

3R - 195

REPORTS

DATE:

July, 1997



November 5, 1997

Certified Mail

**Return Receipt Nos. P 532 649 088
P 532 649 089**

RECEIVED

NOV 11 1997

Mr. William C. Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87504

Environment Bureau
Oil Conservation Division

Re: Request for Closure of Eleven Groundwater Locations

Dear Mr. Olson:

I have enclosed closure packages for eleven groundwater locations that were identified during our pit closure project. El Paso Field Services (EPFS) hereby requests your review and approval for closure of these sites.

I have included a summary listing of the eleven locations. If you have any questions regarding this information, please call me at 505/599-2141.

Sincerely,

A handwritten signature in cursive script that reads 'Sandra D. Miller'.

Sandra D. Miller
Environmental Manager

xc: Mr. Bill Liesse, BLM w/o enclosures
Mr. Denny Foust, NMOCD - Aztec w/enclosures

Groundwater Locations
Request for Closure, 11/97

Meter/Line #	Location/Line Name	LTR	Sec	TN	RG	Land Type
74943	NM COM G1	P	36	30	10	1 - State
LD102	2C-22 #1 LINE DRIP	N	35	24	06	2 - Federal
94180	SALAZAR G 34-1	K	34	25	06	2 - Federal
89230	JOHNSTON FEDERAL #3A	I	12	30	09	2 - Federal
73079	Mae Gail Com #1	E	24	29	11	4 - Fee
70862	MCGRATH #1	F	07	30	11	4 - Fee
93156	MARY ACKROYD #1	J	18	30	11	4 - Fee
93828	JACQUEZ #3	E	25	30	09	4 - Fee
94984	ANDERSON GAS COM A#1 PC	C	28	29	10	4 - Fee
93296	GALLEGOS CANYON UNIT 188E	B	30	29	12	4 - Fee
93462	GALLEGOS CANYON UT 145 E	D	26	29	12	4 - Fee

} filed
individually
in
case files

SAN JUAN BASIN PIT CLOSURES
San Juan Basin, New Mexico

Pit Closure Report

July 1997

RECEIVED

NOV 11 1997

Environmental Bureau
Oil Conservation Division

Prepared For

El Paso Field Services
Farmington, New Mexico

Project 17520

PHILIP
ENVIRONMENTAL

Closure Checklist

Meter Code

93828

Summary
Site Map
Site Assessment Sheet

☒
☒
☒

Phase I Excavation

Y

closure form
soil analytical results
soil chain-of-custody
groundwater analytical results
groundwater chain-of-custody

☒
☒
☒
☐
☐

Phase II Soil Boring

Y

boring log
soil analytical results
soil chain-of-custody
well installation form
development form
groundwater analytical
groundwater chain-of-custody

☒
☒
☒
☒
☒
☒
☒

Phase III Excavation

Y

closure form
soil analytical results
soil chain-of-custody
groundwater analytical
groundwater chain of-custody

☒
☒
☒
☐
☐

Recon/Geoprobe

Y

groundwater analytical
soil-gas analytical

☒
☐

If item boxes are not checked they are not applicable



Environmental Services Group
Southern Region

**Jaquez #3 PC
Meter Code 93828**

Pit was excavated to 10 feet beneath ground surface. The headspace soil reading from excavation bottom was 687 parts per million. Soil analytical were as follows; benzene - <0.12 mg/kg, total BTEX - 54.5 mg/kg, TPH - 919 mg/kg.

One soil boring was completed and a groundwater monitoring well was installed. One soil sample was collected from 14.5-16.5 feet below ground surface. Soil boring analytical results were as follows; benzene - <0.5 mg/kg, total BTEX - 162 mg/kg, TPH - 2,050 mg/kg. Groundwater analytical results were as follows: benzene - 13.8 ppb, toluene - 393 ppb, ethyl benzene - 585 ppb, total xylenes - 5820 ppb

The pit was re-excavated to 15 feet beneath ground surface, and the monitoring well removed. The headspace soil reading from the excavation bottom was 76 ppm. Soil analytical results were as follows; benzene - <0.5 mg/kg, total BTEX - 1.17 mg/kg, TPH - 167 mg/kg.

A Geoprobe survey was conducted, and groundwater samples collected on four sides of the former pit. A groundwater sample from the center of the pit was not obtainable due to a tank placed on the pit. Geoprobe groundwater analytical results were as follows;

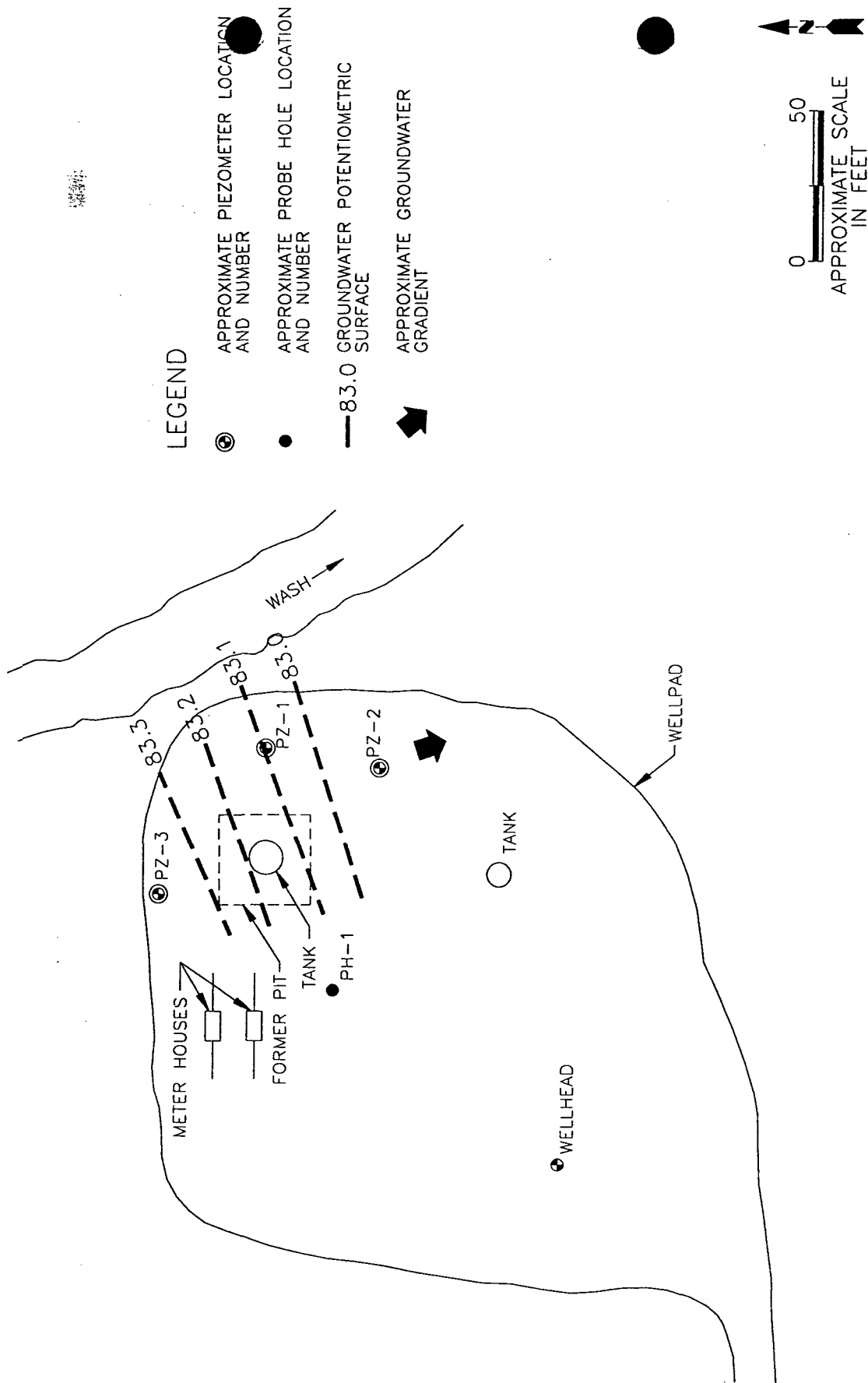
PZ -1: benzene - <1 ppb, toluene - <1 ppb, ethyl benzene - <1 ppb, total xylenes - <3 ppb
PZ -2: benzene - <1 ppb, toluene - <1 ppb, ethyl benzene - <1 ppb, total xylenes - <3 ppb
PZ -3: benzene - <1 ppb, toluene - <1 ppb, ethyl benzene - <1 ppb, total xylenes - <3 ppb
PH -1: benzene - <1 ppb, toluene - <1 ppb, ethyl benzene - <1 ppb, total xylenes - <3 ppb

This site is ready for closure based on the following:

- Phase II re-excavation soil samples were below standards.
- Geoprobe groundwater samples were below standards upgradient and downgradient of the former pit.



OWN:	TMM	DES:	CC	PROJECT NO.:	17520
CHKD:	CC	APPD:		EPFS	PITS
DATE:	7/16/97	REV:	0	FIGURE 1	



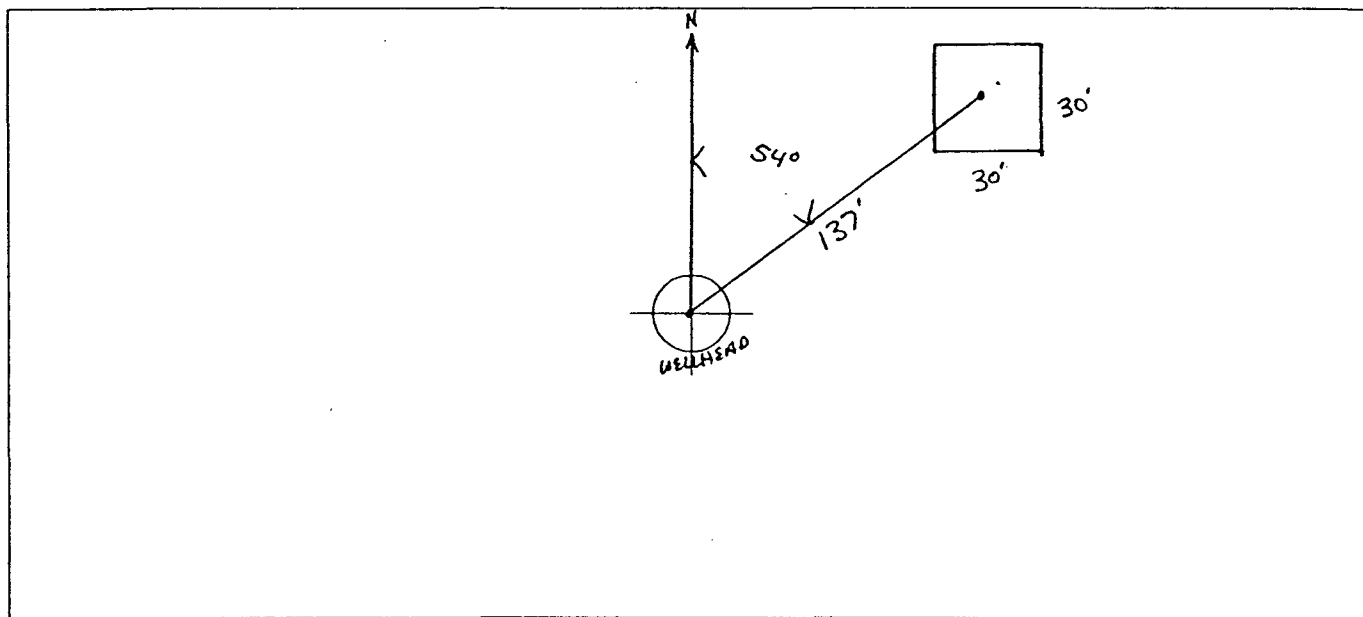
FIELD PIT SITE ASSESSMENT FORM

GENERAL	Meter: <u>93828</u> Location: <u>JAQUEZ #3</u> Operator #: <u>0203</u> Operator Name: <u>AMOCO</u> P/L District: <u>BLOOMFIELD</u> Coordinates: Letter: <u>E</u> Section <u>25</u> Township: <u>30</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator _____ Location Drip: ☒ Line Drip: _____ Other: _____ Site Assessment Date: <u>4-26-94</u> Area: <u>10</u> Run: <u>33</u>
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 <u>PUMP CANYON</u> (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: <u>30</u> POINTS
REMARKS	Remarks : <u>ONLY PIT ON LOCATION. PIT IS DRY. LOCATION IS DOWN IN PUMP CANYON, JUST OFF OF HWY 173. REDLINE AND TOPO CONFIRMED LOCATION TO BE INSIDE V.Z.</u> <u>DIG & HAUL</u>

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North S4° Footage from Wellhead 137'
b) Length : 30' Width : 30' Depth : 3'



REMARKS

Remarks :

TOOK PICTURES AT 2:12 P.M.

END DUMP

Completed By:

Paul Thompson

Signature

4.26.94

Date

Phase I Excavation

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 93828 Location: Jaquez #3

Coordinates: Letter: E Section 25 Township: 30 Range: 9

Or Latitude _____ Longitude _____

Date Started : 5-10-94 Area: 10 Run: 33

OBSERVATIONS

Sample Number(s): KD51

Sample Depth: 10' Feet

Final PID Reading 587 ppm PID Reading Depth 10' Feet

Yes No

Groundwater Encountered ☐ (1) ☒ (2) Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ (1) Approx. Cubic Yards 125

Onsite Bioremediation ☐ (2)

Backfill Pit Without Excavation ☐ (3)

Soil Disposition:

Envirotech ☐ (1) ☒ (3) Tierra

Other Facility ☐ (2) Name: _____

Pit Closure Date: 5-11-94 Pit Closed By: BEI

REMARKS

Remarks : Dug to Practical Extent - Very Large pit. At 10'
Took Sample, Closed pit.

Signature of Specialist: [Signature]

**FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT****SAMPLE IDENTIFICATION**

SAMPLE NUMBER:	Field ID	Lab ID
	KD51	945123
MTR CODE SITE NAME:	93828	Jaquez #3
SAMPLE DATE TIME (Hrs):	5/11/94	920
PROJECT:	Phase I Drilling	
DATE OF TPH EXT. ANAL.:	5/12/94	5/12/94
DATE OF BTEX EXT. ANAL.:	5/17/94	5/19/94
TYPE DESCRIPTION:	VC	Fire black sand

Field Remarks: _____

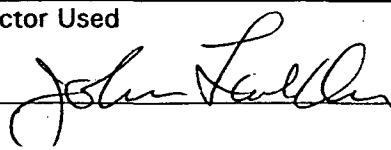
RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.12	MG/KG	5	D		
TOLUENE	1.40	MG/KG	5	D		
ETHYL BENZENE	3.10	MG/KG	5	D		
TOTAL XYLENES	50.0	MG/KG	5	D		
TOTAL BTEX	54.5	MG/KG				
TPH (418.1)	919	MG/KG			2.08	28
HEADSPACE PID	687	PPM				
PERCENT SOLIDS	94.3	%				

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

The Surrogate Recovery was at 114 for this sample All QA/QC was acceptable.
The "D" qualifier indicates reported result for this analyte is calculated based on a secondary dilution factor.
Negative:

DF = Dilution Factor Used

Approved By: 

INGVZPIT.XLS

Date: 6/16/97
Reprint



CHAIN OF CUSTODY RECORD

[illegible]

Phase II Soil Boring

RECORD OF SUBSURFACE EXPLORATION

10-33 Bloomfield
PHILIP ENVIRONMENTAL

4000 Monroe Road

Farmington, New Mexico 87401

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

Borehole #

BH1

Well #

MW-1

Page

1 of 1

Project Name

EPNG Pits

Project Number

14509

Phase

6000 77

Project Location

Jasques 3 PC

93828

Well Logged By

CM Chance

Personnel On-Site

M. Donohue, K. Padilla, F. Rivera

Contractors On-Site

Client Personnel On-Site

N. Prince

Drilling Method

4 1/4 I.D. HSA

Air Monitoring Method

PID, CGT

Elevation

Borehole Location

GWL Depth

Logged By

CM Chance

Drilled By

M. Donohue

Date/Time Started

5/19/95 - 0740

Date/Time Completed

5/19/95 - 0805

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 HS			Drilling Conditions & Blow Counts
0				Backfill to 10'						
5										
10										
15	1	14.5-15.5	15"	Bl silty sand, F-med sand, loose, sat.			11	158	289	6W 14.5 -0750
20				-Cobbles from cngs						-Hard drilling at
25				TOB 24.5			0	141		-23.5 Out of gravel -Drilling hard again -Driller thinks SS
30										
35										
40										

Comments:

GW @ 14.5'. Drill to 24.5'. Sample 14.5'-16.5' submitted to lab CM13 for
BTEX VTPH

Geologist Signature

CM Chance



**FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT**

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC13	946824
MTR CODE SITE NAME:	93828	Jaquez #3
SAMPLE DATE TIME (Hrs):	5/19/95	750
PROJECT:	Phase II Drilling	
DATE OF TPH EXT. ANAL.:	5/23/95	5/23/95
DATE OF BTEX EXT. ANAL.:	5/25/95	5/26/95
TYPE DESCRIPTION:	VG	Black sand

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	<0.5	MG/KG	20	D		
TOLUENE	<0.5	MG/KG	20	D		
ETHYL BENZENE	12.0	MG/KG	20	D		
TOTAL XYLENES	150	MG/KG	20	D		
TOTAL BTEX	162	MG/KG				
TPH (418.1)	2,050	MG/KG			1.93	28
HEADSPACE PID	1890	PPM				
PERCENT SOLIDS	83.1	%				

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

The Surrogate Recovery was at N/A for this sample All QA/QC was acceptable.
The "D" qualifier indicates reported result for this analyte is calculated based on a secondary dilution factor.
V: _____

DF = Dilution Factor Used

Approved By: _____

INGVZPIT.XLS

Date: _____

6/16/97

Reprint



Page _____ of _____

[illegible]

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp.
4000 Monroe Road
Farmington, New Mexico 87401
(506) 326-2262 FAX (506) 326-2388

Borehole # BH-1
Well # MW-1
Page 1 of 1

Project Name EPN6 pits

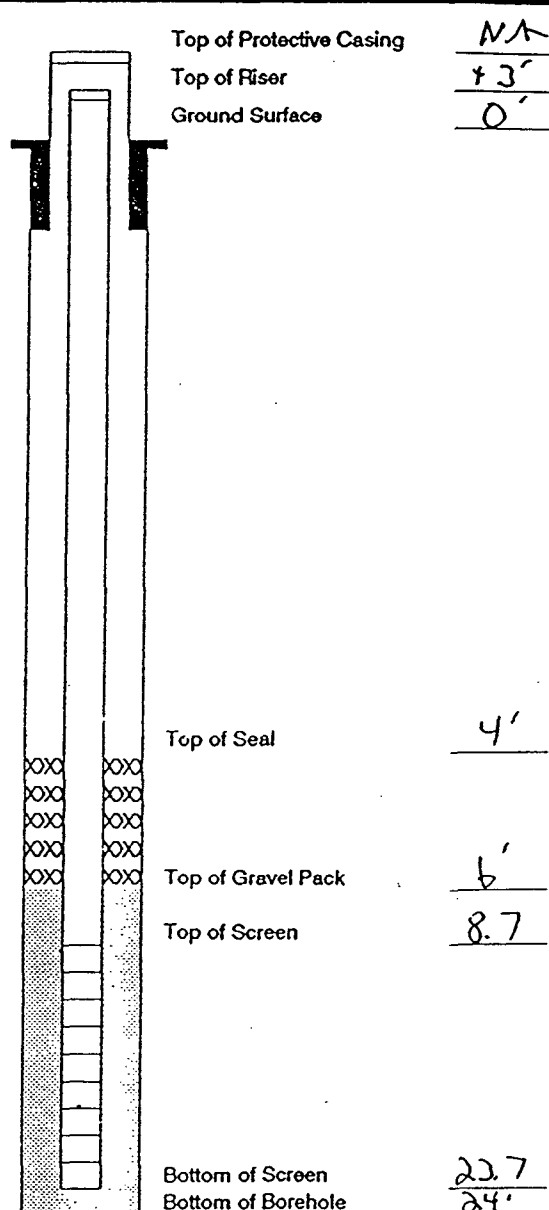
Project Number 14527 Phase 6001
Project Location Jacobs JPC 9222e

On-Site Geologist CM Chance
Personnel On-Site M. Donahue, K. Padilla
Contractors On-Site
Client Personnel On-Site

Elevation
Well Location
GWL Depth 13.9' BGS
Installed By M. Donahue

Date/Time Started 5/19/95 - 0820
Date/Time Completed 5/19/95 - 0925

Depths in Reference to Ground Surface				
Item	Material	Depth		
Top of Protective Casing			Top of Protective Casing	<u>NA</u>
Bottom of Protective Casing			Top of Riser	<u>+3'</u>
Top of Permanent Borehole Casing			Ground Surface	<u>0'</u>
Bottom of Permanent Borehole Casing		<u>NA</u>		
Top of Concrete		<u>NA</u>		
Bottom of Concrete		<u>NA</u>		
Top of Grout	<u>2-50# bags Type I-II cement</u>	<u>0'</u>		
Bottom of Grout	<u>.25-50# bag bentonite</u>	<u>4'</u>		
Top of Well Riser	<u>12' sch 40</u>	<u>+3'</u>		
Bottom of Well Riser	<u>PVC Riser</u>	<u>8.7'</u>		
Top of Well Screen	<u>15' - 0.01 slot</u>	<u>8.7'</u>		
Bottom of Well Screen	<u>sch 40 PVC</u>	<u>23.7</u>	Top of Seal	<u>4'</u>
Top of Peltonite Seal	<u>1-50# bag Na 8</u>	<u>4'</u>		
Bottom of Peltonite Seal	<u>Enviroplug</u>	<u>6'</u>	Top of Gravel Pack	<u>6'</u>
Top of Gravel Pack	<u>10X2-50# 10-20</u>	<u>11.6'</u>	Top of Screen	<u>8.7</u>
Bottom of Gravel Pack	<u>silica sand</u>	<u>24.0</u>		
Top of Natural Cave-In		<u>NA</u>		
Bottom of Natural Cave-In		<u>NA</u>		
Top of Groundwater		<u>13.9'</u>	Bottom of Screen	<u>23.7</u>
Total Depth of Borehole		<u>24.0'</u>	Bottom of Borehole	<u>24'</u>



Comments: 4" bentonite Hydrated seal w/ 5gal potable water. Locking well protector & padlock placed on well

Geologist Signature

CM Chance

Well Development and Purging Data

☒ Development
☐ Purging

Well Number Meter # 93-828

Serial No. WDPD.

Serial No. WDPD.
Project Name EPUG-Drilling

Project Manager C. Chancé

Page _____ of _____

Project No. 14309

Phase.Task No. 6003.77

Site Name Jacquez 3 AC Site Address _____

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
- ☒ Stabilization of Indicator Parameters
- ☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 27.00

Initial Depth to Water (feet) 17.17

Height of Water Column in Well (feet) 9.8

Diameter (inches): Well 2" Gravel Pack

Methods of Development

Pump
Bailer

- ☐ Centrifugal ☒ Bottom Valve
- ☐ Submersible ☐ Double Check Valve
- ☐ Peristaltic ☐ Stainless-steel Kemmerer

☐ Other

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met.

Comments

Sampled at 1035

Developer's Signature(s)

Date 5/21/95

Reviewer _____ Date _____

**FIELD SERVICES LABORATORY****ANALYTICAL REPORT****PIT CLOSURE PROJECT - PHASE II Monitor Well Water****SAMPLE IDENTIFICATION**

SAMPLE NUMBER:	946846
FIELD ID:	SEK6
MTR CODE:	93828
SITE NAME:	Jacquez 3 PC
SAMPLE DATE:	31-May-95
SAMPLE TIME (Hrs):	1035
SAMPLED BY:	SEK
DATE OF BTEX ANALYSIS:	1-Jun-95
SAMPLE TYPE:	Water

REMARKS: _____

EPA Method 8020 (BTEX) RESULTS

PARAMETER	RESULT PPB	QUALIFIER	WQCC LIMIT PPB
BENZENE	13.8	D	10
TOLUENE	393	D	740
ETHYL BENZENE	585	D	750
TOTAL XYLENES	5820	D,D1	620
SURROGATE % RECOVERY	95.3	Allowed Range 80 to 120 %	

NOTES:

The Total Dissolved Solids (TDS) on this sample was found to be 4,788 ppm.

The TDS test is performed in accordance with EPA Method 160.1.

The "D" Qualifier indicates that the reported result is calculated based on a secondary dilution factor.

The "D1" Qualifier indicates that the analyte result exceeded the calibration curve limit.

Approved By: _____

6/7/95
Date

111-6165-6177

Phase III Excavation

FIELD PIT REMEDIATION/CLOSURE FORM/PHASE II

GENERAL

Meter: 93828 93831 Location: Jaquez #3 DK & PC
 Coordinates: Letter: E Section 25 Township: 30 Range: 9
 Or Latitude _____ Longitude _____
 Date Started : 6/13/95 Area: _____ Run: _____

FIELD OBSERVATIONS

Sample Number(s): KD 459
 Sample Depth: 15' Feet
 Final PID Reading 76 ppm PID Reading Depth 15' Feet
 Yes No
 Groundwater Encountered ☒ (1) ☐ (2) Approximate Depth 14' Feet
 Final Dimensions: Length 33' Width 28 Depth 15'

CLOSURE

Remediation Method :
 Excavation ☒ (1) Approx. Cubic Yards 210
 Onsite Bioremediation ☐ (2)
 Backfill Pit Without Excavation ☐ (3)
 Soil Disposition: Overburden Cubic Yards 256
 Envirotech ☐ (1) ☒ (3) Tierra
 Other Facility ☐ (2) Name: _____
 Pit Closure Date: 6/14/95 Pit Closed By: PEI

REMARKS

Remarks : Before starting Excavation, we put 25lbs of Enviroplug into monitoring well. Removed Core overburden, then stepped down Excavation and Continued Excavating pit to a Depth of 15', TOOK Composite Sample and closed pit. *Excavation Dimensions on Back*

Signature of Specialist: Harry Deman

**FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT**

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD459	946898
MTR CODE SITE NAME:	93828/93831	Jaquez #3
SAMPLE DATE TIME (Hrs):	6/14/95	955
PROJECT:	Phase III Drilling	
DATE OF TPH EXT. ANAL.:	6/15/95	6/15/95
DATE OF BTEX EXT. ANAL.:	6/19/95	6/19/95
TYPE DESCRIPTION:	VC	Brown 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	1.17	MG/KG				
TOTAL BTEX	1.17	MG/KG				
TPH (418.1)	167	MG/KG			2.05	28
HEADSPACE PID	76	PPM				
PERCENT SOLIDS	90.8	%				

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

The Surrogate Recovery was at 80.8 for this sample All QA/QC was acceptable.

