

District 1  
P O Box 1980, Hobbs, NM

District 1  
P O Drawer DD, Artesia, NM 88221

District 1  
1000 Rio Brazos Rd, Aztec, NM 87410

**DEPUTY OIL & GAS INSPECTOR**

JUN 23 1998

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**

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

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

**Facility or Well Name:** Storey #1

**Location:** Unit N Sec 34 T 32 N R 11 W County San Juan

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

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

**Pit Location:** Pit dimensions: length 15 ' width 15 ' depth 3 '

(Attach diagram) Reference: wellhead ☒ other ☐

Footage from reference: 217'

Direction from reference: 85 Degrees ☐ East ☐ North ☐  
☒ 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)	<u>10</u>

**Wellhead Protection Area:**

(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)	<u>0</u>

**Distance to Surface Water:**

(Minimum distance to perennial lakes  
or streams)

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

**RANKING SCORE (TOTAL POINTS):** 20

**RECEIVED**  
FEB - 3 1998  
**OIL CON. DIV.**  
DIST. 3

RECEIVED  
JUN 1 1966

U.S. DEPT. OF AGRICULTURE  
WASHINGTON, D.C.

Storey #1

Date Remediation Started: 4/23/97

Date Completed: 4/25/97

Remediation Method: Excavation ☒

Approx. Cubic Yard 641

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 641

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 a pit size of 26' X 37' X 18' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by disking/plowing until soil met regulatory levels.

\*\*\* Bedrock encountered at 30'. See attached risk analysis form and laboratory analysis.

Ground Water Encountered:

No



Yes



Depth

Final Pit Closure Sampling:

Sample Location Bottom of excavation.

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

Sample depth 24'

Sample date 4/24/97

Sample time 11:15:00 AM

Sample Results

Benzene (ppm) < 0.2500

Total BTEX (ppm) \*\*\* 121.6000

Field headspace (ppm)

TPH (ppm) 176.60

Method 8015A

Vertical Extent (ft) 30'

Risk Assessment form attached

Yes



No

Ground Water Sample:

Yes



No



(If yes, see attached Groundwater Site Summary Report)

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

DATE January 27, 1998

SIGNATURE

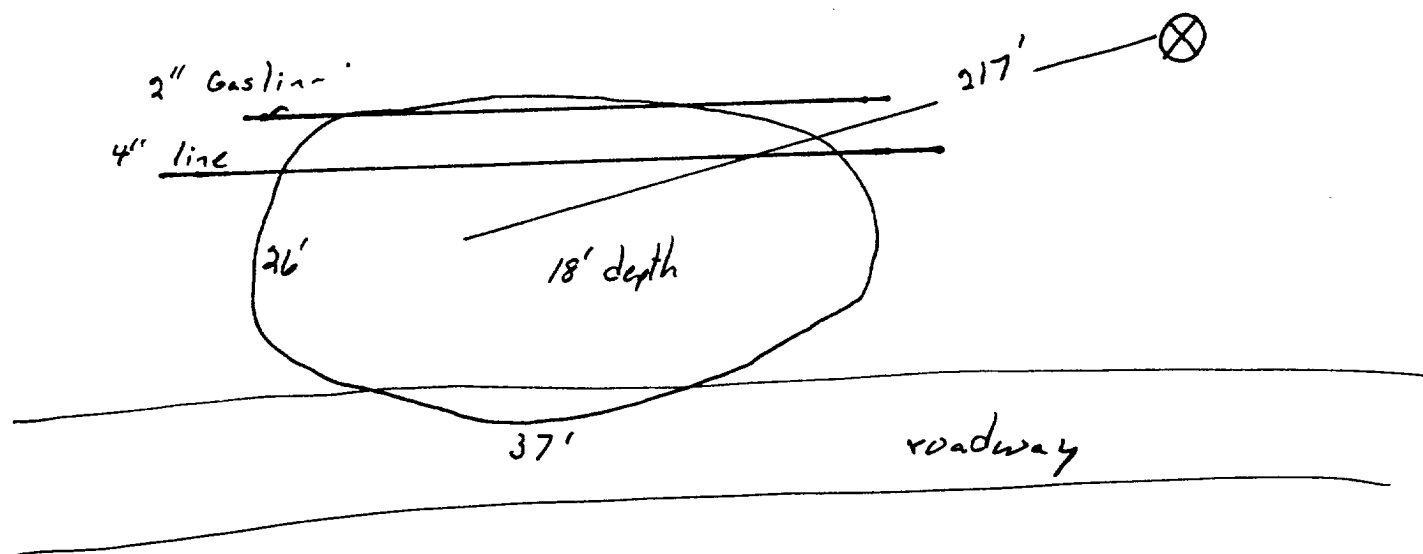
*Denver Bearden*

PRINTED NAME  
AND TITLE

Denver Bearden  
Administrator III

Storey #1  
KimbarK Oil & Gas Co.  
Sec. 34, 32N, 11W, N

4-24-97



OFF: (505) 325-5667



LAB: (505) 325-1556

### *ANALYTICAL REPORT*

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

Date: *29-Apr-97*  
COC No.: *5871*  
Sample No.: *14309*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Storey #1*  
Project Location: *9704241115; Bottom @ 24'*  
Sampled by: *GC* Date: *24-Apr-97* Time: *11:15*  
Analyzed by: *HR/DC* Date: *28-Apr-97*  
Sample Matrix: *Soil*

