

District I
P.O. Box 1980, Hobbs, NM 88240
District II
P.O. Drawer 107, Artesia, NM 88221
District III
1000 Rio Brazos Rd., Aztec, NM 87410

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

2940 South Pacheco Street
Santa Fe, New Mexico 87505

JUL 18 1997

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (Burlington Resources) **Telephone:** 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Lester #1
Location: Unit: H Sec 3 T 30 N R. 11 W County San Juan
Pit Type: Separator Dehydrator ☒ Other
Land Type: BLM ☒ State Fee Other

Pit Location: Pit dimensions: length 15 width 15 depth 3
(Attach diagram) Reference: wellhead ☒ other
Footage from reference: 60'
Direction from reference: 45 Degrees ☒ East North
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) 0

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

Wellhead Protection Area: Yes (20 points)
No (0 points) 0

(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) 10

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

RANKING SCORE (TOTAL POINTS): 10

RECEIVED
APR 24 1997
OIL CON. DIV.
DIST. 3

Date Remediation Started:

4/15/96

Date Completed:

4/15/96

Remediation Method:

Excavation

☒

Approx. Cubic Yard

346

(Check all appropriate sections)

Landfarmed

☒

Amount Landfarmed (cubic yds)

346

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 17'x25'x22' 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.

*** Total BTEX and TPH above regulatory levels; further excavation impossible due to bedrock.

Ground Water Encountered:

No

☒

Yes

Depth

Final Pit Closure Sampling:

Sample Location

5 pt. composite-4 side walls and pit bottom

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

Sample depth

22'

Sample date

4/15/96

Sample time

1:40:00 PM

Sample Results

Benzene (ppm)

7.1873

Total BTEX (ppm)

*** 392.0699

Field headspace (ppm)

TPH

3571.00

Method

418.1

Vertical Extent (ft)

23'

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

April 28, 1997

SIGNATURE



PRINTED NAME
AND TITLE

Denver Bearden
Administrator III



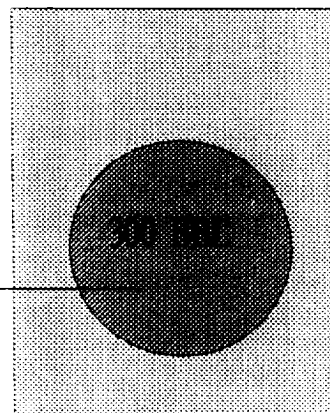
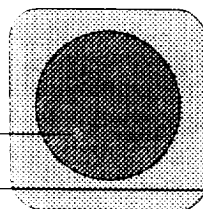
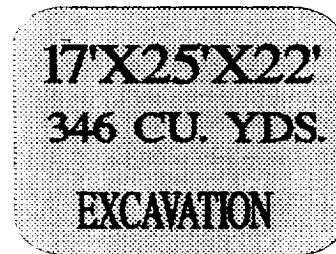
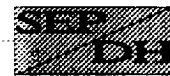
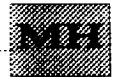
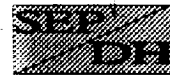
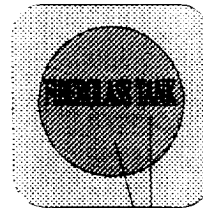
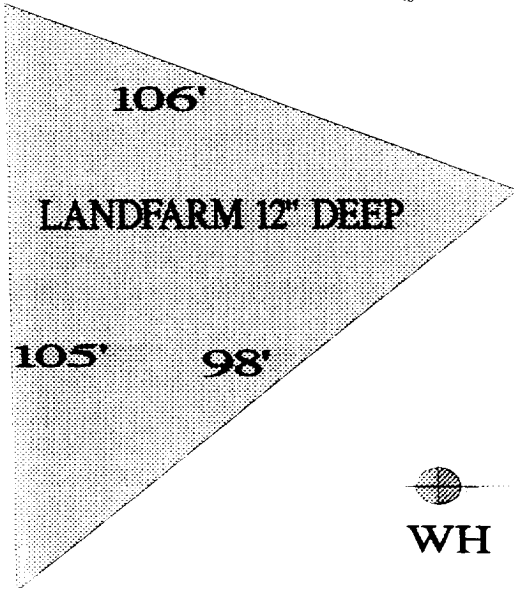
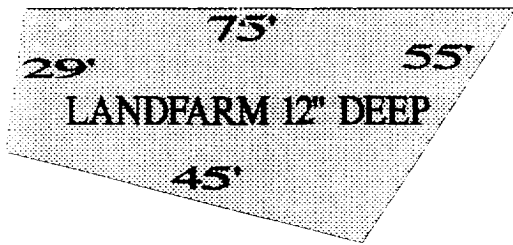
Well Name:	Lester #1
Well Legals:	Unit H, Sec 3, T29N, R13W
Pit Type:	Dehydrator
Horizontal Distance to Surface Water:	200 ft to 1,000 ft
Groundwater Depth:	Greater than 100 ft

