

*George S. Foster*  
OIL & GAS INSPECTOR

DEC 29 1997

Meter Number: 75351  
Location Name: SAN JUAN 28-6 UNIT #120  
Location: TN-28 RG-06  
SC-09 UL-I  
2 - Federal  
NMOCD Zone: OUTSIDE  
Hazard Ranking Score: 00

RECEIVED  
APR 14 1997

OIL CON. DIV.  
DIST. 3

*Approved*

**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.

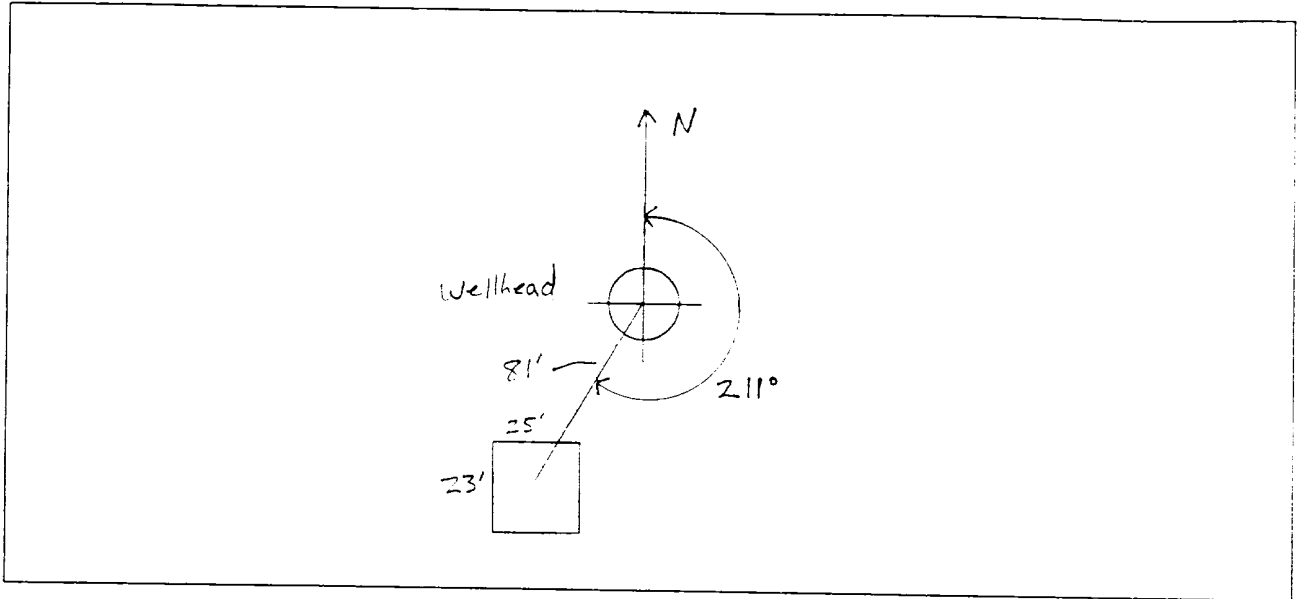
## FIELD PIT SITE ASSESSMENT FORM

<b>GENERAL</b>	<p>Meter: <u>75-351</u> Location: <u>San Juan 28-6 unit #120</u></p> <p>Operator #: <u>2999</u> Operator Name: <u>Meridian P/L</u> District: <u>Bloomfield</u></p> <p>Coordinates: Letter: <u>I</u> Section <u>9</u> Township: <u>28</u> Range: <u>6W</u>          Or <sup>1530S 1145E</sup> Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator <input checked="" type="checkbox"/> Location Drip: _____ Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>6-4-94</u> Area: <u>10</u> Run: <u>91</u></p>																
<b>SITE ASSESSMENT</b>	<p><b>NMOCD Zone:</b> (From NMOCD Maps)      <b>Land Type:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Inside</td> <td style="width: 20%;"><input type="checkbox"/> (1)</td> <td style="width: 20%;">BLM</td> <td style="width: 20%;"><input checked="" type="checkbox"/> (1)</td> </tr> <tr> <td>Outside</td> <td><input checked="" type="checkbox"/> (2)</td> <td>State</td> <td><input type="checkbox"/> (2)</td> </tr> <tr> <td></td> <td></td> <td>Fee</td> <td><input type="checkbox"/> (3)</td> </tr> <tr> <td></td> <td></td> <td>Indian</td> <td>_____</td> </tr> </table> <p><b>Depth to Groundwater</b></p> <p>Less Than 50 Feet (20 points)      <input type="checkbox"/> (1)</p> <p>50 Ft to 99 Ft (10 points)      <input type="checkbox"/> (2)</p> <p>Greater Than 100 Ft (0 points)      <input checked="" type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b></p> <p>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?      <input type="checkbox"/> (1) YES (20 points)      <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p><b>Horizontal Distance to Surface Water Body</b></p> <p>Less Than 200 Ft (20 points)      <input type="checkbox"/> (1)</p> <p>200 Ft to 1000 Ft (10 points)      <input type="checkbox"/> (2)</p> <p>Greater Than 1000 Ft (0 points)      <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</p> <p>(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream      <input type="checkbox"/> (1) &lt; 100' (Navajo Pits Only)</p> <p style="padding-left: 150px;"><input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p>	Inside	<input type="checkbox"/> (1)	BLM	<input checked="" type="checkbox"/> (1)	Outside	<input checked="" type="checkbox"/> (2)	State	<input type="checkbox"/> (2)			Fee	<input type="checkbox"/> (3)			Indian	_____
