Jenny B Zaut
DEPUTY OIL & GAS INSPECTOR

EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

DEC 2 1998

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

Approved

PATTERSON #1 PC
Meter/Line ID - 94280

SITE DETAILS

Legals - Twn: 30 **Rng:** 08 **Sec:** 20 **Unit:** I
NMOCD Hazard Ranking: 20 **Land Type:** 2 - Federal
Operator: AMOCO PRODUCTION COMPANY **Pit Closure Date: 05/01/95**

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: 94280 Location: Patterson #1 PC
Operator #: _____ Operator Name: Amoco P/L District: Bloomfield
Coordinates: Letter: I Section 20 Township: 30 Range: 08
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 3/2/95 Area: 10 Run: 63

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 Gobernador 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: 20 **POINTS**

REMARKS

Remarks : Red line shows inside. Topo shows inside UL
2 pits on loc. Loc Drip belongs to EPNG will close pit
Not sure of ownership on Behy pit will check into further
Dist tank

PHASE I
EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94280 Location: Patterson #1 PC

Coordinates: Letter: I Section 20 Township: 30 Range: 08

Or Latitude _____ Longitude _____

Date Started : 5/1/95 Run: 10 63

FIELD OBSERVATIONS

Sample Number(s): KD 407 _____ _____ _____

Sample Depth: 4' Feet

Final PID Reading 356 ppm PID Reading Depth 4' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation	☒	Approx. Cubic Yards 20
Onsite Bioremediation	☐	
Backfill Pit Without Excavation	☐	

Soil Disposition:

Envirotech	☐	☒	Tierra
Other Facility	☐	Name:	

Pit Closure Date: 5/1/95 Pit Closed By: 5-1-95 Kim BEI

REMARKS

Remarks : Hit Sandstone at 4' on Excavation, Dug pit to Center of Berms, All Contamination Lay on top of Sandstone Took PID Sample, closed pit.

Signature of Specialist: Kim Dunn

(SP3191) 03/16/94

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:	KD 407	946773
MTR CODE | SITE NAME:	94280	N/A
SAMPLE DATE | TIME (Hrs):	5-1-95	1105
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	5-4-95	5-4-95
DATE OF BTEX EXT. | ANAL.:	5/4/95	5/5/95
TYPE | DESCRIPTION:	~~VC~~ VC 5/2/95	BROWN SAND & CLAY

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<1.54	MG/KG	0.30722		4.34	20
TOLUENE	15.8	MG/KG				
ETHYL BENZENE	5.50	MG/KG				
TOTAL XYLENES	102	MG/KG				
TOTAL BTEX	124	MG/KG				
TPH (418.1)	3360	MG/KG			2.02	28
HEADSPACE PID	356	PPM				
PERCENT SOLIDS	88.5	%				

-- 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:

DF = Dilution Factor Used

Approved By: John Taylor Date: ~~9~~ 5/26/95

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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                      *
**********************************************************

 93/05/04   11:06

  Sample identification
 746775

  Initial mass of sample, g
 2.020

  Volume of sample after extraction, ml
 20.000

  Petroleum hydrocarbons, ppm
 3363.674
  Net absorbance of hydrocarbons (2930 cm-1)
 .421
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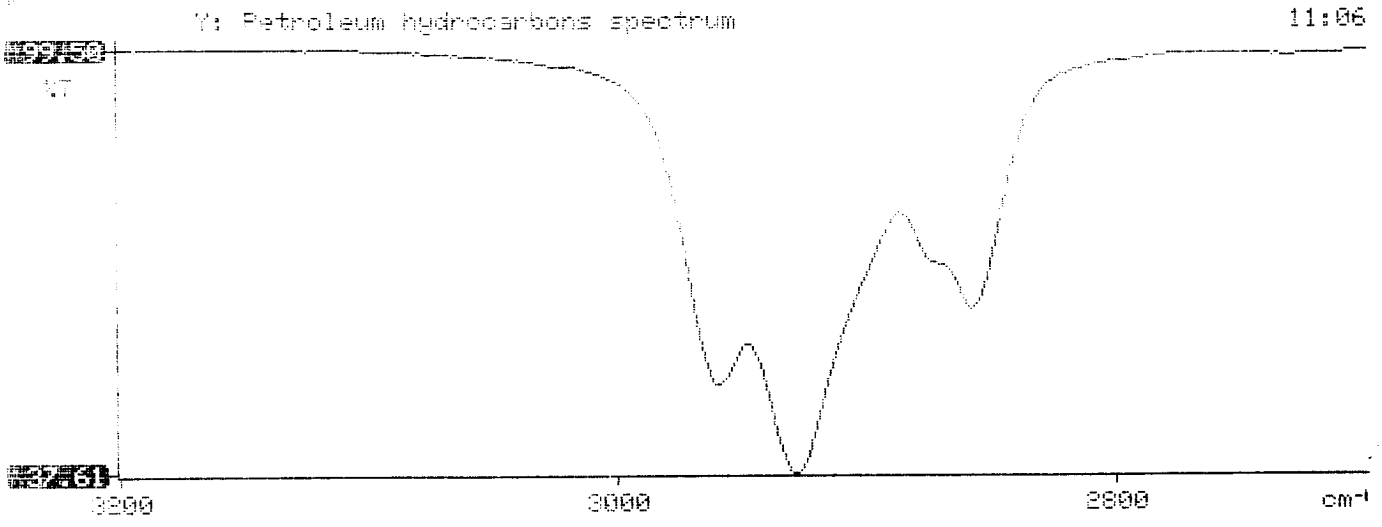


