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	GAS /
OPERATOR	
PRORATION OFFICE	

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-1
Effective 1-1-65

I. Operator
AMOCO PRODUCTION COMPANY

Address
501 Airport Drive Farmington, NM 87401

Reason(s) for filing (Check proper box)
New Well ☒ Change in Transporter of:
Recompletion ☐ Oil ☐ Dry Gas ☐
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☐

Other (Please explain)

If change of ownership give name
and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
Houck Gas Com "A"	1A	Blanco Mesaverde	State, Federal or Fee Federal	SF078199
Location				
Unit Letter	C	1020 Feet From The	North Line and	790 Feet From The
		West		
Line of Section	6	Township	29-N	Range 9-W, NMPM, San Juan County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)					
Plateau, Inc.	P.O. Box 108 Farmington, NM 87401					
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)					
El Paso Natural Gas Company	P.O. Box 990 Farmington, NM 87401					
If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	C	6	29N	9W	No	

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					
Date Spudded	Date Compl. Ready to Prod.		Total Depth		P.B.T.D.			
10/5/77	12/21/77		4752'		4719'			
Elevations (DF, RKB, RT, GR, etc.)	Name of Producing Formation		Top Oil/Gas Pay		Tubing Depth			
5742' GL, 5755' KB	Mesaverde		3818'		4631'			
Perforations 3818-26, 3891-3901, 3917-30, 3933-59, 4019-39, 4053-56, 4061-64, 4075-89, 4122-24, 4132-34, 4161-63, 4168-71, 4186-88, 4194-4201, 4228-35,					Depth Casing Shoe			
					4752'			
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE		DEPTH SET		SACKS CEMENT			
13-3/4"	9-5/8" casing		274'		300			
8-3/4"	7" casing		2670'		530			
6-1/4"	4-1/2" casing		2464-4752'		275			
	2-3/8" tubing		4631'					

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL (Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil - Bbls.	Water - Bbls.	Gas - MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
2572	3 hours		
Testing Method (pitot, back pr.)	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size
Back Pressure	684 psig	794 psig	0.75"

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

[Signature]
(Signature)
Area Administrative Supervisor
(Title)
1/11/78
(Date)

OIL CONSERVATION COMMISSION
APPROVED JAN 11 1978, 19
BY Original Signed by A. R. Kendrick
TITLE SUPERVISOR DIST. 201

This form is to be filed in compliance with RULE 1104.
If this is a request for allowable for a newly drilled or deeper well, this form must be accompanied by a tabulation of the deviate tests taken on the well in accordance with RULE 111.
All sections of this form must be filled out completely for all wells on new and recompleted wells.
Fill out only Sections I, II, III, and VI for changes of owner well name or number, or transporter, or other such change of condition.
Form C-104 must be filed for each well to which

Perforations Cont'd

4284-87, 4303-06, 4327-31, 4341-45, 4365-69, 4381-87, 4417-25, 4446-50, 4479-83, 4521-35,
4544-51, 4564-71, 4581-4602, 4635-41.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-104
Revised 10-01-78
Format 06-01-83
Page 1

REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

I. Operator
Amoco Production Company
Address
501 Airport Drive Farmington, NM 87401

Reason(s) for filing (Check proper box)
☐ New Well
☐ Recompletion
☐ Change in Ownership
 Change in Transporter of:
☐ Oil
☐ Gashead Gas
☐ Dry Gas
☒ Condensate
 Other (Please explain)

JAN 22 1985
OIL CONSERVATION DIVISION
DIST. #3

If change of ownership give name and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name: Houck Gas Com A
Well No.: 1A
Pool Name, including Formation: Blanco Mesaverde
Kind of Lease: State, Federal or Fee Federal
Lease No.: SF 078199
Location: Unit Letter C : 1020 Feet From The North Line and 790 Feet From The West
Line of Section 6 Township 29N Range 9W, NWPL: San Juan County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒
Permian Corp. Permian (Eff. 9/1/87)
Address (Give address to which approved copy of this form is to be sent)
P. O. Box 1702 Farmington, NM 87499
Name of Authorized Transporter of Gashead Gas ☐ or Dry Gas ☒
El Paso Natural Gas Company
Address (Give address to which approved copy of this form is to be sent)
P. O. Box 990 Farmington, NM 87401
If well produces oil or liquids, give location of tanks. Unit C Sec. 6 Twp. 29N Rge. 9W
Is gas actually connected? When

If this production is commingled with that from any other lease or pool, give commingling order number:

NOTE: Complete Parts IV and V on reverse side if necessary.

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given is true and complete to the best of my knowledge and belief.

