EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

Jennifer A. Faust
DEPUTY OIL & GAS INSPECTOR

DEC 2 1 1998

RECEIVED
JUL 2 1998
OIL CON. DIV.
DIST. 3

Approved

HAMMOND #5
Meter/Line ID - 89884

SITE DETAILS

Legals - Twn: 27 **Rng:** 08 **Sec:** 35 **Unit:** F
NMOCD Hazard Ranking: 30 **Land Type:** 2 - Federal
Operator: GREAT LAKES CHEMICAL CORP **Pit Closure Date:** 07/29/94

RATIONALE FOR RISK-BASED CLOSURE:

The above mentioned production pit was assessed and ranked according to the criteria in the New Mexico Conservation Division's Unlined Surface Impoundment Closure Guidelines.

The primary source, discharge to the pit, has been removed. There has been no discharge to the production pit for at least five years and the pit has been closed for at least three years.

The production pit has been remediated to the practical extent of the trackhoe or to the top of bedrock. Initial laboratory analysis has indicated that the soil remaining at the bottom of the excavation is above standards based on the hazard ranking score. Contaminated soil was removed and transported to an approved landfarm for disposal. The initial excavation was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching any residual hydrocarbons remaining in the soil. Therefore, further mobility of residual hydrocarbons is unlikely.

Since the soil samples from the initial excavation were above standards, a test boring was drilled and a sample was collected to evaluate the vertical extent of impact to soils. Test boring sample results indicated soils below standards beneath the original excavation.

El Paso Field Services Company (EPFS) requests closure of the above mentioned production pit location for the following reasons:

- Discharge to the pit has not occurred in over five years and the pit has been closed for over three years.
- The bulk of the impacted soil was removed during the initial excavation.
- The excavation was backfilled with clean soil and graded to divert precipitation away from the excavation area.
- All source material has been removed from the ground surface, eliminating potential direct contact with livestock and the general public.
- Groundwater was not encountered in the initial excavation or test boring; therefore, impact to groundwater is unlikely.
- Soil samples collected beneath the initial excavation were below standards.
- No potential receptors are within 1,000 feet of the site.
- Residual hydrocarbons remaining in the soil at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment.

FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 89884 Location: HAMMOND #5

Operator #: ________ Operator Name: GREAT LAKES CHEMICAL CORP. P/L District: BALLARD

Coordinates: Letter: F Section 35 Township: 27 Range: 8

Or Latitude ________ Longitude ________

Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: ______

Site Assessment Date: 6.20.94 Area: 07 Run: 51

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)

- Inside ☒ (1)
- Outside ☐ (2)

Land Type:

- 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 COTTONWOOD CANYON

(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: 30 **POINTS**

REMARKS

Remarks : TWO PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS IN COTTONWOOD CANYON. REDLINE AND TOPO CONFIRMED LOCATION IS INSIDE V.Z.