BTEX SOIL SAMPLE WORKSHEET

File	946773A	**Date Printed**	5/9/95
Soil Mass (g)	4.34	**Multiplier (L/g)**	0.00115
Extraction vol. (mL)	20	**DF (Analytical)**	266.667
Shot Volume (uL)	75	**DF (Report)**	0.30722

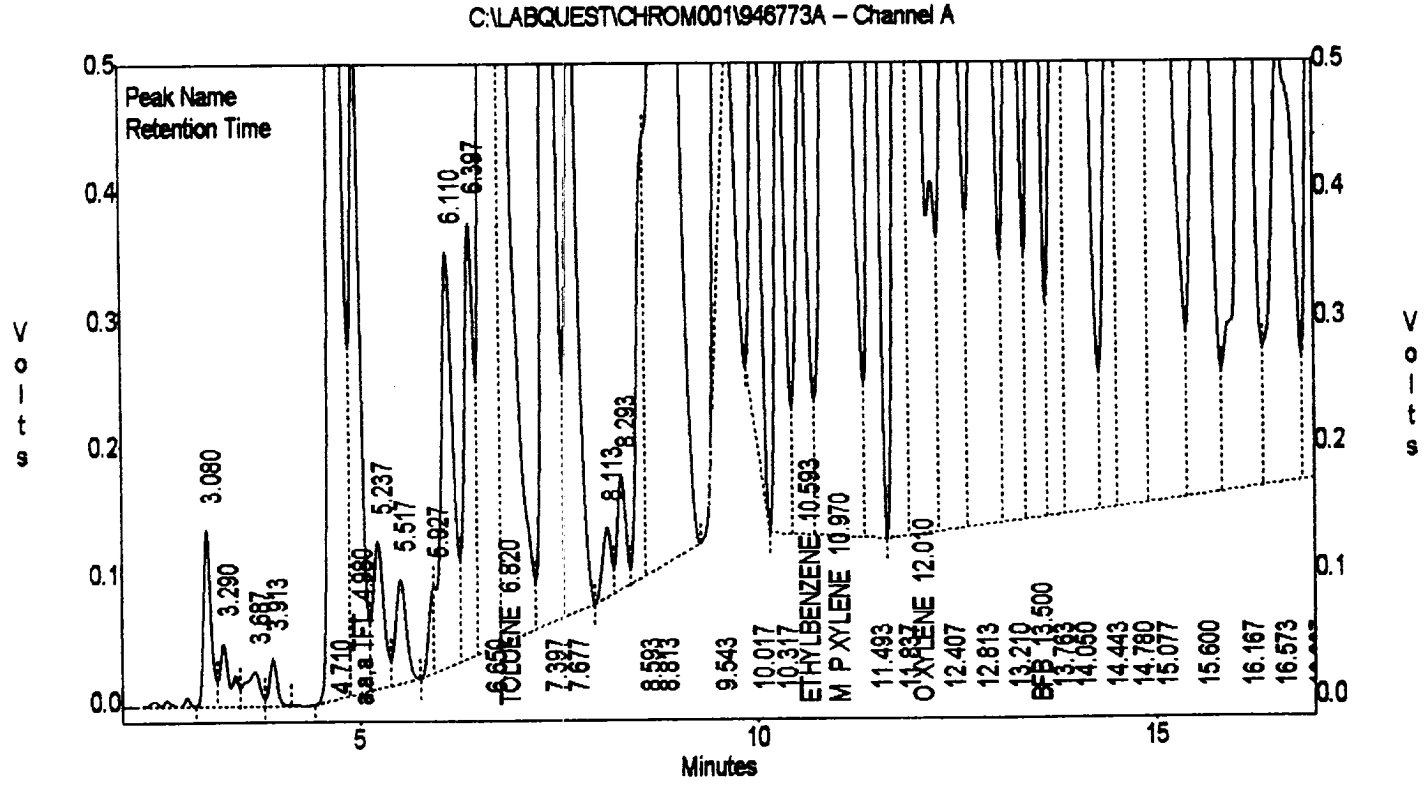
			Det. Limit
Benzene (ug/L)	0.00	**Benzene (mg/Kg):**	**0.000**	1.536
Toluene (ug/L)	51.47	**Toluene (mg/Kg):**	**15.813**	1.536
Ethylbenzene (ug/L)	17.90	**Ethylbenzene (mg/Kg):**	**5.499**	1.536
p & m-xylene (ug/L)	254.97	p & m-xylene (mg/Kg):	78.332	3.072
o-xylene (ug/L)	77.79	o-xylene (mg/Kg):	23.899	1.536
		Total xylenes (mg/Kg):	**102.230**	4.608
		Total BTEX (mg/Kg):	**123.542**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946773A
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946773,4.34/75uL
Acquired : May 05, 1995 15:15:23
Printed : May 05, 1995 15:41:42
User : Tony

