

Gerardo E. Bust
DEPUTY OIL & GAS DIRECTOR

DEC 2 9 1997

Approval

Meter Number:90852

Location Name: **BURROUGHS STATE #2E**

Location: **TN-26 RG-11**

SC-36 UL-J

1 - State

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

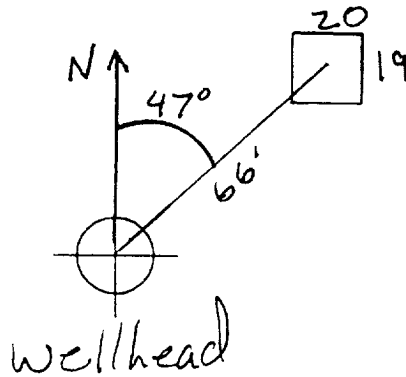
3

GENERAL	Meter: <u>90852</u> Location: <u>Burroughs state No. 2E</u> Operator #: <u>1988</u> Operator Name: <u>Mendon P/L</u> District: <u>Ballard</u> Coordinates: Letter: <u>I</u> Section <u>36</u> Township: <u>26</u> Range: <u>11</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator ☒ Location Drip: _____ Line Drip: _____ Other: _____ Site Assessment Date: <u>6-29-94</u> Area: <u>11</u> Run: <u>52</u>								
SITE ASSESSMENT	NMOCD Zone: (From NMOCD Maps)								
	Land Type: <table border="0"> <tr> <td>BLM</td> <td>☐ (1)</td> </tr> <tr> <td>State</td> <td>☒ (2)</td> </tr> <tr> <td>Fee</td> <td>☐ (3)</td> </tr> <tr> <td>Indian</td> <td>_____</td> </tr> </table>		BLM	☐ (1)	State	☒ (2)	Fee	☐ (3)	Indian
BLM	☐ (1)								
State	☒ (2)								
Fee	☐ (3)								
Indian	_____								
	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								
REMARKS	Remarks : <u>Two pits. Dehy pit is dry</u>								
	<u>outside V.Z. on Redline & Topo</u>								

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 47 Footage from Wellhead 66
b) Length : 20 Width : 19 Depth : 3



REMARKS

Remarks :

Photos - 1307Bobtail

Completed By:

Signature

6-29-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>90852</u> Location: <u>Burroughs State No 2E</u> Coordinates: Letter: <u>J</u> Section <u>36</u> Township: <u>26</u> Range: <u>11</u> Or Latitude _____ Longitude _____ Date Started : <u>9-28-94</u> Run: <u>11</u> <u>52</u>
FIELD OBSERVATIONS	Sample Number(s): <u>KP 258</u> Sample Depth: <u>6'</u> Feet Final PID Reading <u>339</u> PID Reading Depth <u>6'</u> Feet Yes No Groundwater Encountered ☐ ☒ Approximate Depth _____ Feet
CLOSURE	Remediation Method : Excavation Onsite Bioremediation Backfill Pit Without Excavation ☐ Approx. Cubic Yards _____ ☐ ☒ Soil Disposition: Envirotech Other Facility ☐ ☐ Tierra ☐ Name: _____ Pit Closure Date: <u>9-28-94</u> Pit Closed By: <u>B.E.I</u>
REMARKS	Remarks : <u>Some line markers - Hit Sandstone At 6'</u> <u>Closed Pit Soil Dark Brown Looking,</u> _____ _____
	Signature of Specialist: <u>Kelly Padilla</u>



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 258	946244
90852	N/A
9-28-94	1120
N/A	
9-29-94	9-29-94
10-3-94	10-6-94
VG	Brown sand & clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	0.39	MG/KG	5			20
TOLUENE	9.6	MG/KG	5			
ETHYL BENZENE	1.2	MG/KG	5			
TOTAL XYLENES	43	MG/KG	5			
TOTAL BTEX	54.2	MG/KG				
TPH (418.1)	1080	MG/KG			2.02	28
HEADSPACE PID	339	PPM				
PERCENT SOLIDS	87.7	%				

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

The Surrogate Recovery was at 80 % for this sample All QA/QC was acceptable.
Narrative:

ATI Results attached

DF = Dilution Factor Used

Approved By:

Date:

10/23/94

Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil
Perkin-Elmer Model 1600 FT-IR
Analysis Report

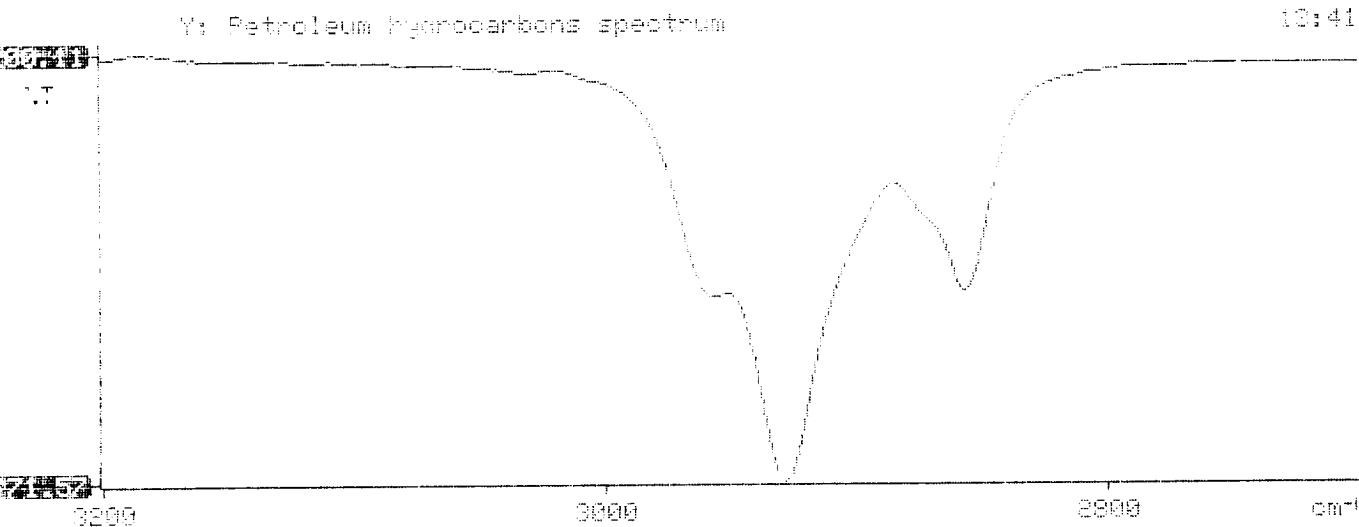
24/09/29 13:41

Sample identification
A6244

Initial mass of sample, g
0.020

Volume of sample after extraction, ml
19.000

Petroleum hydrocarbons, ppm
1079.905
Net absorbance of hydrocarbons (2930 cm⁻¹)
0.143



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
04	946242	NON-AQ	09/28/94	10/03/94	10/06/94	5
05	946243	NON-AQ	09/28/94	10/03/94	10/06/94	20
06	946244	NON-AQ	09/28/94	10/03/94	10/06/94	5

PARAMETER	UNITS	04	05	06
BENZENE	MG/KG	0.85	<0.50	0.39
TOLUENE	MG/KG	8.7	27	9.6
ETHYLBENZENE	MG/KG	0.13	3.0	1.2
TOTAL XYLENES	MG/KG	8.1	77	43

SURROGATE:

BROMOFLUOROBENZENE (%) 95 81 80



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **409445**

October 13, 1994

El Paso Natural Gas Co.
P.O. Box 4990
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **09/30/94**, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure

