DEPUTY OIL & GAS INSPECTOR

DEC - 1 1995

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

RECEIVED

MUCHO DEAL #1
Meter/Line ID - 90019

SITE DETAILS

Legals - Twn: 30 **Rng:** 14 **Sec:** 14 **Unit:** F
NMOCD Hazard Ranking: 10 **Land Type:** 2 - Federal
Operator: DUGAN PRODUCTION CORP **Pit Closure Date:** 01/25/95

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: 90019 Location: MUCHO DEAL #1
Operator #: _____ Operator Name: DUGAN PROD. P/L District: KUTZ
Coordinates: Letter: F Section 14 Township: 30 Range: 14
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 1.11.95 Area: 02 Run: 23

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 ARROYO~~
(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: 10 **POINTS**

REMARKS

Remarks : REDLINE & TOPO SHOW LOCATION INSIDE V.Z. 3 PITS ON LOCATION. DEHY PIT BELONGS TO EPNG. WILL CLOSE PIT.

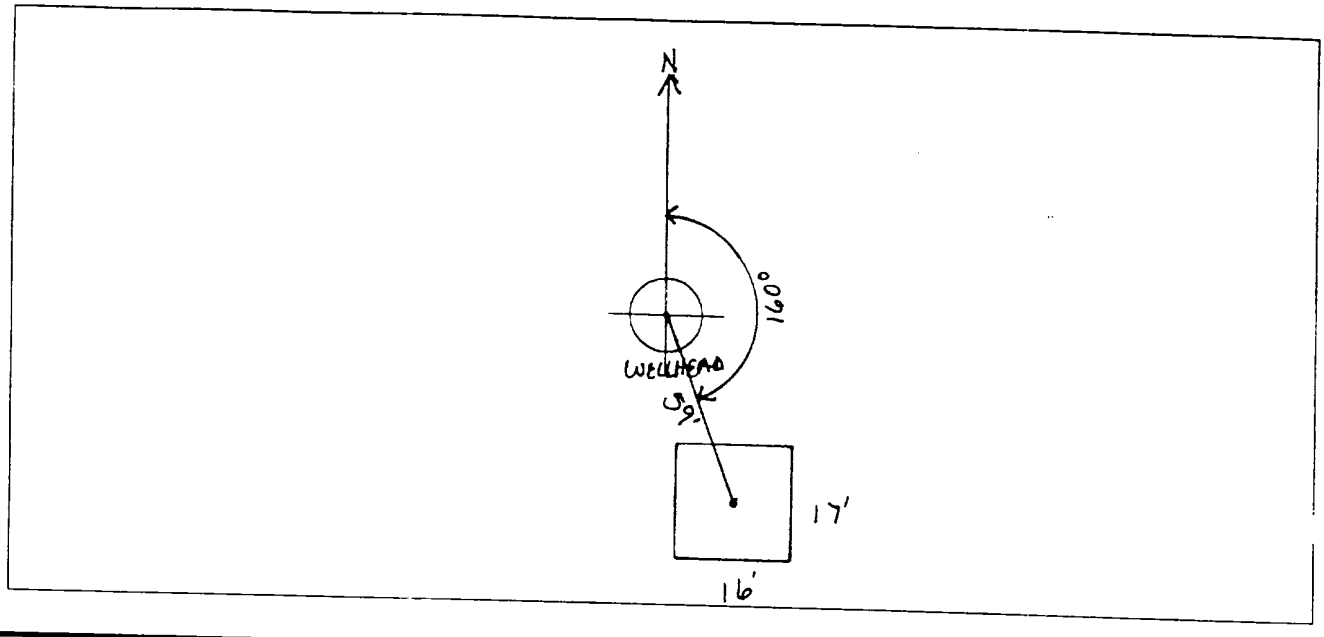
NM & NAVAJO

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 160° Footage from Wellhead 59'

b) Length : 17' Width : 16' Depth : 3'



REMARKS

Remarks :

PHOTOS - 1241

Completed By:

Robert Thompson
Signature

1.11.95
Date

PHASE I
EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 90019 Location: MUCHO Deal #1