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.470	0	0.0000
a,a,a TFT	4.980	4596993	156.8388
TOLUENE	6.820	12627776	51.4699
ETHYLBENZENE	10.593	4211865	17.8979
M & P XYLENE	10.970	61198800	254.9749
O XYLENE	12.010	16099347	77.7931
BFB	13.500	12123872	103.1406

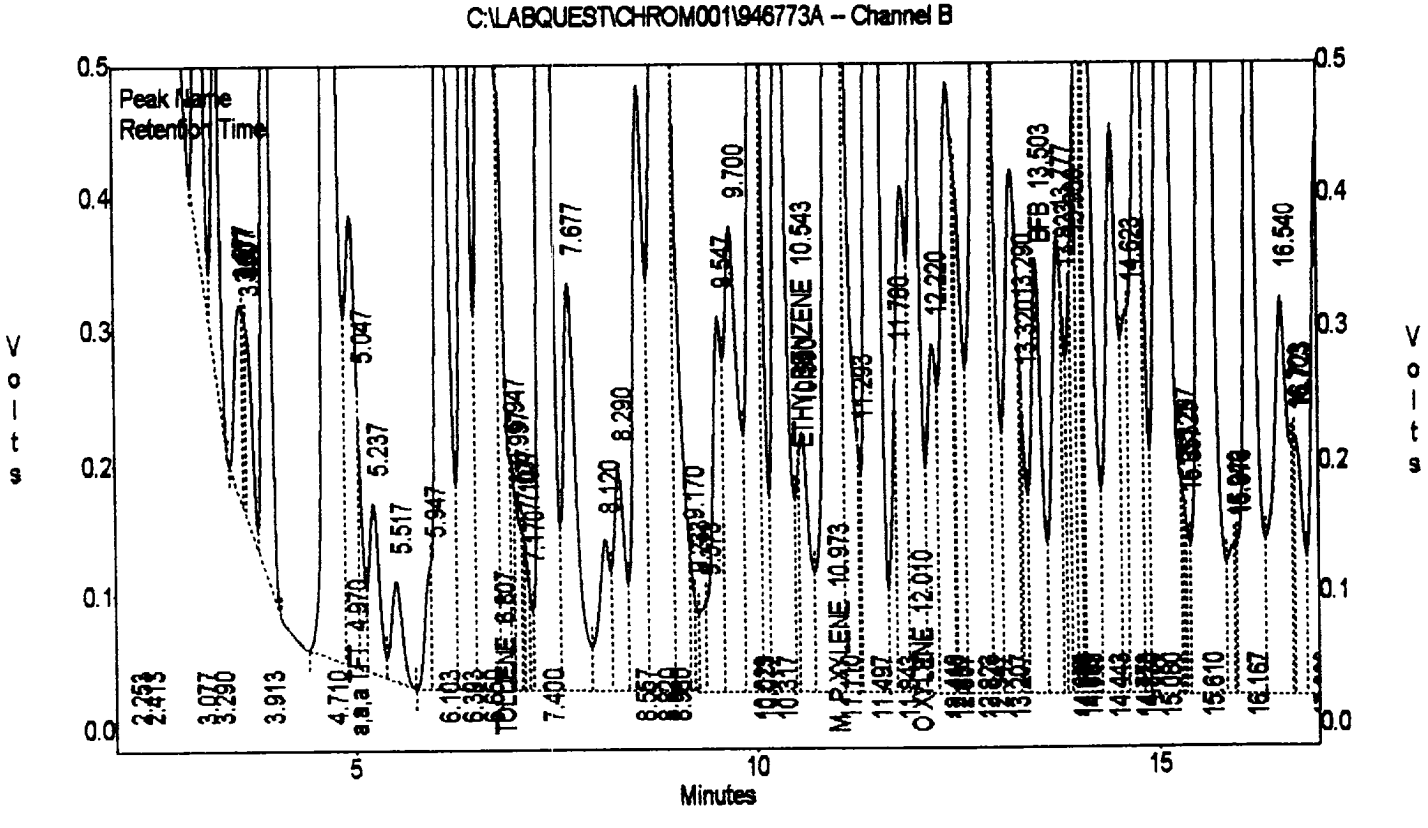


EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\946773A
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946773,4.34/75uL
Acquired : May 05, 1995 15:15:23
Printed : May 05, 1995 15:41:48
User : Tony

Channel B Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.470	0	0.0000
a,a,a TFT	4.970	2939302	314.0763
TOLUENE	6.807	2485514	52.9945
ETHYLBENZENE	10.543	381954	9.7087
M & P XYLENE	10.973	17669472	363.9149
O XYLENE	12.010	5217205	113.9515
BFB	13.503	3116640	296.3910



PHASE II

RECORD OF SUBSURFACE EXPLORATION

Borehole # BH-1
Well #
Page 1 of 1

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Project Name EPNG Pits
Project Number 14509 Phase ~~601~~ 6000
Project Location Patterson #1R, 94280

Elevation
Borehole Location T30, R8, S.20, I
GWL Depth
Logged By S.Kelly
Drilled By M. Donohue
Date/Time Started 11/6/95, 1015
Date/Time Completed 11/6/95, 1230

Well Logged By S.Kelly
Personnel On-Site M.Donohue, F. Rivera
Contractors On-Site
Client Personnel On-Site