Reprint:

DF = Dilution Factor Used

Approved By: _____

INGVZPIT.XLS

Date: _____

6/16/97
Reprint

[illegible]

RECON®/Geoprobe

SITE ACTIVITIES

21-Feb-97

Meter/Line #: 93828

Location/Line #: Jacquez 3 PC

MW#:

Depth to GW:

Depth to Product:

Product Thickness:

Date: 10/28/96

Activity: Geoprobe

Comments: Tank on pit. Installed 3 piezos around pit, in addition to one probehole



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC231	947962
MTR CODE SITE NAME:	93828	Jacquez #3
SAMPLE DATE TIME (Hrs):	10/28/96	1025
PROJECT:	Geoprobe	
DATE OF BTEX EXT. ANAL.:	10/29/96	10/29/96
TYPE DESCRIPTION:	PZ1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 111 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: 10/30/96



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC232	947963
MTR CODE SITE NAME:	93828	Jacquez #3
SAMPLE DATE TIME (Hrs):	10/28/96	1050
PROJECT:	Geoprobe	
DATE OF BTEX EXT. ANAL.:	10/29/96	10/29/96
TYPE DESCRIPTION:	PZ2	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

—BTEX is by EPA Method 8020—

The Surrogate Recovery was at 112 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: 10/30/96



EL PASO FIELD SERVICES

FIELD SERVICES LABORATORY ANALYTICAL REPORT PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

SAMPLE NUMBER:	Field ID CMC233	Lab ID 947964
MTR CODE SITE NAME:	93828	Jacquez #3
SAMPLE DATE TIME (Hrs):	10/28/96	1138
PROJECT:	Geoprobe	
DATE OF BTEX EXT. ANAL.:	10/29/96	10/29/96
TYPE DESCRIPTION:	PZ3	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 111 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

Date: 10/31/96



A 2683

CHAIN OF CUSTODY RECORD

[illegible]



EL PASO FIELD SERVICES



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC282	948045
MTR CODE SITE NAME:	93828	Jacquez 3 PC
SAMPLE DATE TIME (Hrs):	12/10/96	1120
PROJECT:	GEOPROBE	
DATE OF BTEX EXT. ANAL.:	12/11/96	12/11/96
TYPE DESCRIPTION:	PH1	Water

Field Remarks: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q		
BENZENE	< 1	PPB				
TOLUENE	< 1	PPB				
ETHYL BENZENE	< 1	PPB				
TOTAL XYLENES	< 3	PPB				
TOTAL BTEX	< 6	PPB				

—BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 92.2 % for this sample All QA/QC was acceptable.
DF = Dilution Factor Used

Narrative: _____

Approved By: _____

John L. Lohr

Date: _____

12/16/96

CHAIN OF CUSTODY RECORD

Page _____ of _____

PROJECT NUMBER # 24324		PROJECT NAME Pit Closure Project		DATE 12/12/96		FIELD ID	
LAB ID		DATE	TIME	MATRIX	SAMPLE TYPE	TOTAL NUMBERS OF CONTAINERS	SEQUENCE #
948043	12/10/96	0920	Water	CMC280	Grab	2	1
948044	12/10/96	1005		CMC281	"	2	2
948045	12/10/96	1120		TRIP BLANK	TB	1	3
948046	12/10/96	1510		CMC282	Grab	2	4
				CMC283	"	2	5
PH4 DL Loop Line Drip LD169 PH5 (Water reacted w/ HCL. Slight prob.) TRIP BLANK Jacq23 PC PH1 PH1 Fogelson 4-1 #14 73220 → Strong Prod. odor. Potential high dissolved phase							
RELINQUISHED BY: (Signature) <i>Cony Chase</i> DATE/TIME 12/10/96 1700 RECEIVED BY: (Signature) <i>Kelly Stovall</i> RELINQUISHED BY: (Signature) _____ DATE/TIME _____ RECEIVED BY: (Signature) _____							
REQUESTED TURNAROUND TIME: ☐ ROUTINE ☐ RUSH CARRIER CO. _____							
RESULTS & INVOICES TO: FIELD SERVICES LABORATORY EL PASO NATURAL GAS COMPANY P.O. BOX 4990 FARMINGTON, NEW MEXICO 87499							

Date of Analysis: May 12, 1994

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.	HORIBA	200	244	122.0	X
"B" Heavy Oil (Lot MOR9480)	HORIBA	300	348	116.0	X

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S)MG/KG	DUPLICATE RESULT (D)MG/KG	RPD	ACCEPTABLE RANGE + / - 35% YES NO
945114	2nd Extract	841	718	15.8	X
945119	2nd Extract	797	818	2.6	X

Narrative : Acceptable.

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
945114	2350	841	3500	113	X
945119	2840	797	4390	127	X

Narrative: Acceptable for 945114.

REFERENCE SOIL (Laboratory Control Sample):

SAMPLE ID	SOURCE	KNOWN VALUE (MG/KG)	SAMPLE RESULT FOUND (MG/KG)	MFG SPECIFIED RANGE	ACCEPTABLE YES NO
ERA TPH STANDARD #1 LOT # 91024	ENVIRONMENTAL RESOURCE ASS.	1070	1160	642 - 1340	X
ERA TPH STANDARD #2 w/int LOT # 91024	ENVIRONMENTAL RESOURCE ASS.	1690	1660	1010 - 2110	X

Narrative: Acceptable.

LABORATORY REAGENT BLANK:

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

Narrative: Acceptable.

Approved By:

John F. L...

Date: 14-May-94

Extracted: 5/12/94



ATI I.D. 405359

Corporate Offices: 5550 Morehouse Drive San Diego, CA 92121 (619) 458-9141



Analytical Technologies, Inc.

CLIENT : EL PASO NATURAL GAS CO. DATE RECEIVED : 05/13/94
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE REPORT DATE : 05/25/94

ATI ID: 405359

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	945108	NON-AQ	05/10/94
02	945109	NON-AQ	05/10/94
03	945110	NON-AQ	05/10/94
04	945111	NON-AQ	05/10/94
05	945112	NON-AQ	05/10/94
06	945123	NON-AQ	05/11/94
07	945124	NON-AQ	05/11/94
08	945125	NON-AQ	05/11/94
09	945126	NON-AQ	05/11/94
10	945127	NON-AQ	05/11/94
11	945128	NON-AQ	05/11/94
12	945129	NON-AQ	05/11/94



---TOTALS---

<u>MATRIX</u>	<u>#SAMPLES</u>
NON-AQ	12

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX (EPA 8020)	ATI I.D.	: 405359
BLANK I.D.	: 051794	MATRIX	: NON-AQ
CLIENT	: EL PASO NATURAL GAS CO.	DATE EXTRACTED	: 05/17/94
PROJECT #	: 24324	DATE ANALYZED	: 05/17/94
PROJECT NAME	: PIT CLOSURE	DILUTION FACTOR	: 1

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025

SURROGATE:

OMOFLUOROBENZENE (%)

102

Accepted.
JS
5/26/94



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX (EPA 8020)	ATI I.D.	: 405359
BLANK I.D.	: 051794	MATRIX	: NON-AQ
CLIENT	: EL PASO NATURAL GAS CO.	DATE EXTRACTED	: 05/17/94
PROJECT #	: 24324	DATE ANALYZED	: 05/17/94
PROJECT NAME	: PIT CLOSURE	DILUTION FACTOR	: 1

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025

SURROGATE:

OMOFLUOROBENZENE (%)

96

Acceptable
5/24/94
CS



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST : BTEX (EPA 8020)
MSMSD # : 40535903 ATI I.D. : 405359
CLIENT : EL PASO NATURAL GAS CO. DATE EXTRACTED : 05/17/94
PROJECT # : 24324 DATE ANALYZED : 05/18/94
PROJECT NAME : PIT CLOSURE SAMPLE MATRIX : NON-AQ
REF. I.D. : 40535903 UNITS : MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
BENZENE	<0.025	1.0	0.83	83	0.87	87	5
TOLUENE	<0.025	1.0	0.83	83	0.86	86	4
ETHYLBENZENE	<0.025	1.0	0.85	85	0.86	86	1
TOTAL XYLENES	<0.025	3.0	2.6	87	2.6	87	0

Acceptable
5/24/94

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

PROJECT MANAGER: John Lamborn

COMPANY: El Paso Natural Gas
 ADDRESS: P.O. Box 4990
 Farmington, NM 87499

PHONE: (505) 599-2144
 FAX: (505) 599-2261

BILL TO: Same as above
 COMPANY:
 ADDRESS:

SAMPLE ID DATE TIME MATRIX LAB ID

945127	5/11/94	1220	Soil	10
945128	5/11/94	1340	Soil	11
945129	5/11/94	1445	Soil	12

Petroleum Hydrocarbons (418.1)	
(MOD 8015) Gas/Diesel	
Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)	
BTXE/MTBE (8020)	X
Chlorinated Hydrocarbons (601/8010)	
Aromatic Hydrocarbons (602/8020)	
SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	
Pesticides/PCB (608/8080)	
Herbicides (615/8150)	
Base/Neutral/Acid Compounds GC/MS (625/8270)	
Volatile Organics GC/MS (624/8240)	
Polynuclear Aromatics (610/8310)	
SDWA Primary Standards - Arizona	
SDWA Secondary Standards - Arizona	
SDWA Primary Standards - Federal	
SDWA Secondary Standards - Federal	
The 13 Priority Pollutant Metals	
RCRA Metals by Total Digestion	
RCRA Metals by TCLP (1311)	
NUMBER OF CONTAINERS	1

PROJECT INFORMATION SAMPLE RECEIPT

PROJ. NO.: 243324 NO. CONTAINERS: 3
 PROJ. NAME: P1 Closure CUSTODY SEALS: Y/N (NA)
 P.O. NO.: 38552 RECEIVED INTACT: Y
 SHIPPED VIA: FedEx RECEIVED COLD: Y
 PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS
 (RUSH) ☐ 24hr ☐ 48hr ☒ 72hr ☐ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments:

Emergency Code:
 501 108-52452-24-0001-0012-31-2010
 501 108-51570-24-0001-0012-31-2010
 Sample 1000B 300

SAMPLED & RELINQUISHED BY: 1. RELINQUISHED BY: 2. RELINQUISHED BY: 3.

Signature: [Signature] Time: 1645
 Printed Name: S.W. Sander Date: 5-12-94
 Company: EPAG Phone: 599-2110
 RECEIVED BY: 1. RECEIVED BY: 2. RECEIVED BY: (LAB) 3.
 Signature: [Signature] Time: [Time]
 Printed Name: [Name] Date: [Date]
 Company: [Company]

ANALYSIS REQUEST

Printed Name: [Name] Date: 5/13/94
 Company: [Company]
 Analytical Technologies, Inc.

LOWE

ANALYSIS REQUEST

ADDRESS: _____

NUMBER OF CONTAINERS

22

50 108.51575-24:000:001 L 31-2010

DATE: 2/13/94

ATTILIO, 3001 McGill St. • TEL: 439-5141 • FIRMING (601) 428-2201 • SERRAVALLO (214) 276-6111 • PONTIGNON (601) 428-1181 • PONTIGNON PARTS AND TIRE / • ABUNDANCE (504) 784-7777
METHUEN, 1000 N. Main
ATI - Fiat
OPTIMATOR

QUALITY CONTROL REPORT

by Modified 418.1 by Infrared

Date of Analysis: May 23, 1995

6 Samples

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 M3G9616)	HORIBA	200	204	102	X

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S)MG/KG	DUPLICATE RESULT (D)MG/KG	RPD	ACCEPTABLE RANGE + / - 35% YES NO
946828	2nd Extract	392	452	14.22	X

Narrative : Acceptable.

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
946828	2900	392	3600	111	X

Narrative: Acceptable.

REFERENCE SOIL (Laboratory Control Sample):

SAMPLE ID	SOURCE	KNOWN VALUE (MG/KG)	SAMPLE RESULT FOUND (MG/KG)	MFG SPECIFIED RANGE	ACCEPTABLE YES NO
ERA TPH STANDARD #1 LOT # 91026	ENVIRONMENTAL RESOURCE ASS.	1340	1420	804 - 1680	X
ERA TPH STANDARD #2 w/int LOT # 91026	ENVIRONMENTAL RESOURCE ASS.	2590	2790	1550 - 3240	X

Narrative: Acceptable.

LABORATORY REAGENT BLANK:

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

Narrative: Acceptable.

Approved By:

John F. L...

Date: 26-May-95

Extracted: 05/23/95



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 505387
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	946822	NON-AQ	05/18/95	05/24/95	05/25/95	1
02	946824	NON-AQ	05/19/95	05/24/95	05/30/95	1
05	946827	NON-AQ	05/22/95	05/24/95	05/25/95	1

PARAMETER	UNITS	01	02	05
FUEL HYDROCARBONS	MG/KG	180	1000	410
HYDROCARBON RANGE		C14-C32	C7-C20	C7-C20
HYDROCARBONS QUANTITATED USING		DIESEL	DIESEL	DIESEL

SURROGATE:

O-TERPHENYL (%)	92	111	110
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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. 505387

June 2, 1995

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 05/24/95, 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.

Letitia Krakowski, Ph.D.
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure





Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 506376

June 21, 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 06/16/95, 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.

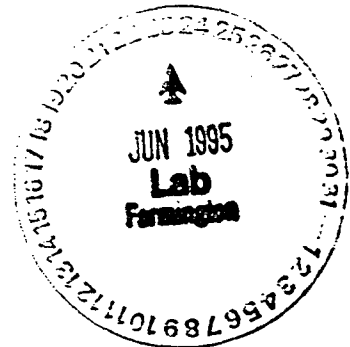
If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph.D.
Laboratory Manager

MR:jt

Enclosure



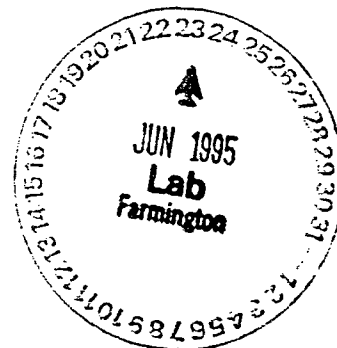


Analytical Technologies, Inc.

