PO DrawDEPMTY OLE & GAS INSPECTOR

District III 1000 Rio Brazos Rd. Azlecj MM 87479 3 1998

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State of New Mexico nergy, Minerals and Natural Resources Department SUBMIT I COPY TO APPROPRIATE DISTRICT OFFICE AND I COPY TO SANTA FE OFFICE

OIL CONSERVATION DIVISION

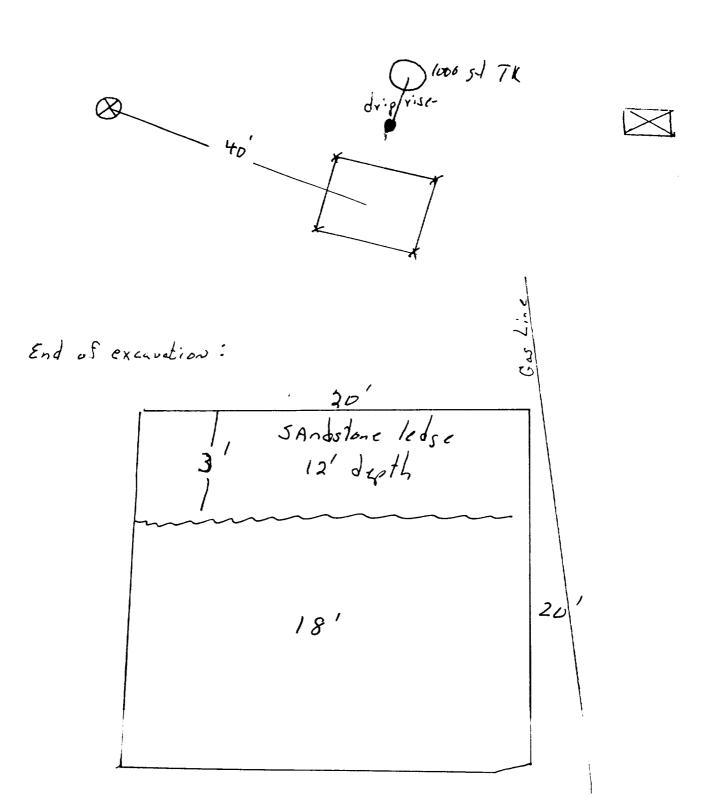
2040 South Pacheco Street Santa Fe, New Mexico 87505

PIT REMEDIATION AND CLOSURE REPORT

PIT REMEDIATION	N AND CLOSURE REPORT	
Operator: PNM Gas Services (Caulkins) Telephone: 324-3764	
Address: 603 W. Elm Street Farmington, NM 8	7401	
Facility or Well Name: State A #295		
Location: Unit J Sec	16 T 26 N R 6 W County	Rio Arriba
Pit Type: Separator Dehydra	ator 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:	40'	
Direction from reference: 80	Degrees <u>₹</u> East North	
	of West South	<u>~</u>
Depth to Ground Water:	Less than 50 feet 50 feet to 99 feet	(20 points) (10 points)
(Vertical distance from contaminants to seasonal high water elevation of ground water	Greater than 100 feet	(0 points) 10
Wellhead Protection Area: DECEIV		
(Less than 200 feet from a provate	98 9 Yes No	(20 points) (0 points) 0
domestic water source, or; less than 1,000 feet from all other water sources)	DIV	
Distance to Surface Water:	Less than 200 feet 200 feet to 1,000 feet	(20 points) (10 points)
SE instinatal a standa tri negotin (a. Tajke) Los formos de la composito de la	Greater than 1,000 feet	(0 points) 0
	RANKING SCORE (TOTAL POINTS)	: 12

