

*Denny A. Rust*  
**EPFS PIT CLOSURE SUMMARY**  
**DEPUTY OIL & GAS INSPECTOR**

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**JUL 17 1998**

**Lackey # A3**  
**Meter/Line ID - 70148**

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*Approved*

**Legals - Twn: 29 Rtg: 10**  
**NMOCD Hazard Ranking: 30**  
**Operator: Meridian**

**SITE DETAILS**

**Sec: 11 Unit: N**  
**Land Type: BLM**

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**PREVIOUS ACTIVITIES**

**Site Assessment: 5/4/94**  
**Monitor Well: N/A**

**Excavation: 5/13/94**  
**Re-Excavation: N/A**

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

**CONCLUSIONS**

The initial excavation was excavated to the practical extent of the trackhoe, which was 12 feet below ground surface (bgs). PID field screening indicated subsurface soils to be 397 ppm at 12 feet bgs. Excavation was terminated and a sample was collected. Sample analysis indicated total BTEX to be above standards at 192 mg/kg and TPH was above standards at 3,070 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 below the excavation consisted of a black, fine to medium grained sand, which continued to approximately 26 feet bgs. At 26 feet bgs the soil lithology changed to a dark brown sandy silt, which continued to the termination of the boring at 32 feet bgs. A soil sample was collected for BTEX and TPH analysis at 30-32 feet bgs. Laboratory analysis showed all BTEX compounds to be below laboratory detection limits and TPH present at 48.3 mg/kg.

**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 18 feet beneath the initial excavation.
- 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**