CLIENT : EL PASO NATURAL GAS CO. DATE RECEIVED : 06/16/95
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE/PHASE II REPORT DATE : 06/21/95

ATI ID: 506376

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	946891	NON-AQ	06/13/95
02	946892	NON-AQ	06/13/95
03	946893	NON-AQ	06/13/95
04	946894	NON-AQ	06/13/95
05	946895	NON-AQ	06/13/95
06	946896	NON-AQ	06/13/95
07	946897	NON-AQ	06/13/95
08	946898	NON-AQ	06/14/95
09	946899	NON-AQ	06/14/95
10	946900	NON-AQ	06/14/95
11	946901	NON-AQ	06/14/95
12	946902	NON-AQ	06/14/95
13	946903	NON-AQ	06/14/95
14	946904	NON-AQ	06/14/95
15	946905	NON-AQ	06/14/95



---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	15

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : EL PASO NATURAL GAS CO. ATI I.D. : 506376
PROJECT # : 24324 SAMPLE MATRIX : NON-AQ
PROJECT NAME : PIT CLOSURE/PHASE II UNITS : MG/KG

PARAMETER	ATI I.D.	SAMPLE RESULT	DUP. RESULT	RPD	SPIKED SAMPLE	SPIKE CONC.	% REC
PETROLEUM HYDROCARBONS	061695	<20	<20	NA	170	150	113

Acceptable
Q
6/12/05

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: EPA 8015 MODIFIED	ATI I.D.	: 506376
BLANK I.D.	: 061695	MATRIX	: NON-AQ
CLIENT	: EL PASO NATURAL GAS CO.	DATE EXTRACTED	: 06/16/95
PROJECT #	: 24324	DATE ANALYZED	: 06/16/95
PROJECT NAME	: PIT CLOSURE/PHASE II	DILUTION FACTOR	: 1

PARAMETER	UNITS	
FUEL HYDROCARBONS	MG/KG	<5
HYDROCARBON RANGE		-
HYDROCARBONS QUANTITATED USING		-

SURROGATE:

O-TERPHENYL (%)	106
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OK
JL

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST : EPA 8015 MODIFIED
MSMSD # : 50637609 ATI I.D. : 506376
CLIENT : EL PASO NATURAL GAS CO. DATE EXTRACTED : 06/16/95
PROJECT # : 24324 DATE ANALYZED : 06/16/95
06/17/95
PROJECT NAME : PIT CLOSURE/PHASE II SAMPLE MATRIX : NON-AQ
REF. I.D. : 50637609 UNITS : MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
FUEL HYDROCARBONS	<5	100	100	100	96	96	4

Handwritten signature
6/23/95

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: BTEX (EPA 8020)	ATI I.D.	: 506376
BLANK I.D.	: 061695	MATRIX	: NON-AQ
CLIENT	: EL PASO NATURAL GAS CO.	DATE EXTRACTED	: 06/16/95
PROJECT #	: 24324	DATE ANALYZED	: 06/16/95
PROJECT NAME	: PIT CLOSURE/PHASE II	DILUTION FACTOR	: 1

PARAMETER	UNITS	
BENZENE	MG/KG	<0.025
TOLUENE	MG/KG	<0.025
ETHYLBENZENE	MG/KG	<0.025
TOTAL XYLENES	MG/KG	<0.025

SURROGATE:

BROMOFLUOROBENZENE (%)

98





Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST : BTEX (EPA 8020)
MSMSD # : 50637613 ATI I.D. : 506376
CLIENT : EL PASO NATURAL GAS CO. DATE EXTRACTED : 06/16/95
PROJECT # : 24324 DATE ANALYZED : 06/16/95
PROJECT NAME : PIT CLOSURE/PHASE II SAMPLE MATRIX : NON-AQ
REF. I.D. : 50637613 UNITS : MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
BENZENE	<0.025	1.0	0.97	97	0.93	93	4
TOLUENE	0.037	1.	1.0	96	0.98	94	2
ETHYLBENZENE	<0.025	1.0	1.0	100	0.97	97	3
TOTAL XYLENES	<0.025	3.0	3.1	103	3.0	100	3

Handwritten signature and initials

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



PROJECT MANAGER: JOHN LAMBIDIN				
COMPANY: EL PASO NATURAL GAS				
ADDRESS: P.O. BOX 4990				
FARMINGTON, NM 87499				
PHONE: (505) 599-2144				
FAX: (505) 599-2261				
BILL TO: SAME AS ABOVE				
COMPANY:				
ADDRESS:				
SAMPLE ID	DATE	TIME	MATRIX	LAB ID
946891	6-13-95	6756	Soil	01
946892	↑	1207	↑	02
946893	↑	1320	↑	03
946894	↑	1441	↑	04
946895	↓	6845	↓	05
946896	↓	6845	↓	06
946897	6-13-95	1214	↑	07
946898	6-14-95	0955	↓	08
946899	6-14-95	0722	Soil	09

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.: 24324	NO. CONTAINERS	9	
PROJ. NAME: PIT CLOSURE/Phase IV	CUSTODY SEALS	N/A	
P.O. NO.: 38822	RECEIVED INTACT	Y	
SHIPPED VIA: FEDERAL EXPRESS	RECEIVED COLD	Y	
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS			
(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☒ 1 WEEK (NORMAL) ☐ 2 WEEK			
Comments: CHARGE CODE: 50% 108-51570-24-(XX)1-(XX)12-31-2010 50% 108-52452-24-(XX)1-(XX)12-31-2010			
QA/QC ON PROJECT SAMPLES			

ANALYSIS REQUEST									
NUMBER OF CONTAINERS									
Petroleum Hydrocarbons (418.1)									
(MOD 8015) Gas/Diesel									
Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020)									
BTXE/MTBE (8020)									
BTEX (8020)									
Chlorinated Hydrocarbons (501/8010)									
Aromatic Hydrocarbons (502/8020)									
SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.									
Pesticides/PCB (608/8080)									
Herbicides (615/8150)									
Base/Neutral/Acid Compounds GC/MS (625/8270)									
Volatile Organics GC/MS (624/8240)									
Polynuclear Aromatics (610/8310)									
SDWA Primary Standards - Arizona									
SDWA Secondary Standards - Arizona									
SDWA Primary Standards - Federal									
SDWA Secondary Standards - Federal									
The 13 Priority Pollutant Metals									
RCRA Metals by Total Digestion									
RCRA Metals by TCLP (1311)									

SAMPLED & RELINQUISHED BY: 1.		RELINQUISHED BY: 2.		RELINQUISHED BY: 3.	
Signature:	Time:	Signature:	Time:	Signature:	Time:
Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
Company:	Phone:	Company:	Phone:	Company:	Phone:

RECEIVED BY: 1.		RECEIVED BY: 2.		RECEIVED BY: 3.	
Signature:	Time:	Signature:	Time:	Signature:	Time:
Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
Company:	Phone:	Company:	Phone:	Company:	Phone:



PROJECT MANAGER:	JOHN LAMBDIN
COMPANY:	EL PASO NATURAL GAS
ADDRESS:	P.O. BOX 4990
	FARMINGTON, NM 87499
PHONE:	(505) 599-2144
FAX:	(505) 599-2261
BILL TO:	SAME AS ABOVE
COMPANY:	
ADDRESS:	

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
946900	6-14-98	0945	Soil	10 ^{WSP}
946901	↑	1225	↑	11
946902	↓	1520	↓	12
946903	↓	0700	↓	13
946904	↓	1400	↓	14
946905	6-14-98	1530	Soil	15

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.: 24324		NO. CONTAINERS	5
PROJ. NAME: PIT CLOSURE / Phase II		CUSTODY SEALS	0 N / NA
P.O. NO.: 38822		RECEIVED INTACT	Y
SHIPPED VIA: FEDERAL EXPRESS		RECEIVED COLD	Y 2pc

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☒ 72hr ☐ 1 WEEK (NORMAL) ☐ 2 WEEK

Comments: 72/D

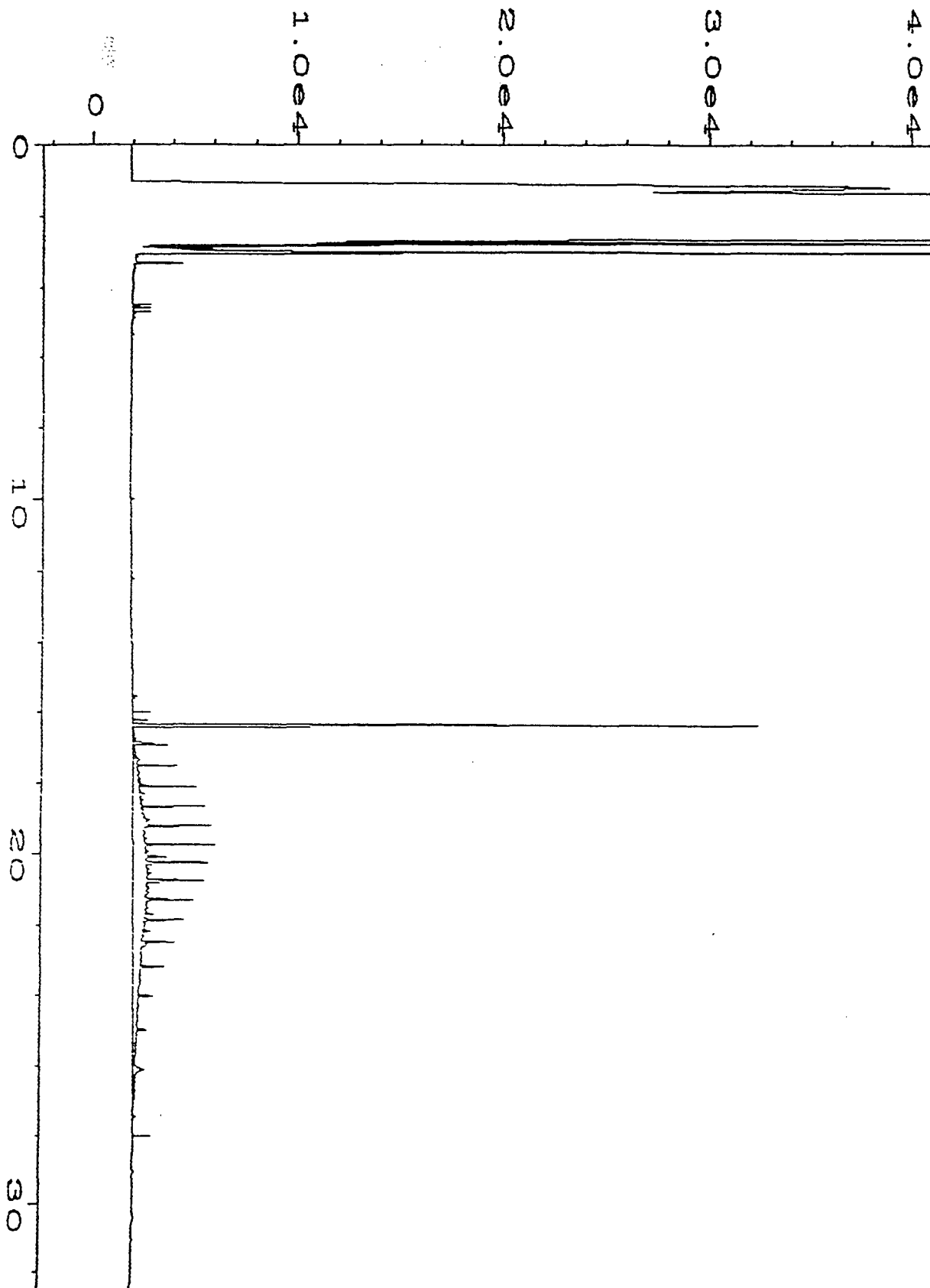
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72/D

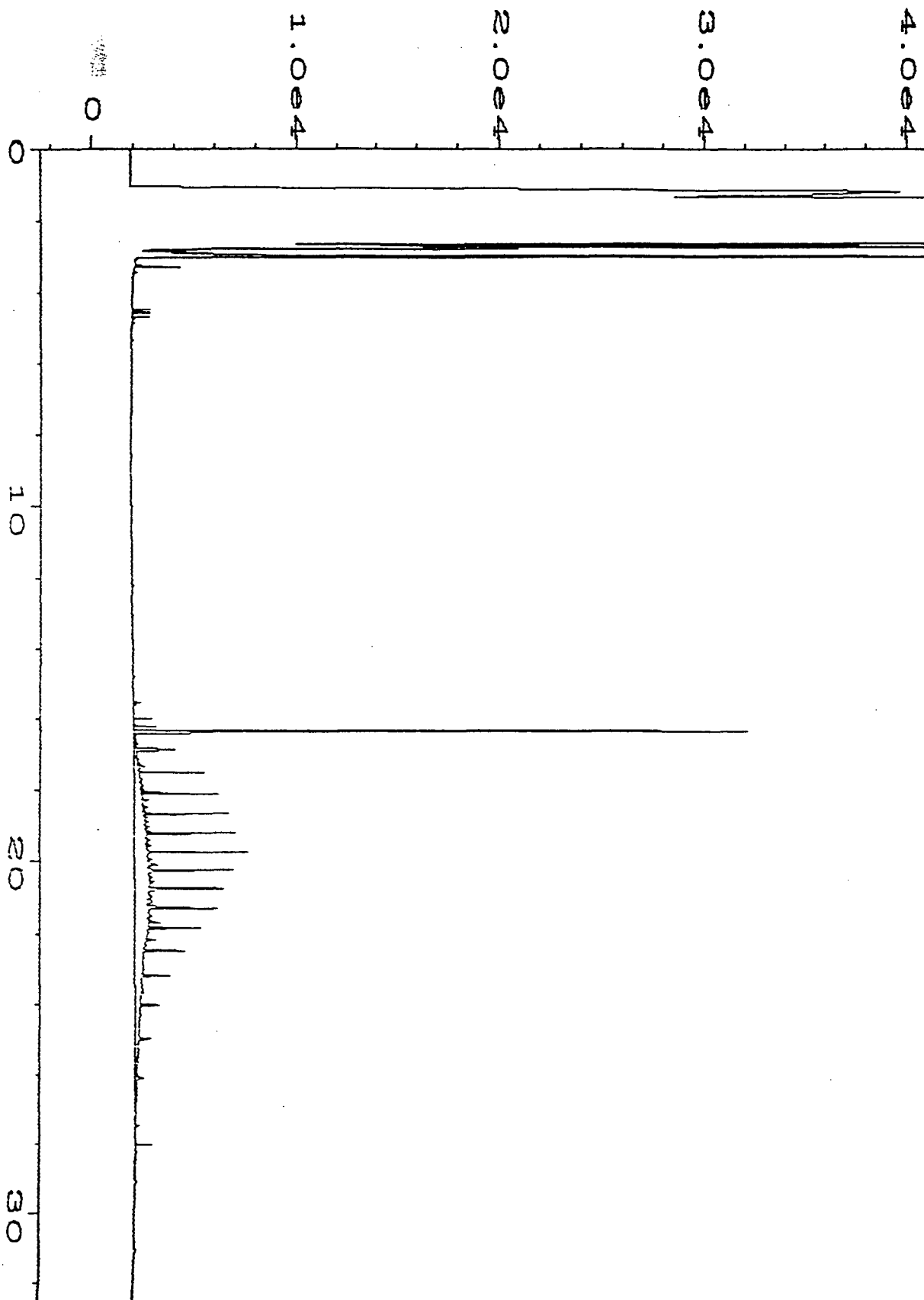
QA/QC ON PROJECT SAMPLES

[illegible]