RISK ANALYSIS

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

1. PNM estimated groundwater to be at a depth of 187 ft. based upon elevation of site to the San Juan River. (Reference: topographic map.) The vertical depth to a nearby irrigation ditch is 16 ft. The excavation exceeded the depth of the irrigation ditch and no groundwater was encountered.
2. This site is not located within 200 ft. of a domestic water well.
3. Distance from the site to irrigation canal is 206 ft.
4. PNM excavated 346 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered at 23 ft. below ground surface.
5. Topographic information does not indicate off site lateral fluid migration near the earthen pit.

Based upon the information provided above, PNM believes the Lester #1 poses minimal risk to the environment. Subsurface lateral migration is limited based upon PNM's past experience in excavating 400 pits. Source removal minimizes the possibility of surface water contamination. Bedrock provides an impermeable layer between remaining contamination and groundwater. Vertical migration through bedrock to groundwater is highly unlikely.



——— LINES
 BURIED LINES

LESTER #1 EXCAVATION — 04/15/96

OFF: (505) 325-8786

TECHNOLOGIES, LTD.

LAB: (505) 325-5667

ON SITE

TOTAL PETROLEUM HYDROCARBONS

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

Date: *17-Apr-96*
COC No.: *4586*
Sample No. *10640*
Job No. *2-1000*

Project Name: *PNM Gas Services - Lester #1*
Project Location: *9604151340; Excavation Bottom Composite*
Sampled by: *RH* Date: *15-Apr-96* Time: *13:40*
Analyzed by: *HR* Date: *17-Apr-96*
Type of Sample: *Soil*

Laboratory Analysis

Parameter	Result	Detection Limit	Unit of Measure	Method
Total Petroleum Hydrocarbons, TPH	3571	25	mg/kg	EPA Method 418.1

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

Laboratory Identification	Analyzed Value	Acceptable Range	Unit of Measure
Laboratory Fortified Blank Soil - QCBS2	< 25	< 25	mg/kg
Laboratory Fortified Spike Soil - QCSS1	880	828 - 1024	mg/kg

Duplication

Laboratory Identification	(% RSD)	Limit (% RSD)
10653-3957	<0.1	15.0

Approved by: *JCG*

Date: *4/17/96*

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

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

Date: *17-Apr-96*
COC No.: *4586*
Sample No. *10640*
Job No. *2-1000*

Project Name: ***PNM Gas Services - Lester #1***
Project Location: ***9604151340; Excavation Bottom Composite***
Sampled by: *RH* Date: *15-Apr-96* Time: *13:40*
Analyzed by: *DC* Date: *17-Apr-96*
Type of Sample: *Soil*

Aromatic Volatile Organics

<i>Component</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	7187.3	ug/kg	0.2	ug/kg
<i>Toluene</i>	141880.9	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	17835.7	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	188162.4	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	37003.6	ug/kg	0.2	ug/kg
	<i>TOTAL</i>	392069.9	ug/kg	

