR (Analytical): | | 200 |
| Shot Volume (uL) | : | 50 | CAL FACTOR (Report): | | 0.19960 |

| | | DILUTION FACTOR: | 1 | Det. Limit |
|---------------------|---|------------------|------------------------|-------------|
| Benzene (ug/L) | : | 0.00 | Benzene (mg/Kg): | 0.000 0.499 |
| Toluene (ug/L) | : | 0.80 | Toluene (mg/Kg): | 0.160 0.499 |
| Ethylbenzene (ug/L) | : | 0.00 | Ethylbenzene (mg/Kg): | 0.000 0.499 |
| p & m-xylene (ug/L) | : | 0.13 | p & m-xylene (mg/Kg): | 0.026 0.998 |
| o-xylene (ug/L) | : | 0.00 | o-xylene (mg/Kg): | 0.000 0.499 |
| | | | Total xylenes (mg/Kg): | 0.026 1.497 |
| | | | Total BTEX (mg/Kg): | 0.186 |

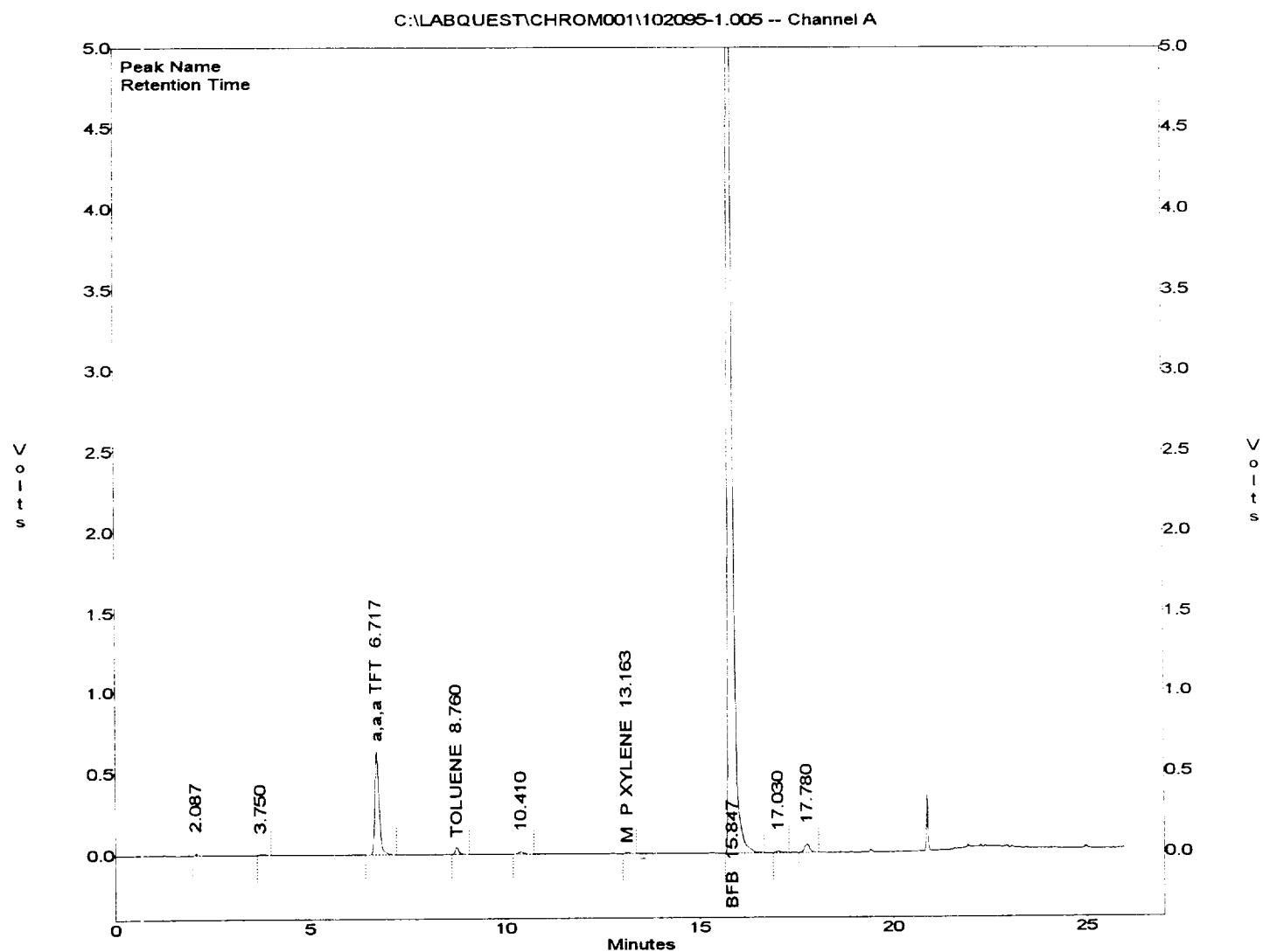
EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\102095-1.005
 Method : C:\LABQUEST\METHODS\1-101395.MET
 Sample ID : 947680,5.01G,50U
 Acquired : Oct 20, 1995 16:16:59
 Printed : Oct 20, 1995 16:43:19
 User : MARLON

Channel A Results

| COMPONENT | RET TIME | AREA | CONC (ug/L) |
|--------------|----------|----------|-------------|
| BENZENE | 4.873 | 0 | 0.0000 |
| a,a,a TFT | 6.717 | 4756529 | 106.1875 |
| TOLUENE | 8.760 | 287993 | 0.8005 |
| ETHYLBENZENE | 12.740 | 0 | 0.0000 |
| M & P XYLENE | 13.163 | 53619 | 0.1324 |
| O XYLENE | 14.223 | 0 | 0.0000 |
| BFB | 15.847 | 73433920 | 106.5469 |



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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      *
*****

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95/10/27 14:45

Sample Identification
747490

Initial mass of sample, g
1.660

Volume of sample after extraction, ml
25.000

Petroleum Hydrocarbons, ppm
17.110

at absorption of hydrocarbons (2730 cm⁻¹)
0.07

