

Lenny E. Faust
EL PASO FIELD SERVICES
DEPUTY OIL & GAS INSPECTOR
PRODUCTION PIT CLOSURE

DEC 21 1998

OK
RECEIVED
JUL 2 1998

Approved
State Gas Com BE #1E
Meter/Line ID - 94380

STATE GAS COM. DIV.
JUL 2 1998

SITE DETAILS

Legals - Twn: 30

Rng: 13

Sec: 16

Unit: O

NMOCD Hazard Ranking: 10

Land Type: 1 - State

Operator: AMOCO PRODUCTION COMPANY

Pit Closure Date: 11/12/93

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.

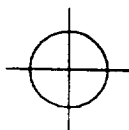
FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: <u>94380</u> Location: <u>STATE GAS COM BE #1E</u> Operator #: <u>0203</u> Operator Name: <u>AMOCO</u> P/L District: <u>KUTZ</u> Coordinates: Letter: <u>0</u> Section: <u>16</u> Township: <u>30</u> Range: <u>13</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: _____ Line Drip: _____ Other: _____ Site Visit Date: <u>4.6.94</u> Run: <u>02</u> <u>31</u>
	NMOCD Zone: Inside _____ Land Type: BLM ☐ (From NMOCD Vulnerable ☒ Maps) Zone ☒ Outside ☐ State ☒ Fee ☐ Indian _____ Depth to Groundwater Less Than 50 Feet (20 points) ☐ 50 Ft to 99 Ft (10 points) ☒ Greater Than 100 Ft (0 points) ☐ 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? ☐ YES (20 points) ☒ NO (0 points) Horizontal Distance to Surface Water Body Less Than 200 Ft (20 points) ☐ 200 Ft to 1000 Ft (10 points) ☐ Greater Than 1000 Ft (0 points) ☒ Name of Surface Water Body _____ (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds) TOTAL HAZARD RANKING SCORE: <u>10</u> POINTS
REMARKS	Remarks : <u>NO EL PASO PITS ON THIS LOCATION. THERE WAS A DEHY PIT THAT HAS ALREADY BEEN CLOSED. TOOK PICTURES AT 2:06 P.M.</u>

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North _____ Footage to Wellhead _____
b) Degrees from North _____ Footage to Dogleg _____
Dogleg Name _____
c) Length : _____ Width : _____ Depth : _____



REMARKS

Remarks :

Completed By.

Robert Thompson
Signature

4.6.94
Date

PHASE I EXCAVATION

LOCATION PIT CLOSURE FORM

GENERAL

Meter: 94380 Location: STATE GC BE #1E
 Operator #: 0203 Operator Name: AMOCO P/L District: KUTZ
 Coordinates: Letter: D Section 16 Township: 30 Range: 13
 Pit Type: Dehydrator X Location Drip: Line Drip: Other:
 Date Started: 11-11-93 Run: 02 31

SITE ASSESSMENT

NMOCD Zone: Original ☒ Expanded ☐ Outside ☐
 (From NMOCD Maps)
Land Type: BLM ☐ State ☒ Fee ☐ Indian

Depth to Groundwater

Less Than 50 Ft (20 points) ☐
 50 Ft to 99 Ft (10 points) ☒
 Greater Than 100 Ft (0 points) ☐

Wellhead Protection Area:

Is it less than 1000 ft from wells, springs, or other sources of fresh fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ YES (20 points) ☒ NO (0 points)

Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☐
 200 Ft to 1000 Ft (10 points) ☐
 Greater Than 1000 Ft (0 points) ☒

Name of Surface Water Body LA PLATA RIVER WASH
 (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

TOTAL HAZARD RANKING SCORE: 10 **POINTS**

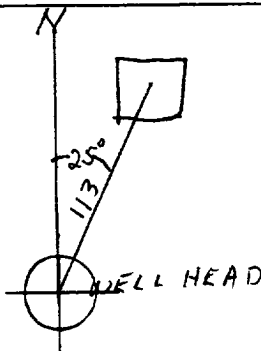
REMARKS

Remarks : PIT HAD BEEN PREVIOUSLY EXCAVATED TO A DEPTH OF
APPROX 8' BY AMOCO BY MISTAKE AND THEN RE-COVERED
EXTENSIVE SOIL DISCOLORATION AT APPROX. 8 FT AND LOWER

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 25° Footage from Wellhead 113'
b) Degrees from North _____ Footage from Dogleg _____
Dogleg Name _____
c) Length : 24 Width : 24 Depth : 3'
EXCAVATED 16 x 17 12



CLOSURE

Remediation Method : Excavation ☒ Approx. Cubic Yards 111
☐ Onsite Bioremediation
☐ Alternative Method
(Backfill Pit Without Excavation)
Remediation Location : Envirotech ☐
Other Facility ☒ Name: TIERRA ENVIRONMENTAL
Onsite ☐
Pit Closure Date: 11-12-93 Pit Closed By: BEI
Signature of Specialist: Ruby Coby

REMARKS

Remarks :

