

**Penney & Zlot**  
**LEAK SITE CLOSURE SUMMARY**  
**DEPUTY OIL & GAS INSPECTOR**

JUL 17 1998

Howell L No. 3  
Meter/Line ID - 70053

*Approved*

~~Legals~~ ~~Twn: 30~~ ~~Rng: 8~~  
NMOCD Hazard Ranking: 40  
Operator: Meridian

**SITE DETAILS**

Sec: 35      Unit: M  
Land Type: BLM

**PREVIOUS ACTIVITIES**

Site Assessment: 1/4/94  
Monitor Well: N/A

Excavation: 1/23/95  
Re-Excavation: N/A

Soil Boring: 6/20/95  
Geoprobe: N/A

**CONCLUSIONS**

The initial excavation was excavated to the top of bedrock, which was 2 feet below ground surface (bgs). PID field screening indicated subsurface soils to be 130 ppm at 2 feet bgs. Excavation was terminated and a sample was collected. Sample analysis indicated total BTEX to be above standards at 108 mg/kg and TPH was above standards at 9,120 mg/kg. A test boring was drilled in the center of the initial excavation to determine the vertical extent of impact to soil. The soil lithology beneath the excavation consisted of a very dense, tan, medium grained silty sand (sandstone), which continued to the termination of the boring at 5.1 feet bgs. A soil sample was collected for BTEX and TPH analysis at 5-5.3 feet bgs. Laboratory analysis showed all BTEX compounds to be below standards at .387 mg/kg. TPH Method 418.1 analysis showed TPH present at 155 mg/kg. The sample was reanalyzed using Method 8015 modified (C9-C18) and the sample results indicated 54 mg/kg TPH present.

**RECOMMENDATIONS**

No further action is recommended at the site for the following reasons:

- The bulk of the impacted soil was removed during the phase 1 excavation.
- Test boring sample results indicated soils below standards 3 feet beneath the initial excavation.
- The excavation was terminated in bedrock.
- No groundwater was encountered in the test boring.
- No potential receptors are within 1,000 feet of the site.
- Residual hydrocarbons remaining in the soils at the bottom of the initial excavation will naturally degrade in time with minimal risk to the environment.

