

District I *Denise L. Frost*  
P O Box 980, Hobbs, NM  
DEPUTY OIL & GAS INSPECTOR  
District II  
P O Drawer DD, Artesia, NM 88221

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

2040 South Pacheco Street  
Santa Fe, New Mexico 87505

District III  
1000 Rio Brazos Rd, Aztec, NM 87401  
FEB 28 1997  
*Approved*

**PIT REMEDIATION AND CLOSURE REPORT**

**RECEIVED**  
OCT 31 1996

**OIL CON. DIV.**  
DIST. 3

<b>Operator:</b> PNM Gas Services ( Meridian )		<b>Telephone:</b> 324-3764	
<b>Address:</b> 603 W. Elm Street Farmington, NM 87401			
<b>Facility or Well Name:</b> Reid #21E			
<b>Location:</b>	Unit: 1	Sec. 19	T. 28 N R. 9 W County San Juan
<b>Pit Type:</b>	Separator <input checked="" type="checkbox"/>	Dehydrator <input type="checkbox"/>	Other <input type="checkbox"/>
<b>Land Type:</b>	BLM <input type="checkbox"/>	State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/> Other <input type="checkbox"/>
<b>Pit Location:</b>	Pit dimensions: length 20 width 20 depth 3		
(Attach diagram)	Reference: wellhead <input checked="" type="checkbox"/> other <input type="checkbox"/>		
	Footage from reference: 113		
	Direction from reference: 60 Degrees <input type="checkbox"/> East North <input checked="" type="checkbox"/> of <input checked="" type="checkbox"/> West South <input type="checkbox"/>		
<b>Depth to Ground Water:</b>	(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
<b>Wellhead Protection Area:</b>	(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)		
	Yes (20 points)		
	No (0 points)		0
<b>Distance to Surface Water:</b>	(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)		
	Less than 200 feet (20 points)		
	200 feet to 1,000 feet (10 points)		
	Greater than 1,000 feet (0 points)		0
<b>RANKING SCORE (TOTAL POINTS):</b>			10

**Date Remediation Started:** 8/19/96 **Date Completed:** 8/19/96

**Remediation Method:** Excavation X Approx. Cubic Yard 240

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 180

Other \_\_\_\_\_

**Remediation Location:** Onsite X Offsite \_\_\_\_\_  
(i.e., landfarmed onsite, name and location of offsite facility)

**Backfill Material Location:** \_\_\_\_\_

**General Description of Remedial Action:**

Excavated contaminated soil to pit size of 20'x18'x18' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by plowing/disking until soil met regulatory levels.

**Ground Water Encountered:** No ✓ Yes \_\_\_\_\_ Depth \_\_\_\_\_

**Final Pit Closure Sampling:**

Sample Location 5 pt composite-4 side walls and center of pit bottom

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth 18'

Sample date 8/19/96 Sample time 11:15:00 AM

**Sample Results**

Benzene (ppm) 0.0166

Total BTEX (ppm) 7.5269

Field headspace (ppm) \_\_\_\_\_

TPH 131.70 Method 8015A

Vertical Extent (ft) \_\_\_\_\_ Risk Assessment form attached Yes ✓ No \_\_\_\_\_