SAMPLING INFORMATION

OUTSIDE ZONES	Pit Located Outside Both Water Vulnerable Zones Sample Number: _____ Date Taken: _____ Sampled By: _____ Time Sampled: _____ Sample Depth at Center of Pit: _____ Feet Verification ☐ Duplicate ☐ Blank ☐
INSIDE ZONES FIELD HEADSPACE BELOW 100ppm	Pit Located in Original Zone or Expanded Zone Sample Number: _____ Date Taken: _____ Sampled By: _____ Time Sampled: _____ Sample Depth at Center of Pit: _____ Feet Pit Bottom Field Headspace: _____ ppm Verification ☐ Duplicate ☐ Blank ☐
INSIDE ZONES FIELD HEADSPACE ABOVE 100ppm	Pit Located in Original Zone or Expanded Zone Sample Number: <u>3-94380-D-V-01</u> Date Taken: <u>11-12-93</u> Sampled By: <u>Andy Cosby</u> Time Sampled: <u>0830</u> Sample Depth at Center of Pit: <u>12</u> Feet Five Point Composite Headspace: <u>1997.4</u> ppm Verification ☒ Duplicate ☐ Blank ☐



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 3-94380-D-V-01, STATE GC BE#1E

SAMPLE DATE: 12-Nov-93

SAMPLE TIME (Hrs.): 830

SAMPLED BY: Ricky Cosby

DATE OF TPH EXT. & ANAL.: 15-Nov-93

DATE OF BTEX ANALYSIS: 17-Nov-93

DESCRIPTION: Course Grey Sand

REMARKS: 0.00

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIER
BENZENE	0.99	MG/KG	None
TOLUENE	1.1	MG/KG	None
ETHYL BENZENE	19	MG/KG	D1
TOTAL XYLENES	84	MG/KG	D1
TOTAL BTEX	105	MG/KG	None
TPH (418.1)	25,600	MG/KG	None
HEADSPACE PID	1997	PPM	None
PERCENT SOLIDS	88	%	None

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

Narrative:

The Surrogate Recovery was at 98.7 % for this sample All QA/QC was acceptable.
The "D1" qualifier indicates that the analyte concentration exceeded the calibration curve limit.

Approved By:

John Fawcett

24-Nov-93

QUALITY CONTROL REPORT

I by Modified 418.1 by Infrared

Sample Set: 3-90887-L-V-01, 3-90887-L-D-01, 3-90887-L-B-01, 3-75241-D-V-1, 3-75042-D-V-01, 3-06A11-1-V-01, 3-02643-L-V-01, 3-02643-L-V-03, 3-02643-L-V-04, 3-02643-L-V-05, 3-75424-D-V-01, 3-94307-D-V-01, 3-73932-D-V-01, 3-94380-D-V-01, 3-94843-L-V-01

LABORATORY CONTROL SAMPLES: CALIBRATION CHECKS

SAMPLE ID	SOURCE	TRUE VALUE (PPM)	FOUND (MG/KG)	%R	ACCEPTABLE RANGE 75-125 %R YES NO
INITIAL CALIBRATION VERIF. "B" Heavy Oil (Lot MOR9480)	HORIBA	200.0	197.3	98.7	X

Narrative: Acceptable.

LABORATORY AND FIELD DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S)MG/KG	DUPLICATE RESULT (D)MG/KG	RPD	ACCEPTABLE RANGE + / - 35% YES NO
3-75241-D-V-01	2nd Extract	183	99	59.6	X
3-02643-L-V-04	2nd Extract	1644	1543	6.3	X

Narrative : Poor duplication due to difficult matrix.

LABORATORY SPIKES:

SAMPLE NUMBER	SPIKE ADDED (SA)MG/KG	SAMPLE RESULT (S)MG/KG	SPIKE SAMPLE RESULT (SR)MG/KG	%R	ACCEPTABLE RANGE 75-125 %R YES NO
3-75241-D-V-01	3000	183	3717	118	X
3-02643-L-V-04	3000	1644	4931	110	X

Narrative: Acceptable.

REFERENCE SOIL (Laboratory Control Sample):

SAMPLE ID	SOURCE	KNOWN VALUE (MG/KG)	SAMPLE RESULT FOUND (MG/KG)	RPD	ACCEPTABLE RANGE + / - 35% YES NO
ERA TPH STANDARD #1 LOT # 91022	ENVIRONMENTAL RESOURCE ASS.	1820	2146	16.4	X
ERA TPH STANDARD #2 w/int LOT # 91016	ENVIRONMENTAL RESOURCE ASS.	1450	1601	9.9	X

Narrative: Acceptable.

LABORATORY REAGENT BLANK:

SAMPLE ID	SOURCE	TPH LEVEL (MG/KG)	STATUS
Freon Solvent	Mallinkroft	<10.0	ACCEPTABLE
Reagent Blank	EPNG Lab	<10.0	ACCEPTABLE

Narrative: Acceptable.

Approved By: *John L. Smith*

Date: 19-Nov-93

Extracted: 11/15/93

Analyzed: 11/15/93

QUALITY CONTROL REPORT

EPA METHOD 8020 - BETX

For 11/17/93

3-75241-D-V-01, 3-75042-D-V-01, 3-94380-D-V-01, 3-94843-L-V-01, 3-94307-D-V-01

LABORATORY DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S) (PPB)	DUPLICATE RESULT (D) (PPB)	RPD	ACCEPTABLE RANGE + / - 35%	
					YES	NO
3-94843-L-V-01						
Benzene	2nd Run	<2.0	<2.0	0.0	X	
Toluene	2nd Run	<2.0	<2.0	0.0	X	
Ethyl benzene	2nd Run	21.9	12.2	56.9		X
Total Xylenes	2nd Run	100.4	53.0	61.8		X

Narrative: Low RPD on Ethylbenzene and Total Xylene due to difficult sample matrix.