#### *Laboratory Analysis*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>176.6</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

#### *Quality Assurance Report*

DRO QC No.: *0519-STD*

#### *Continuing Calibration Verification*

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>100</i>	<i>104</i>	<i>4.0</i>	<i>15%</i>

#### *Matrix Spike*

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>90</i>	<i>94</i>	<i>(70-130)</i>	<i>5</i>	<i>20%</i>

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

Approved by: *[Signature]*

Date: *[Signature]*

OFF: (505) 325-5667



LAB: (505) 325-1556

### *ANALYTICAL REPORT*

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

Date: *28-Apr-97*  
COC No.: *5871*  
Sample No.: *14309*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Storey #1*  
Project Location: *9704241115; Bottom @ 24'*  
Sampled by: *GC*  
Analyzed by: *DC*  
Sample Matrix: *Soil*

Date: *24-Apr-97* Time: *11:15*  
Date: *26-Apr-97*

#### *Laboratory Analysis*

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	250	ug/kg
<i>Toluene</i>	35179	ug/kg	250	ug/kg
<i>Ethylbenzene</i>	7741	ug/kg	250	ug/kg
<i>m,p-Xylene</i>	66555	ug/kg	250	ug/kg
<i>o-Xylene</i>	12125	ug/kg	250	ug/kg
	<i>TOTAL</i>	<i>121600</i>		<i>ug/kg</i>

ND - Not Detected at Limit of Quantitation

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

Approved by: *[Signature]*  
Date: *[Signature]*

OFF: (505) 325-5667



LAB: (505) 325-1556

### ***ANALYTICAL REPORT***

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

Date: *29-Apr-97*  
COC No.: *5871*  
Sample No.: *14310*  
Job No.: *2-1000*

Project Name: ***PNM Gas Services - Storey #1***  
Project Location: ***9704241500; Walls @ 16'***  
Sampled by: GC Date: *24-Apr-97* Time: *15:00*  
Analyzed by: HR/DC Date: *28-Apr-97*  
Sample Matrix: *Soil*

### ***Laboratory Analysis***

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5.0	mg/kg

ND - Not Detected at Limit of Quantitation

### ***Quality Assurance Report***

DRO QC No.: *0519-STD*

### ***Continuing Calibration Verification***

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	100	104	4.0	15%

### ***Matrix Spike***

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	90	94	(70-130)	5	20%

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

Approved by: \_\_\_\_\_  
Date: \_\_\_\_\_

OFF: (505) 325-5667



LAB: (505) 325-1556

### ***ANALYTICAL REPORT***

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

Date: *28-Apr-97*  
COC No.: *5871*  
Sample No.: *14310*  
Job No.: *2-1000*


Project Name: *PNM Gas Services - Storey #1*  
Project Location: *9704241500; Walls @ 16'*  
Sampled by: *GC* Date: *24-Apr-97* Time: *15:00*  
Analyzed by: *DC* Date: *26-Apr-97*  
Sample Matrix: *Soil*

#### ***Laboratory Analysis***

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	1.0	ug/kg
<i>Toluene</i>	ND	ug/kg	1.0	ug/kg
<i>Ethylbenzene</i>	ND	ug/kg	1.0	ug/kg
<i>m,p-Xylene</i>	ND	ug/kg	1.0	ug/kg
<i>o-Xylene</i>	ND	ug/kg	1.0	ug/kg
<i>TOTAL</i>	ND	ug/kg		

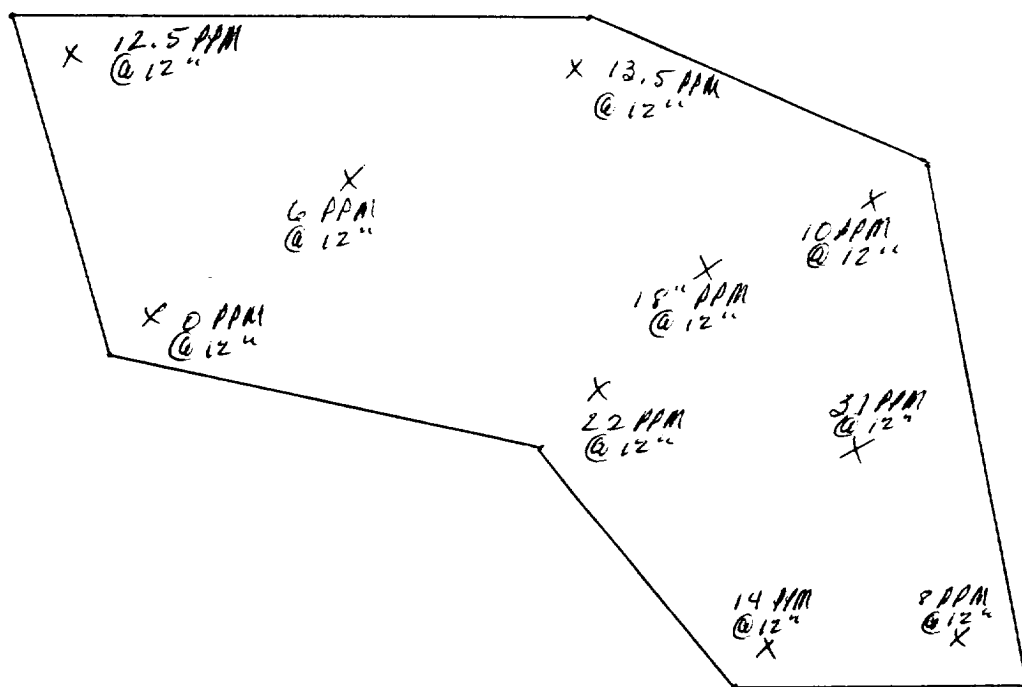
ND - Not Detected at Limit of Quantitation