Coordinates: Letter: F Section 14 Township: 30 Range: 14

Or Latitude _____ Longitude _____

Date Started : 1-25-95 Run: 02 23 1/26/95 BR

FIELD OBSERVATIONS

Sample Number(s): KP391 _____ _____ _____

Sample Depth: 2' Feet

Final PID Reading 103 1/26/95 KDK as copied from sample jar PID Reading Depth 2' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☐	Approx. Cubic Yards _____
Onsite Bioremediation	☐	
Backfill Pit Without Excavation	☒	

Soil Disposition:

Envirotech ☐ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 1-25-95 Pit Closed By: B.E.I

REMARKS

Remarks : No LINE MARKERS. STARTED REMEDIATING TO 12'. HIT SAND STONE AT 2' SAMPLED CLOSED PIT

Signature of Specialist: Kelly Padilla

(SP3191) 03/16/9

El Paso Natural Gas Company

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 291	96595
MTR CODE | SITE NAME:	98019	N/A
SAMPLE DATE | TIME (Hrs):	1-25-95	1100
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	1-28-95	1-28-95
DATE OF BTEX EXT. | ANAL.:	1/26/95	1/29/95
TYPE | DESCRIPTION:	VG	Dark Brown clay and sand

REMARKS: very wet sample

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	2.06	MG/KG	0.41841		4.78	20
TOLUENE	95.5	MG/KG				
ETHYL BENZENE	11.6	MG/KG				
TOTAL XYLENES	190	MG/KG				
TOTAL BTEX	299	MG/KG				
TPH (418.1)	19,000	MG/KG			0.420	28
HEADSPACE PID	103	PPM				
PERCENT SOLIDS	80.4	%				

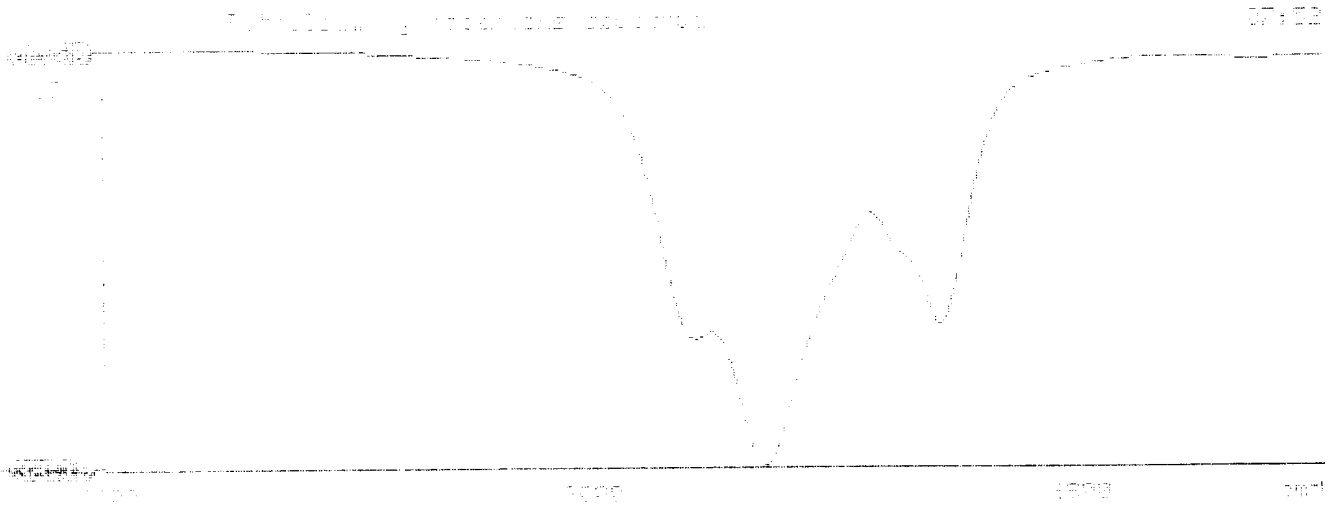
-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 92.9 % for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 7-22-95