LABORATORY CONTROL, CALIBRATION CHECK:

SAMPLE NUMBER	TYPE	KNOWN RESULT (PPB)	FOUND RESULT (PPB)	ZR	ACCEPTABLE RANGE 75 - 125 %	
					YES	NO
Run 11/16/93 50 PPB std						
Benzene	Standard	50.0	51.8	103.6	X	
Toluene	Standard	50.0	53.0	106.0	X	
Ethyl benzene	Standard	50.0	53.7	107.4	X	
Total Xylenes	Standard	150.0	173	115.5	X	

Narrative: Acceptable!

LABORATORY SPIKES:

SAMPLE NUMBER	SPIKE ADDED (SA) PPB	SAMPLE RESULT (S) (PPB)	SPIKE SAMPLE RESULT (SR) (PPB)	ZR	ACCEPTABLE	
					YES	NO
3-94843-L-V-01						
Benzene	50.0	0.0	46.1	92	39 - 150	X
Toluene	50.0	0.0	46.9	94	46 - 148	X
Ethyl benzene	50.0	21.9	54.9	66	32 - 160	X
Total Xylenes	150.0	100.4	202.4	68	Not Given	X

Narrative: Acceptable.

LABORATORY AND TRIP BLANKS:

SAMPLE ID	SOURCE	Component (PPB)	STATUS
Benzene	EPNG Water	<2.0	ACCEPTABLE
Toluene	EPNG Water	<2.0	ACCEPTABLE
Ethyl benzene	EPNG Water	<2.0	ACCEPTABLE
Total Xylenes	EPNG Water	<2.0	ACCEPTABLE

Narrative: Acceptable!

Approved By:

John F. [Signature]

Date: 24-Nov-93

Pit Project
FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: _____

SAMPLE DATE: _____

SAMPLE TIME (Hrs.): _____

SAMPLED BY: _____

DATE OF TPH EXT. & ANAL.: _____

DATE OF BTEX ANALYSIS: _____

DESCRIPTION: _____

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIER
BENZENE	1.14	MG/KG	
TOLUENE	1.14	MG/KG	
ETHYL BENZENE	1.14	MG/KG	DI
TOTAL XYLENES	1.14	MG/KG	DI
TOTAL BTEX	1.14	MG/KG	
TPH (418.1)	1.14	MG/KG	
HEADSPACE PID	1.14	PPM	
PERCENT SOLIDS	1.14	%	

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

Narrative:

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

Approved By: _____

18-Nov-93

File : 94380_01.D01

Run : 01

Path : C:\CHROM

Collection : 22:22:10 Nov 17 1993

Integration: 22:22:10 Nov 17 1993

Report : 22:48:21 Nov 17 1993

94380-D-V-1 .067

Queue : SOIL

Set Number : 1

X.0'63

JOHN LAMBDIN

Type : Sample

Meth(A): BETX [16:17:54 Nov 17 1993]

Meth(A): BETX [16:17:54 Nov 17 1993]

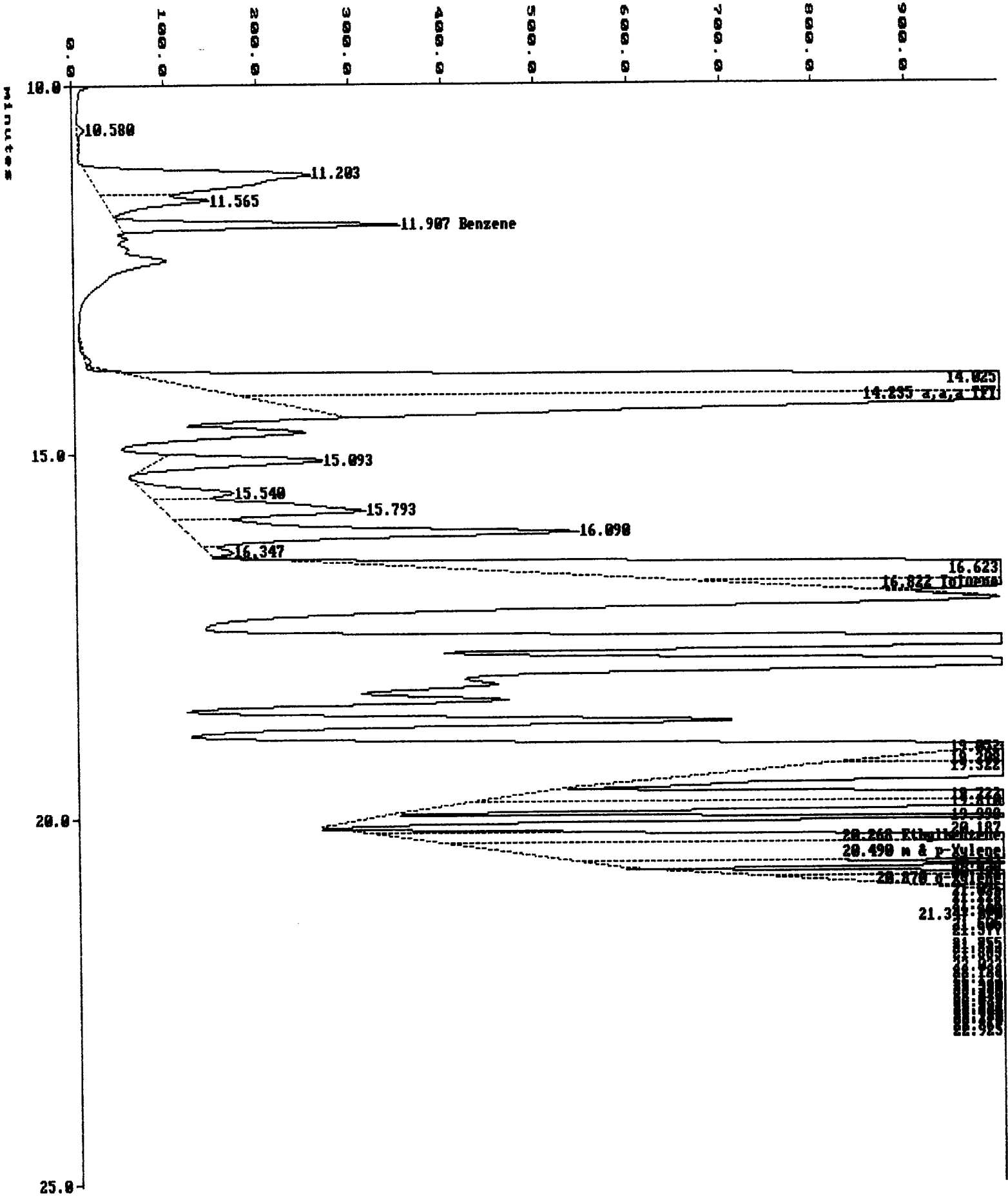
Meth(A): BETX [16:17:54 Nov 17 1993]