**RECEIVED**  
MAR - 9 1998

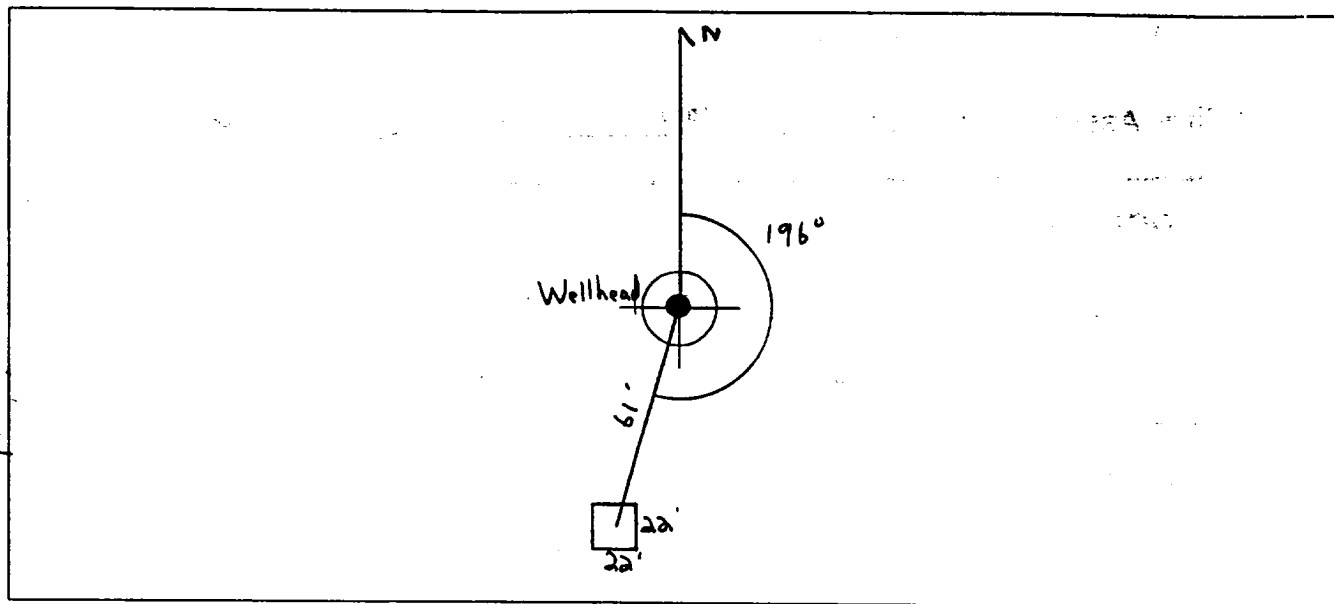
**OIL CON. DIV.**  
**DIST. 3**

RECEIVED  
MAR - 9 1998  
OIL CON. DIV.  
DIST. 3

## ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 196° Footage from Wellhead 61'  
b) Length : 22' Width : 22' Depth : 3'



## REMARKS

## Remarks :

Pictures @ 1256 hr 1-5 roll 1

Completed By:

Cory Chase

Signature

1/4/94

Date

# **PHASE I EXCAVATION**

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	Meter: <u>70053</u> Location: <u>Howell L No. 3</u> Coordinates: Letter: <u>M</u> Section <u>35</u> Township: <u>30</u> Range: <u>8</u> Or Latitude _____ Longitude _____ Date Started : <u>1-23-95</u> Run: <u><sup>10</sup> 210 41</u>
<b>FIELD OBSERVATIONS</b>	Sample Number(s): <u>KP 386</u> Sample Depth: <u>2'</u> Feet Final PID Reading <u>130</u> PID Reading Depth <u>2'</u> Feet <div style="text-align: center;">Yes      No</div> Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet
<b>CLOSURE</b>	Remediation Method : <div style="display: flex; justify-content: space-between;"> <div>           Excavation            Onsite Bioremediation            Backfill Pit Without Excavation         </div> <div style="text-align: right;"> <input type="checkbox"/> Approx. Cubic Yards _____  <input type="checkbox"/>  <input checked="" type="checkbox"/> </div> </div> Soil Disposition: <div style="display: flex; justify-content: space-between;"> <div>           Envirotech <input type="checkbox"/>            Other Facility <input type="checkbox"/> </div> <div style="text-align: right;"> <input type="checkbox"/> Tierra            Name: _____         </div> </div> Pit Closure Date: <u>1-23-95</u> Pit Closed By: <u>B.E.I</u>
<b>REMARKS</b>	Remarks : <u>NO LINE markers. started Remediating TO 12'</u> <u>HIT SANDSTONE AT 2' sampled closed pit.</u>
	Signature of Specialist: <u>Kelly Padilla</u>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 386	946586
MTR CODE   SITE NAME:	70053	N/A
SAMPLE DATE   TIME (Hrs):	1-23-95	1045
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	1-28-95	1-28-95
DATE OF BTEX EXT.   ANAL.:	1/28/95	1/28/95
TYPE   DESCRIPTION:	VG	Dark Brown clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	5.96	MG/KG	0.40241		4.97	20
TOLUENE	47.1	MG/KG	I		I	I
ETHYL BENZENE	3.26	MG/KG	I		I	I
TOTAL XYLENES	51.5	MG/KG	I			
TOTAL BTEX	108	MG/KG				
TPH (418.1)	9120	MG/KG			0.36	28
HEADSPACE PID	130	PPM				
PERCENT SOLIDS	86.9	%				

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

The Surrogate Recovery was at 90.0 % for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Approved By: CL