DIG & HAUL

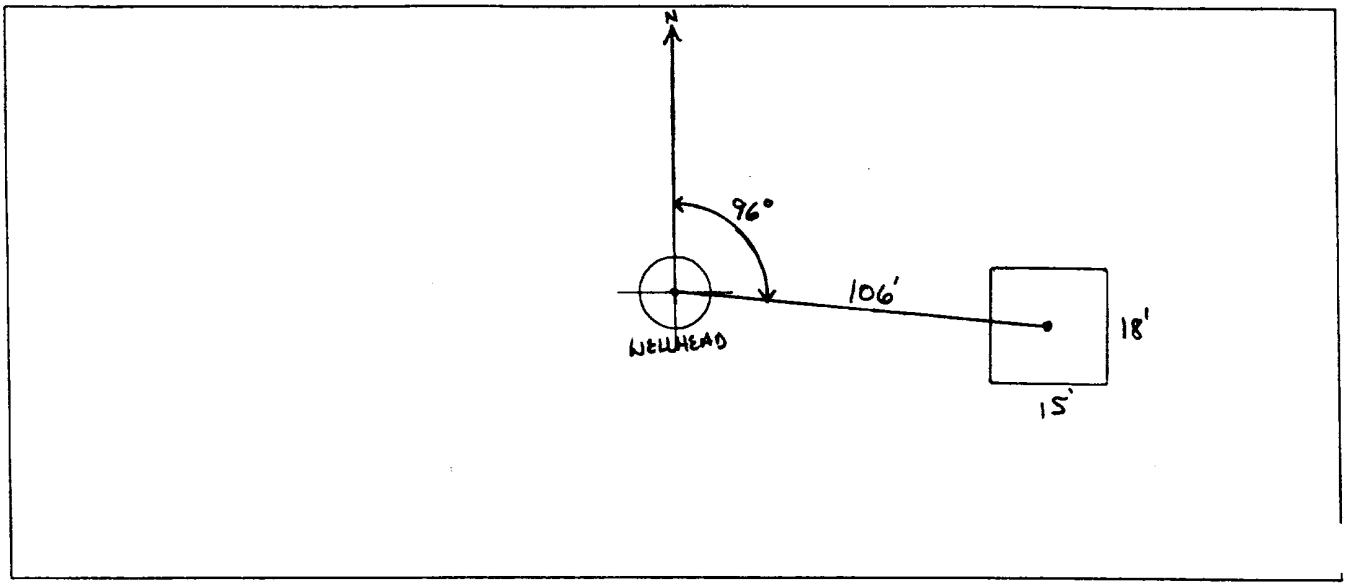
(SP3190) 04/08/94

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 96° Footage from Wellhead 106'

b) Length : 18' Width : 15' Depth : 3'



REMARKS

Remarks :

TOOK PICTURES AT 1:20 P.M.

END DUMP

Completed By:

Robert Thompson
Signature

6·20·94
Date

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 89884 Location: Hammond #5

Coordinates: Letter: F Section 35 Township: 27 Range: 8

Or Latitude _____ Longitude _____

Date Started : 7-29-94 Run: 07 51

FIELD OBSERVATIONS

Sample Number(s): KP 159 _____ _____ _____

Sample Depth: 12' Feet

Final PID Reading 161 PID Reading Depth 12' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth ~ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 70

Onsite Bioremediation ☐

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 7-29-94 Pit Closed By: B.eI

REMARKS

Remarks : Some LINE MARKERS started Remediating to 12' Soil turned DARK gray with A Smell. At 12' soil Still the same. Closed Pit.

Signature of Specialist: Kelly Padilla

(SP3191) 03/16/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 159	945790
MTR CODE | SITE NAME:	89884	N/A
SAMPLE DATE | TIME (Hrs):	7-29-94	1300
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	8-2-94	8/2/94
DATE OF BTEX EXT. | ANAL.:	8/4/94	8/5/94
TYPE | DESCRIPTION:	VC	Coarse Sand/Clay

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	2.1	MG/KG	10			
TOLUENE	75	MG/KG	10			
ETHYL BENZENE	14	MG/KG	10			
TOTAL XYLENES	160	MG/KG	10			
TOTAL BTEX	251	MG/KG				
TPH (418.1)	7840	MG/KG			1.10	28
HEADSPACE PID	161	PPM				
PERCENT SOLIDS	93.6	%				

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

The Surrogate Recovery was at 131 % for this sample All QA/QC was acceptable.

Narrative: ATI results attached. Surrogate recovery was outside ATI QC limits due to matrix interference.

DF = Dilution Factor Used

Approved By: J.S. Date: 9/2/94

ILLEGIBLE

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

Perkin-Elmer Model 1600 FT-IR
Analysis Report
****

[illegible] 13:[illegible]

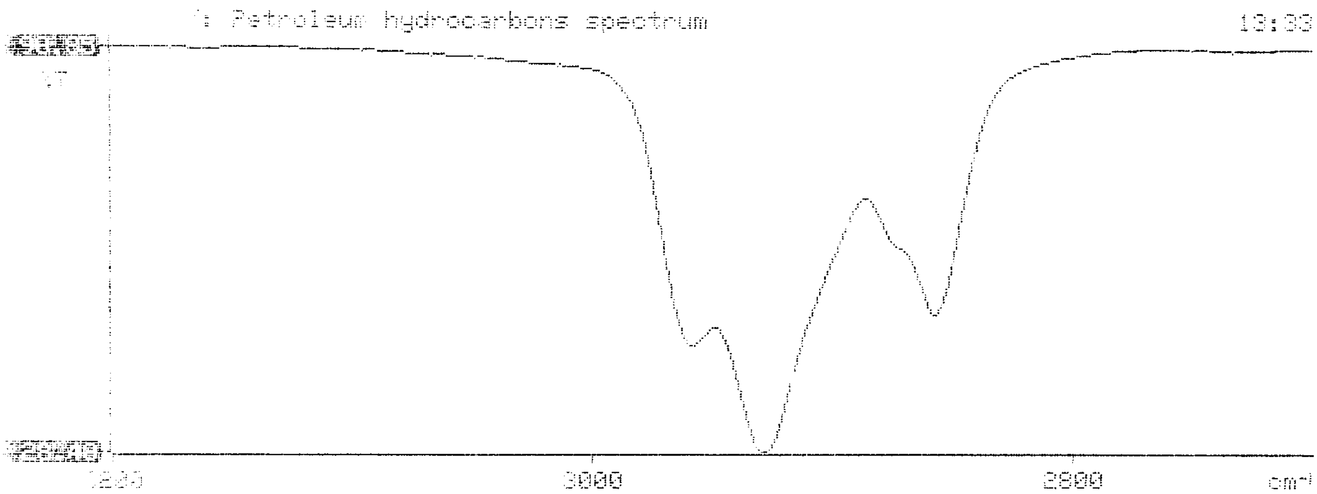
Sample Identification
[illegible]