Sample Amt : 1.00000e+0

Dilution: 1.00000e+0

EXTERNAL STANDARD (AREA)

RT	Area	BC	ExpRT	RF	ug/L	Name
10.580	44262	T		0.00000e+0	0.0000	Unknown
11.203	3684024	T		0.00000e+0	0.0000	Unknown
11.565	1088837	T		0.00000e+0	0.0000	Unknown
11.907	1657450		11.839	8.01369e-6	13.2823	Benzene 0.99
14.025	38620272	T		0.00000e+0	0.0000	Unknown
14.235	9861372		14.235	9.27591e-5	914.7320	R a,a,a TFT
15.093	1502738	V		0.00000e+0	0.0000	Unknown
15.540	839100	T		0.00000e+0	0.0000	Unknown
15.793	2409618	T		0.00000e+0	0.0000	Unknown
16.090	4026950	T		0.00000e+0	0.0000	Unknown
16.346	165791	V		0.00000e+0	0.0000	Unknown
16.623	34642908	T		0.00000e+0	0.0000	Unknown
16.822	2070560	T	16.756	7.37047e-6	15.2610	Toluene 1.14
19.052	1004443	T		0.00000e+0	0.0000	Unknown
19.208	24986066	T		0.00000e+0	0.0000	Unknown
19.322	23593456	V		0.00000e+0	0.0000	Unknown
19.721	25633342	T		0.00000e+0	0.0000	Unknown
19.810	8050582	V		0.00000e+0	0.0000	Unknown
19.998	6754014	V		0.00000e+0	0.0000	Unknown
20.186	721785	T		0.00000e+0	0.0000	Unknown
20.268	34019820	T	20.251	7.28143e-6	247.7131	Ethylbenzene 18.5 D1
20.490	93690656	T	20.411	8.67273e-6	812.5538	m & p-Xylene
20.642	3026140	V		0.00000e+0	0.0000	Unknown
20.798	19435010	T		0.00000e+0	0.0000	Unknown
20.870	43381456	T	20.848	7.28578e-6	316.0677	o-Xylene 84.23 D
21.025	21327572	T		0.00000e+0	0.0000	Unknown
21.128	41165836	T		0.00000e+0	0.0000	Unknown
21.218	11776544	T		0.00000e+0	0.0000	Unknown
21.300	9439086	T		0.00000e+0	0.0000	Unknown
21.346	30973634	T	21.353	3.18779e-6	98.7373	BFB
21.505	23364084	T		0.00000e+0	0.0000	Unknown
21.576	14086568	T		0.00000e+0	0.0000	Unknown
21.755	79941200	T		0.00000e+0	0.0000	Unknown
21.811	2195967	T		0.00000e+0	0.0000	Unknown
21.883	29321200	T		0.00000e+0	0.0000	Unknown
22.033	46356968	T		0.00000e+0	0.0000	Unknown
22.123	16893430	T		0.00000e+0	0.0000	Unknown
22.195	35062296	T		0.00000e+0	0.0000	Unknown
22.320	25141980	T		0.00000e+0	0.0000	Unknown
22.378	4781814	T		0.00000e+0	0.0000	Unknown
22.470	19547376	T		0.00000e+0	0.0000	Unknown
22.537	32726796	T		0.00000e+0	0.0000	Unknown
22.592	9872513	T		0.00000e+0	0.0000	Unknown
22.648	12057611	T		0.00000e+0	0.0000	Unknown
22.720	19034388	T		0.00000e+0	0.0000	Unknown
22.770	12089034	T		0.00000e+0	0.0000	Unknown
22.867	8165617	T		0.00000e+0	0.0000	Unknown
22.925	3655430	V		0.00000e+0	0.0000	Unknown