B.D. Shaw
(Signature)
Admin. Supervisor
(Title)
1-2-85
(Date)

OIL CONSERVATION DIVISION 1985

APPROVED: Charles Sholton
BY: Charles Sholton
TITLE: DEPUTY OIL & GAS INSPECTOR, DIST. #3

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

District I
O. Box 1980, Hobbs, NM
District II
O. Drawer DD, Artesia, NM 88211
District III
100 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200
Address: 200 Amoco Court, Farmington, New Mexico 87401
Facility Or: Houck GC A1A
Well Name
Location: Unit or Qtr/Qtr Sec C Sec 6 T29N R9W County SAN JUAN
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: BLM ☐ State ☐ Fee ☐ Other Com. AGMT.

Pit Location: Depository Pit dimensions: length 21', width 21', depth 22'
(Att. to Dept. of Energy, Minerals and Natural Resources)
Reference: wellhead ☒ other ☐
DEC 11 9 1986
Bearing from reference: 157°
Direction from reference: 48 Degrees East North ☒
of
☒ West South ☐

Depth To Ground Water:
(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 Points) 10

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

Yes (20 points)
No (0 points) 0

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet (20 points)
200 feet to 1000 feet (10 points) 0
Greater than 1000 feet (0 points)

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: _____

Date Completed: 8/11/94

Remediation Method: Excavation ☒
(Check all appropriate sections) Landfarmed ☒

Approx. cubic yards 280

Insitu Bioremediation _____

Other _____

Remediation Location:
(ie. landfarmed onsite,
name and location of
offsite facility)

Onsite ☒ Offsite _____

General Description Of Remedial Action: _____

Excavation

Ground Water Encountered: _____

No ☒

Yes _____

Depth _____

Final Pit:

Closure Sampling:
(if multiple samples,
attach sample results
and diagram of sample
locations and depths)

Sample location see Attached Documents

MULTIPLE SAMPLES

Sample depth 23'

Sample date 8/11/94

Sample time 1044

Sample Results

Benzene(ppm) ND

Total BTEX(ppm) 0.074

Field headspace(ppm) 183

TPH 200 ppm

Ground Water Sample: Yes _____ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/15/94

SIGNATURE

B. Shaw

PRINTED NAME
AND TITLE

Buddy D. Shaw
Environmental Coordinator

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80049</u> C.O.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
------------------------------------	-------------------------------

LOCATION: NAME: <u>Howell GC</u> WELL #: <u>A1A</u> PIT: <u>SEP</u>	DATE STARTED: <u>8/11/94</u> DATE FINISHED: <u>8/11/94</u>
QUAD/UNIT: <u>C</u> SEC: <u>6</u> TWP: <u>29N</u> RNG: <u>9W</u> PM: <u>Nm</u> CNTY: <u>SJ</u> STNM:	ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>NE/4 NW/4</u> CONTRACTOR: <u>MOSS</u>	

SOIL REMEDIATION: EXCAVATION APPROX. <u>21</u> FT. x <u>21</u> FT. x <u>22</u> FT. DEEP.
DISPOSAL FACILITY: <u>LANDFARMED ON-SITE</u> CUBIC YARDAGE: <u>280</u>
LAND USE: <u>RANGE</u> LEASE: <u>SF-078199</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>157</u> FEET <u>N48W</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u><100</u> NEAREST WATER SOURCE: <u>>1000</u> NEAREST SURFACE WATER: <u>>1000</u>
NMOC D RANKING SCORE: <u>10</u> NMOC D TPH CLOSURE STD: <u>1000</u> PPM FORMATION: <u>MU</u>

SOIL AND EXCAVATION DESCRIPTION:

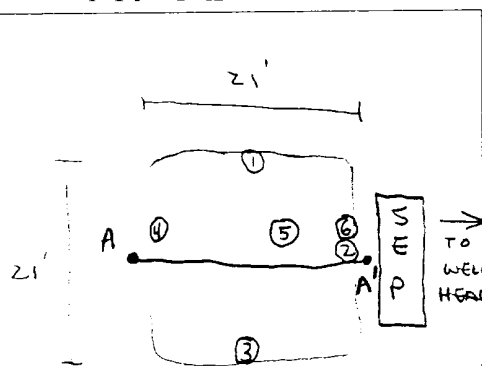
OK. YELL. ORANGE TO BROWN SAND, NON-COHESIVE, SLIGHTLY MOIST, FIRM STRONG HC ODOR IN EAST SIDEWALL DUM SAMPLE @ 18'. MED. GRAY SAND OBSERVED IN EAST & WEST SIDEWALLS APPROX. 17' BELOW GROUND SURFACE (POSSIBLY ALL RELATED TO HC CONTAMINATION).

FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
③ @ 18'	TPH-1067	10	20	10.1	162	6,480
⑤ @ 23'	TPH-1068	10	20	1:1	49	196

1042
1044
SCALE
0 FT

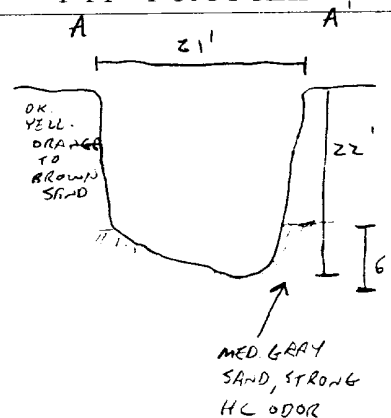
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 18'	7.3
2 @ 18'	1083
3 @ 16'	4.6
4 @ 16'	0.0
5 @ 23'	183.3
6 @ 16'	56.2
LAB SAMPLES	
⑤ @ 23'	BTEX (8020)

PIT PROFILE



TRAVEL NOTES: CALLOUT: <u>8/10/94</u> ONSITE: <u>8/11/94</u>
--

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client: Amoco
Sample ID: 2 @ 18'
Project Location: Houck GC A 1 A
Laboratory Number: TPH-1067

Project #:
Date Analyzed: 8-11-94
Date Reported: 8-11-94
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	6,500	200

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	5920	8160	27.45

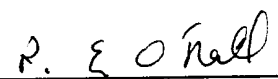
*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit - B0049



Analyst



Review

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client: Amoco
Sample ID: 5 @ 23'
Project Location: Houck GC A 1 A
Laboratory Number: TPH-1068

Project #:
Date Analyzed: 8-11-94
Date Reported: 8-11-94
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	200	20

ND = Not Detectable at stated detection limits.

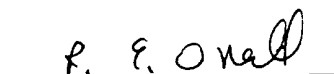
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	5920	8160	27.45

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total
Recoverable, Chemical Analysis of Water and Waste,
USEPA Storet No.4551, 1978

Comments: Separator Pit - B0049


Analyst


Review



**ON SITE
TECHNOLOGIES, LTD.**

AROMATIC VOLATILE ORGANICS

Attn: *Nelson Velez*
Company: *Blagg Engineering*
Address: *P. O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: 8/12/94
Lab ID: 1691
Sample ID: 2463
Job No. 2-1000

Project Name: *Houck GC A 1 A*
Project Location: *5 @ 23' - Separator Pit*
Sampled by: NV Date: 8/11/94
Analyzed by: DLA Date: 8/12/94
Sample Matrix: *Soil*

Time: 10:44

Aromatic Volatile Organics

Component	**Measured Concentration ug/kg
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>9.6</i>
<i>Ethylbenzene</i>	<i>17.4</i>
<i>m,p-Xylene</i>	<i>37.9</i>
<i>o-Xylene</i>	<i>9.0</i>
TOTAL	73.9 ug/kg

ND - Not Detectable

** - Method Detection Limit, 2 ug/kg

**Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by
Gas Chromatography**

Approved by: *Bill Vanden, Ph.D.*
Date: *8/12/94*

DEPT. OF ENVIRONMENT & NATURAL RESOURCES
EL PASO FIELD SERVICES
PRODUCTION PIT CLOSURE

DEC 1 1998

Approved

HOUCK GC A 1A
Meter/Line ID - 89881

RECEIVED
JUL 2 1998

SITE DETAILS

Legals - Twn: 29 Rng: 09
NMOCD Hazard Ranking: 40
Operator: AMOCO PRODUCTION COMPANY

