

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

DEC 29 1997

Approved

Meter Number: 72631
Location Name: FEDERAL 28 #1
Location: TN-25 RG-09
SC-28 UL-A
2 - Federal
NMDCD Zone: OUTSIDE
Hazard Ranking Score: 00

RECEIVED
APR 14 1997

OIL CON. DIV.
ENV. S

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

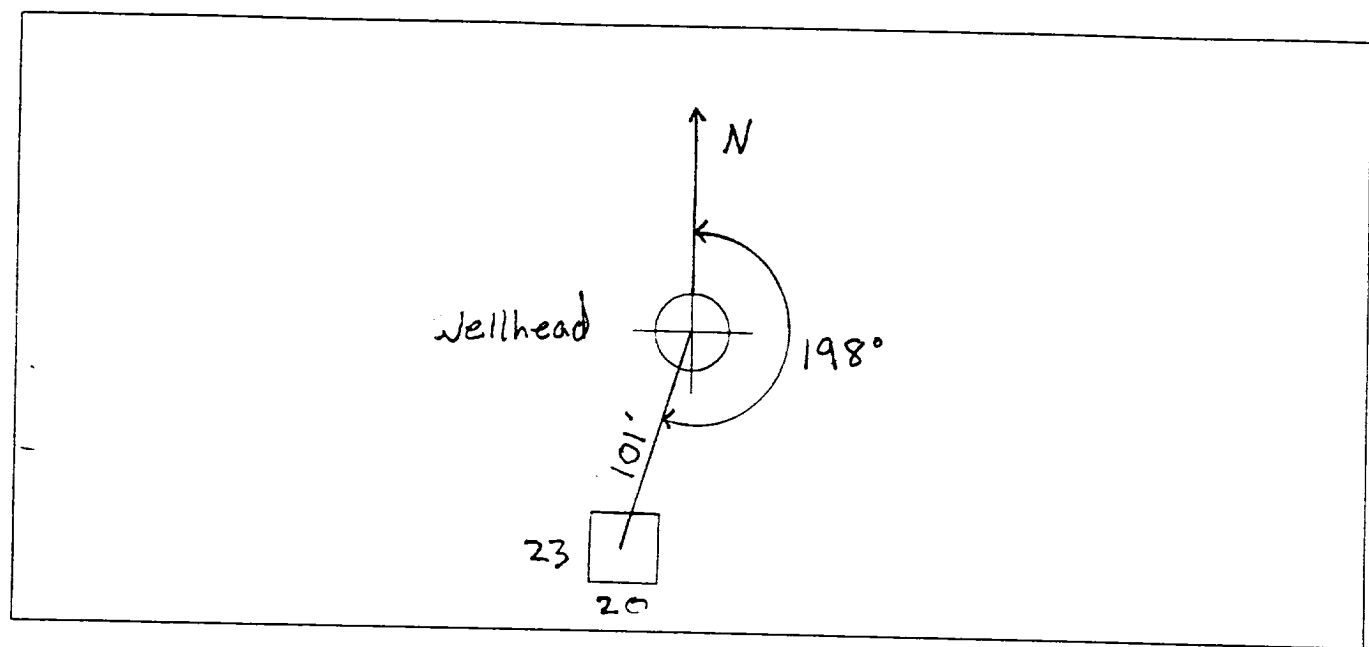
GENERAL	<p>Meter: <u>72631</u> Location: <u>Federal 28 #1 (Abandoned)</u></p> <p>Operator #: <u>0825</u> Operator Name: <u>Bannon</u> P/L District: <u>Ballard</u></p> <p>Coordinates: Letter: <u>A</u> Section <u>28</u> Township: <u>25</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator <input checked="" type="checkbox"/> Location Drip: _____ Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>6-29-94</u> Area: <u>11</u> Run: <u>21</u></p>
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps)</p> <p style="margin-left: 100px;">Inside <input type="checkbox"/> (1) Outside <input checked="" type="checkbox"/> (2)</p> <p style="margin-left: 100px;">Land Type: BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p>Depth to Groundwater</p> <p>Less Than 50 Feet (20 points) <input type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Wellhead Protection Area :</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>Horizontal Distance to Surface Water Body</p> <p>Less Than 200 Ft (20 points) <input type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) 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) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>0</u> POINTS</p>
REMARKS	<p>Remarks : <u>Three pits. Dehy pit is dry. dehy still on location</u></p> <p><u>outside V.Z. on Redline & Topo</u></p>

7-13-94
10:00 AM
3000 3000 3000 3000 3000

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 198 Footage from Wellhead 101
b) Length : 23 Width : 20 Depth : 4

ORIGINAL PIT LOCATION



REMARKS

Remarks :

Photos - 0948

well is abandoned

Completed By:

Signature

6-29-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>72631</u> Location: <u>Federal 28th 1 (Abandoned)</u></p> <p>Coordinates: Letter: <u>A</u> Section <u>28</u> Township: <u>25</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>9-28-94</u> Run: <u>11</u> <u>21</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>KP 260</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>484</u> PID Reading Depth <u>12'</u> Feet</p> <p>Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> Tierra <input type="checkbox"/></p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>9-28-94</u> Pit Closed By: <u>B.E.I</u></p>
REMARKS	<p>Remarks : <u>Some line markers. Dug down 12' soil turned</u> <u>gray looking. closed pit</u></p>
	<p>Signature of Specialist: <u>Kelly Padilla</u></p>



outside

**FIELD SERVICES LABORATORY
ANALYTICAL REPORT****PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone****SAMPLE IDENTIFICATION**

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

KP 260	946246
72631	N/A
9-28-94	13:00
N/A	
9-29-94	9-29-94
10-3-94	10-4-94
VG	Brown coarse sand

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	40.50	MG/KG	1			
TOLUENE	2.4	MG/KG	1			
ETHYL BENZENE	0.99	MG/KG	1			
TOTAL XYLENES	9.4	MG/KG	1			
TOTAL BTEX	13.3	MG/KG				
TPH (418.1)	233	MG/KG			2.02	28
HEADSPACE PID	484	PPM				
PERCENT SOLIDS	95.6	%				

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

The Surrogate Recovery was at 73 % for this sample All QA/QC was acceptable.
Narrative:

ATI Results Attached

DF = Dilution Factor Used

Approved By: ADDate: 10/23/94

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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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04/09/29 13:46

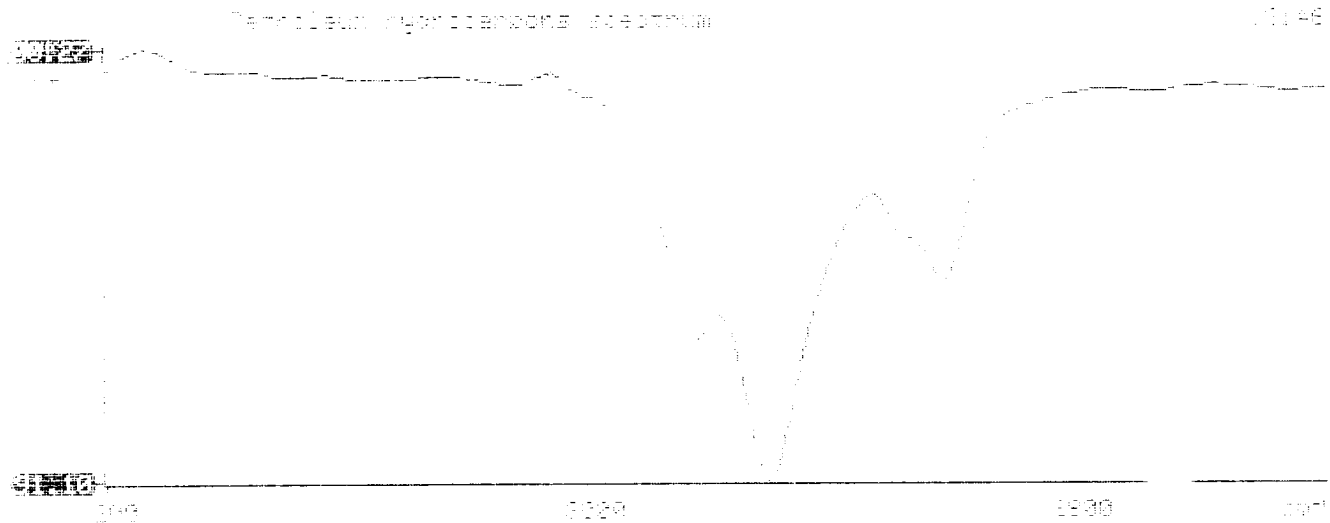
Sample Identification
146226

Initial mass of sample, g
1.520

Volume of sample after extraction, ml
10.000

Petroleum hydrocarbons, ppm
15.114

Net absorbance of hydrocarbons (2930 cm⁻¹)
0.5



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
 CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 409445
 PROJECT # : 24324
 PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	946245	NON-AQ	09/28/94	10/03/94	10/10/94	50
08	946246	NON-AQ	09/28/94	10/03/94	10/06/94	1
09	946247	NON-AQ	09/28/94	10/03/94	10/06/94	1

PARAMETER	UNITS	07	08	09
BENZENE	MG/KG	3.6	<0.50	<0.025
TOLUENE	MG/KG	14	2.4	<0.025
ETHYLBENZENE	MG/KG	1.0	0.99	<0.025
TOTAL XYLENES	MG/KG	6.3	9.4	<0.025

SURROGATE:

BROMOFLUOROBENZENE (%) 37 73 96



ATI I.D. 409445

Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141