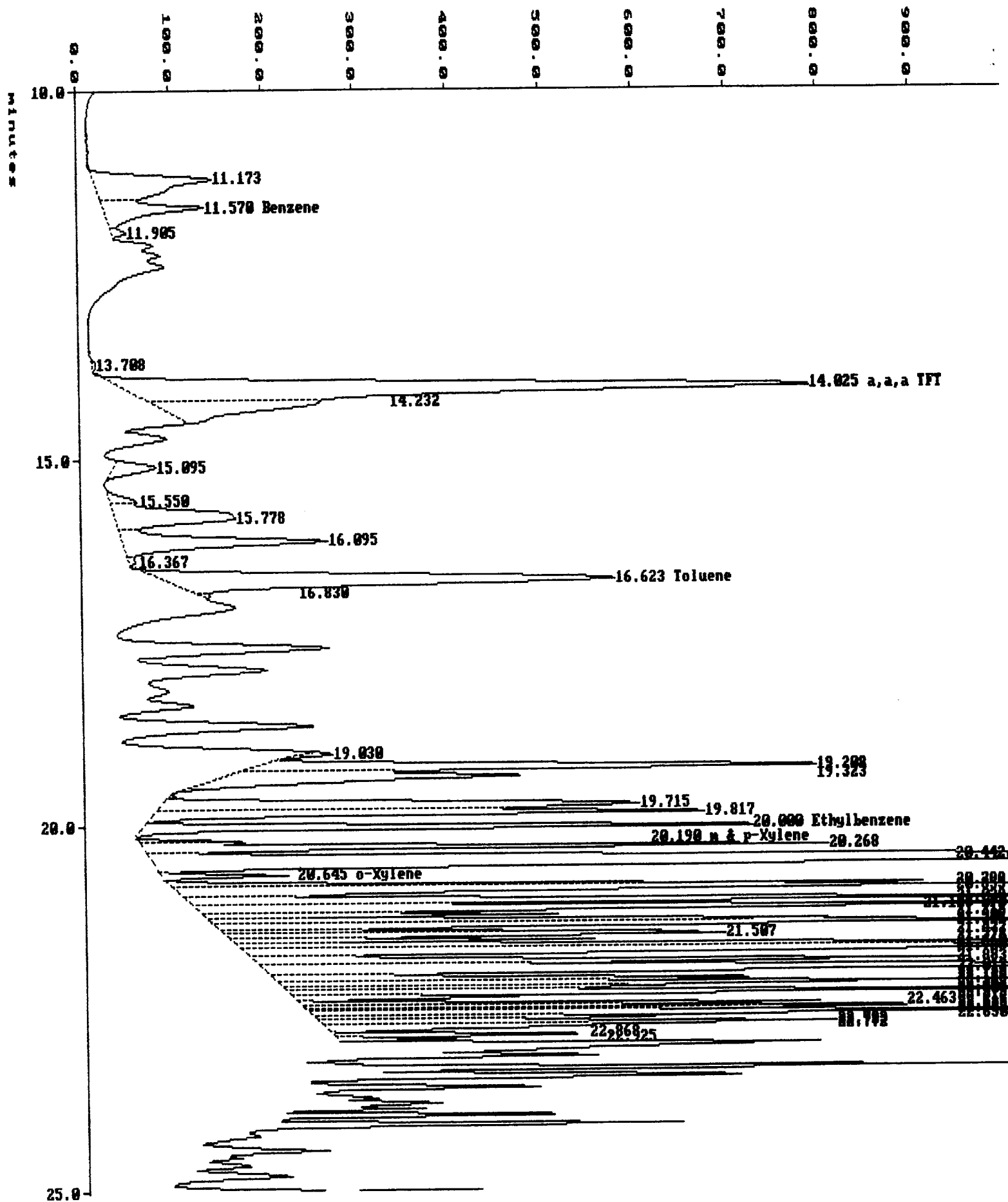


File : 94380_01.D02 94380-D-V-1 .067 JOHN LAMBDIN
Run : 01 Queue : SOIL Set Number : 1 Type : Sample
Path : C:\CHROM
Collection : 22:22:10 Nov 17 1993 Meth(B): BETX [15:16:35 Nov 09 1993]
Integration : 22:22:10 Nov 17 1993 Meth(B): BETX [15:16:35 Nov 09 1993]
Report : 22:48:38 Nov 17 1993 Meth(B): BETX [15:16:35 Nov 09 1993]

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

EXTERNAL STANDARD (AREA)