**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 MY BELIEF

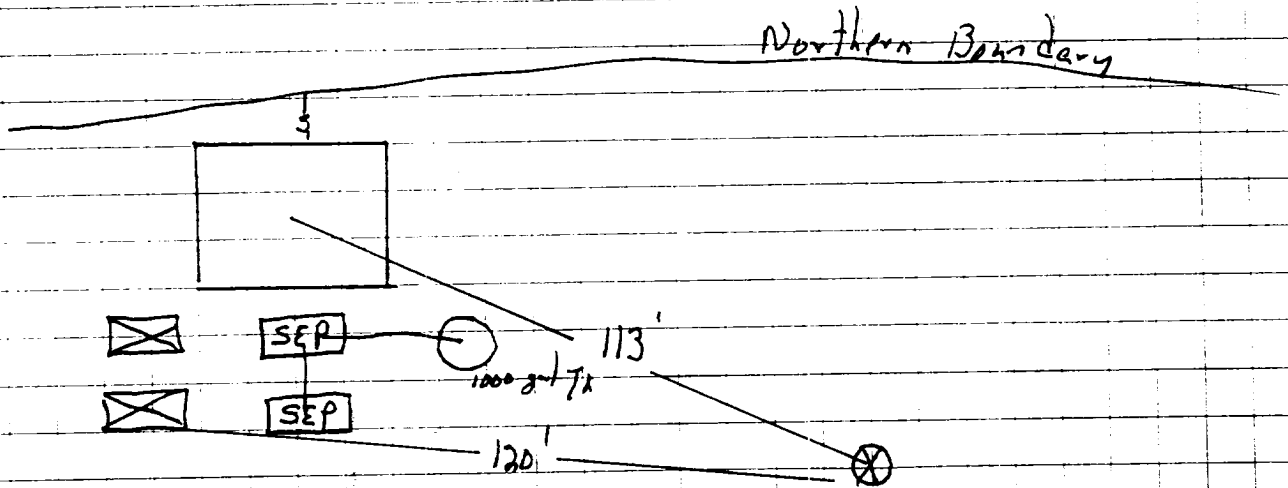
DATE October 25, 1996

SIGNATURE Maureen Gannon

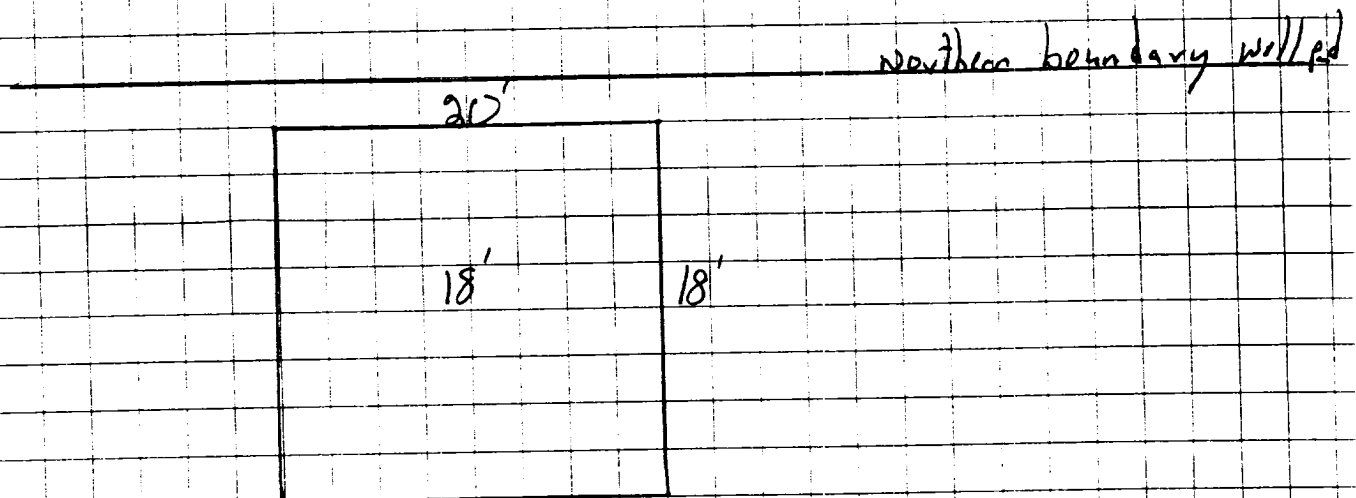
PRINTED NAME AND TITLE Maureen Gannon  
Environmental Engineer

Reid # 21-E  
Meridian Oil  
Sec. 19, 28N, 9W, I

8-19-96



Excavated Pit =  $20 \times 18 \times 18 = 240 \text{ yds}$



OFF: (505) 325-5667



LAB: (505) 325-1556

### *Diesel Range Organics*

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *21-Aug-96*  
COC No.: *4973*  
Sample No. *11824*  
Job No. *2-1000*

Project Name: *PNM Gas Services - Reid #21-E*  
Project Location: *9608191115; 5pt. Composite, 4 Walls @ 16' and Bottom @ 18'*  
Sampled by: GC Date: *19-Aug-96* Time: *11:15*  
Analyzed by: DC Date: *21-Aug-96*  
Sample Matrix: *Soil*

### *Laboratory Analysis*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>131.7</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>

### *Quality Assurance Report*

DRO QC No.: *0489-QC*

#### *Calibration Check*

<i>Parameter</i>	<i>Method Blank</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Diesel Range (C10 - C28)</i>	<i>&lt;5.0</i>	<i>ppm</i>	<i>100</i>	<i>107</i>	<i>7.2</i>	<i>15%</i>

#### *Matrix Spike*

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Diesel Range (C10-C28)</i>	<i>88</i>	<i>101</i>	<i>(70-130)</i>	<i>10</i>	<i>20%</i>

**Method** - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*  
Date: *8/21/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

### AROMATIC VOLATILE ORGANICS

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *21-Aug-96*  
COC No.: *4973*  
Sample No. *11824*  
Job No. *2-1000*

Project Name: *PNM Gas Services - Reid #21-E*  
Project Location: *9608191115; 5pt. Composite, 4 Walls @ 16' and Bottom @ 18'*  
Sampled by: *GC* Date: *19-Aug-96* Time: *11:15*  
Analyzed by: *DC* Date: *21-Aug-96*  
Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Benzene</i>	16.6	ug/kg	0.2	ug/kg
<i>Toluene</i>	143.3	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	1976.4	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	4539.7	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	850.9	ug/kg	0.2	ug/kg
	<i>TOTAL</i>	7526.9	ug/kg	

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

Approved by: *JAC*  
Date: *8/21/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Reid # 21-E  
Meridian Oil  
Sec. 19, 28N, 9W

9-12-96

Land Farm: On location  
composite sample # 9609121255 6 pt  
soil vapor PID reading = 13.6 ppm

⊗

2.2	3.6	5.7
φ	7.7	8.1

2'-12" depth  
sand

OFF: (505) 325-5667



LAB: (505) 325-1556

### Diesel Range Organics

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: 16-Sep-96  
COC No.: 5035  
Sample No. 12138  
Job No. 2-1000

Project Name: **PNM Gas Services - Reid #21-E Landfarm**  
Project Location: **9609121255; 6pt. Composite, 2"-12" depth**  
Sampled by: GC Date: 12-Sep-96 Time: 12:55  
Analyzed by: HR Date: 14-Sep-96  
Sample Matrix: Soil

### Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Diesel Range Organics (C10 - C28)	115.9	mg/kg	5.0	mg/kg

### Quality Assurance Report

DRO QC No.: 0489-QC

### Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Diesel Range (C10 - C28)	<5.0	ppm	100	104	3.8	15%

### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Diesel Range (C10-C28)	82	96	(70-130)	11	20%

**Method** - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*  
Date: 9/16/96