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

Approved by: *[Signature]*
Date: *4/17/96*

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

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

Date: *17-Apr-96*
COC No.: *4587*
Sample No. *10641*
Job No. *2-1000*

Project Name: *PNM Gas Services - Lester #1*
Project Location: *9604151345; South, East, West Walls Composite*
Sampled by: *RH* Date: *15-Apr-96* Time: *13:45*
Analyzed by: *HR* Date: *17-Apr-96*
Type of Sample: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>	<i>Method</i>
<i>Total Petroleum Hydrocarbons, TPH</i>	<i>1130</i>	<i>25</i>	<i>mg/kg</i>	<i>EPA Method 418.1</i>

Quality Assurance Report

Laboratory Fortified Blank/Spike Soil

<i>Laboratory Identification</i>	<i>Analyzed Value</i>	<i>Acceptable Range</i>	<i>Unit of Measure</i>
<i>Laboratory Fortified Blank Soil - QCBS2</i>	<i>< 25</i>	<i>< 25</i>	<i>mg/kg</i>
<i>Laboratory Fortified Spike Soil - QCSS1</i>	<i>880</i>	<i>828 - 1024</i>	<i>mg/kg</i>

Duplication

<i>Laboratory Identification</i>	<i>(% RSD)</i>	<i>Limit (% RSD)</i>
<i>10653-3957</i>	<i>< 0.1</i>	<i>15.0</i>

Approved by:

Date:

Ja4
4/17/96

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

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

Date: *17-Apr-96*
COC No.: *4587*
Sample No. *10641*
Job No. *2-1000*

Project Name: *PNM Gas Services - Lester #1*
Project Location: *9604151345; South, East, West Walls Composite*
Sampled by: *RH* Date: *15-Apr-96* Time: *13:45*
Analyzed by: *DC* Date: *17-Apr-96*
Type of Sample: *Soil*

Aromatic Volatile Organics

<i>Component</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>414.0</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>11912.6</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>2602.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>37567.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>7342.0</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>59838.5</i>		<i>ug/kg</i>

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

Approved by: *DC*
Date: *4/17/96*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

Diesel Range Organics

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

Date: *8-Jul-96*
 COC No.: *4702*
 Sample No. *11390*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Lester #1 Landfarm*
 Project Location: *9607021020; 6pt. Composite, 2"-12" deep*
 Sampled by: *GC* Date: *2-Jul-96* Time: *10:20*
 Analyzed by: *DC* Date: *3-Jul-96*
 Sample Matrix: *Soil*

Laboratory Analysis

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

Quality Assurance Report

DRO QC No.: *0475-QC*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Diesel Range (C10 - C28)</i>	<i>< 5.0</i>	<i>ppm</i>	<i>2,000</i>	<i>1,915</i>	<i>4.3</i>	<i>15%</i>

Matrix Spike

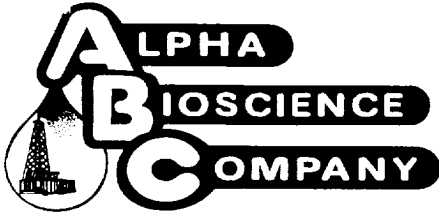
Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Diesel Range (C10-C28)</i>	<i>117</i>	<i>112</i>	<i>(70-130)</i>	<i>3</i>	<i>20%</i>

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

Approved by: *[Signature]*
 Date: *7/8/96*

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- TECHNOLOGY SERVING INDUSTRY WITH THE ENVIRONMENT -



MICROBIAL TREATMENT SUMMARY

PUBLIC SERVICE COMPANY OF NEW MEXICO - LESTER #1

09/27/96 Mixed 15 BBLs of Alpha biocatalyst and 16 BBLs of ditch water with KCL to make a 4% KCL solution. Added 2# Alpha microbes, 10# Alpha micro-nutrients and 3 oz. BioClean 10^{12} surfactant to the mixture. Used high pressure pump to inject microbial solution to 21' depth in the area where the contaminated soil had been excavated.

*9 injections around Berm area -
original excavation*

Jester #1 Landfill

7-2-96

Composite Sample : 960702102D

Soil Vapor Reading 62.3