RT	Area	BC	ExpRT	RF	ug/L	Name
11.173	1831613	T		0.00000e+0	0.0000	Unknown
11.570	1142075	T	11.713	2.03254e-4	232.1312	Benzene
11.905	78275	V		0.00000e+0	0.0000	Unknown
13.708	30530	V		0.00000e+0	0.0000	Unknown
14.025	7854079	T	14.025	0.00000e+0	0.0000	R a,a,a TFT
14.232	1536069			0.00000e+0	0.0000	Unknown
15.095	386076	V		0.00000e+0	0.0000	Unknown
15.550	199731	T		0.00000e+0	0.0000	Unknown
15.778	1687701	T		0.00000e+0	0.0000	Unknown
16.095	1956925	T		0.00000e+0	0.0000	Unknown
16.367	41948	V		0.00000e+0	0.0000	Unknown
16.623	4849978	T	16.578	2.05501e-4	996.6738	Toluene
16.830	39425	V		0.00000e+0	0.0000	Unknown
19.030	92323	V		0.00000e+0	0.0000	Unknown
19.208	3023468	T		0.00000e+0	0.0000	Unknown
19.323	2257877	V		0.00000e+0	0.0000	Unknown
19.715	3337661	T		0.00000e+0	0.0000	Unknown
19.817	2507058	V		0.00000e+0	0.0000	Unknown
20.000	2324885	V	20.035	2.18222e-4	507.3418	Ethylbenzene
20.190	353817	T	20.189	2.31183e-4	81.7967	m & p-Xylene
20.268	2478212	T		0.00000e+0	0.0000	Unknown
20.442	16721178	T		0.00000e+0	0.0000	Unknown
20.645	378757	V	20.626	2.27567e-4	86.1925	o-Xylene
20.798	2535605	T		0.00000e+0	0.0000	Unknown
20.855	4535895	T		0.00000e+0	0.0000	Unknown
21.028	4029008	T		0.00000e+0	0.0000	Unknown
21.118	5830220	T	21.127	8.85292e-6	51.6144	BFB
21.218	1004825	T		0.00000e+0	0.0000	Unknown
21.302	1859770	T		0.00000e+0	0.0000	Unknown
21.355	4158200	T		0.00000e+0	0.0000	Unknown
21.477	1130597	T		0.00000e+0	0.0000	Unknown
21.506	1515367	T		0.00000e+0	0.0000	Unknown
21.578	865260	T		0.00000e+0	0.0000	Unknown
21.660	4908670	T		0.00000e+0	0.0000	Unknown
21.725	6110867	T		0.00000e+0	0.0000	Unknown
21.883	2863399	T		0.00000e+0	0.0000	Unknown
22.012	8927044	T		0.00000e+0	0.0000	Unknown
22.125	1716184	T		0.00000e+0	0.0000	Unknown
22.185	2814642	T		0.00000e+0	0.0000	Unknown
22.242	876728	T		0.00000e+0	0.0000	Unknown
22.308	2560241	T		0.00000e+0	0.0000	Unknown
22.373	626590	T		0.00000e+0	0.0000	Unknown
22.463	1252150	T		0.00000e+0	0.0000	Unknown
22.515	1128731	T		0.00000e+0	0.0000	Unknown
22.528	1272821	T		0.00000e+0	0.0000	Unknown
22.588	2407434	T		0.00000e+0	0.0000	Unknown
22.650	978072	T		0.00000e+0	0.0000	Unknown
22.723	1716094	T		0.00000e+0	0.0000	Unknown
22.772	971441	T		0.00000e+0	0.0000	Unknown
22.860	521999	T		0.00000e+0	0.0000	Unknown



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

93/11/15 11:21

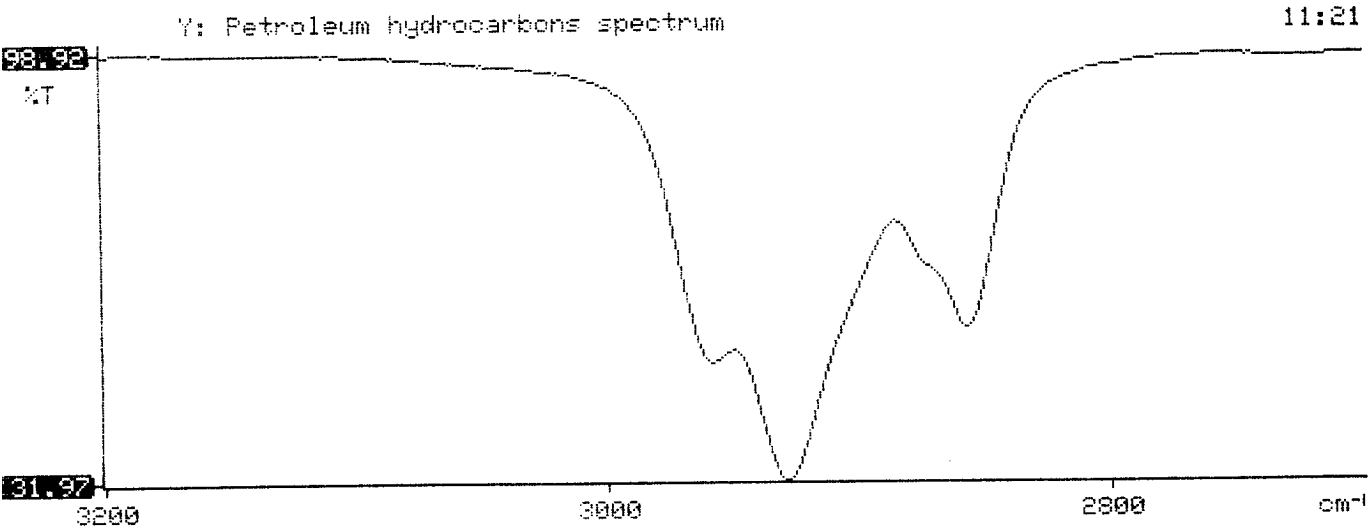
Sample identification
S-94380-D-V-01

Initial mass of sample, g
0.300

Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
25604.027
Net absorbance of hydrocarbons (2930 cm⁻¹)
0.488