Drilling Method 4¼" 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 BZ	BH	S	Drilling Conditions & Blow Counts
0				Backfill to approx. 6'						
5										drilling hard, like rock ↓
10										
15										
20	1	18-20	.55'/2.0'	silty SAND, tan, 5-20% silt, fine sand, v. dense, dry		21			565/856	1045
25	2	23-25	.5'/2.0'	SAND, tan, fine to med. sand, v. dense, dry		26			186/258	1055
30	3	28-30	.7'/2.0'	silty SAND, rust, 5-20% silt, fine to med sand, v. dense, dry		32			171/988	1105
35	4	33-35	.45'/2.0'	SAND, rust, fine to med. sand v. dense, dry					917/412	1115
40	6	38-40	.55'/2.0'	SAA					34/14	1125
				TOB = 40.0'						

Comments: 38'-40' sample (SEK 103) sent to lab, (BTEX & TPH) Sample was bagged and iced prior to being put in jar. BH grouted to surface.

Geologist Signature Sarah Kelly

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:	SEK103	947753
MTR CODE | SITE NAME:	94280	Patterson #1 PC
SAMPLE DATE | TIME (Hrs):	11-06-95	1125
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. | ANAL.:	11-7-95	
DATE OF BTEX EXT. | ANAL.:	11/7/95	11/7/95
TYPE | DESCRIPTION:	VG	DARK BROWN COARSE SAND & CLAY

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)	28.7	MG/KG			2.01	25
HEADSPACE PID	14	PPM				
PERCENT SOLIDS	94.3	%				

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

The Surrogate Recovery was at 108% for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 11-9-95