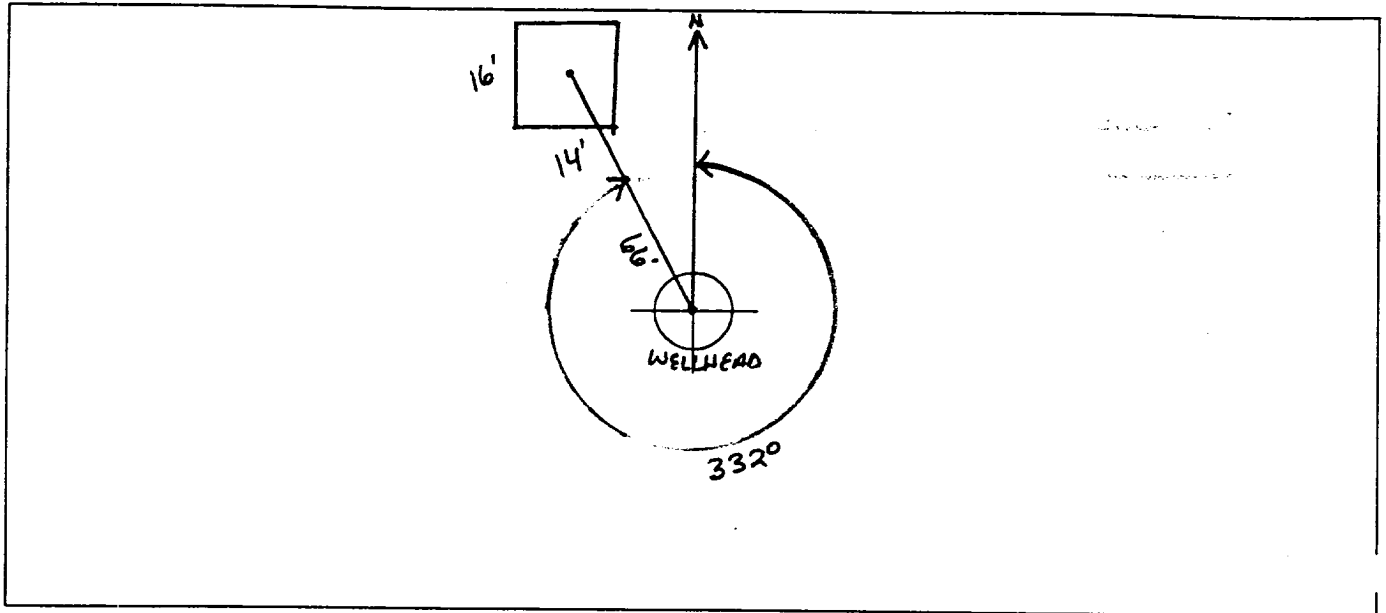
# FIELD PIT SITE ASSESSMENT FORM

GENERAL	<p>Meter: <u>70148</u> Location: <u>LACKEY # A3</u></p> <p>Operator #: <u>2999</u> Operator Name: <u>MERIDIAN P/L</u> District: <u>BLOOMFIELD</u></p> <p>Coordinates: Letter: <u>N</u> Section <u>11</u> Township: <u>29</u> Range: <u>10</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>5.4.94</u> Area: <u>10</u> Run: <u>73</u></p>
SITE ASSESSMENT	<p><b>NMOCD Zone:</b> (From NMOCD Maps)</p> <p>Inside <input checked="" type="checkbox"/> (1) Outside <input type="checkbox"/> (2)</p> <p><b>Land Type:</b> BLM <input checked="" type="checkbox"/> (1) State <input type="checkbox"/> (2) Fee <input type="checkbox"/> (3) Indian _____</p> <p><b>Depth to Groundwater</b> Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b> 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> Less Than 200 Ft (20 points) <input type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input checked="" type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>WRIGHT CANYON</u></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) <input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>30</u> POINTS</p>
REMARKS	<p>Remarks : <u>ONLY PIT ON LOCATION. PIT IS DRY. REDLINE AND TOPO CONFIRMED</u> <u>LOCATION TO BE INSIDE THE V.Z.</u></p> <p style="text-align: right;"><b>DIG &amp; HAUL</b></p>

## ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 332° Footage from Wellhead 66'  
b) Length : 16' Width : 14' Depth : 4'



## REMARKS

## Remarks :

TOOK PICTURES AT 1:16 P.M.

END DUMP

Completed By:

Robert Thompson  
Signature

5.4.94  
Date

# **PHASE I EXCAVATION**

# FIF 7 PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>70148</u> Location: <u>LACKEY # A3</u></p> <p>Coordinates: Letter: <u>N</u> Section <u>11</u> Township: <u>29</u> Range: <u>10</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>5-13-94</u> Area: <u>10</u> Run: <u>73</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>KP # 48</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>397</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes      No</p> <p>Groundwater Encountered <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (2) Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> (1) Approx. Cubic Yards <u>55</u></p> <p>Onsite Bioremediation <input type="checkbox"/> (2)</p> <p>Backfill Pit Without Excavation <input type="checkbox"/> (3)</p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> (1) <input checked="" type="checkbox"/> (3) Tierra</p> <p>Other Facility <input type="checkbox"/> (2) Name: _____</p> <p>Pit Closure Date: <u>5-13-94</u> Pit Closed By: <u>B.E.I</u></p>
<b>REMARKS</b>	<p><b>Remarks :</b> <u>SOME LINE MARKERS ON LOCATION. REMEDIATING TO 12'</u></p> <p><u>SOIL IS BLACK. AT 12' SOIL STILL BLACK. LOTS OF SAND.</u></p> <p><u>PIT STARTED TO COME IN. PID 397.</u></p>
	<p>Signature of Specialist: <u>Kelly Rodella</u></p>



FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD48	945175
MTR CODE   SITE NAME:	70148	Lackey #A3
SAMPLE DATE   TIME (Hrs):	13-May-94	1300
PROJECT:	Phase I Excavation	
DATE OF TPH EXT.   ANAL.:	5/17/94	5/17/94
DATE OF BTEX EXT.   ANAL.:	5/18/94	5/20/94
TYPE   DESCRIPTION:	VC	Grey sand

Field Remarks: \_\_\_\_\_

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.02	MG/KG				
TOLUENE	43.2	MG/KG				
ETHYL BENZENE	13.5	MG/KG				
TOTAL XYLENES	135	MG/KG				
TOTAL BTEX	192	MG/KG				
TPH (418.1)	3,070	MG/KG			2.06	28.0
HEADSPACE PID	397	PPM				
PERCENT SOLIDS	94.3	%				

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

The Surrogate Recovery was at 169 % for this sample All QA/QC was acceptable.