Date: 2-22-95

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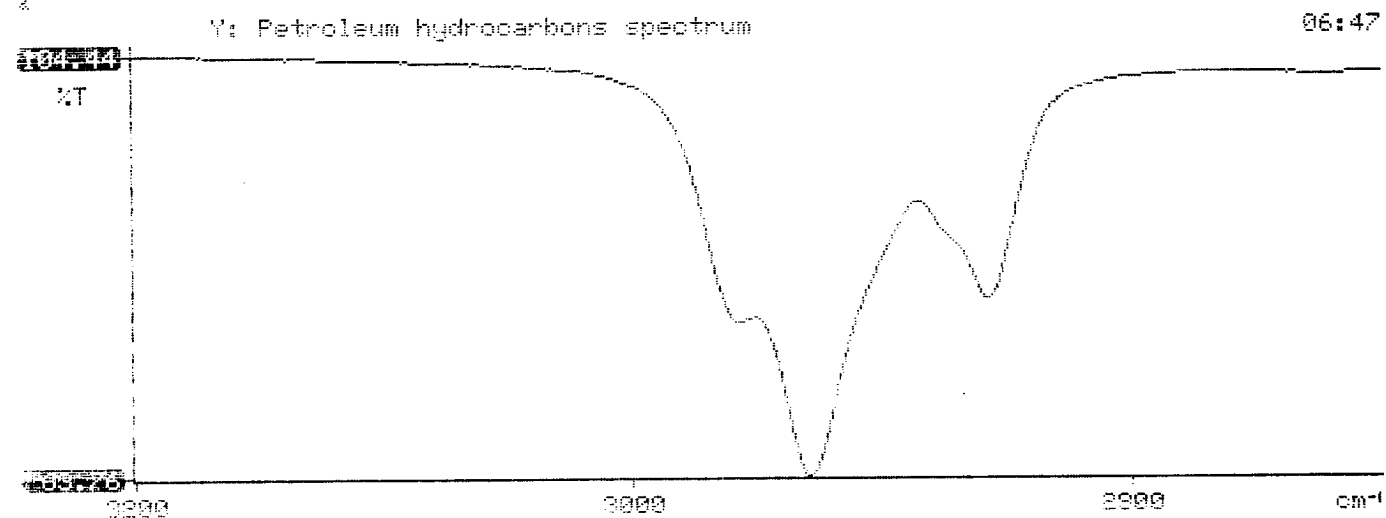
*****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil
Perkin-Elmer Model 1600 FT-IR
Analysis Report
*****

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95/01/28 06:47
*
* Sample identification
* 746586
*
* Initial mass of sample, g
* 0.360
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 9115.208
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.210
*
*

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# BTEX SOIL SAMPLE WORKSHEET

<b>File</b>	<b>:</b>	946586A	<b>Date Printed</b>	<b>:</b>	1/29/95
<b>Soil Mass (g)</b>	<b>:</b>	4.97	<b>Multiplier (L/g)</b>	<b>:</b>	0.00101
<b>Extraction vol. (mL)</b>	<b>:</b>	20	<b>DF (Analytical)</b>	<b>:</b>	400
<b>Shot Volume (uL)</b>	<b>:</b>	50	<b>DF (Report)</b>	<b>:</b>	0.40241

				Det. Limit	
<b>Benzene (ug/L)</b>	<b>:</b>	14.80	<b>Benzene (mg/Kg):</b>	<b>5.956</b>	2.012
<b>Toluene (ug/L)</b>	<b>:</b>	117.16	<b>Toluene (mg/Kg):</b>	<b>47.147</b>	2.012
<b>Ethylbenzene (ug/L)</b>	<b>:</b>	8.09	<b>Ethylbenzene (mg/Kg):</b>	<b>3.256</b>	2.012
<b>p &amp; m-xylene (ug/L)</b>	<b>:</b>	98.82	<b>p &amp; m-xylene (mg/Kg):</b>	<b>39.767</b>	4.024
<b>o-xylene (ug/L)</b>	<b>:</b>	29.12	<b>o-xylene (mg/Kg):</b>	<b>11.718</b>	2.012
			<b>Total xylenes (mg/Kg):</b>	<b>51.485</b>	6.036
			<b>Total BTEX (mg/Kg):</b>	<b>107.843</b>	