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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                     *
**********************************************************
*
 95/11/07  15:12
*
*  Sample identification
 947753
*
*  Initial mass of sample, g
 2.010
*
*  Volume of sample after extraction, ml
 28.000
*
*  Petroleum hydrocarbons, ppm
 28.699
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.014
*
*
*
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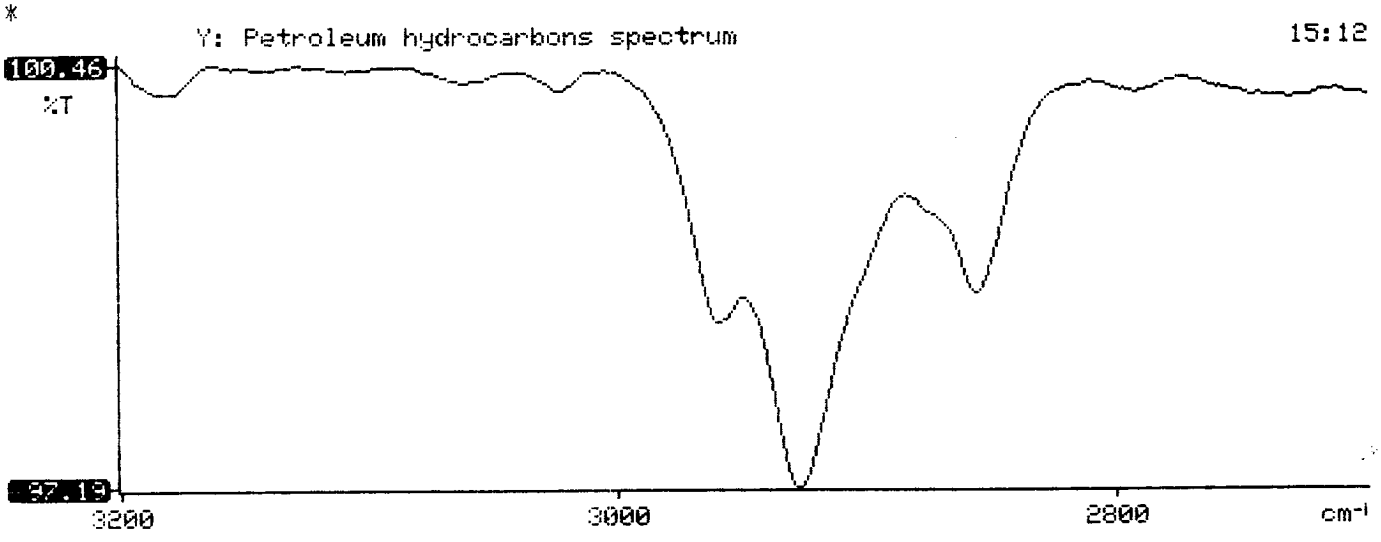

BTEX SOIL SAMPLE WORKSHEET

File	947753	**Date Printed**	11/8/95		
Soil Mass (g)	4.99	**Multiplier (L/g)**	0.00100		
Extraction vol. (mL)	10	**CAL FACTOR (Analytical):**	200		
Shot Volume (uL)	50	**CAL FACTOR (Report):**	0.20040		
		DILUTION FACTOR:	**1**	**Det. Limit**	
Benzene (ug/L)	0.15	**Benzene (mg/Kg):**	**0.030**	0.501	
Toluene (ug/L)	0.33	**Toluene (mg/Kg):**	**0.066**	0.501	
Ethylbenzene (ug/L)	0.13	**Ethylbenzene (mg/Kg):**	**0.026**	0.501	
p & m-xylene (ug/L)	0.55	p & m-xylene (mg/Kg):	0.110	1.002	
o-xylene (ug/L)	0.27	o-xylene (mg/Kg):	0.054	0.501	
		Total xylenes (mg/Kg):	**0.164**	1.503	
		Total BTEX (mg/Kg):	**0.287**		

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM000\110795-0.010
Method : C:\LABQUEST\METHODS\0-110295.MET
Sample ID : 947753,4.99G,50U
Acquired : Nov 07, 1995 20:38:37
Printed : Nov 07, 1995 21:09:01
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.440	71130	0.1458
TOLUENE	13.073	180449	0.3346
ETHYLBENZENE	17.347	59382	0.1328
M,P-XYLENES	17.723	302588	0.5532
O-XYLENE	18.890	120716	0.2654
BFB	19.907	57187920	108.1932