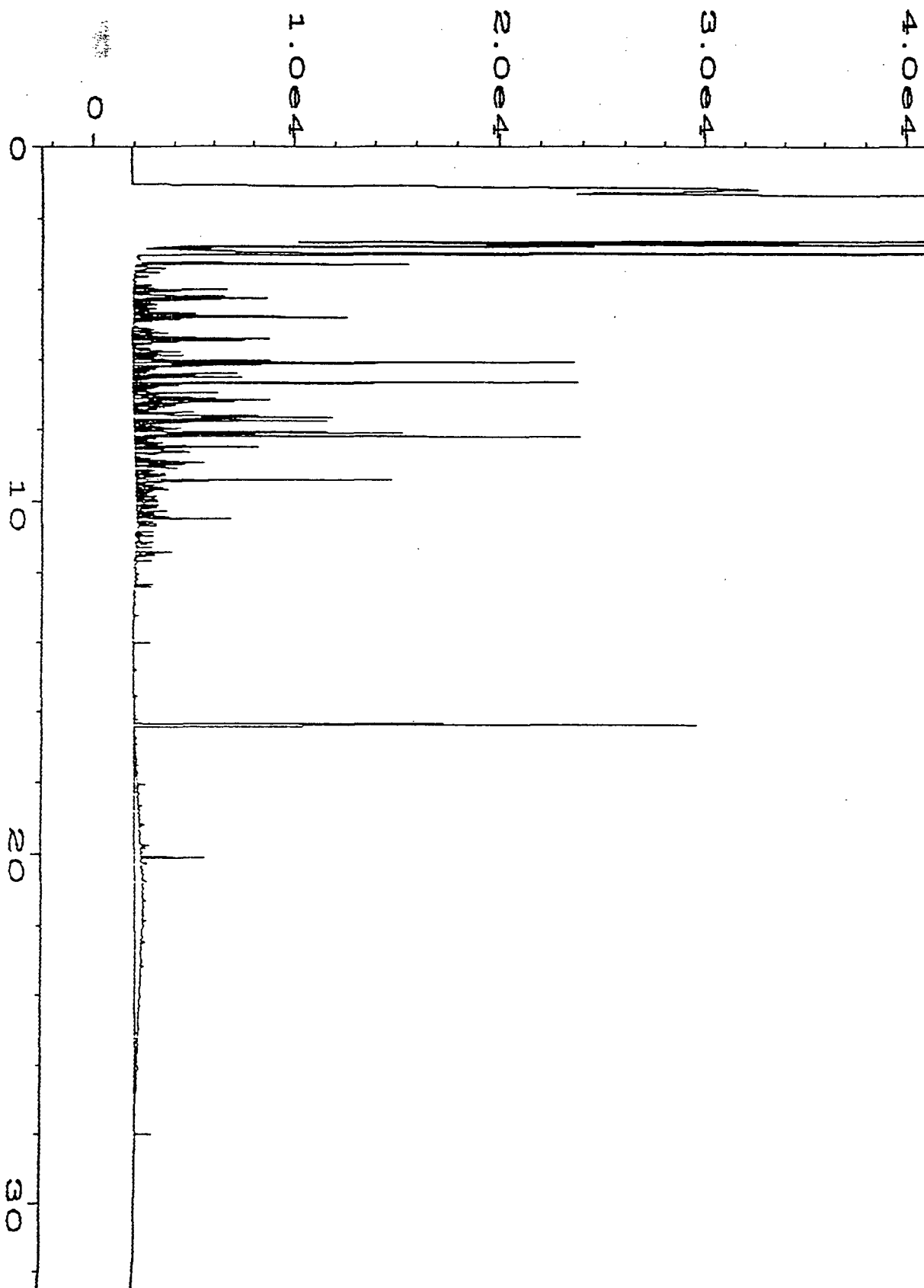
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Company:	Phone:		Company:			Company:		
RECEIVED BY: 1. Signature: Time:			RECEIVED BY: 2. Signature: Time:			RECEIVED BY: 3. Signature: Time:		
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Company:			Company:			Company:		



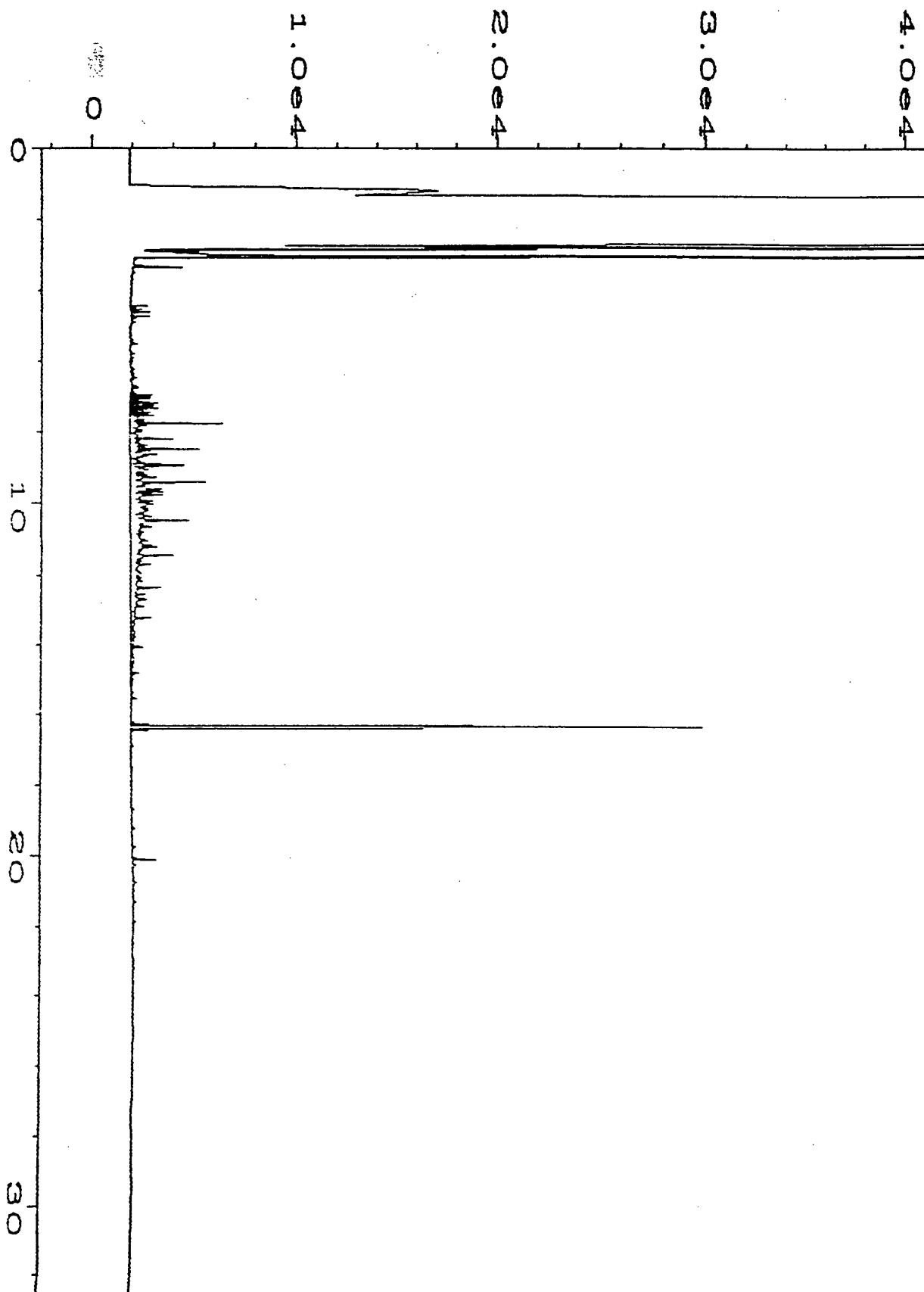
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Instrument	: GC#1 5890	Injection Number	: 1
Sample Name	: 506376-05	Sequence Line	: 5
on Time Bar Code:			



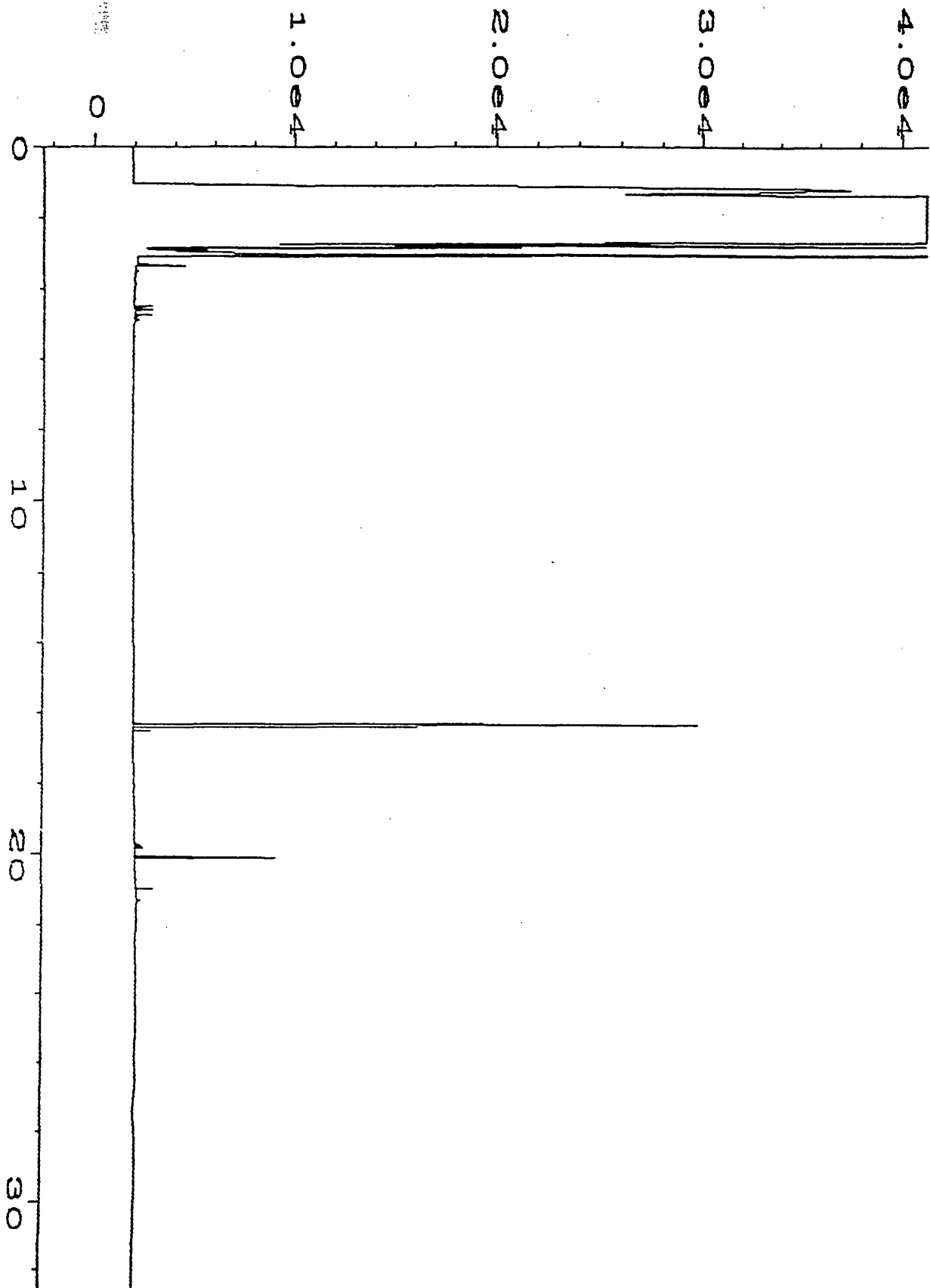
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nstrument	: GC#1 5890	Injection Number	: 1
ample Name	: 506376-06	Sequence Line	: 5
un Time Bar Code:			