**EL PASO NATURAL GAS****EPA METHOD 8020 - BTEX SOILS**

File : C:\LABQUEST\CHROM001\946586A  
 Method : C:\LABQUEST\METHODS\9001.MET  
 Sample ID : 946586, 4.97G/50uL  
 Acquired : Jan 29, 1995 01:01:19  
 Printed : Jan 29, 1995 01:18:27  
 User : Tony

## Channel A Results

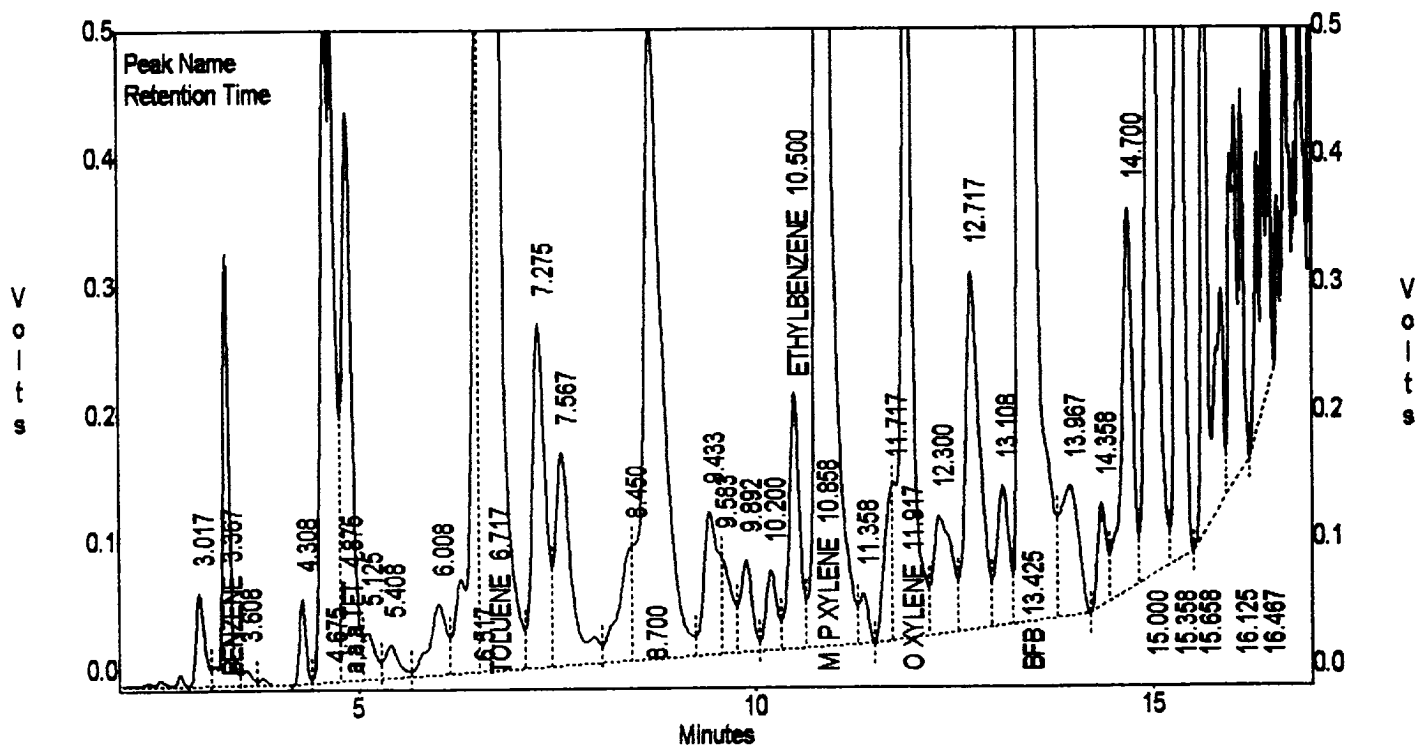
COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.367	1908264	121531.74219	14.8140
a,a,a TFT	4.875	3809547	32055.68359	116.9167
TOLUENE	6.717	28952196	314479.71875	117.1555
ETHYLBENZENE	10.500	1824733	228573.29688	8.0930
M & P XYLENE	10.858	24877188	316768.40625	98.8171
O XYLENE	11.917	6417738	221087.17188	29.1223
BFB	13.425	85798272	944778.31250	89.9736