Narrative:

Surrogate recovery high due to co-elution.

DF = Dilution Factor Used

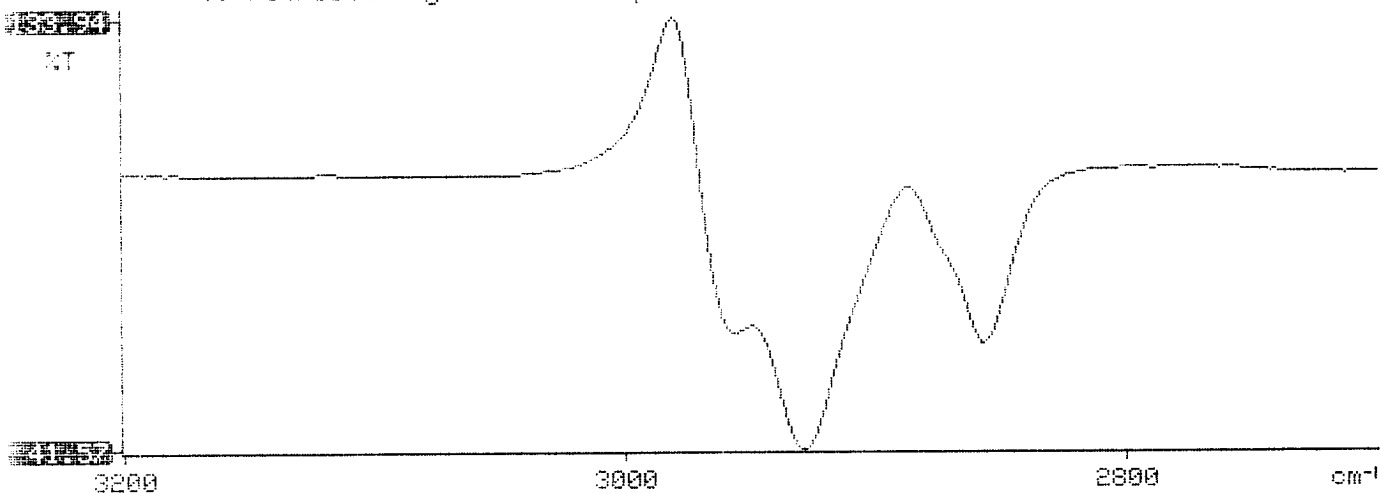
Approved By: John Jordan

Date: Original: 7/14/94  
Re-print: 2/10/98

Perkin-Elmer Model 1600 FT-IR  
Analysis Report

\* Net absorbance of hydrocarbons (2930 cm-1)  
0.386

13.00



DATE: 05/18/94

14:17:00

John Lambson  
Type: Sample

Time: 11:25:00

Collection: 05/18/94 May 18 1994 Meth: 01.00:15:25 May 18 1994  
Integration: 05/18/94 May 18 1994 Meth: 01.00:15:25 May 18 1994  
Report: 05/18/94 May 18 1994 Meth: 01.00:15:25 May 18 1994

Sample Amt: 1.000000e+0 Dilution: 1.000000e+1

# INITIAL STANDARD AREA

RT	Area	SD	Height	RT	ug/L	Name
10.191	424633	T	0.000000e+0	0.0000	Unknown	
10.377	238726	T	0.000000e+0	0.0000	Unknown	
11.038	211707	T	0.000000e+0	0.0000	Unknown	
11.435	201031	T	11.411	0.19029e-7	0.2155	Benzene
11.500	126755	T	0.000000e+0	0.0000	Unknown	
11.750	96733	T	0.000000e+0	0.0000	Unknown	
11.802	333014	T	0.000000e+0	0.0000	Unknown	
12.193	335770	T	0.000000e+0	0.0000	Unknown	
13.517	107173	T	0.000000e+0	0.0000	Unknown	
13.737	123511	T	13.727	1.35200e-7	1.1170270	o-xylene TFT
14.033	424633	T	0.000000e+0	0.0000	Unknown	
14.100	144107	T	0.000000e+0	0.0000	Unknown	
15.130	246732	T	0.000000e+0	0.0000	Unknown	
15.577	221653	T	0.000000e+0	0.0000	Unknown	
15.602	11067	T	0.000000e+0	0.0000	Unknown	
16.134	111300	T	0.000000e+0	0.0000	Unknown	
16.610	102123	T	0.000000e+0	153.02	1.111701	Toluene
16.613	120132	T	0.000000e+0	0.0000	Unknown	
19.157	404000	V	0.000000e+0	0.0000	Unknown	
19.157	317141	T	0.000000e+0	0.0000	Unknown	
19.213	342193	V	0.000000e+0	0.0000	Unknown	
19.610	213702	V	0.000000e+0	0.0000	Unknown	
20.002	333834	T	0.000000e+0	47.88	3.11332	Ethylbenzene x50 = 2399.0
20.006	378804	T	0.000000e+0	372.1	1.111701	m & p-Xylene x50 = 1865.0
20.172	404510	T	0.000000e+0	0.0000	Unknown	
20.631	317712	V	0.000000e+0	0.0000	Unknown	
20.695	357500	T	0.000000e+0	107.70	1.111701	p-Xylene x50 = 5385.0
20.671	409731	T	0.000000e+0	0.0000	Unknown	
20.721	123216	T	0.000000e+0	0.0000	Unknown	
20.810	445246	T	0.000000e+0	0.0000	Unknown	
21.000	796960	T	0.000000e+0	0.0000	Unknown	
21.115	106667	T	0.000000e+0	168.7	1.111701	STB
21.252	310323	T	0.000000e+0	0.0000	Unknown	
21.403	409008	T	0.000000e+0	0.0000	Unknown	
21.430	106667	T	0.000000e+0	0.0000	Unknown	
21.573	100460	T	0.000000e+0	0.0000	Unknown	
21.617	133422	T	0.000000e+0	0.0000	Unknown	
21.633	110170	T	0.000000e+0	0.0000	Unknown	
21.625	113203	T	0.000000e+0	0.0000	Unknown	
22.052	206164	T	0.000000e+0	0.0000	Unknown	
22.113	204510	T	0.000000e+0	0.0000	Unknown	
22.131	700140	T	0.000000e+0	0.0000	Unknown	
22.202	104350	T	0.000000e+0	0.0000	Unknown	
22.250	101131	T	0.000000e+0	0.0000	Unknown	
22.295	123216	T	0.000000e+0	0.0000	Unknown	
22.313	110170	T	0.000000e+0	0.0000	Unknown	
22.322	113203	T	0.000000e+0	0.0000	Unknown	
22.331	110170	T	0.000000e+0	0.0000	Unknown	
22.333	113203	T	0.000000e+0	0.0000	Unknown	
22.335	110170	T	0.000000e+0	0.0000	Unknown	
22.337	113203	T	0.000000e+0	0.0000	Unknown	
22.339	110170	T	0.000000e+0	0.0000	Unknown	

8.27176e-6

9.19982e-6

8.3324e-6

5.4378e-6

5/20/94

*Handwritten signature*  
5/20/94





File : BETX\_24.002

045175 1/93

John Lamodin

Run : 01

Type : Sample

Path : INCH50M

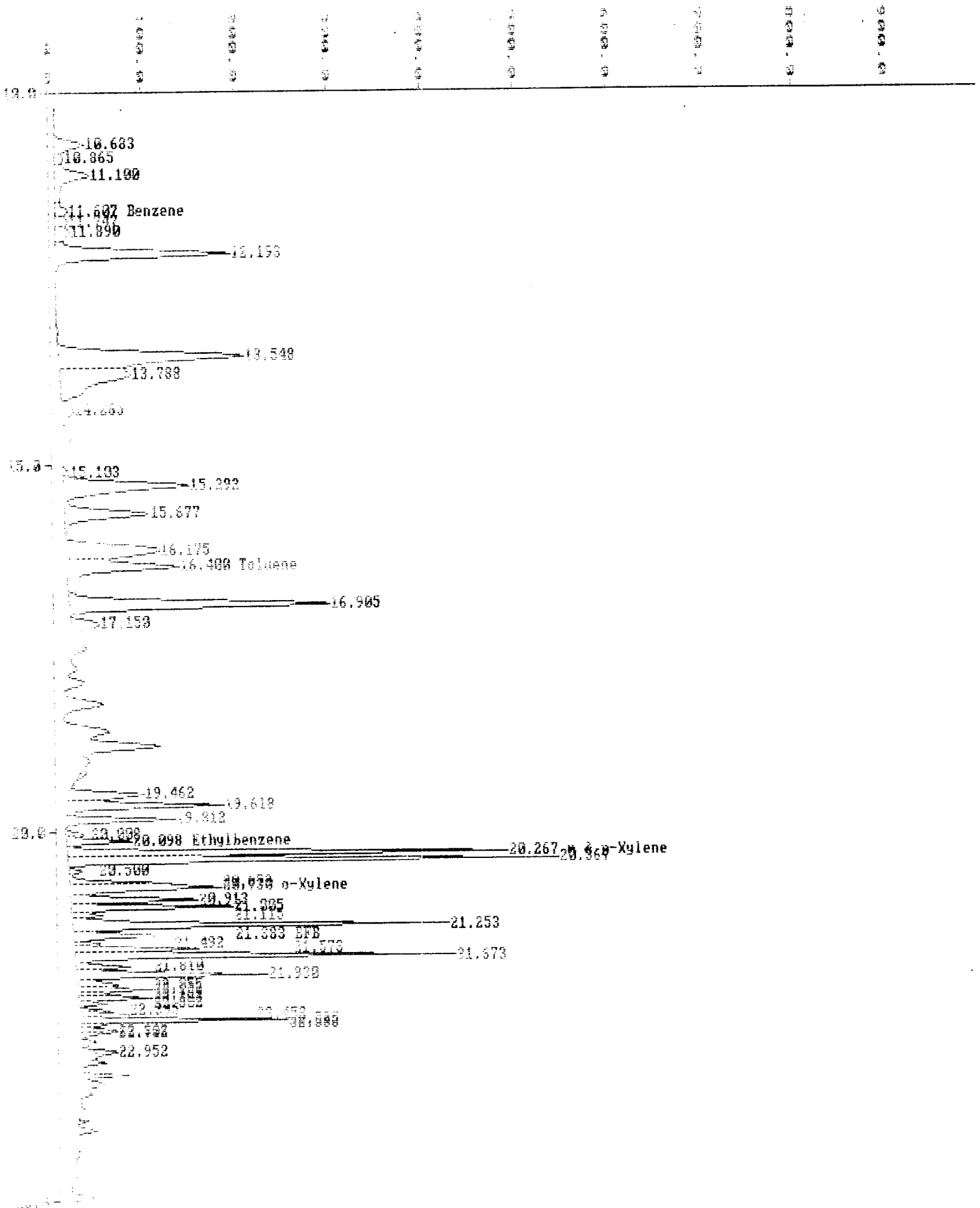
Collection : 15:29:45 May 20 1994 Meth(B): BETX 10:07:16 May 17 1994 3  
 Integration: 15:29:45 May 20 1994 Meth(B): BETX 10:07:16 May 17 1994 3  
 Report : 15:35:16 May 20 1994 Meth(B): BETX 10:07:16 May 17 1994 3

Sample Amt : 1.00000e+0 Dilution: 5.00000e+1

## EXTERNAL STANDARD ( AREA )

RT	Area	BC	ExpRT	RF	ug/L	Name
10.882	264670	T		0.00000e+0	0.0000	Unknown
10.883	68503	T		0.00000e+0	0.0000	Unknown
11.100	425630	T		0.00000e+0	0.0000	Unknown
11.607	114981	T	11.521	1.59437e-4	916.6141	Benzene
11.747	30340	T		0.00000e+0	0.0000	Unknown
11.990	157963	T		0.00000e+0	0.0000	Unknown
12.193	1313172	T		0.00000e+0	0.0000	Unknown
13.340	1950825	T		0.00000e+0	0.0000	Unknown
13.732	1055015	T		0.00000e+0	0.0000	Unknown
			14.070	0.00000e+0		a,a,a TFT
14.233	111530			0.00000e+0	0.0000	Unknown
15.103	31211	T		0.00000e+0	0.0000	Unknown
15.292	1184693	T		0.00000e+0	0.0000	Unknown
15.677	737514	V		0.00000e+0	0.0000	Unknown
16.173	1101687	T		0.00000e+0	0.0000	Unknown
16.400	373029	T	16.470	2.07521e-4	1011.75381	Toluene
16.903	1860163	V		0.00000e+0	0.0000	Unknown
17.150	238833	V		0.00000e+0	0.0000	Unknown
19.462	498513	T		0.00000e+0	0.0000	Unknown
19.613	777581			0.00000e+0	0.0000	Unknown
19.811	480190	V		0.00000e+0	0.0000	Unknown
20.003	75954	T		0.00000e+0	0.0000	Unknown
20.093	252967	T	20.127	2.09002e-4	2642.4822	Ethylbenzene
20.227	1787563	T	20.230	0.20853e-4	19135.2349	m & p-Xylene
20.227	1685795	T		0.00000e+0	0.0000	Unknown
20.300	50613	T		0.00000e+0	0.0000	Unknown
20.372	369796	T		0.00000e+0	0.0000	Unknown
20.733	683310	T	20.746	2.15261e-4	7037.7256	o-Xylene
20.813	437331	T		0.00000e+0	0.0000	Unknown
21.005	605280	T		0.00000e+0	0.0000	Unknown
21.115	91865	T		0.00000e+0	0.0000	Unknown
21.250	1406653	T		0.00000e+0	0.0000	Unknown
21.332	354250	T	21.348	3.39573e-5	50.1471	BFB
21.492	65158	T		0.00000e+0	0.0000	Unknown
21.570	417412	T		0.00000e+0	0.0000	Unknown
21.670	1301506	T		0.00000e+0	0.0000	Unknown
21.810	209980	T		0.00000e+0	0.0000	Unknown
21.930	704931	T		0.00000e+0	0.0000	Unknown
22.055	167813	T		0.00000e+0	0.0000	Unknown
22.113	253615	T		0.00000e+0	0.0000	Unknown
22.186	91791	T		0.00000e+0	0.0000	Unknown
22.203	227448	T		0.00000e+0	0.0000	Unknown
22.302	73206	T		0.00000e+0	0.0000	Unknown
22.395	73367	T		0.00000e+0	0.0000	Unknown
22.461	167374	T		0.00000e+0	0.0000	Unknown
22.523	521072	T		0.00000e+0	0.0000	Unknown
22.553	70992	T		0.00000e+0	0.0000	Unknown
22.561	119242	T		0.00000e+0	0.0000	Unknown
22.701	34507	T		0.00000e+0	0.0000	Unknown
22.701	34507	T		0.00000e+0	0.0000	Unknown

ILLEGIBLE



# PHASE II

# RECORD OF SUBSURFACE LOCATION

Philip Environmental Services Corp.  
4000 Monroe Road  
Farmington, New Mexico 87401  
(505) 328-2262 FAX (505) 328-2388

Borehole # BH-1  
Well # \_\_\_\_\_  
Page 1 of 1

Project Name EPNG Pits  
Project Number 14509 Phase 661 6000.  
Project Location Lackey #43, 70148

Elevation \_\_\_\_\_  
Borehole Location \_\_\_\_\_  
GWL Depth \_\_\_\_\_  
Logged By S.Kelly  
Drilled By R. Padilla  
Date/Time Started 6/20/95, 1030  
Date/Time Completed 6/20/95, 1040

Well Logged By S.Kelly  
Personnel On-Site R. Padilla, F. Rivera, D. T32/8  
Contractors On-Site \_\_\_\_\_  
Client Personnel On-Site \_\_\_\_\_

Drilling Method 4 1/4" 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 12'						
5										
10										
15	1	15'-17'	.2'	SAND, black, fine to med., very loose, damp						121 439 1034
20	2	20'-22'	.5'	SAA						25 371 1043
25	3	25'-27'	.5'	SAA		26				4 53 1050 stuff
30	4	27'-29'	.3'	sandy SILT, dark brown, fine sand, loose, damp w/ trace clay						2 32 1105 in split spoon is
		30'-32'	.6'	SAA with 15-25% fine sand.						1 2 1130 contaminat small amount of clean recover soil. At 30'-32' enough clean recovery to sample.
35				BOH 32'						
40										

Comments:

30'-32' sample (SEK16) sent to lab (BTEX & TPH). BH grouted to surface. Sample was bagged and iced before being put into jar.