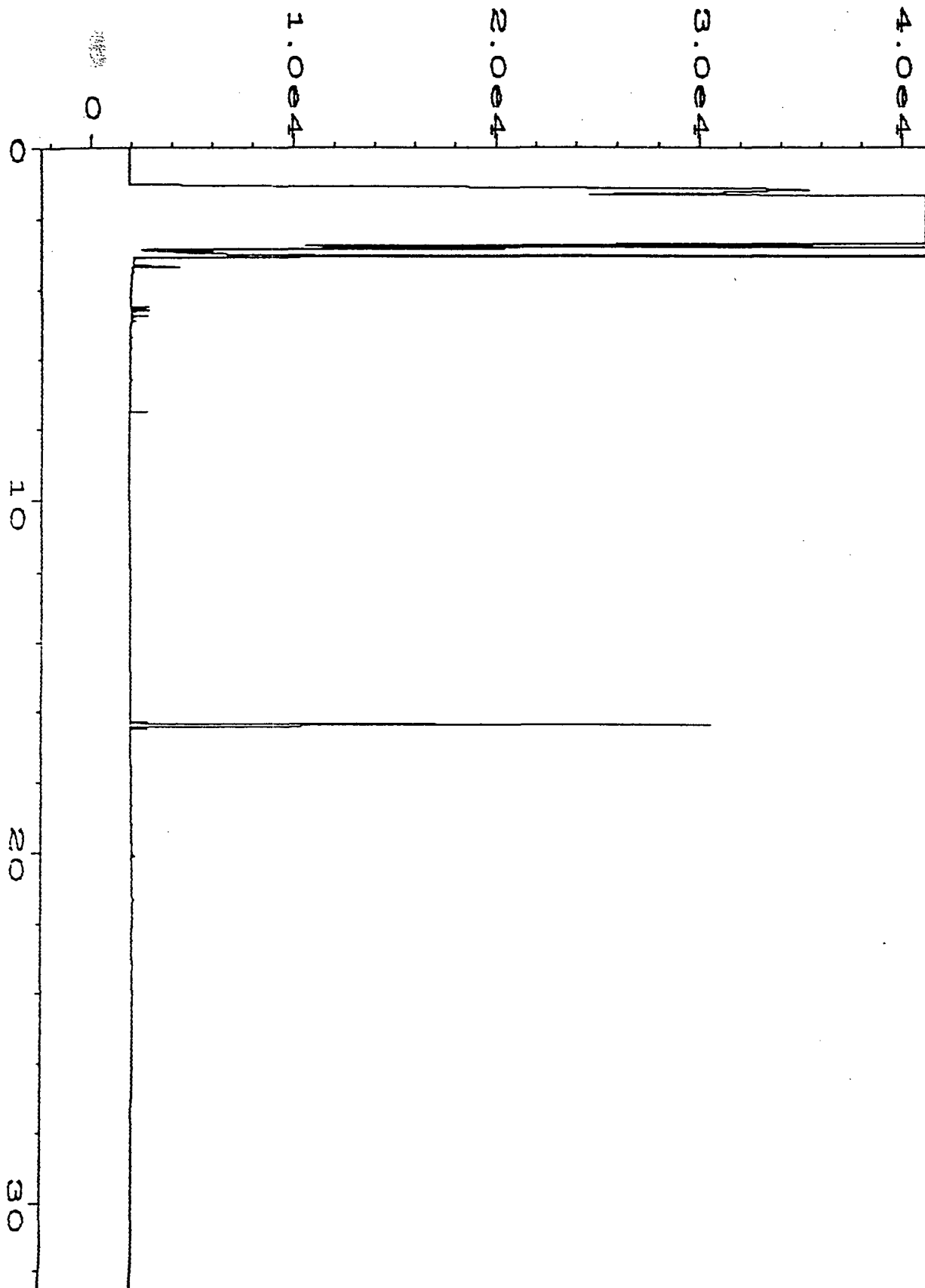


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Instrument	: GC#1 5890	Injection Number	: 1
Sample Name	: 506376-07	Sequence Line	: 5
Time Bar Code			

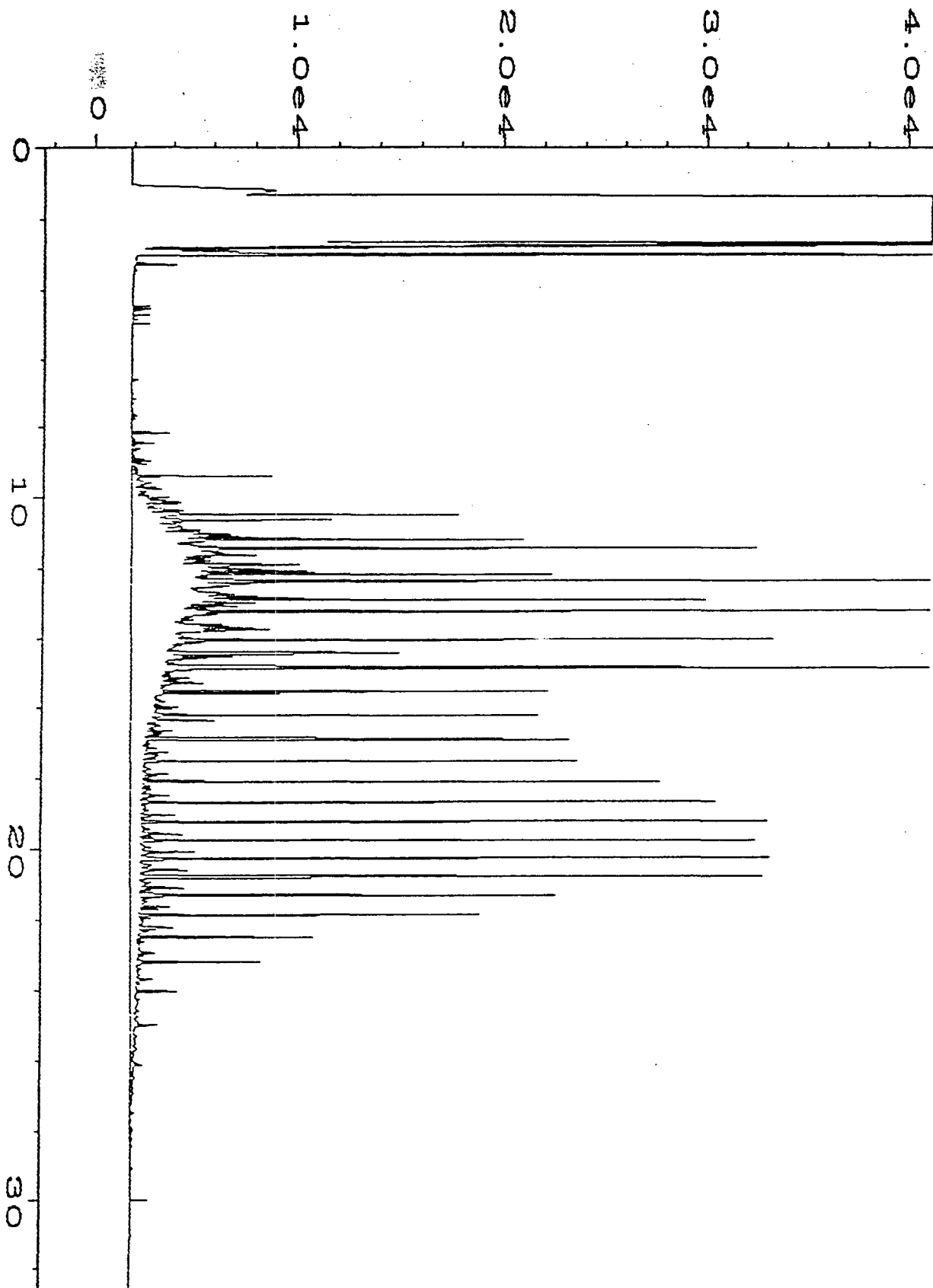


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Operator	: CF & JE & KM	Vial Number	: 12
Instrument	: GC#1 5890	Injection Number	: 1
Sample Name	: 506376-08	Sequence Line	: 1
Run Time Bar Code:			

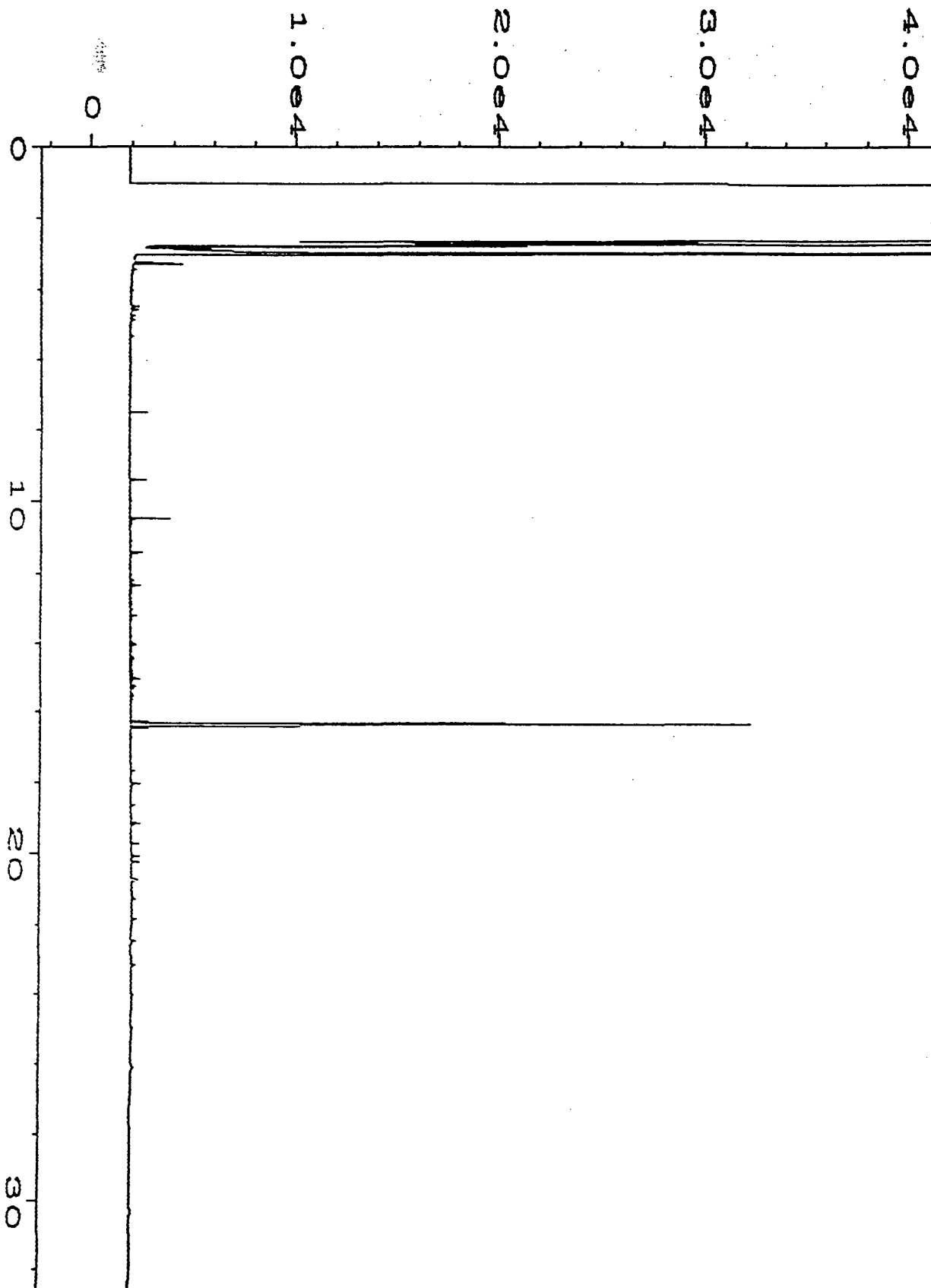




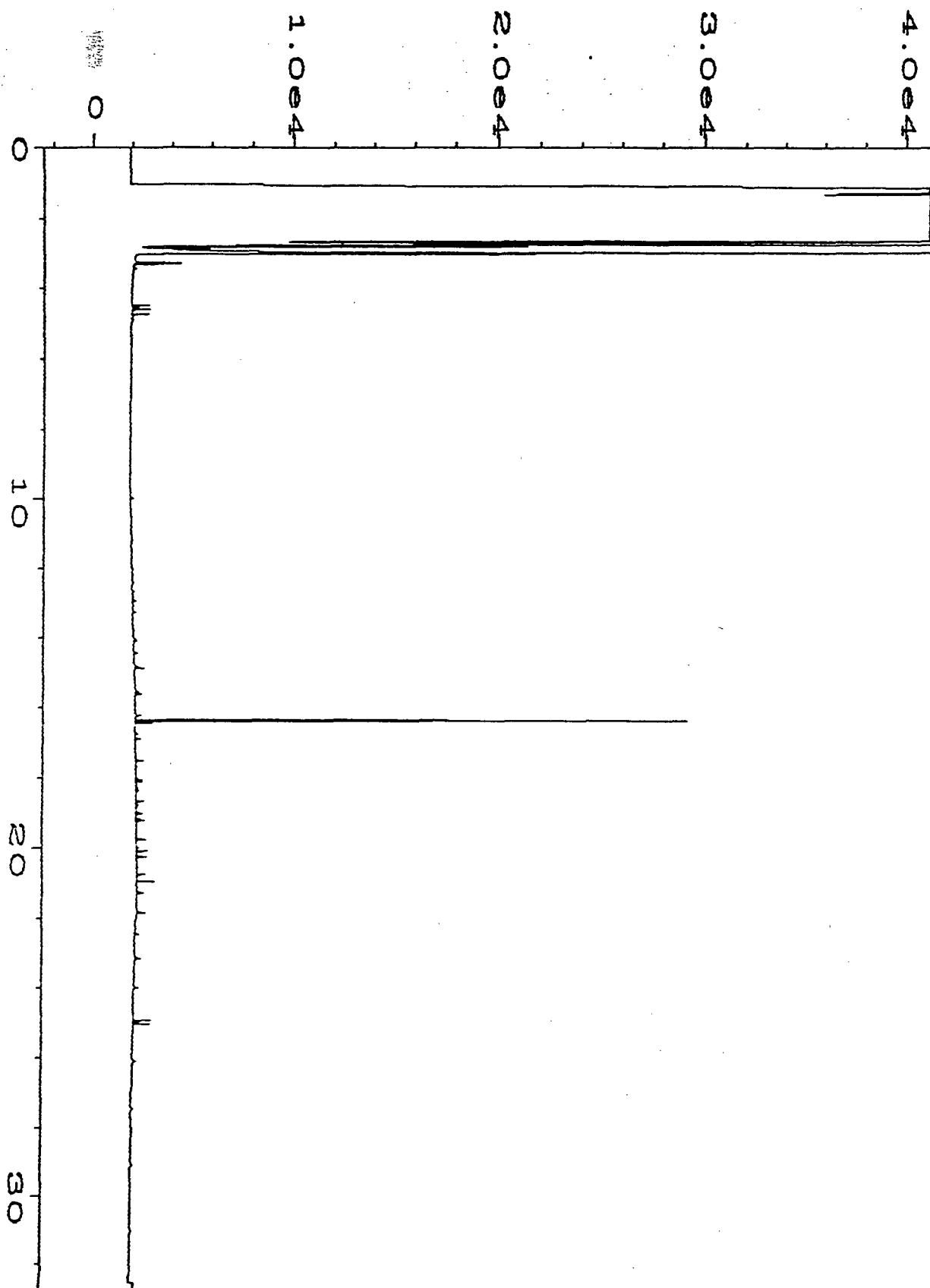
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nstrument	: GC#1 5890	Injection Number	: 1
ample Name	: 506376-10	Sequence Line	: 1
up Time Bar Code:			