OK



Handwritten signature/initials

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

93/11/15 10:53

Sample identification
3-94380-D-V-01

Initial mass of sample, g
2.000

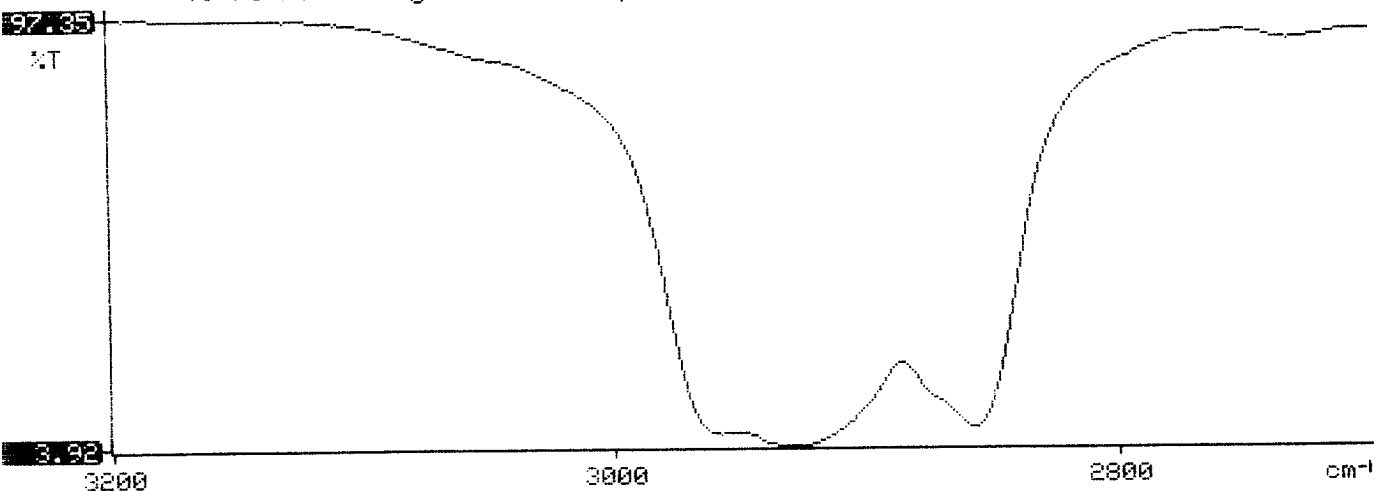
Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
11232.268
Net absorbance of hydrocarbons (2930 cm^{-1})
1.387

NO (5000)

Y: Petroleum hydrocarbons spectrum

10:53



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

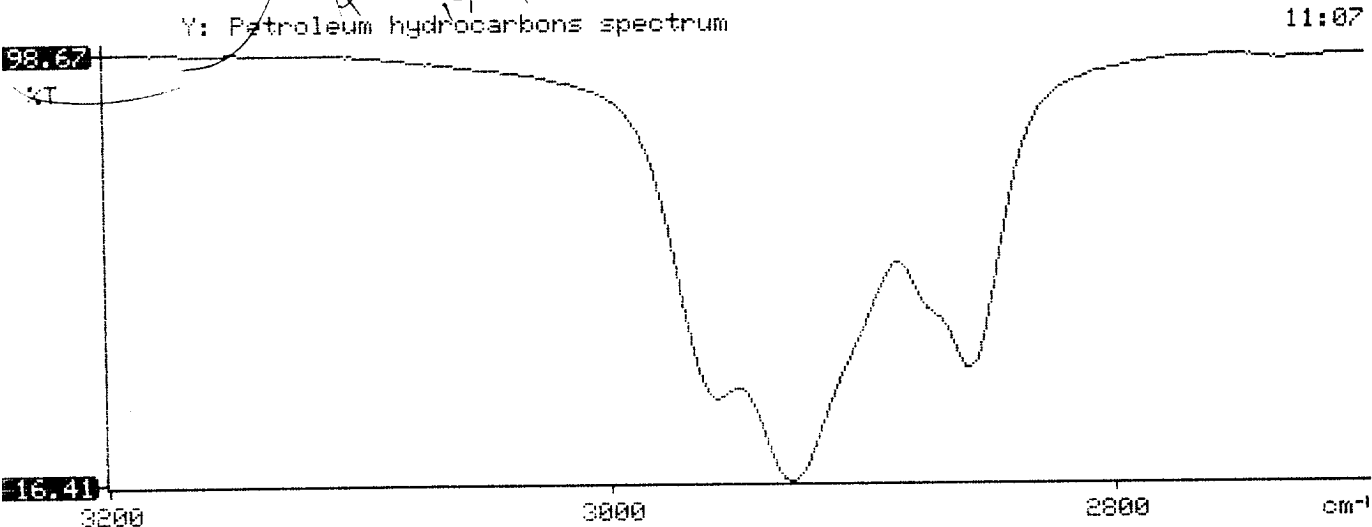
73/11/15 11:06

Sample identification
 E-94380-D-V-01

Initial mass of sample, g
 0.500

Volume of sample after extraction, ml
 28.000

Petroleum hydrocarbons, ppm
 24857.399
 Net absorbance of hydrocarbons (2930 cm⁻¹)
 0.777



typical 575

PHASE II

RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL

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

Borehole # BH-1
Well # 1 of 1
Page

Project Name EPNG PITS
Project Number 14509 Phase 6000 77
Project Location State GC BE #1E 94380

Elevation _____
Borehole Location QD - S16 - T30 - R13
GWL Depth _____
Logged By CM CHANCE
Drilled By K Padilla
Date/Time Started 11/1/95 - 1032
Date/Time Completed 11/1/95 - 1145

Well Logged By CM Chance
Personnel On-Site K Padilla, D. Charlie
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			Drilling Conditions & Blow Counts
							BZ	BH	HS	
0				Backfill + D ~ 8'						
5										
10										
15	1	15-16	4"	DK Br sandy CLAY, F sand, stiff, low plastic			0	4	0/1	105h
20				TDB 16'						
25										
30										
35										
40										

Comments:

CMC 174 (15-16') sent to lab (BTEX, TPH). Pit was located using bearing & Footage from assessment form. Form showed 340° from well head, which would have put pit almost off location. 40° was determined to be accurate bearing based on location from meter house & square depression in ground. BH grouted to surface.