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

Perkin-Elmer Model 1600 FT-IR
Analysis Report

95/01/29 07:52

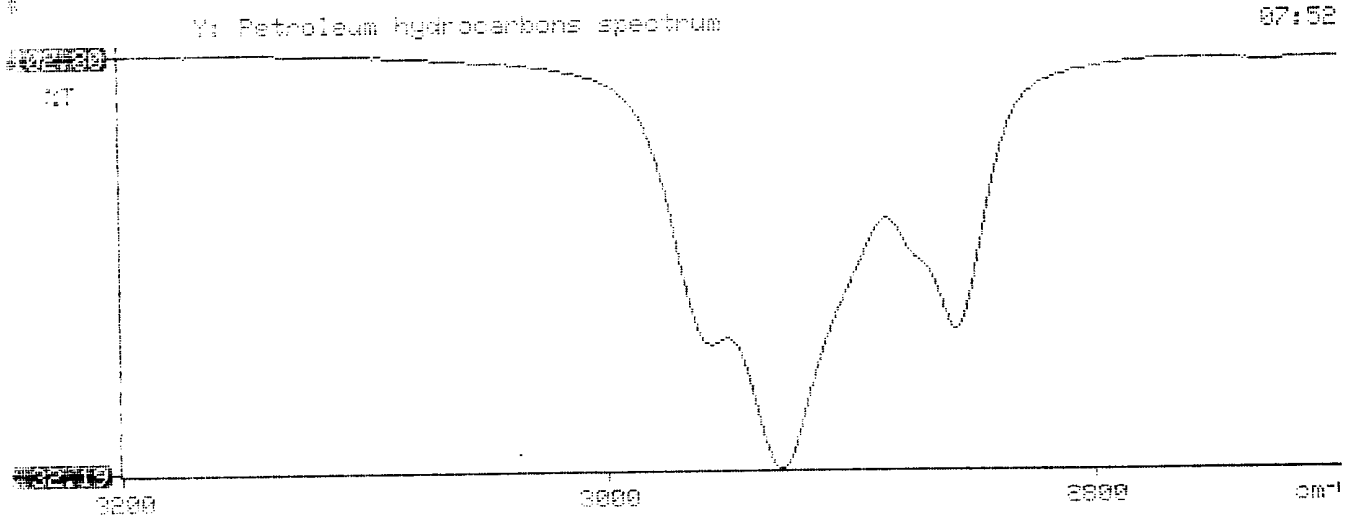
Sample identification
746595

Initial mass of sample, g
0.420

Volume of sample after extraction, ml
20.000

Petroleum hydrocarbons, ppm
19138.992

Net absorbance of hydrocarbons (2930 cm-1)
0.500



BTEX SOIL SAMPLE WORKSHEET

File	946595A	**Date Printed**	1/30/95
Soil Mass (g)	4.78	**Multiplier (L/g)**	0.00105
Extraction vol. (mL)	20	**DF (Analytical)**	400
Shot Volume (uL)	50	**DF (Report)**	0.41841