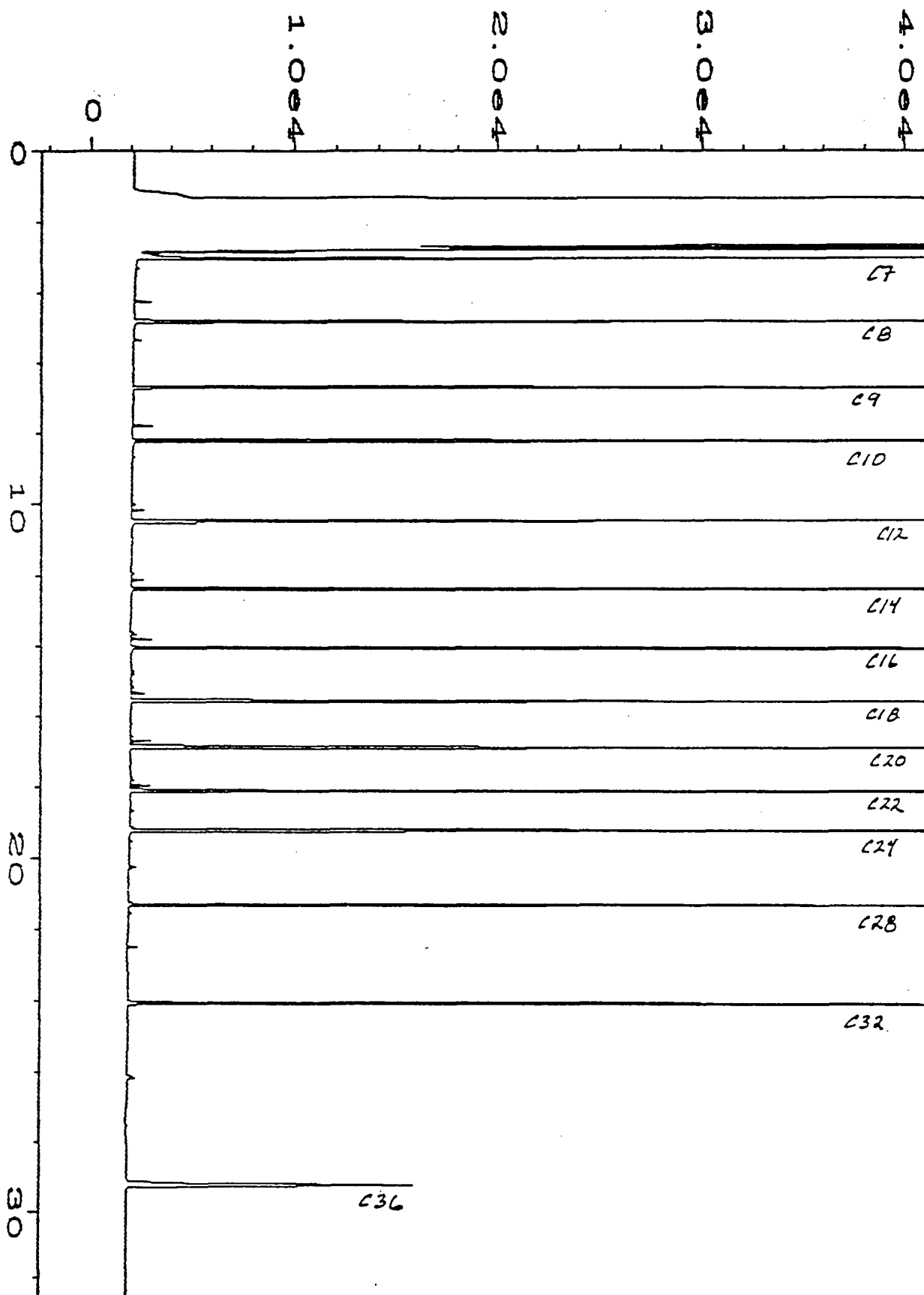
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perator	: CF & JE & KM	Vial Number	: 9
nstrument	: GC#1 5890	Injection Number	: 1
ample Name	: 506376-12*10	Sequence Line	: 5
un Time Bar Code:		Instrument Method:	SDF1219.MTH
quired on	: 19 Jun 95 03:49 PM	Analysis Method:	SDF1219.MTH



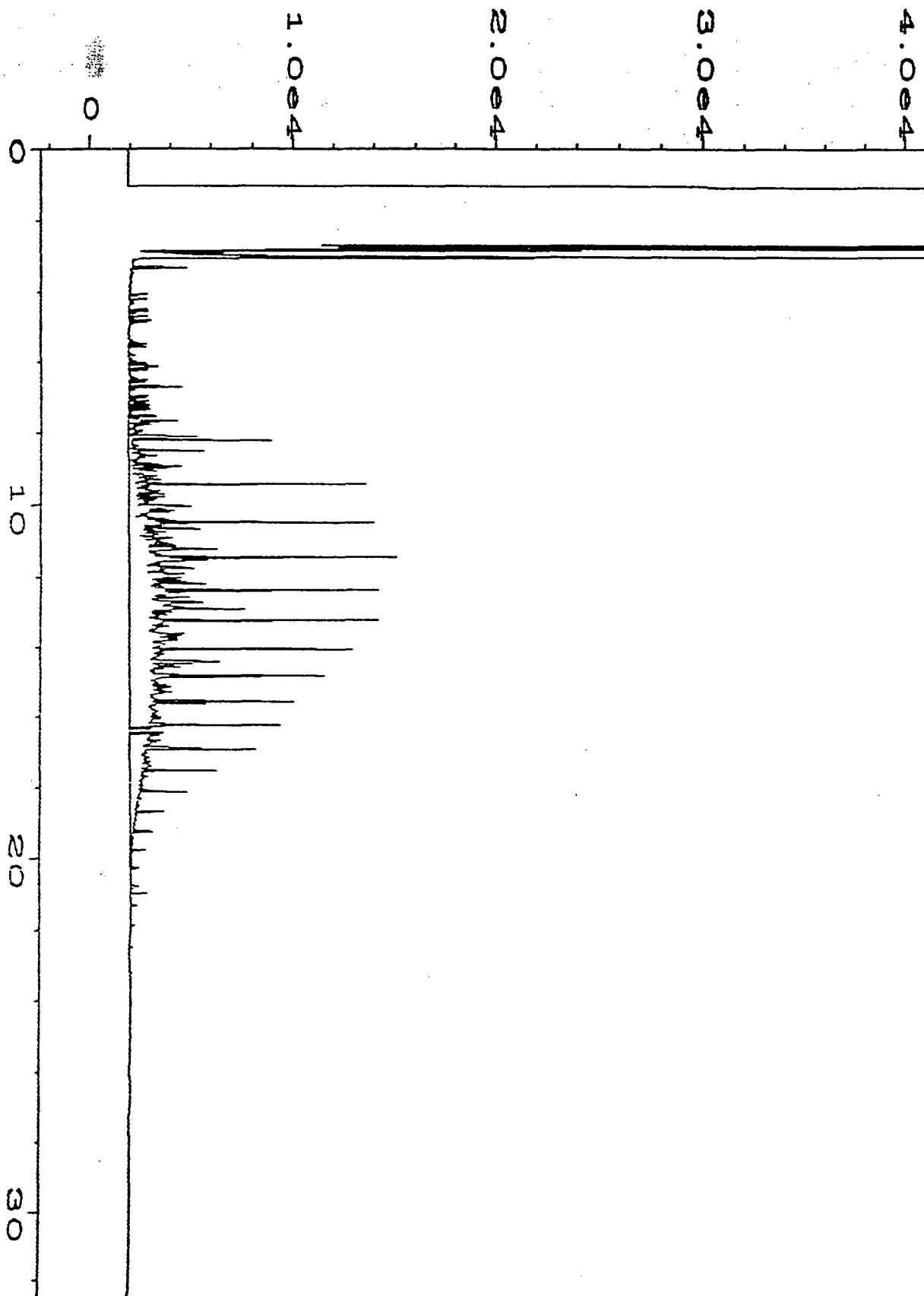
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ample Name	: 506376-13	Sequence Line	: 5
un Time Bar Code:		Method	: CDF1210.MTW



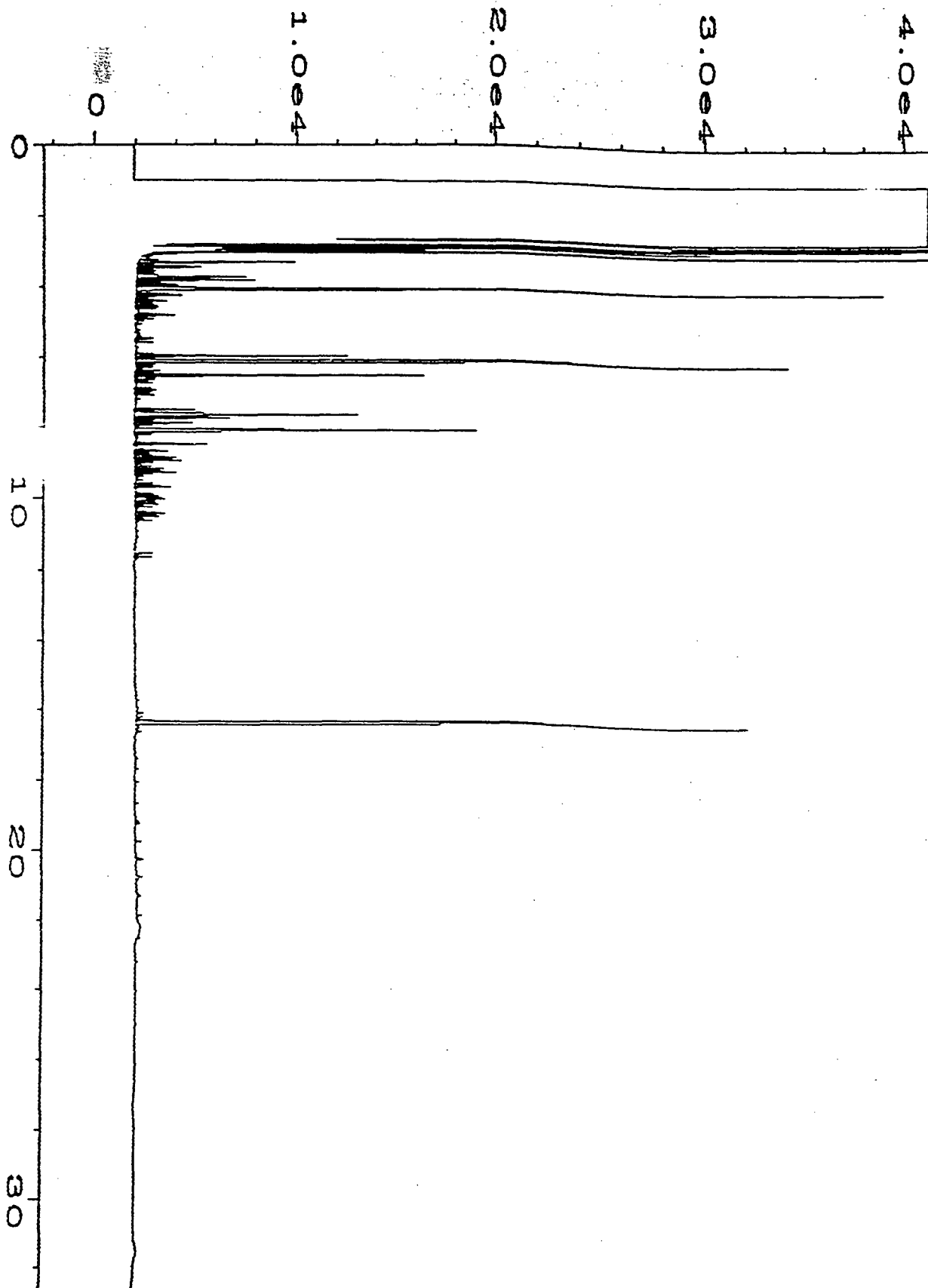
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nstrument	: GC#1 5890	Injection Number	: 1
ample Name	: 506376-15	Sequence Line	: 5
un Time Bar Code:			



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Operator	: CF & JE & KM	Vial Number	: 6
Instrument	: GC#1 5890	Injection Number	: 1
Sample Name	: RT STD	Sequence Line	: 3
Run Time Bar Code:		Instrument Method:	SDF1219.MTH
Acquired on	: 11 Apr 95 01:43 PM	Analysis Method	: SDF1219.MTH
Report Created on:	11 Apr 95 01:28 PM		



ata File Name	: C:\HPCHEM\1\DATA\16JUN95\015F0101.D	Page Number	: 1
perator	: CF & JE & KM	Vial Number	: 15
nstrument	: GC#1 5890	Injection Number	: 1
ample Name	: DSL	Sequence Line	: 1
un Time Bar Code:			



ata File Name	: C:\HPCHEM\1\DATA\16JUN95\021F0201.D	Page Number	: 1
operator	: CF & JE & KM	Vial Number	: 21
Instrument	: GC#1 5890	Injection Number	: 1
Sample Name	: GAS	Sequence Line	: 2
Run Time Bar Code:	17 JUN 95 05:00 AM		

EL PASO NATURAL GAS - FIELD SERVICES LAB

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

PIT PROJECT PHASE II Monitor Well Waters: 946841 to 946847

QA/QC for 6/01/95

LABORATORY DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S) (PPB)	DUPLICATE RESULT (D) (PPB)	RPD	ACCEPTABLE	
					YES	NO
946842					RANGE	
Benzene	2nd Run	5.52	5.45	1%	+/- 35 %	X
Toluene	2nd Run	33.3	32.8	2%	+/- 35 %	X
Ethyl benzene	2nd Run	0.79	0.80	1%	+/- 35 %	X
Total Xylenes	2nd Run	30.3	29.7	2%	+/- 35 %	X

Narrative: Acceptable.