Totals :

153587936

474.8922

C:\LABQUEST\CHROM001\946586A - Channel A



**EL PASO NATURAL GAS**  
**EPA METHOD 8020 - BTEX SOILS**

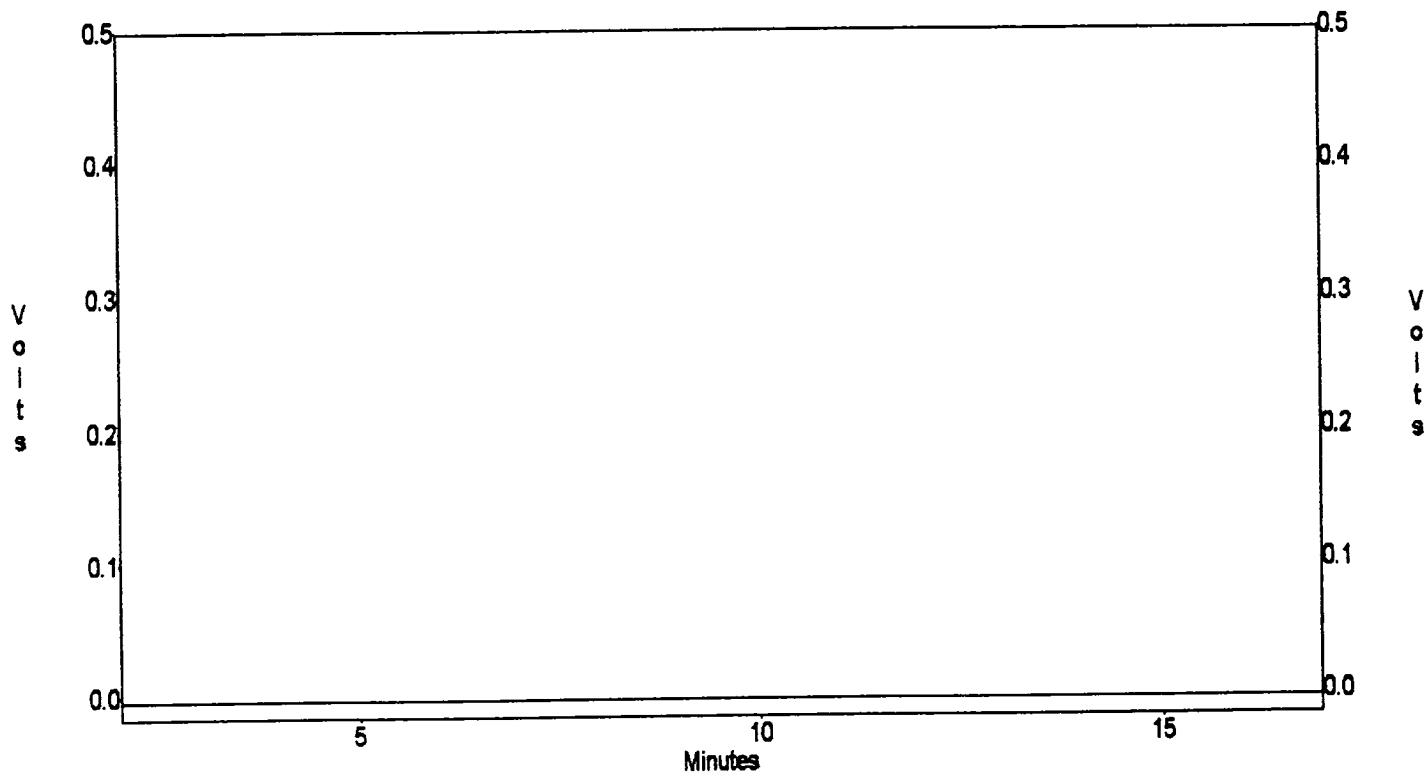
File : C:\LABQUEST\CHROM001\946586A  
Method : C:\LABQUEST\METHODS\9001.MET  
Sample ID : 946586,4.97G/50uL  
Acquired : Jan 29, 1995 01:01:19  
Printed : Jan 29, 1995 01:18:32  
User : Tony

## Channel B Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.367	0	0.00000	0.0000
a,a,a TFT	4.883	0	0.00000	0.0000
TOLUENE	6.700	0	0.00000	0.0000
ETHYLBENZENE	10.480	0	0.00000	0.0000
M & P XYLENE	10.833	0	0.00000	0.0000
O XYLENE	11.900	0	0.00000	0.0000
BFB	13.400	0	0.00000	0.0000

Totals :  
0 0.0000

C:\LABQUEST\CHROM001\946586A - Channel B



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# PHASE II

# RECORD OF SUBSURFACE E. LOCATION

Philip Environmental Services Corp.  
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 601 6000.7  
Project Location Hewett L No. 3, 70053

Elevation \_\_\_\_\_  
Borehole Location \_\_\_\_\_  
GWL Depth \_\_\_\_\_  
Logged By S.Kelly  
Drilled By K. Padilla  
Date/Time Started 6/20/95, 0900  
Date/Time Completed 6/20/95, 0915

Well Logged By S.Kelly  
Personnel On-Site K. Padilla, F. Rivera, D. Tzab  
Contractors On-Site \_\_\_\_\_  
Client Personnel On-Site \_\_\_\_\_  
Drilling Method 4 1/2" ID HSA  
Air Monitoring Method CGI, PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU			Drilling Conditions & Blow Counts
							BZ	BH	S	
0				Backfill to 2'						
5	57		3'	silty SAND, med. sand, 5-15% silt, tan, very dense, dry.			0	5	15	Drills like rock. ← headspace not taken, not enough sample.
10				BOTH- 5.1						
15										
20										
25										
30										
35										
40										

Comments:

No headspace taken, not enough sample. Split spoon  
could only be driven 3.5' - 5.3 sample (SEK 15)  
sent to Lab (BTEX & TPH.) BH grouted to surface.

Geologist Signature

Sarah Kelly

Phase II



**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT**

**PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone**

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	SEK 15	94/6915
MTR CODE   SITE NAME:	70053	N/A
SAMPLE DATE   TIME (Hrs):	6-20-95	1130
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	6-21-95	6-21-95
DATE OF BTEX EXT.   ANAL.:	6-22-95	6-22-95
TYPE   DESCRIPTION:	VG	light Tan fine sand

REMARKS: Headspace not taken, not enough sample (- field Drilling log).

**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	0.047	MG/KG	1			
TOTAL XYLENES	0.34	MG/KG	1			
TOTAL BTEX	0.387 <del>0.437</del>	MG/KG				
TPH (418.1)	155 <del>154.9</del>	MG/KG			2.04	28
HEADSPACE PID	—	PPM				
PERCENT SOLIDS	94.5	%				

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

The Surrogate Recovery was at 113 % for this sample All QA/QC was acceptable.

Narrative:

ATL results attached for BTEX and Modified 8015

DF = Dilution Factor Used

Approved By: VR

Date: 7/11/95

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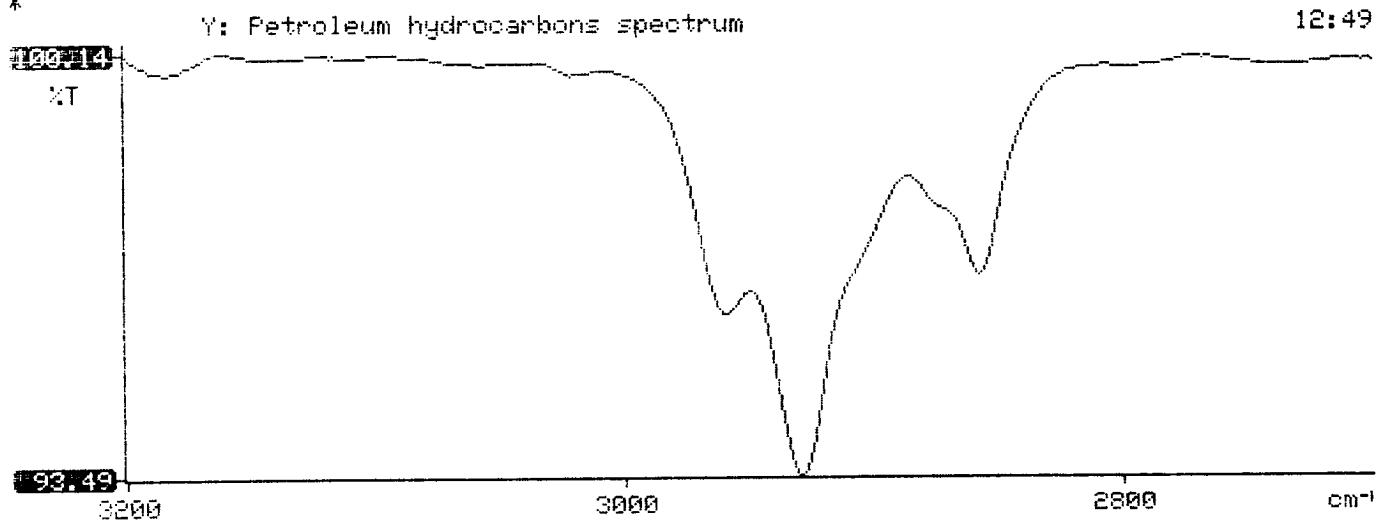
*****
*                                     *
*      Test Method for               *
*      Oil and Grease and Petroleum *
*      Hydrocarbons                  *
*      in Water and Soil             *
*                                     *
*      Perkin-Elmer Model 1600 FT-IR *
*      Analysis Report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

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* 95/06/21 12:49
*
* Sample identification
* 946915
*
* Initial mass of sample, g
* 2.040
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 154.857
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.029
*
*
*

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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. 506401

June 27, 1995

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

Project Name/Number: PIT CLOSURE/PHASE II 24324

Attention: John Lambdin

On 06/22/95, 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.

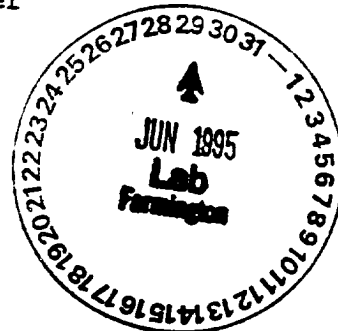
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill  
Project Manager

MR:gsm

Enclosure

H. Mitchell Rubenstein, Ph.D.  
Laboratory Manager





Analytical Technologies, Inc.

## GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 506401  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946915	NON-AQ	06/20/95	06/22/95	06/22/95	1
05	946916	NON-AQ	06/20/95	06/22/95	06/22/95	1
06	946917	NON-AQ	06/20/95	06/22/95	06/23/95	1

PARAMETER	UNITS	04	05	06
BENZENE	MG/KG	<0.025	<0.025	<0.025
TOLUENE	MG/KG	<0.025	<0.025	<0.025
ETHYLBENZENE	MG/KG	0.047	<0.025	<0.025
TOTAL XYLENES	MG/KG	0.34	<0.025	<0.025

### SURROGATE:

BROMOFLUOROBENZENE (%)	113	96	94
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Analytical Technologies, Inc.

## GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED  
CLIENT : EL PASO NATURAL GAS CO.      ATI I.D.: 506401  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE/PHASE II

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946915	NON-AQ	06/19/95	06/20/95	06/24/95	1
PARAMETER			UNITS	04		
FUEL HYDROCARBONS			MG/KG	54		
HYDROCARBON RANGE				C9-C18		
HYDROCARBONS QUANTITATED USING				DIESEL		

SURROGATE:

O-TERPHENYL (%)

108