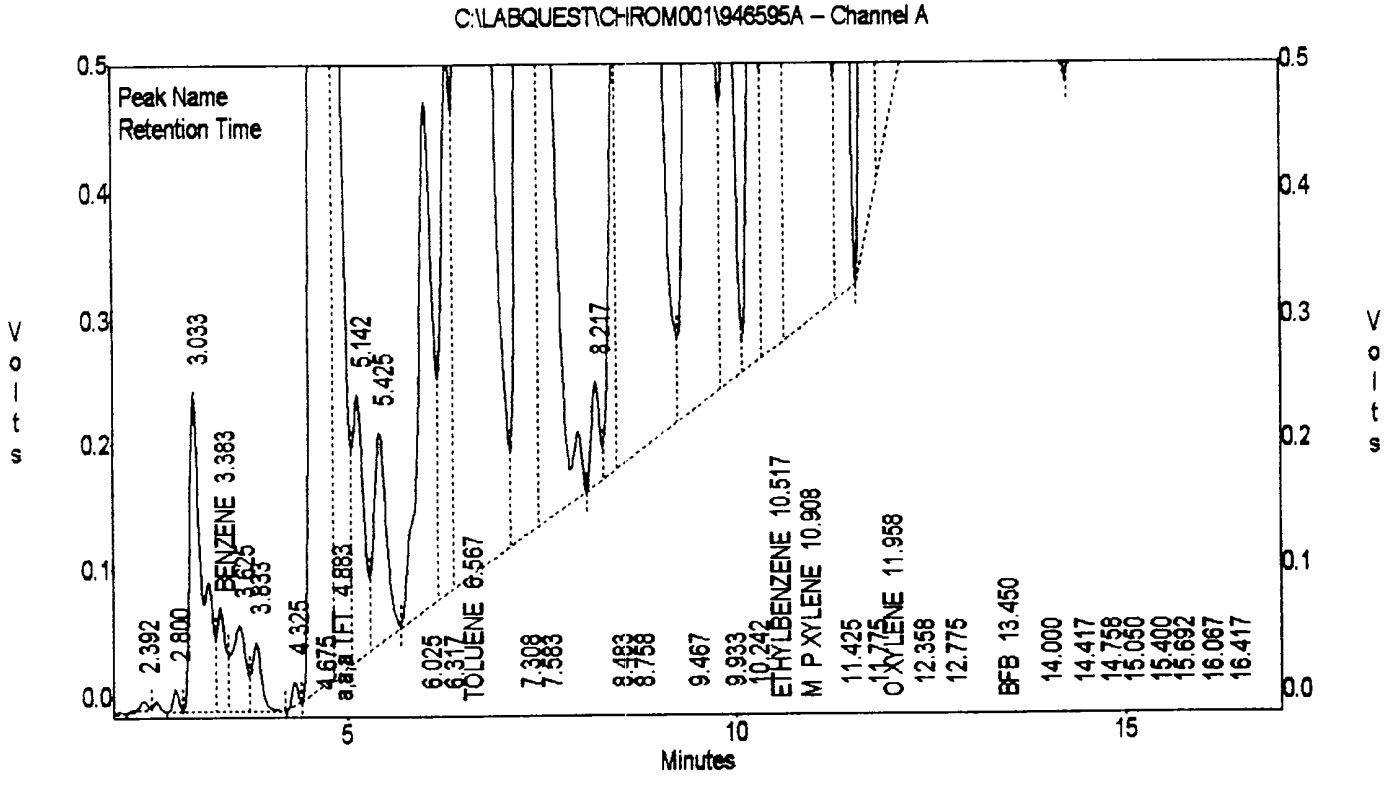
			Det. Limit
Benzene (ug/L)	4.92	**Benzene (mg/Kg):**	**2.059**	2.092
Toluene (ug/L)	228.21	**Toluene (mg/Kg):**	**95.485**	2.092
Ethylbenzene (ug/L)	27.79	**Ethylbenzene (mg/Kg):**	**11.628**	2.092
p & m-xylene (ug/L)	360.50	p & m-xylene (mg/Kg):	150.837	4.184
o-xylene (ug/L)	93.07	o-xylene (mg/Kg):	38.941	2.092
		Total xylenes (mg/Kg):	**189.778**	6.276
		Total BTEX (mg/Kg):	**298.950**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946595A
Method : C:\LABQUEST\METHODS\CALCBTEX.MET
Sample ID : 946595,4.78G/50uL
Acquired : Jan 29, 1995 22:49:28
Printed : Jan 30, 1995 11:10:06
User : Tony

Channel A Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.383	633707	121531.74219	4.9195
a,a,a TFT	4.883	7495228	32055.68359	230.0320
TOLUENE	6.567	56395668	314479.71875	228.2060
ETHYLBENZENE	10.517	6265101	228573.29688	27.7867
M & P XYLENE	10.908	90754944	316768.40625	360.4964
O XYLENE	11.958	20509520	221087.17188	93.0678
BFB	13.450	88547936	944778.31250	92.8571
Totals :		270602112		1037.3655