Initial mass of sample, g
[illegible] 100

Volume of sample after extraction, ml
[illegible].000

Petroleum hydrocarbons, ppm
7637.591

Net absorbance of hydrocarbons (2930 cm-1)
0.5[illegible]



Analytical **Technologies,** Inc.

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

ATI I.D. **408313**

August 12, 1994

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On **08/03/94**, 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.

8015 analysis was added on 08/08/94 for sample 945789 per John Lambdin.

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

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 408313

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	945790	NON-AQ	07/29/94	08/04/94	08/05/94	10
08	945791	NON-AQ	07/29/94	08/04/94	08/06/94	10
09	945792	NON-AQ	07/29/94	08/04/94	08/06/94	10

PARAMETER	UNITS	07	08	09
BENZENE	MG/KG	2.1	<0.25	<0.25
TOLUENE	MG/KG	75	13	<0.25
ETHYLBENZENE	MG/KG	14	6.5	3.5
TOTAL XYLENES	MG/KG	160	98	79
SURROGATE:				
BROMOFLUOROBENZENE (%)		131*	176*	144*

*OUTSIDE ATI QUALITY CONTROL LIMITS DUE TO MATRIX INTERFERENCE

PHASE II

RECORD OF SUBSURFACE EXPLORATION

Burlington Environmental Inc.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # BH-1
Well #
Page 1 of 1

Project Name: EPNG PITS
Project Number: 14509 Phase 6000.77
Project Location: Hammond #5 89884

Elevation:
Borehole Location: Letter F-S35-T27-R8
GWL Depth:
Logged By: J.F. LaBarbera
Drilled By: K. Padilla
Date/Time Started: 7/26/95 - 1111
Date/Time Completed: - 1215

Well Logged By: J.F. LaBarbera
Personnel On-Site: K. Padilla, F. Rivera, ~~D. Charlie~~ D. Gat
Contractors On-Site:
Client Personnel On-Site:

Drilling Method: 4 1/4 ID HSA
Air Monitoring Method: PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: ppm BZ	BH	HS/S	Drilling Conditions & Blow Counts
0–12				Fill						
15	1	15-16	11	Gray, loose, fn to coarse, SAND, some silt, damp, visibly impacted, odor	SW		0	9	2391/366	1118
20	2	20-20.5	9	Olive, hard, SILTSTONE, dry, odor	X		.5	89	866/205	Hard drilling 1126
25	3	25-25.5	5	Brown, hard, fn to coarse, SANDSTONE, poorly cemented, odor			0	257	243/157	Refusal 1140
				TOB at 25.5' - Refusal						

Comments: Sample JFL 27 from 25-25.5' sent to lab for BTEX & TPH analysis.

Geologist Signature: [signature]

7/14/95\DRILLOG.XLS

El Paso Natural Gas Company

Phase II Drills
Hammond #5
(25-25.5')

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JFL27	947089
MTR CODE | SITE NAME:	89884	N/A
SAMPLE DATE | TIME (Hrs):	07-26-95	11:42
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	07-27-95	07-27-95
DATE OF BTEX EXT. | ANAL.:	8-1-95	8-3-95
TYPE | DESCRIPTION:	VG	

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.025	MG/KG	1			
TOLUENE	<0.025	MG/KG	1			
ETHYL BENZENE	<0.025	MG/KG	1			
TOTAL XYLENES	<0.025	MG/KG	1			
TOTAL BTEX	<0.10	MG/KG				
TPH (418.1)	34.4	MG/KG			2.06	28
HEADSPACE PID	240	PPM				
PERCENT SOLIDS	93.6	%				

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

The Surrogate Recovery was at 103 % for this sample All QA/QC was acceptable.