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:	SEV 16	946916
MTR CODE   SITE NAME:	70148	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	Brown sand

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)	18.3	MG/KG			1.99	28
HEADSPACE PID	~	PPM				
PERCENT SOLIDS	95.2	%				

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

The Surrogate Recovery was at 96 % for this sample All QA/QC was acceptable.  
Narrative:

All results attached

DF = Dilution Factor Used

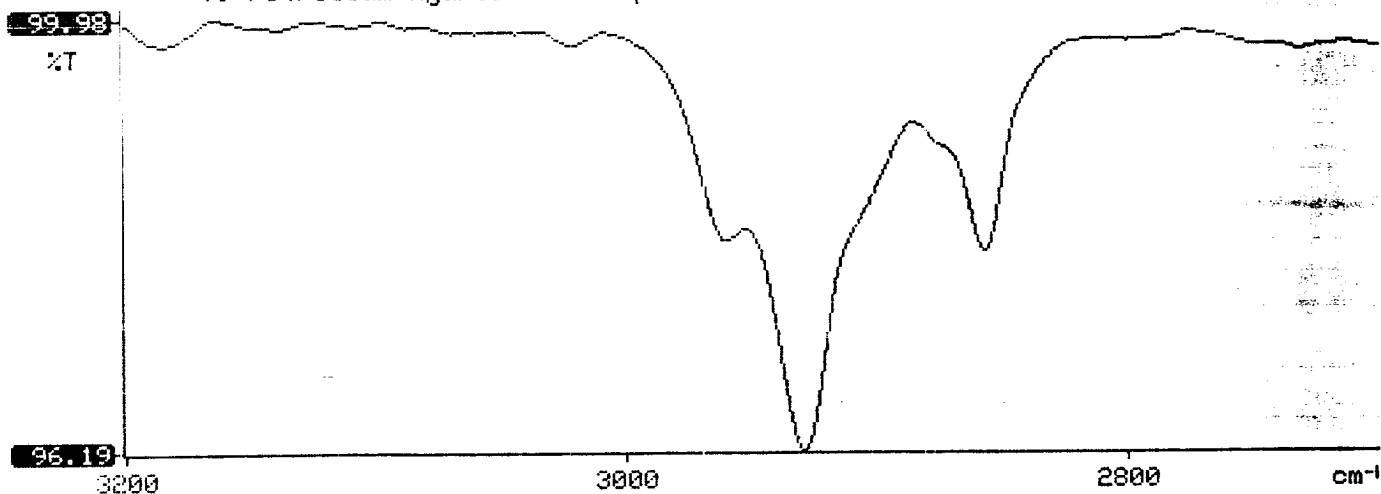
Approved By: JKDate: 7/11/95

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

\* 95/06/21 12:51  
 \*  
 \* Sample identification  
 946915  
 \*  
 \* Initial mass of sample, g  
 1.990  
 \*  
 \* Volume of sample after extraction, ml  
 28.000  
 \*  
 \* Petroleum hydrocarbons, ppm  
 48.274  
 \* Net absorbance of hydrocarbons (2930 cm<sup>-1</sup>)  
 0.016  
 \*  
 \*  
 \*

Y: Petroleum hydrocarbons spectrum

12:51





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.

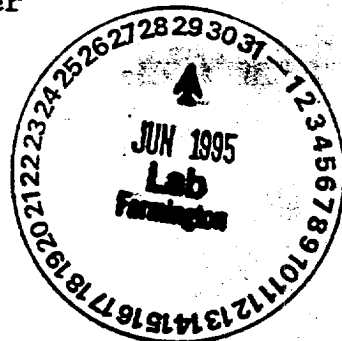
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill  
Project Manager

H. Mitchell Rubenstein, Ph.D.  
Laboratory Manager

MR:gsm

Enclosure





# 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