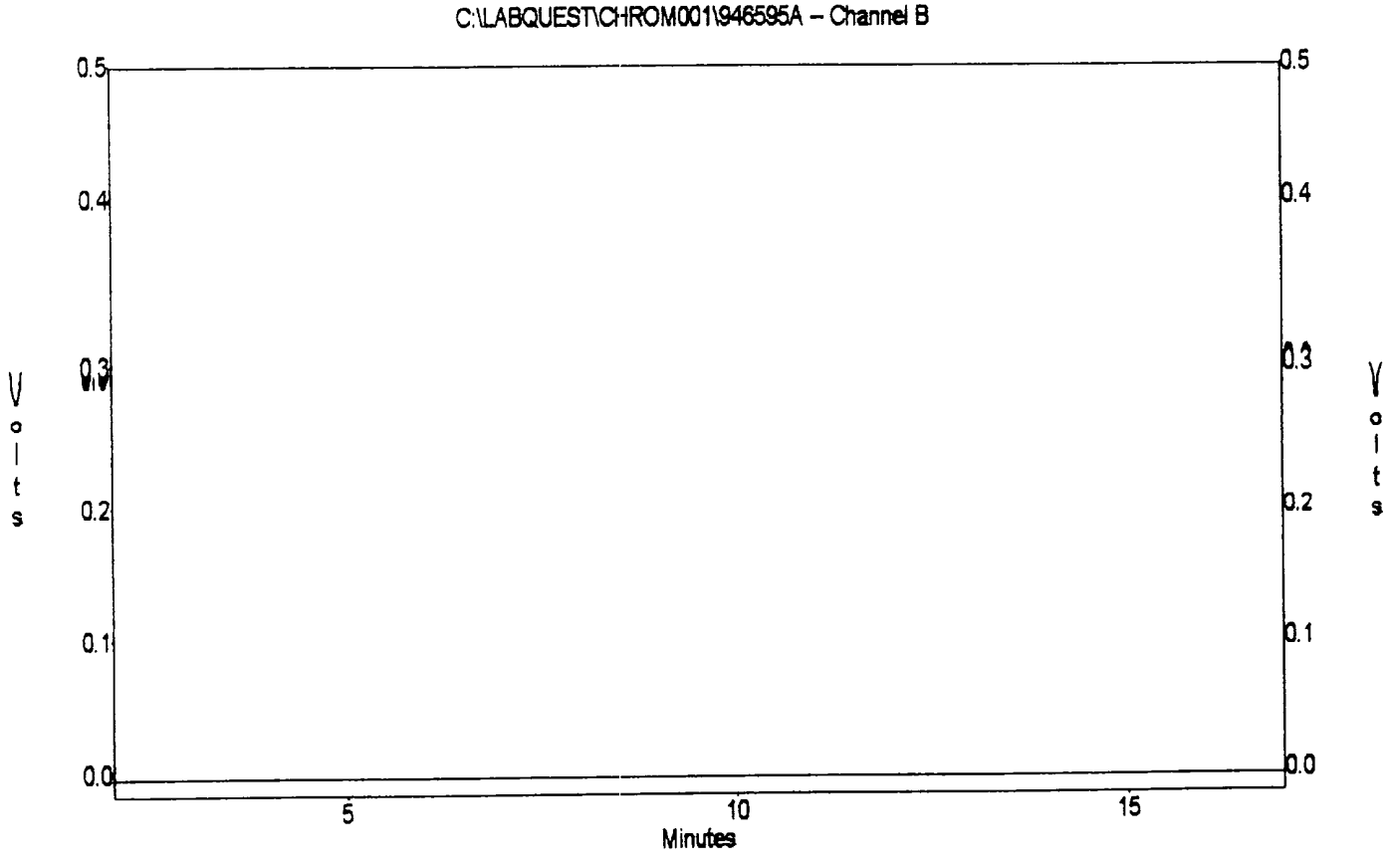


EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946595A
Method : C:\LABQUEST\METHODS\CALCBTEX.MET
Sample ID : 946595,4.78G/50uL
Acquired : Jan 29, 1995 22:49:28
Printed : Jan 30, 1995 11:10:14
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



PHASE II

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 1

PHILIP ENVIRONMENTAL

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Project Name EPNG Pits
Project Number 14509 Phase 6000.77
Project Location Mucho Real #1 90089

Elevation
Borehole Location T 30, R 14, S 14, F
GWL Depth
Logged By Jeff W. Kindley
Drilled By M. Donahue
Date/Time Started 09/27/95 1445
Date/Time Completed 09/27/95 1605

