

Denny S. Foust
DEPUTY OIL & GAS INSPECTOR

District III
1000 Rio Brazos Rd. Aztec, NM 87410

JUL 18 1997

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 (Burlington Resources) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Pierce #1A
Location: Unit: 0 Sec. 30 T. 31 N R. 10 W County San Juan
Pit Type: Separator Dehydrator ☒ Other No
Land Type: BLM ☒ State Fee Other No

Pit Location: Pit dimensions: length 15 width 15 depth 3
(Attach diagram) Reference: wellhead ☒ other
Footage from reference: 80'
Direction from reference: 0 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
50 feet to 99 feet
Greater than 100 feet

(20 points)
(10 points)
(0 points)

0

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
No

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(20 points)
(0 points)

0

Distance to Surface Water:

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

Less than 200 feet
200 feet to 1,000 feet
Greater than 1,000 feet

(20 points)
(10 points)
(0 points)

0

RANKING SCORE (TOTAL POINTS):

0

OIL CON. DIV
DIST. 3

Date Remediation Started:

2/13/96

Date Completed:

2/13/96

Remediation Method:

Excavation

☒

Approx. Cubic Yard

296

(Check all appropriate sections)

Landfarmed

☒

Amount Landfarmed (cubic yds)

296

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 20'x'25'x16' 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.

*** Vertical extent at 18.5' provided BTEX at .191 ppm; TPH was not detected. See attached risk analysis form and lab analysis.

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

16'

Sample date

2/13/96

Sample time

1:24:00 PM

Sample Results

Benzene (ppm)

2.6053

Total BTEX (ppm)

*** 255.1372

Field headspace (ppm)

TPH

16224.00

Method

418.1

Vertical Extent (ft)

18.5'

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:	Pierce #1A
Well Legals:	Unit O, Sec 30, T31N, R10W
Pit Type:	Dehydrator
Horizontal Distance to Surface Water:	Greater than 1,000 ft
Groundwater Depth:	Greater than 100 ft

RISK ANALYSIS

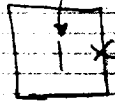
PNM requests closure of the Pierce #1A using a limited risk analysis of the site conditions.

1. PNM estimated groundwater to be at a depth of 110 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 296 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered at 18.5 ft. below ground surface.

Based upon the information provided above, PNM believes the Pierce #1A 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.

Site Map:

lots of bullet
holes in MH.

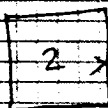


725 ppm
ran into many
cobbles

from
Boulder



787 ppm
6' deep



80'



Assessor's Signature

[Handwritten Signature]

Date

12/6/95

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: *14-Feb-96*
COC No.: *4576*
Sample No. *10292*
Job No. *2-1000*

Project Name: *PNM Gas Services - Pierce 1A*
Project Location: *9602131324; 4 Walls and Bottom Composite*
Sampled by: *RD* Date: *13-Feb-96* Time: *13:24*
Analyzed by: *HR* Date: *14-Feb-96*
Type of Sample: *Soil*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
<i>10292-4576</i>	<i>PNM Gas Services - Pierce 1A</i> <i>9602131324; 4 Walls and Bottom Composite</i>	<i>16,224 mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
<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>944</i>	<i>828 - 1024</i>	<i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *[Signature]*
Date: *2/14/96*

P. O. BOX 2606 • FARMINGTON, NM 87499

— 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: *16-Feb-96*
COC No.: *4576*
Sample No. *10292*
Job No. *2-1000*

Project Name: *PNM Gas Services - Pierce 1A*
Project Location: *9602131324; 4 Walls and Bottom Composite*
Sampled by: *RD* Date: *13-Feb-96* Time: *13:24*
Analyzed by: *HR* Date: *16-Feb-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>	2605.3	<i>ug/kg</i>	0.2	<i>ug/kg</i>
<i>Toluene</i>	39921.5	<i>ug/kg</i>	0.2	<i>ug/kg</i>
<i>Ethylbenzene</i>	15881.4	<i>ug/kg</i>	0.2	<i>ug/kg</i>
<i>m,p-Xylene</i>	169725.3	<i>ug/kg</i>	0.2	<i>ug/kg</i>
<i>o-Xylene</i>	27003.7	<i>ug/kg</i>	0.2	<i>ug/kg</i>
	<i>TOTAL</i>	255137.2		<i>ug/kg</i>