Sec: 06 Unit: D
Land Type: 2 - Federal

OIL CON. DIV.
DIST. 3

Pit Closure Date: 01/26/95

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	<p>Meter: <u>89881</u> Location: <u>Hovck GC A1A</u> Operator #: <u>0203</u> Operator Name: <u>Amoro</u> P/L District: <u>Bloomfield</u> Coordinates: Letter: <u>D</u> Section <u>6</u> Township: <u>29</u> Range: <u>9</u> Or Latitude _____ Longitude _____ Pit Type: Dehydrator <input checked="" type="checkbox"/> Location Drip: _____ Line Drip: _____ Other: _____ Site Assessment Date: <u>1/16/95</u> Area: <u>10</u> Run: <u>83</u></p>																
SITE ASSESSMENT	<p>NMOCD Zone: (From NMOCD Maps)</p> <p>Land Type:</p> <table border="0"> <tr> <td>Inside</td><td><input checked="" type="checkbox"/> (1)</td> <td>BLM</td><td><input checked="" type="checkbox"/> (1)</td> </tr> <tr> <td>Outside</td><td><input type="checkbox"/> (2)</td> <td>State</td><td><input type="checkbox"/> (2)</td> </tr> <tr> <td></td><td></td> <td>Fee</td><td><input type="checkbox"/> (3)</td> </tr> <tr> <td></td><td></td> <td>Indian</td><td>_____</td> </tr> </table> <p>Depth to Groundwater</p> <p>Less Than 50 Feet (20 points) <input checked="" type="checkbox"/> (1) 50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2) Greater Than 100 Ft (0 points) <input type="checkbox"/> (3)</p> <p>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? <input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p>Horizontal Distance to Surface Water Body</p> <p>Less Than 200 Ft (20 points) <input checked="" type="checkbox"/> (1) 200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2) Greater Than 1000 Ft (0 points) <input type="checkbox"/> (3)</p> <p>Name of Surface Water Body <u>Vaca Canyon (off San Juan R.)</u> (Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) < 100' (Navajo Pits Only) <input type="checkbox"/> (2) > 100'</p> <p>TOTAL HAZARD RANKING SCORE: <u>40</u> POINTS</p>	Inside	<input checked="" type="checkbox"/> (1)	BLM	<input checked="" type="checkbox"/> (1)	Outside	<input type="checkbox"/> (2)	State	<input type="checkbox"/> (2)			Fee	<input type="checkbox"/> (3)			Indian	_____
Inside	<input checked="" type="checkbox"/> (1)	BLM	<input checked="" type="checkbox"/> (1)														
Outside	<input type="checkbox"/> (2)	State	<input type="checkbox"/> (2)														
		Fee	<input type="checkbox"/> (3)														
		Indian	_____														
REMARKS	<p>Remarks : <u>Redline Book: Inside</u> <u>Vulnerable Zone Type: Inside</u> <u>3 pits. Close. No dehy on pit</u> <u>DIG + Haul</u></p>																

ORIGINAL PIT LOCATION

REMARKS

Pictures @ 0819 hr 1-4 call - 1

Cory Chene
Signature

1/16/95
Date

PHASE I EXCAVATION

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	<p>Meter: <u>89881</u> Location: <u>Howick GC A1A</u></p> <p>Coordinates: Letter: <u>D</u> Section <u>6</u> Township: <u>29</u> Range: <u>9</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>1-26-95</u> Run: <u>10</u> <u>83</u></p>
FIELD OBSERVATIONS	<p>Sample Number(s): <u>KP 395</u></p> <p>Sample Depth: <u>12'</u> Feet</p> <p>Final PID Reading <u>395</u> PID Reading Depth <u>12'</u> Feet</p> <p style="text-align: center;">Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
CLOSURE	<p>Remediation Method :</p> <p>Excavation <input checked="" type="checkbox"/> Approx. Cubic Yards <u>90</u></p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/> <u>KP</u></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> <input checked="" type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>1-26-95</u> Pit Closed By: <u>B.E.I.</u></p>
REMARKS	<p>Remarks : <u>same line markers started Remediating to 12'</u></p> <p><u>Soil turned dark gray with H.C odor. At 12' soil still</u></p> <p><u>The same gray looking with a H.C odor.</u></p>
	<p>Signature of Specialist: <u>Kelly Padilla</u></p>



FIELD SERVICES LABORATORY

ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KP 395	9416404
MTR CODE SITE NAME:	89881	N/A
SAMPLE DATE TIME (Hrs):	1-26-95	1145
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	1-28-95	1-28-95
DATE OF BTEX EXT. ANAL.:	1/29/95	1/31/95
TYPE DESCRIPTION:	VC	Dark Gray sand and clay

REMARKS:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	4.14	MG/KG	0.88889		2.25	20
TOLUENE	238	MG/KG				
ETHYL BENZENE	45.2	MG/KG				
TOTAL XYLENES	429	MG/KG				
TOTAL BTEX	716	MG/KG				
TPH (418.1)	4360	MG/KG			0.32	28
HEADSPACE PID	395	PPM				
PERCENT SOLIDS	89.4	%				

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

The Surrogate Recovery was at 98.6 % for this sample All QA/QC was acceptable.
Narrative:

DF = Dilution Factor Used

Approved By: JSDate: 2-22-95

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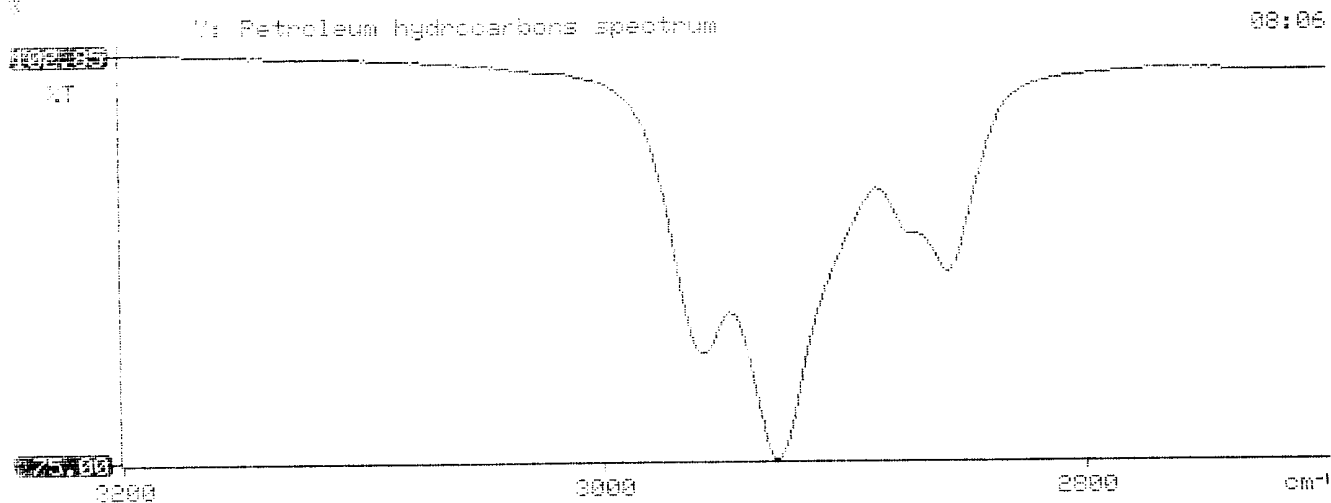
*****
*                                     *
*      Test Method for               *
*      Oil and Grease and Petroleum Hydrocarbons *
*      in Water and Soil             *
*                                     *
*      Perkin-Elmer Model 1600 FT-IR *
*      Analysis Report               *
*****

```

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03/01/88 08:05
*
* Sample Identification
* 704604
*
* Initial mass of sample, g
* 0.320
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 6355.293
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.134
*
*
*

```



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BTEX SOIL SAMPLE WORKSHEET

File	:	946604B	Date Printed	:	2/1/95
Soil Mass (g)	:	2.25	Multiplier (L/g)	:	0.00222
Extraction vol. (mL)	:	20	DF (Analytical)	:	400
Shot Volume (uL)	:	50	DF (Report)	:	0.88889

			Det. Limit	
Benzene (ug/L)	:	4.66	Benzene (mg/Kg): 4.142	4.444
Toluene (ug/L)	:	267.26	Toluene (mg/Kg): 237.564	4.444
Ethylbenzene (ug/L)	:	50.80	Ethylbenzene (mg/Kg): 45.156	4.444
p & m-xylene (ug/L)	:	379.72	p & m-xylene (mg/Kg): 337.529	8.889
o-xylene (ug/L)	:	102.94	o-xylene (mg/Kg): 91.502	4.444
			Total xylenes (mg/Kg): 429.031	13.333
			Total BTEX (mg/Kg): 715.893	

EL PASO NATURAL GAS**EPA METHOD 8020 - BTEX SOILS**

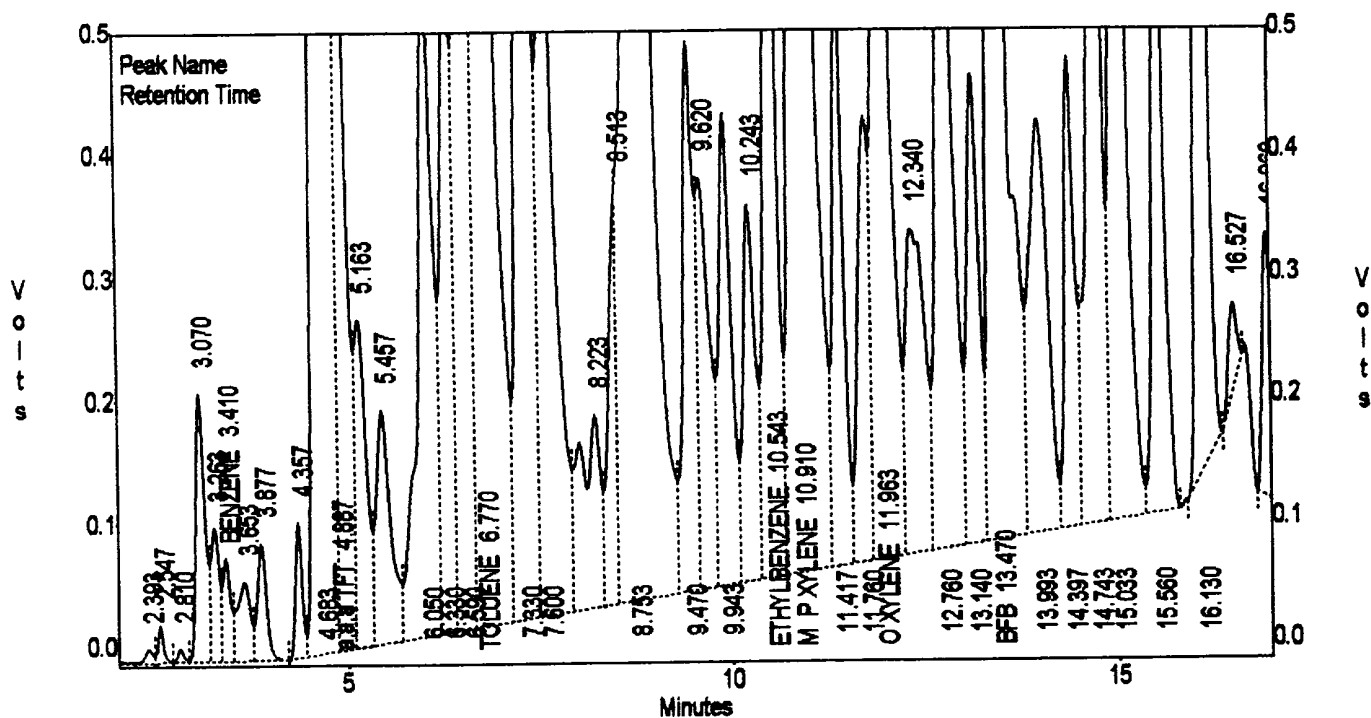
File : C:\LABQUEST\CHROM001\946604B
 Method : C:\LABQUEST\METHODS\9001.MET
 Sample ID : 946604.2.25G/50uL
 Acquired : Feb 01, 1995 04:11:56
 Printed : Feb 01, 1995 04:38:09
 User : Tony