Well Logged By Jeff W. Kindley
Personnel On-Site M. Donahue, J. Long, C. Mullican
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	S	Drilling Conditions & Blow Counts
0				Back Fill material to 2'						
5										
10										
15	1	13-15	.5/2.0	SW, BR SAND, medium to coarse-grained sand, dry medium dense, hydrocarbon odor.					47/55	1506 17 blows per Foot
20	2	18-20	.4/2.0	S.A.A					34/50	1511 15 blows per Foot
25	3	23-25	.5/2.0	S.A.A. Boring terminated at 25'					9/1	1517 18 blows per Foot
30										
35										
40										

Comments: Sample collected From 23 to 25 feet (JWK 94). Sample analyzed For BTEX / TPH. BH grouted to the surface

Geologist Signature Jeffrey W. Kindley

El Paso Natural Gas Company

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	JWK94	9475G4
MTR CODE | SITE NAME:	90019	Mucho Deal #1
SAMPLE DATE | TIME (Hrs):	09-27-95	1517
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. | ANAL.:	10/3/95	
DATE OF BTEX EXT. | ANAL.:	10/2/95	10/2/95
TYPE | DESCRIPTION:	VG	Light brown sand & sand stone

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG				
TOLUENE	< 0.5	MG/KG				
ETHYL BENZENE	< 0.5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	16.1	MG/KG			2.01	28
HEADSPACE PID	1	PPM				
PERCENT SOLIDS	94.2	%				

-- 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:

DF = Dilution Factor Used

Approved By: _____ Date: 10-4-95

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

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

[illegible] 14:[illegible]

Sample identification
[illegible]

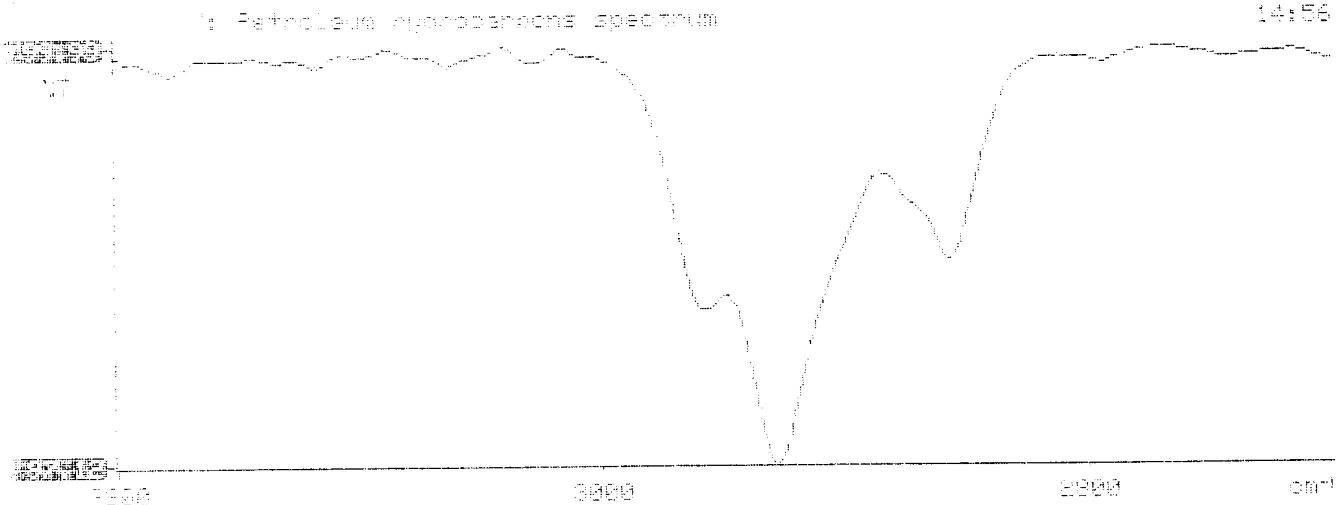
Initial mass of sample, g
[illegible]

Volume of sample after extraction, ml
[illegible]

Petroleum hydrocarbons, ppm
[illegible]