Inside	<input type="checkbox"/> (1)	BLM	<input checked="" type="checkbox"/> (1)														
Outside	<input checked="" type="checkbox"/> (2)	State	<input type="checkbox"/> (2)														
		Fee	<input type="checkbox"/> (3)														
		Indian	_____														
<b>REMARKS</b>	<p>Remarks : <u>Three pits on location. One in use with tank.</u>  <u>Dehy pit has oil &amp; water in it. other pit is location drip</u>  <u>location outside U.Z. on Redline &amp; Topo. Fourmile Canyon area</u></p>																

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 211 Footage from Wellhead 81  
b) Length : 25 Width : 23 -Depth : 4

ORIGINAL PIT LOCATION



REMARKS

Remarks :

Photos of 1304

Completed By:

[Signature]

Signature

6-4-94

Date

**FIELD PIT REMEDIATION/CLOSURE FORM**

<b>GENERAL</b>	Meter: <u>75351</u> Location: <u>SAN Juan 28-6 unit #120</u> Coordinates: Letter: <u>I</u> Section <u>9</u> Township: <u>28</u> Range: <u>6</u> Or Latitude _____ Longitude _____ Date Started : <u>7-5-94</u> Area: <u>10</u> Run: <u>91</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>MK 81</u> Sample Depth: <u>7'</u> Feet Final PID Reading <u>158</u> PID Reading Depth <u>7'</u> Feet Yes No Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : Excavation <input type="checkbox"/> (1) Approx. Cubic Yards _____ Onsite Bioremediation <input type="checkbox"/> (2) Backfill Pit Without Excavation <input checked="" type="checkbox"/> (3) Soil Disposition: Envirotech <input type="checkbox"/> (1) <input type="checkbox"/> (3) Tierra Other Facility <input type="checkbox"/> (2) Name: _____ Pit Closure Date: <u>7-5-94</u> Pit Closed By: <u>BEI</u>
<b>REMARKS</b>	Remarks : <u>EPMG lines mark soil gray strong Hydrocarbon odor hit sandstone 7' pit was slightly wet when we started</u>
	Signature of Specialist: <u>Morgan Killian</u>



**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT  
PIT CLOSURE PROJECT - Soil**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	mk 81	245583
MTR CODE : SITE NAME:	75351	N/A
SAMPLE DATE : TIME (Hrs):	7-5-94	1242
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	7/7/94	7/7/94
DATE OF BTEX EXT. ANAL.:	N/A	N/A
TYPE : DESCRIPTION:	VG	Lt. grey Fine Sand/Clay

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)	148	MG/KG			2.03	28
HEADSPACE PID	158	PPM				
PERCENT SOLIDS	89.6	%				

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

The Surrogate Recovery was at  
Narrative:

N/A % for this sample All QA/QC was acceptable.

DF = Dilution Factor Used

N/A

7/14/94

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

Perkin-Elmer Model 1400 FT-IR  
Analysis Report

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407707 4:07

Sample Identification

407707

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