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

Approved by: *[Signature]*
Date: *2/16/96*

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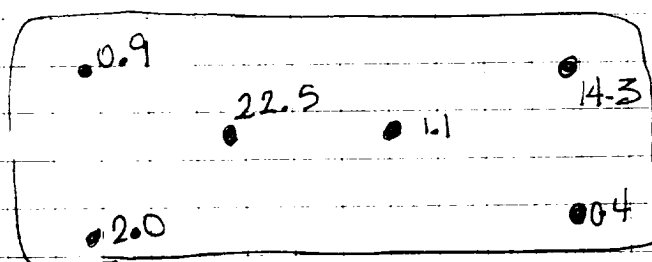
- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Pierce IA landfarm

7-2-96

Composite Sample # 960702 1140

Soil Vapor Readings 59.8



⊗ WH

Sampling Depth 2" - 12" deep

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: *10-Jul-96*
COC No.: *4901*
Sample No. *11397*
Job No. *2-1000*

Project Name: *PNM Gas Services - Pierce #1A Landfarm*
Project Location: *9607021140; 6pt. Composite, 2"-12" deep*
Sampled by: *GC* Date: *2-Jul-96* Time: *11:40*
Analyzed by: *DC* Date: *9-Jul-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>15.9</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>

Quality Assurance Report

DRO QC No.: 0475-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>< 5.0</i>	<i>ppm</i>	<i>2,000</i>	<i>1,960</i>	<i>2.0</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>114</i>	<i>104</i>	<i>(70-130)</i>	<i>7</i>	<i>20%</i>

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

Approved by: *DAC*
Date: *7/10/96*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

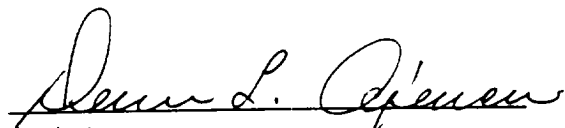
Client:	Public Service Co. of NM	Project #:	93108-02
Sample ID:	Pierce #1A TH-3 @ 18.5'	Date Reported:	12-05-96
Laboratory Number:	A801	Date Sampled:	12-04-96
Chain of Custody No:	5023	Date Received:	12-04-96
Sample Matrix:	Soil	Date Extracted:	12-05-96
Preservative:	Cool	Date Analyzed:	12-05-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

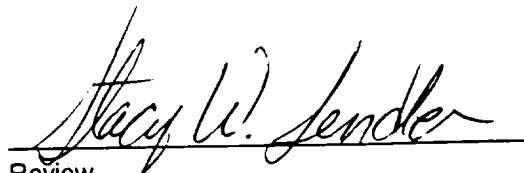
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments:


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Public Service Co. of NM.	Project #:	93108-02
Sample ID:	Pierce #1A TH-3 @ 18.5'	Date Reported:	12-05-96
Laboratory Number:	A801	Date Sampled:	12-04-96
Chain of Custody:	5023	Date Received:	12-04-96
Sample Matrix:	Soil	Date Analyzed:	12-05-96
Preservative:	Cool	Date Extracted:	12-05-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	8.8
Toluene	26.0	8.4
Ethylbenzene	41.9	7.6
p,m-Xylene	72.9	10.8
o-Xylene	50.1	5.2
Total BTEX	191	

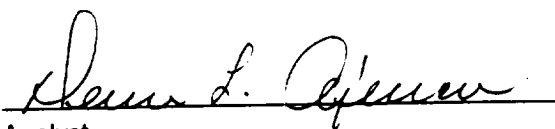
ND - Parameter not detected at the stated detection limit.

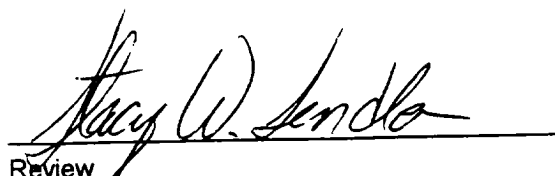
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	102 %

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments:


Analyst


Review