Channel A Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.410	599560	121531.74219	4.6544
a,a,a TFT	4.887	7775588	32055.68359	238.6364
TOLUENE	6.770	66045752	314479.71875	267.2552
ETHYLBENZENE	10.543	11454631	228573.29688	50.8031
M & P XYLENE	10.910	95595096	316768.40625	379.7224
O XYLENE	11.963	22684752	221087.17188	102.9386
BFB	13.470	94057160	944778.31250	98.6344

Totals :
 298212544 1142.6444

C:\LABQUEST\CHROM001\946604B - Channel A

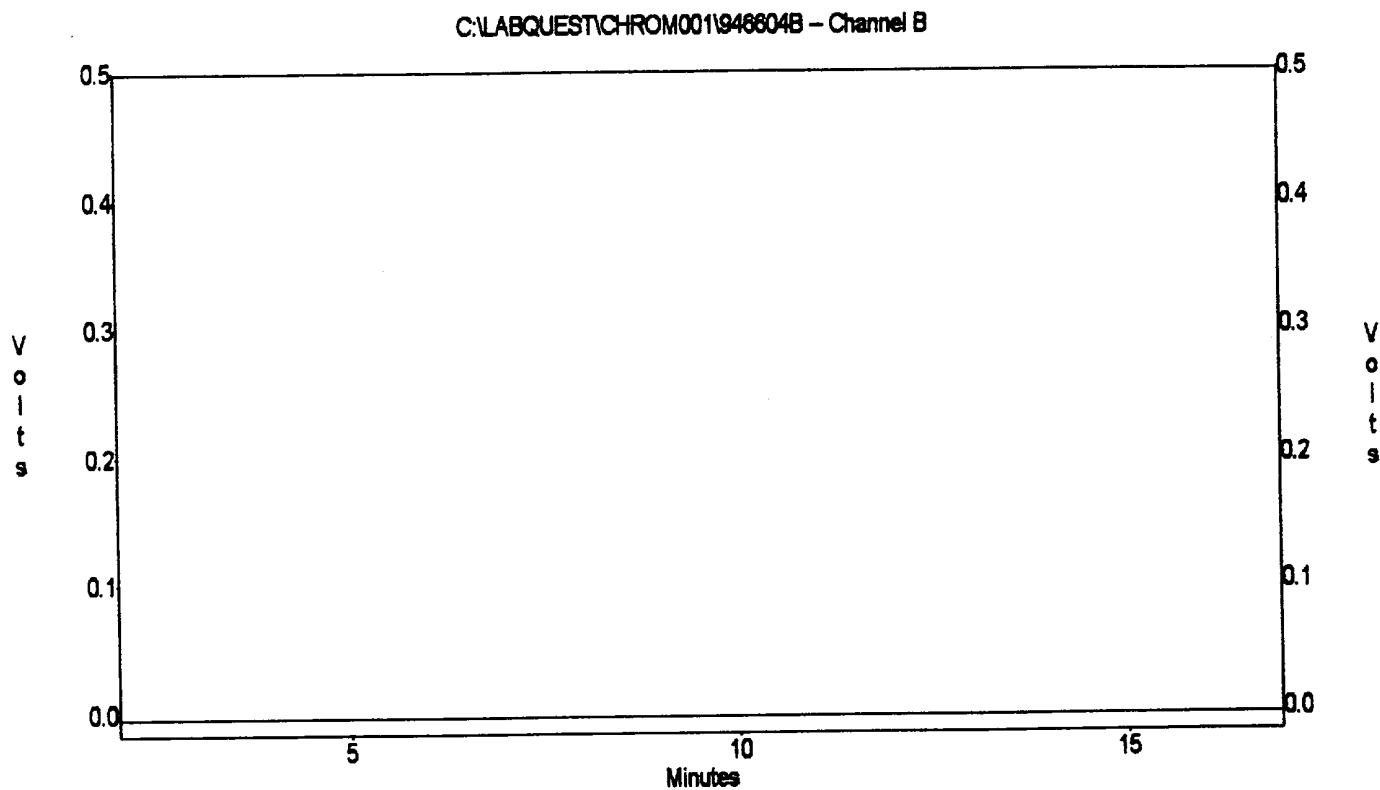


**EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS**

File : C:\LABQUEST\CHROM001\946604B
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 946604.2.25G/50uL
Acquired : Feb 01, 1995 04:11:56
Printed : Feb 01, 1995 04:38:15
User : Tony

Channel B Results

COMPONENT	RET TIME	AREA	AVG RF	CONC (ug/L)
BENZENE	3.450	0	0.00000	0.0000
a,a,a TFT	4.950	0	0.00000	0.0000
TOLUENE	6.787	0	0.00000	0.0000
ETHYLBENZENE	10.480	0	0.00000	0.0000
M & P XYLENE	10.833	0	0.00000	0.0000
O XYLENE	11.900	0	0.00000	0.0000
BFB	13.400	0	0.00000	0.0000
Totals :		0		0.0000



PHASE II

RECORD OF SUBSURFACE LOCATION

PHILIP ENVIRONMENTAL

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

Borehole # BH-1
Well # _____
Page 1 of 2

Project Name EPNL PITS
Project Number 14509 Phase 6000 77
Project Location HUCK GC A1A 89881

Elevation _____
Borehole Location _____
GWL Depth _____
Logged By CM Chance
Drilled By M. Denehue
Date/Time Started 5/23/95 - 0605
Date/Time Completed 5/23/95 - 1010

Well Logged By CM Chance
Personnel On-Site M. Denehue, K. Padilla, F. River
Contractors On-Site _____
Client Personnel On-Site _____
Drilling Method 4 1/4 I.D. HSA
Air Monitoring Method P10, CBT

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: <u>NDOS</u> BZ BH HS			Drilling Conditions & Blow Counts