Geologist Signature

CM Chance



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC174	947721
MTR CODE SITE NAME:	94380	State GC BE #1E
SAMPLE DATE TIME (Hrs):	11-1-95	1105
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	11/3/95	
DATE OF BTEX EXT. ANAL.:	11/2/95	mk 11/2/95
TYPE DESCRIPTION:	16	BROWN-BLACKISH 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)	< 10	MG/KG			2.10	28
HEADSPACE PID	1	PPM				
PERCENT SOLIDS	81	%				

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

The Surrogate Recovery was at 104% for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

Approved By:

Date:

11/1/95

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

* 95/11/03 14:53

* Sample identification
947721

* Initial mass of sample, g
2.100

* Volume of sample after extraction, ml
28.000

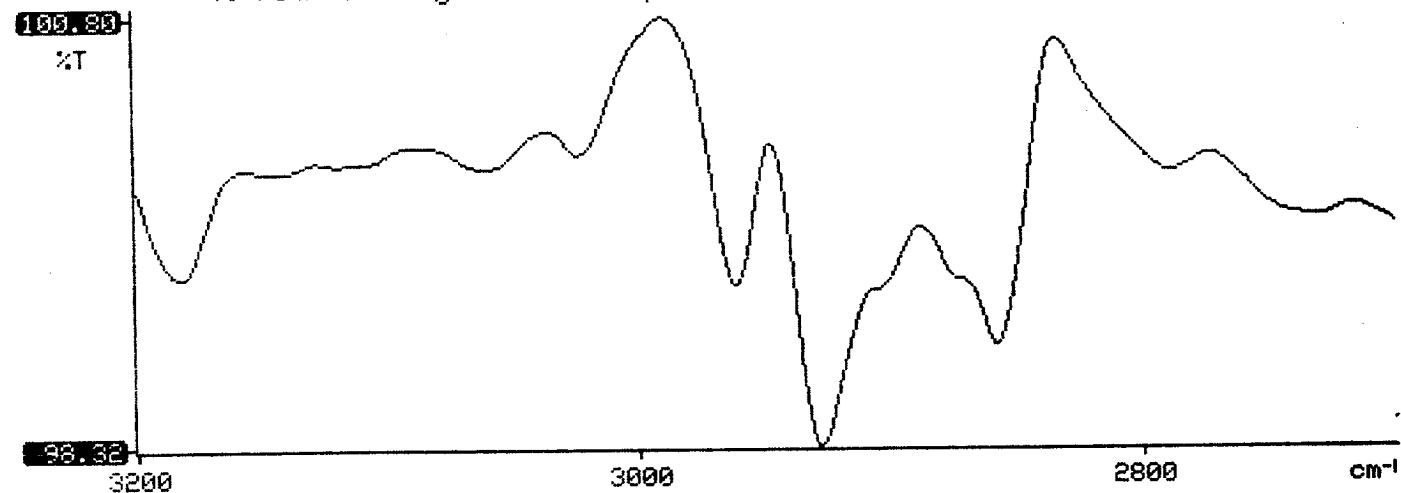
* Petroleum hydrocarbons, ppm
-33.651

* Net absorbance of hydrocarbons (2930 cm⁻¹)
0.006

*
*
*

Y: Petroleum hydrocarbons spectrum

14:53



BTEX SOIL SAMPLE WORKSHEET

File	:	947721	Date Printed	:	11/3/95
Soil Mass (g)	:	5.06	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	10	CAL FACTOR (Analytical):		200
Shot Volume (uL)	:	50	CAL FACTOR (Report):		0.19763
			DILUTION FACTOR:	1	Det. Limit
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000	0.494
Toluene (ug/L)	:	2.50	Toluene (mg/Kg):	0.494	0.494
Ethylbenzene (ug/L)	:	0.41	Ethylbenzene (mg/Kg):	0.081	0.494
p & m-xylene (ug/L)	:	3.59	p & m-xylene (mg/Kg):	0.709	0.988
o-xylene (ug/L)	:	0.80	o-xylene (mg/Kg):	0.158	0.494
			Total xylenes (mg/Kg):	0.868	1.482
			Total BTEX (mg/Kg):	1.443	

EL PASO NATURAL GAS

EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\110295-1.013
 Method : C:\LABQUEST\METHODS\1-102795.MET
 Sample ID : 947721,5.06G,50U
 Acquired : Nov 03, 1995 00:56:29
 Printed : Nov 03, 1995 01:22:52
 User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	5.573	0	0.0000
a,a,a TFT	7.567	4652097	104.0368
TOLUENE	9.713	830733	2.5023
ETHYLBENZENE	13.857	117971	0.4131
M & P XYLENE	14.230	1260478	3.5940
O XYLENE	15.367	220480	0.8001
BFB	16.953	62991388	103.7553

