

District I  
P. O. Box 1980, Hobbs, NM

District II  
P. O. Drawer DD, Artesia, NM 88221

District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Street  
Santa Fe, New Mexico 87505

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

**PIT REMEDIATION AND CLOSURE REPORT**

**Operator:** PNM Gas Services ( SRC ) **Telephone:** 324-3764

**Address:** 603 W. Elm Street Farmington, NM 87401

**Facility or Well Name:** Cain #23

**Location:** Unit: A Sec. 16 T. 28 N R. 10 W County San Juan

**Pit Type:** Separator ☐ Dehydrator ☐ Other Drip

**Land Type:** BLM ☒ State ☐ Fee ☐ Other ☐

**Pit Location:** Pit dimensions: length 20 ' width 20 ' depth 3 '

(Attach diagram) Reference: wellhead ☒ other ☐

Footage from reference: 130'

Direction from reference: 30 Degrees ☐ East ☐ North ☐ of ☒ West ☒ South ☒

**Depth to Ground Water:**

Less than 50 feet	(20 points)	
50 feet to 99 feet	(10 points)	
Greater than 100 feet	( 0 points)	<u>0</u>

(Vertical distance from contaminants to seasonal high water elevation of ground water)

**Wellhead Protection Area:**

Yes	(20 points)	
No	( 0 points)	<u>0</u>

(Less than 200 feet from a private domestic water source, or; less than 1,000 feet from all other water sources)

**Distance to Surface Water:**

Less than 200 feet	(20 points)	
200 feet to 1,000 feet	(10 points)	
Greater than 1,000 feet	( 0 points)	<u>0</u>

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

**RANKING SCORE (TOTAL POINTS) :** 0

Date Remediation Started:

9/9/96

Date Completed:

9/11/96

Remediation Method:

Excavation

☒

Approx. Cubic Yard

238

(Check all appropriate sections)

Landfarmed

☒

Amount Landfarmed (cubic yds)

238

Other

Remediation Location:

Onsite

☒

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 18'x21'x17' 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'-pit bottom

Sample date

9/9/96

Sample time

10:30:00 AM

Sample Results

Benzene (ppm)

0.0189

Total BTEX (ppm)

1.6248

Field headspace (ppm)

TPH

5.6

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

January 22, 1997

SIGNATURE



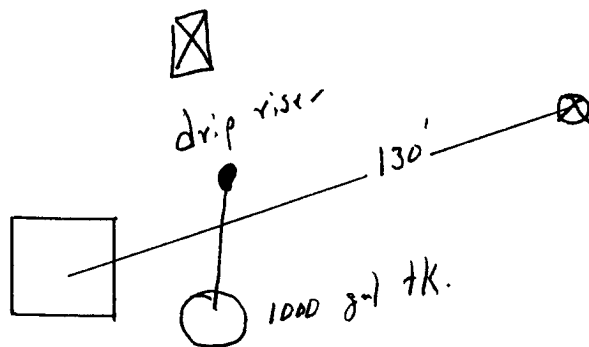
PRINTED NAME  
AND TITLE

Denver Bearden  
Administrator III

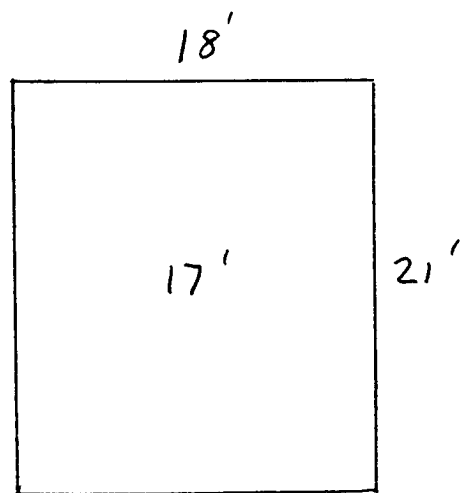
Cain #23  
Meridian 0:1  
Sec. 16, 28N, 10W

9-9-96

Start of excavation:



excavated pit:  $18' \times 21' \times 17' = 238 \text{ yds.}$



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: *11-Sep-96*  
 COC No.: *5021*  
 Sample No. *12064*  
 Job No. *2-1000*

Project Name: *PNM Gas Services - Cain #23*  
 Project Location: *9609091030; 5pt. Composite, 4 Walls @ 16' and Bottom @18'*  
 Sampled by: *GC* Date: *9-Sep-96* Time: *10:30*  
 Analyzed by: *DC* Date: *11-Sep-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>5.6</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>99</i>	<i>0.6</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>98</i>	<i>114</i>	<i>(70-130)</i>	<i>11</i>	<i>20%</i>

**Method** - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas ChromatographyApproved by: *[Signature]*Date: *9/12/96*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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: *12-Sep-96*  
COC No.: *5021*  
Sample No.: *12064*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Cain #23*  
Project Location: *9609091030; 5pt. Composite, 4 Walls @ 16' and Bottom @ 18'*  
Sampled by: *GC* Date: *9-Sep-96* Time: *10:30*  
Analyzed by: *DC* Date: *11-Sep-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>Benzene</i>	<i>18.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>59.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>173.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>1325.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>47.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>1624.8</i>		<i>ug/kg</i>

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

Approved by: *[Signature]*  
Date: *9/12/96*

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Cain # 23

10-23-96

Meridian Oil

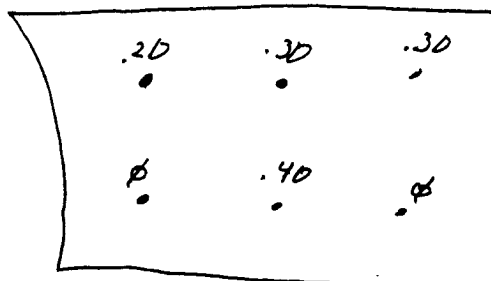
Sec. 16, 28N, 10W

Land farm : On location

Composite sample # 9610230900

soil vapor headspace PID reading: 3.8 ppm

2"-12" depth



⊗

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: *25-Oct-96*  
 COC No.: *5092*  
 Sample No. *12682*  
 Job No. *2-1000*

Project Name: ***PNM Gas Services - Cain #23 Landfarm***  
 Project Location: ***9610230900; 6pt. Composite, 2"-12" depth***  
 Sampled by: GC Date: *23-Oct-96* Time: *9:00*  
 Analyzed by: DC/HR Date: *25-Oct-96*  
 Sample Matrix: *Soil*

***Laboratory Analysis***


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

***Quality Assurance Report***DRO QC No.: *0489-QC****Calibration Check***

<b><i>Parameter</i></b>	<b><i>Method Blank</i></b>	<b><i>Unit of Measure</i></b>	<b><i>True Value</i></b>	<b><i>Analyzed Value</i></b>	<b><i>% Diff</i></b>	<b><i>Limit</i></b>
<i>Diesel Range (C10 - C28)</i>	<i>&lt;5.0</i>	<i>ppm</i>	<i>100</i>	<i>92</i>	<i>7.6</i>	<i>15%</i>

***Matrix Spike***

<b><i>Parameter</i></b>	<b><i>1 - Percent Recovered</i></b>	<b><i>2 - Percent Recovered</i></b>	<b><i>Limit</i></b>	<b><i>%RSD</i></b>	<b><i>Limit</i></b>
<i>Diesel Range (C10-C28)</i>	<i>114</i>	<i>104</i>	<i>(70-130)</i>	<i>6</i>	<i>20%</i>

***Method*** - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas ChromatographyApproved by: Date: *10/25/96*

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