0				Backfill to 12'						
15	1	15-17	9"	Gry silty SAND, vf-F sand, loose, sl moist odor			6	300	637 1391	0621
20	2	20-22	8"	AA			0	180	650 1900	0627
25	3	25-27	12"	Gry silty SAND, F-med sand, loose, sl moist, odor			0	200	860 1376	0642
30	4	30-32	8"	AA			11	300	657 1100	0649
35	5	35-37	12"	AA			-8	400	720 1205	Drilling Harder 0702
40	6	40-42	10"	Gry sand CLAY, vf sand, soft, med plastic, odor, sl moist			0	280	700 1400	0710

Comments:

Geologist Signature _____

RECORD OF SUBSURFACE EXPLORATION

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

Borehole # BH-1
Well # _____
Page 2 of 2

Project Name EPNL PITS
Project Number 14509 Phase 6000 77
Project Location Havck BC AIA #9881

Elevation _____
Borehole Location _____
GWL Depth _____
Logged By C.M. Chance
Drilled By M. Danaher
Date/Time Started _____
Date/Time Completed _____

Well Logged By C.M. Chance
Personnel On-Site M. Danaher, K. Padilla
Contractors On-Site _____
Client Personnel On-Site _____

Drilling Method 4 1/4 I.O. HSA
Air Monitoring Method PIO, CBT

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: <u>NDOS</u>			Drilling Conditions & Blow Counts
							BZ	BH	HS	
40										
45	7	45-47	11"	BLK sandy CLAY, vF sand, med stiff, med plastic, sl moist, odor			6	180	800 1040	-0724
50	8	50-52	8"	BLK silty SAND, vF-F sand, med dense, strong odor, sl moist			4	175	850 1319	-0735
55	9	55-57	8"	Br silty CLAY, tr vF sand, stiff, med plastic, dry			3	20	172 257	-0753
60	10	60-62	8"	Br silty CLAY, Hard, low plastic, dry			0	20	89 104	-0824
65	11	64.5-65	5"	Gray silty CLAY, tr vF sand, hard, non plastic, dry			0	18	65 83	-Refusal @ 64.5 0851
				TDB 64.5						
70										
75										
80										