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

Approved by:   
Date: *4/28/97*



↑  
N



storey #1  
6-16-97 @ 1015

See analysis for field headspace reading (BTEX).

OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

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

Date: *20-Jun-97*  
COC No.: *5159*  
Sample No.: *14959*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Storey #1 Landfarm*  
Project Location: *9706161015; 10pt. Composite*  
Sampled by: *RH* Date: *16-Jun-97* Time: *10:15*  
Analyzed by: *DC/HR* Date: *19-Jun-97*  
Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0548-STD

##### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	195	2.5	15%

##### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	88	95	(70-130)	9	20%

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

Approved by:

Date:

*6/20/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

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

Date: *19-Jun-97*  
COC No.: *5159*  
Sample No.: *14959*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Storey #1 Landfarm*

Project Location: *9706161015; 10pt. Composite*

Sampled by: *RH* Date: *16-Jun-97* Time: *10:15*

Analyzed by: *HR* Date: *18-Jun-97*


Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	1	ug/kg
<i>Toluene</i>	ND	ug/kg	1	ug/kg
<i>Ethylbenzene</i>	ND	ug/kg	1	ug/kg
<i>m,p-Xylene</i>	ND	ug/kg	1	ug/kg
<i>o-Xylene</i>	1	ug/kg	1	ug/kg
	<i>TOTAL</i>	1		ug/kg

ND - Not Detected at Limit of Quantitation

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

Approved by: 

Date: *6/22/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

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

Date: *9-Dec-97*  
COC No.: *7102*  
Sample No.: *16985*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Storey #1*  
Project Location: *9711260900; 30' depth*  
Sampled by: *GC*  
Analyzed by: *DC/HR*  
Sample Matrix: *Soil*

Date: *26-Nov-97* Time: *9:00*  
Date: *4-Dec-97*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0555-STD

#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	194	3.3	15%

#### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	94	95	(70-130)	2	20%

Method: EPA 821-1 (GC/MS) for Diesel Range Organics (C10-C28) in Soil

Approved by: *[Signature]*  
Date: *12/9/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

### ***ANALYTICAL REPORT***

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

Date: *4-Dec-97*  
COC No.: *7102*  
Sample No.: *16985*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Storey #1*  
Project Location: *9711260900; 30' depth*  
Sampled by: *GC*  
Analyzed by: *DC*  
Sample Matrix: *Soil*

Date: *26-Nov-97* Time: *9:00*  
Date: *1-Dec-97*

### ***Laboratory Analysis***

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	1	ug/kg
<i>Toluene</i>	1	ug/kg	1	ug/kg
<i>Ethylbenzene</i>	ND	ug/kg	1	ug/kg
<i>m,p-Xylene</i>	3	ug/kg	2	ug/kg
<i>o-Xylene</i>	3	ug/kg	1	ug/kg
	<i>TOTAL</i>	7	ug/kg	

ND - Not Detected at Limit of Quantitation

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

*Approved by: [Signature]*  
*Date: 12/10/97*



Well Name:	Storey #1
Well Legals:	Unit N, Sec 34, T32N, R11W
Pit Type:	Dehydrator and Drip
Horizontal Distance to Surface Water:	Greater than 1,000 ft
Groundwater Depth:	Greater than 100 ft

### **RISK ANALYSIS**

PNM requests closure of the Storey #1 using a limited risk analysis of the site conditions.

1. PNM estimated groundwater to be at a depth of 85 ft. based upon elevation of site to the Animas River. (Reference: topographic map.)
2. This site is not located within 200 ft. of a domestic water well and is not within 1,000 ft. of any other water source.
3. Distance from the site to surface water is greater than 1,000 ft.
4. PNM excavated 641 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered @ 30 ft. below ground surface.

Based upon the information provided above, PNM believes the Storey #1 poses minimal risk to the environment. Subsurface lateral migration is limited based upon PNM's past experience in excavating 800 pits. Source removal minimizes the possibility of surface water contamination. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is highly unlikely.