Narrative: AT1 Results attached.

DF = Dilution Factor Used

Approved By: J.S Date: 8/22/95

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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                     *
**********************************************************
*
 95/07/27  14:45
*
*  Sample identification
 947089
*
*  Initial mass of sample, g
 2.060
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 34.386
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.015
*
*
*
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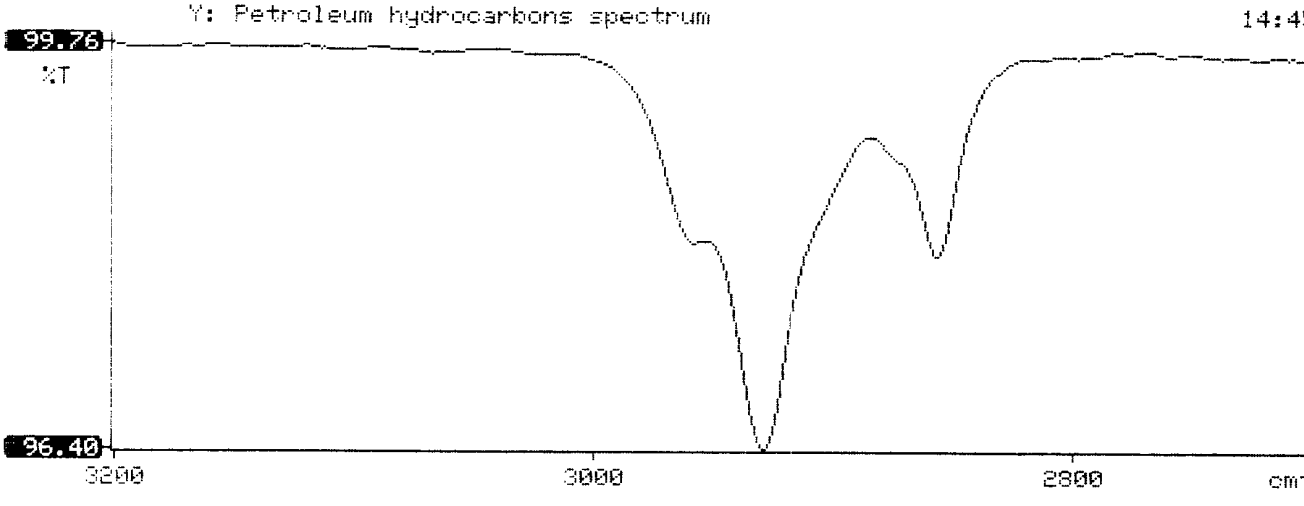


Analytical Technologies, Inc.

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

ATI I.D. **508302**

August 11, 1995

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

Project Name/Number: PIT CLOSURE/PHASE I & II 24324

Attention: John Lambdin

On **08/01/95**, 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.

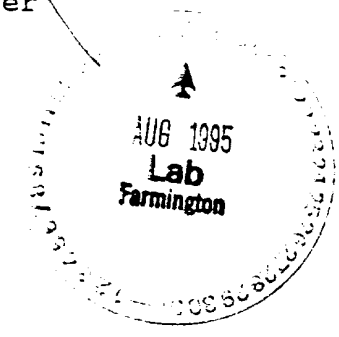
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)

CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 508302

PROJECT # : 24324

PROJECT NAME : PIT CLOSURE/PHASE I & II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	947089	NON-AQ	07/26/95	08/01/95	08/03/95	1
08	947090	NON-AQ	07/26/95	08/01/95	08/03/95	1
09	947093	NON-AQ	07/26/95	08/01/95	08/04/95	20

PARAMETER	UNITS	07	08	09
BENZENE	MG/KG	<0.025	<0.025	<0.5
TOLUENE	MG/KG	<0.025	<0.025	4.2
ETHYLBENZENE	MG/KG	<0.025	<0.025	3.1
TOTAL XYLENES	MG/KG	<0.025	<0.025	48
SURROGATE:				
BROMOFLUOROBENZENE (%)		103	96	*

*SURROGATE RECOVERY NOT OBTAINABLE DUE TO SAMPLE DILUTION