Comments: 64.5-65 sample submitted total (RTEX, TPH) CMC19

Geologist Signature _____



**FIELD SERVICES LABORATORY
ANALYTICAL REPORT**

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	cmc19	946830
MTR CODE SITE NAME:	89881	N/A
SAMPLE DATE TIME (Hrs):	5-23-95	0851
SAMPLED BY:	N/A	
DATE OF TPH EXT. ANAL.:	5/25/95	5/25/95
DATE OF BTEX EXT. ANAL.:	5-30-95	6-1-95
TYPE DESCRIPTION:	VG	light grey sand and clay

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	0.049	MG/KG	1			
TOLUENE	0.45	MG/KG	1			
ETHYL BENZENE	0.047	MG/KG	1			
TOTAL XYLENES	0.43	MG/KG	1			
TOTAL BTEX	0.976	MG/KG				
TPH (418.1)	44.1	MG/KG			1.98	28
HEADSPACE PID	83	PPM				
PERCENT SOLIDS	91.5	%				

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

The Surrogate Recovery was at 99 % for this sample All QA/QC was acceptable.
Narrative: _____

All results attached

DF = Dilution Factor Used

Approved By: _____

John L. Ladd

Date: _____

6/8/95

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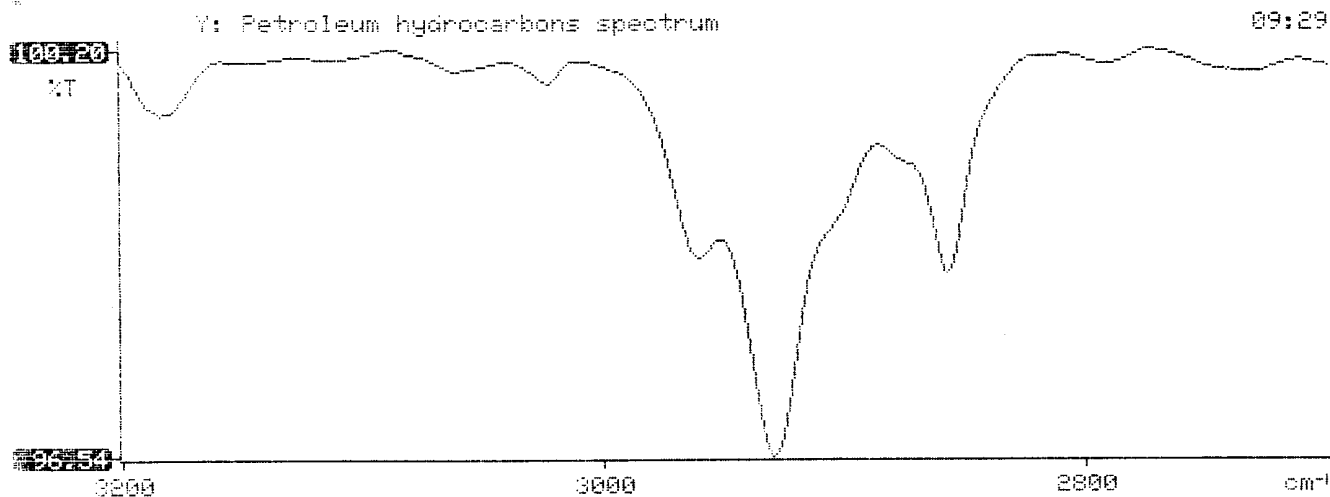
*****
*                               *
*      Test Method for          *
*      Oil and Grease and Petroleum Hydrocarbons      *
*      in Water and Soil        *
*                               *
*      Perkin-Elmer Model 1600 FT-IR                    *
*      Analysis Report                      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

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```

75/05/25  09:28
*
* Sample identification
* 946E30
*
* Initial mass of sample, g
* 1.780
*
* Volume of sample after extraction, ml
* 28.000
*
* Petroleum hydrocarbons, ppm
* 44.090
* Net absorbance of hydrocarbons (2930 cm-1)
* 0.016

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ILLEGIBLE



Analytical **Technologies**, Inc.

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

ATI I.D. 505394

June 5, 1995

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

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 05/26/95, 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



GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 505394
PROJECT # : 24324
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	946830	NON-AQ	05/23/95	05/30/95	06/01/95	1
02	946831	NON-AQ	05/23/95	05/30/95	06/01/95	1
03	946832	NON-AQ	05/23/95	05/30/95	06/01/95	1
PARAMETER			UNITS	01	02	03
BENZENE			MG/KG	0.049	<0.025	<0.025
TOLUENE			MG/KG	0.45	3.4	<0.025
ETHYLBENZENE			MG/KG	0.047	0.37	<0.025
TOTAL XYLENES			MG/KG	0.43	6.2	0.032

SURROGATE:

BROMOFLUOROBENZENE (%) 99 110 105