LABORATORY CALIBRATION CHECKS, LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER	TYPE	KNOWN RESULT (PPB)	FOUND RESULT (PPB)	ZR	ACCEPTABLE	
					YES	NO
ICV 50 PPB std					RANGE	
Benzene	Standard	50.0	45.8	91.6	75 - 125 %	X
Toluene	Standard	50.0	47.0	93.9	75 - 125 %	X
Ethyl benzene	Standard	50.0	46.0	92.0	75 - 125 %	X
Total Xylenes	Standard	150	140.4	93.6	75 - 125 %	X
SAMPLE NUMBER	TYPE	KNOWN RESULT (PPB)	FOUND RESULT (PPB)	ZR	ACCEPTABLE	
					YES	NO
LCS 50 PPB					RANGE	
Benzene	Standard	50.0	44.8	90	39 - 150	X
Toluene	Standard	50.0	45.7	91	46 - 148	X
Ethyl benzene	Standard	50.0	44.0	88	32 - 160	X
Total Xylenes	Standard	150	134.9	90	Not Given	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE NUMBER	SPIKE ADDED (SA) PPB	SAMPLE RESULT (S) (PPB)	SPIKE SAMPLE RESULT (SR) (PPB)	ZR	ACCEPTABLE	
					YES	NO
946842					RANGE	
Benzene	50.0	5.52	45.2	79	75 - 125 %	X
Toluene	50.0	33.3	78	89	75 - 125 %	X
Ethyl benzene	50.0	0.79	45.0	88	75 - 125 %	X
Total Xylenes	150	30.3	168	92	75 - 125 %	X

Narrative: Matrix interference problems with this sample.

LABORATORY , REAGENT AND TRIP BLANKS:

SAMPLE ID	SOURCE	Component (PPB)	STATUS
Benzene	EPNG Water/MeOH	<2.5	ACCEPTABLE
Toluene	EPNG Water/MeOH	<2.5	ACCEPTABLE
Ethyl benzene	EPNG Water/MeOH	<2.5	ACCEPTABLE
Total Xylenes	EPNG Water/MeOH	<7.5	ACCEPTABLE

Narrative: Acceptable!

Approved By: *John L. Linder*

Date: 1-Jun-95

QUALITY CONTROL REPORT

Test by Modified 418.1 by Infrared

Date of Analysis: June 15, 1995

15 Samples

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 M3G9616)	HORIBA	200	213	107	X

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S)MG/KG	DUPLICATE RESULT (D)MG/KG	RPD	ACCEPTABLE RANGE + / - 35% YES NO
946898	2nd Extract	167	218	26.49	X
946900	2nd Extract	107	162	40.89	X
946905	2nd Extract	103	134	26.16	X

Narrative : Acceptable for samples 946898 and 946905.

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
946898	3040	167	3450	108	X
946900	3250	107	3510	105	X
946905	3000	103	3920	127	X

Narrative: Acceptable for samples 946898 and 946900.

REFERENCE SOIL (Laboratory Control Sample):

SAMPLE ID	SOURCE	KNOWN VALUE (MG/KG)	SAMPLE RESULT FOUND (MG/KG)	MFG SPECIFIED RANGE	ACCEPTABLE YES NO
ERA TPH STANDARD #1 LOT # 91026	ENVIRONMENTAL RESOURCE ASS.	1340	1460	804 - 1680	X
ERA TPH STANDARD #2 w/int LOT # 91026	ENVIRONMENTAL RESOURCE ASS.	2590	2820	1550 - 3240	X

Narrative: Acceptable.

LABORATORY REAGENT BLANK:

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

Narrative: Acceptable - reagent blank. Results for solvent blank missing. Same bottle of Freon used 6/19/95

Extracted: 06/15/95

Approved By:

John F. Lohr

Date: 28-Jun-95

EL PASO NATURAL GAS - FIELD SERVICES LAB

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

Sample 946898

QA/QC for 6/19/95

LABORATORY DUPLICATES:

SAMPLE NUMBER	TYPE	SAMPLE RESULT (S) (PPB)	DUPLICATE RESULT (D) (PPB)	RPD	ACCEPTABLE	
					YES	NO
946898					RANGE	
Benzene	2nd Run	<2.5	<2.5	0%	+/- 35 %	X
Toluene	2nd Run	<2.5	<2.5	0%	+/- 35 %	X
Ethyl benzene	2nd Run	<2.5	<2.5	0%	+/- 35 %	X
Total Xylenes	2nd Run	5.77	5.85	1.4%	+/- 35 %	X

Narrative: Acceptable.

LABORATORY CALIBRATION CHECKS, LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER	TYPE	KNOWN RESULT (PPB)	FOUND RESULT (PPB)	ZR	ACCEPTABLE	
					YES	NO
ICV 25 PPB std					RANGE	
Benzene	Standard	25.0	21.9	87.6	75 - 125 %	X
Toluene	Standard	25.0	21.0	84.0	75 - 125 %	X
Ethyl benzene	Standard	25.0	20.2	80.8	75 - 125 %	X
Total Xylenes	Standard	75.0	60.9	81.2	75 - 125 %	X
LCS 25 PPB					RANGE	
Benzene	Standard	25.0	18.5	74	39 - 150	X
Toluene	Standard	25.0	19.9	80	46 - 148	X
Ethyl benzene	Standard	25.0	19.8	79	32 - 160	X
Total Xylenes	Standard	75.0	60.0	80	Not Given	X

Narrative: Acceptable.

LABORATORY SPIKES:

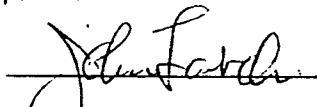
SAMPLE NUMBER	SPIKE ADDED (SA) PPB	SAMPLE RESULT (S) (PPB)	SPIKE SAMPLE RESULT (SR) (PPB)	ZR	ACCEPTABLE	
					YES	NO
946898					RANGE	
Benzene	50.0	0	41.2	82	75 - 125 %	X
Toluene	50.0	0	42.1	84	75 - 125 %	X
Ethyl benzene	50.0	0	45.1	90	75 - 125 %	X
Total Xylenes	150	5.77	152	97	75 - 125 %	X

Narrative: Acceptable.

LABORATORY , REAGENT AND TRIP BLANKS:

SAMPLE ID	SOURCE	Component (PPB)	STATUS
Benzene	EPNG Water/MeOH	<2.5	ACCEPTABLE
Toluene	EPNG Water/MeOH	<2.5	ACCEPTABLE
Ethyl benzene	EPNG Water/MeOH	<2.5	ACCEPTABLE
Total Xylenes	EPNG Water/MeOH	<7.5	ACCEPTABLE

Narrative: Acceptable!

Approved By: 

Date: 20-Jun-95

● **EPFS** ●

EL PASO FIELD SERVICES

QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 947962 - 947967

QA/QC for 10/29/96 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER ICV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	56.4	113	75 - 125 %	X
Toluene	Standard	50.0	55.9	112	75 - 125 %	X
Ethylbenzene	Standard	50.0	56.0	112	75 - 125 %	X
m & p - Xylene	Standard	100	111	111	75 - 125 %	X
o - Xylene	Standard	50.0	55.5	111	75 - 125 %	X
SAMPLE NUMBER LCS LA-45476 25 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	25.0	26.9	108	39 - 150	X
Toluene	Standard	25.0	27.0	108	46 - 148	X
Ethylbenzene	Standard	25.0	27.3	109	32 - 160	X
m & p - Xylene	Standard	50.0	55.0	110	Not Given	X
o - Xylene	Standard	25.0	27.3	109	Not Given	X
SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	56.3	113	75 - 125 %	X
Toluene	Standard	50.0	55.7	111	75 - 125 %	X
Ethylbenzene	Standard	50.0	55.6	111	75 - 125 %	X
m & p - Xylene	Standard	100	111	111	75 - 125 %	X
o - Xylene	Standard	50.0	55.5	111	75 - 125 %	X
SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	56.2	112	75 - 125 %	X
Toluene	Standard	50.0	55.6	111	75 - 125 %	X
Ethylbenzene	Standard	50.0	55.4	111	75 - 125 %	X
m & p - Xylene	Standard	100	110	110	75 - 125 %	X
o - Xylene	Standard	50.0	55.2	110	75 - 125 %	X

Narrative: Acceptable.

EL PASO FIELD SERVICES LAB

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

Samples: 947962 - 947967

LABORATORY DUPLICATES:

SAMPLE ID	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE	
					YES	NO
947962					RANGE	
Benzene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2.0	<2.0	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1.0	<1.0	0.00	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE	
					YES	NO
2nd Analysis 947962					RANGE	
Benzene	50	<1.0	56.6	113	75 - 125 %	X
Toluene	50	<1.0	56.9	114	75 - 125 %	X
Ethylbenzene	50	<1.0	56.0	112	75 - 125 %	X
m & p - Xylene	100	<2.0	112	112	75 - 125 %	X
o - Xylene	50	<1.0	55.8	112	75 - 125 %	X

Narrative: Acceptable

ADDITIONAL ANALYTICAL BLANKS:

AUTO BLANK	SOURCE	PPB	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (Analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (None analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

Reported By: mdaApproved By: [Signature]Date: 10/2/04

● **EPFS** ●

EL PASO FIELD SERVICES

QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 948040 - 948046

QA/QC for 12/11/96 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE NUMBER ICV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	45.5	91.0	75 - 125 %	X
Toluene	Standard	50.0	45.5	91.0	75 - 125 %	X
Ethylbenzene	Standard	50.0	45.4	90.8	75 - 125 %	X
m & p - Xylene	Standard	100	90.9	90.9	75 - 125 %	X
o - Xylene	Standard	50.0	45.7	91.4	75 - 125 %	X
SAMPLE NUMBER LCS LA-45476 25 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	25.0	22.8	91.2	39 - 150	X
Toluene	Standard	25.0	22.5	90.0	46 - 148	X
Ethylbenzene	Standard	25.0	22.6	90.4	32 - 160	X
m & p - Xylene	Standard	50.0	46.0	92.0	Not Given	X
o - Xylene	Standard	25.0	22.9	91.6	Not Given	X
SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	45.0	90.0	75 - 125 %	X
Toluene	Standard	50.0	43.8	87.6	75 - 125 %	X
Ethylbenzene	Standard	50.0	46.3	92.6	75 - 125 %	X
m & p - Xylene	Standard	100	90.1	90.1	75 - 125 %	X
o - Xylene	Standard	50.0	44.3	88.6	75 - 125 %	X
SAMPLE NUMBER CCV LA-52589 50 PPB	TYPE	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%R	ACCEPTABLE	
					YES	NO
					RANGE	
Benzene	Standard	50.0	43.3	86.6	75 - 125 %	X
Toluene	Standard	50.0	42.5	85.0	75 - 125 %	X
Ethylbenzene	Standard	50.0	42.2	84.4	75 - 125 %	X
m & p - Xylene	Standard	100	85.0	85.0	75 - 125 %	X
o - Xylene	Standard	50.0	42.4	84.8	75 - 125 %	X

Narrative: Acceptable.

EL PASO FIELD SERVICES LAB

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

Samples: 948040 - 948046

LABORATORY DUPLICATES:

SAMPLE ID	TYPE	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	ACCEPTABLE	
					YES	NO
948040					RANGE	
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	ACCEPTABLE	
					YES	NO
2nd Analysis 948040					RANGE	
Benzene	50	<1	45.2	90.4	75 - 125 %	X
Toluene	50	<1	44.7	89.4	75 - 125 %	X
Ethylbenzene	50	<1	44.6	89.2	75 - 125 %	X
m & p - Xylene	100	<2	88.7	88.7	75 - 125 %	X
o - Xylene	50	<1	44.7	89.4	75 - 125 %	X

Narrative: Results for benzene exceeded calibration range.

ADDITIONAL ANALYTICAL BLANKS:

AUTO BLANK	SOURCE	PPB	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (Analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (One analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

Reported By: mdcApproved By: John L. LaddDate: 12/16/96