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

Petroleum hydrocarbons spectrum



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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                      *
*                                                        *
**********************************************************
*
 95/10/03  14:55
*
*  Sample identification
 947564
*
*  Initial mass of sample, g
 2.010
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 16.075
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.012
*
*
*
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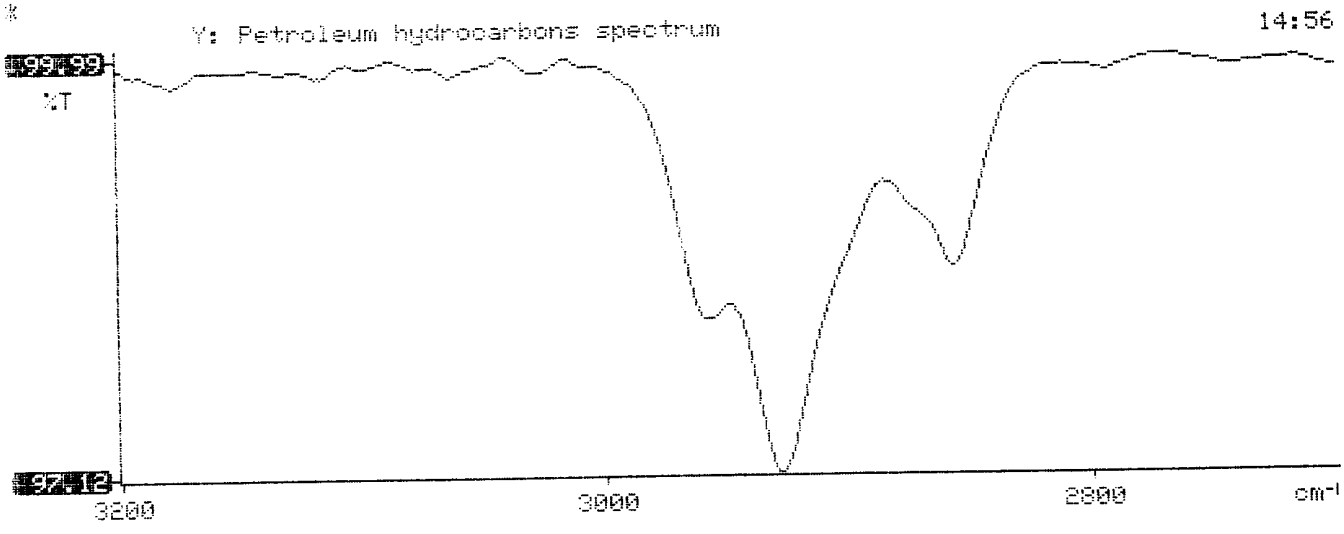

BTEX SOIL SAMPLE WORKSHEET

File	947564	**Date Printed**	10/3/95
Soil Mass (g)	4.97	**Multiplier (L/g)**	0.00101
Extraction vol. (mL)	10	**DF (Analytical)**	200
Shot Volume (uL)	50	**DF (Report)**	0.20121

				Det. Limit
Benzene (ug/L)	0.00	**Benzene (mg/Kg):**	**0.000**	0.503
Toluene (ug/L)	0.34	**Toluene (mg/Kg):**	**0.068**	0.503
Ethylbenzene (ug/L)	0.00	**Ethylbenzene (mg/Kg):**	**0.000**	0.503
p & m-xylene (ug/L)	0.57	p & m-xylene (mg/Kg):	0.115	1.006
o-xylene (ug/L)	0.00	o-xylene (mg/Kg):	0.000	0.503
		Total xylenes (mg/Kg):	**0.115**	1.509
		Total BTEX (mg/Kg):	**0.183**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\100295-1.007
Method : C:\LABQUEST\METHODS\1-091895.MET
Sample ID : 947564.4.97G,50U
Acquired : Sep 30, 1995 17:40:16
Printed : Sep 30, 1995 18:06:37
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	4.917	0	0.0000
a,a,a TFT	6.657	4561463	98.8029
TOLUENE	8.697	95347	0.3433
ETHYLBENZENE	12.710	0	0.0000
M & P XYLENE	13.070	188022	0.5675
O XYLENE	14.208	0	0.0000
BFB	15.747	69916888	96.4515