

Denny S. Faust
DEPUTY OIL & GAS INSPECTOR

DEC 30 1997

Approved

Meter Number:03517

Location Name:ANNIE L. ELLIOT E #1

Location:TN-29 RG-09

SC-14 UL-D

2 - Federal

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.

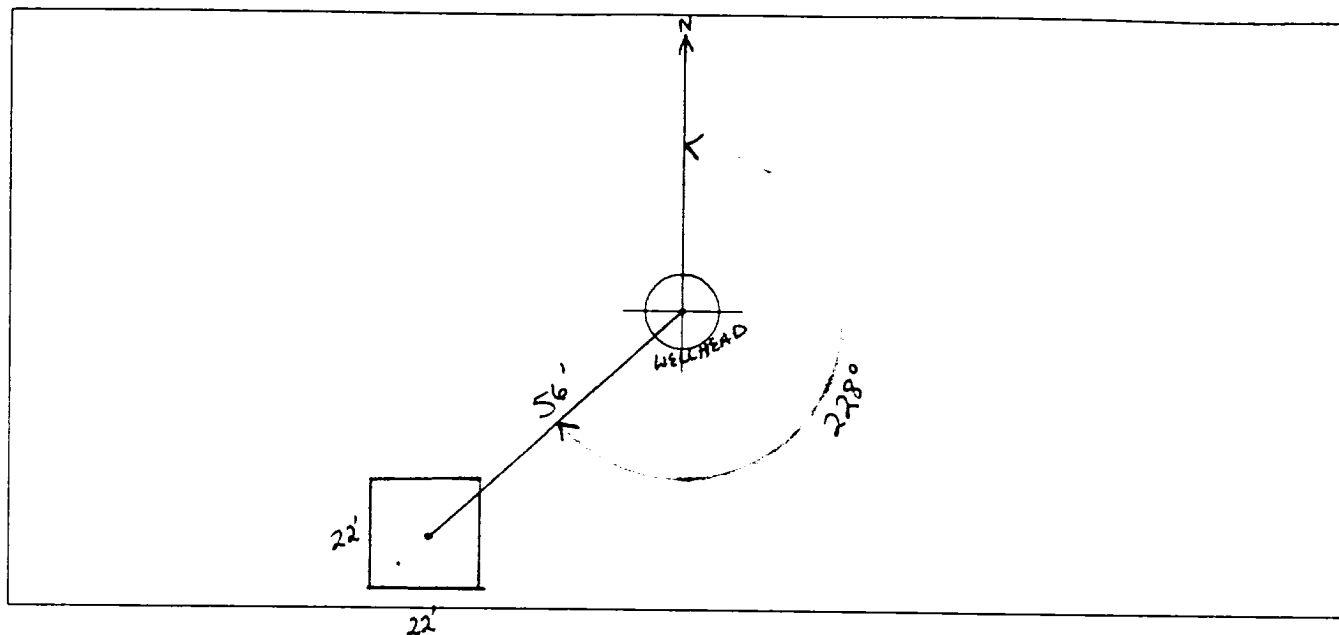
FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: <u>03517</u> Location: <u>ANNIE L. ELLIOT E #1</u> Operator #: <u>0203</u> Operator Name: <u>AMOCO</u> P/L District: <u>BLOOMFIELD</u> Coordinates: Letter: <u>D</u> Section <u>14</u> Township: <u>29</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: <u>X</u> Line Drip: _____ Other: _____ Site Assessment Date: <u>5.8.94</u> Area: <u>10</u> Run: <u>31</u>											
	<table border="0"> <tr> <td data-bbox="162 723 430 766">NMOCD Zone:</td> <td data-bbox="860 723 1088 766">Land Type:</td> <td data-bbox="1144 723 1421 766">BLM ☒ (1)</td> </tr> <tr> <td data-bbox="162 776 430 819">(From NMOCD</td> <td></td> <td data-bbox="1144 776 1421 819">State ☐ (2)</td> </tr> <tr> <td data-bbox="162 829 430 872">Maps)</td> <td data-bbox="527 829 958 872">Inside ☐ (1)</td> <td data-bbox="1144 829 1421 872">Fee ☐ (3)</td> </tr> <tr> <td></td> <td data-bbox="527 883 958 925">Outside ☒ (2)</td> <td data-bbox="1144 883 1526 925">Indian _____</td> </tr> </table> 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: <u>0</u> POINTS	NMOCD Zone:	Land Type:	BLM ☒ (1)	(From NMOCD		State ☐ (2)	Maps)	Inside ☐ (1)	Fee ☐ (3)		Outside ☒ (2)
NMOCD Zone:	Land Type:	BLM ☒ (1)										
(From NMOCD		State ☐ (2)										
Maps)	Inside ☐ (1)	Fee ☐ (3)										
	Outside ☒ (2)	Indian _____										
SITE ASSESSMENT												
REMARKS	Remarks : <u>TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY.</u> <u>LOCATION IS EAST OF HWY. 64 UP ON A HILL. REDLINE AND TOPO CONFIRMED</u> <u>LOCATION TO BE OUTSIDE THE V.Z.</u> AISH IN											

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 228° Footage from Wellhead 56'
b) Length : 22' Width : 22' Depth : 4'



REMARKS

Remarks :

TOOK PICTURES AT 9:53 A.M.

END DUMP

Completed By:

Robert Thompson
Signature

5.8.94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 03517 Location: ANNIE L. ELLIOT E #1
 Coordinates: Letter: D Section 14 Township: 29 Range: 9
 Or Latitude _____ Longitude _____
 Date Started : 6-24-94 Area: 10 Run: 31

FIELD OBSERVATIONS

Sample Number(s): MK 38
 Sample Depth: 10' Feet
 Final PID Reading 186 PID Reading Depth 10' Feet
 Yes No
 Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :
 Excavation ☐ (1) Approx. Cubic Yards _____
 Onsite Bioremediation ☐ (2)
 Backfill Pit Without Excavation ☒ (3)
 Soil Disposition:
 Envirotech ☐ (1) ☐ (3) Tierra
 Other Facility ☐ (2) Name: _____
 Pit Closure Date: 6-24-94 Pit Closed By: BEI

REMARKS

Remarks : EPNG lines marked Blackish Gray soil
Slight odor Hit Sandstone 10'

Signature of Specialist: Morgan Killian



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

mk 38

Lab ID

945520

MTR CODE | SITE NAME:

03517

N/A

SAMPLE DATE | TIME (Hrs):

6-24-94

1356

SAMPLED BY:

N/A

DATE OF TPH EXT. | ANAL.:

6/27/94

6/27/94

DATE OF BTEX EXT. | ANAL.:

N/A

N/A

TYPE | DESCRIPTION:

VG

Coarse Brown Sand (C/A)

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE		MG/KG				
TOLUENE		MG/KG				
ETHYL BENZENE		MG/KG				
TOTAL XYLENES		MG/KG				
TOTAL BTEX		MG/KG				
TPH (418.1)	1070	MG/KG			2.17	28
HEADSPACE PID	186	PPM				
PERCENT SOLIDS	91.3	%				

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

Surrogate Recovery was at
arrative:

N/A

% for this sample All QA/QC was acceptable.

= Dilution Factor Used

1st P.D.

Date:

7/14/94