Date Remediation Started:	8/7/97		Date Completed:	8/7/97
Remediation Method:	Excavation	x	Approx. Cubic Yard	266
Check all ppropriate ections)	Landfarmed	X	Amount Landfarmed (cubi	c yds) _266
ctions)	Other			
Remediation Location: i.e., landfarmed onsite, name and ocation of offsite facility)	Onsite	×	Offsite	
Backfill Material Location:				
General Description of Rem	edial Action:			
Excavated contaminated soil	to pit size of 20'	X 20' X 18' and landfarm	ned soil onsite within a bermed	area at a depth of 6" t
12". Soil was aerated by ploy				
*** Bedrock encountered at 2	25'. See attached	risk analysis form and la	aboratory analysis.	
Ground Water Encountered	i: No	y Yes	Depth	
··				
Final Pit Closure Sampling:	Sample Location	n Bottom of excav	ation.	
(if multiple samples, attach sample result and diagram of sample locations and depths.)	Sample depth	18'		
sample locations and depths.)	Sample date	8/7/97	Sample time	1:00:00 PM
	Sample Results			***************************************
	Benzen	e (ppm)2.84	460	
	Total B	TEX (ppm) *** 8	37.4690	
	Field he	adspace (ppm)		
	TPH (ppm)	34.00	Method 8015/	4
Vertical Extent (ft) 25'		Risk Assess	ment form attached Yes	_ ✓ No
Ground Water Sample:	Yes	□ No ▽	(If yes, see attached Gro Summary Report)	oundwater Site
I HEREBY CERTIFY THAT KNOWLEDGE AND MY B		ATION ABOVE IS TR	UE AND COMPLETE TO THI	E BEST OF MY
DATE January 27, 199 SIGNATURE		Yearlen	AND TITLE	er Bearden inistrator III

start of excavation:





LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 15-Aug-97

Company: PNM Gas Services

COC No.:

Job No.:

5930

Address:

603 W. Elm

Sample No.:

15720 2-1000

City, State: Farmington, NM 87401

PNM Gas Services - State A #295

Project Name: **Project Location:**

9708071300; Bottom @ 18'

Sampled by:

GC

Date: Date: 7-Aug-97 Time:

13:00

Analyzed by: Sample Matrix: HR/DC Soil

14-Aug-97

Laboratory Analysis

Parameter	Results as	Unit of	Limit of	Unit of
	Received	Measure	Quantitation	Measure
Diesel Range Organics (C10 - C28)	34	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
Diesel Range (C10 - C28)	ND	ppm	200	213	6.3	15%

Matrix Spike

	1- Percent	2 - Percent	l ·		RPD	
Parameter	Recovered Recovered		Limit	RPD	Limit	
Diesel Range (C10-C28)	82	88	(70-130)	7	20%	

Method - 719.847.57 (Meth. 1995) mod - Northalogen and Thinks



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden Date: 15-Aug-97

 Company:
 PNM Gas Services
 COC No.:
 5930

 Address:
 603 W. Elm
 Sample No.:
 15720

 City, State:
 Farmington, NM 87401
 Job No.:
 2-1000

Project Name: PNM Gas Services - State A #295
Project Location: 9708071300; Bottom @ 18'

Sampled by: GC Date: 7-Aug-97 Time: 13:00

Analyzed by: DC Date: 12-Aug-97

Sample Matrix: Soil

Laboratory Analysis

Parameter		Results as	Unit of	Limit of	Unit of	
		Received	Measure	Quantitation	Measure	
Benzene		2846	ug/kg	200	ug kg	
Toluene		21825	ug/kg	200	ug kg	
Ethylbenzene		7067	ug/kg	200	ug kg	
m,p-Xylene		46159	ug/kg	200	ug kg	
o-Xylene		9572	ug/kg	200	ug kg	
	TOTAL	87469	ug/kg			

ND - Not Detected at Limit of Quantitation

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

Approved - Tolk



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden

Date: 15-Aug-97

Company: PNM Gas Services

COC No.:

5930

Address: 603 W. Elm

Sample No.:

15721

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #295

Project Location:

9708071330; Walls @ 16'

7-Aug-97 Time:

13:30

Sampled by:

GC HR/DC Date:

14-Aug-97

15.50

Analyzed by: Sample Matrix:

Soil

Laboratory Analysis

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

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0548-STD

Continuing Calibration Verification

	Method	Unit of	True	Analyzed		RPD
Parameter	Blank	Measure	Value	Value	RPD	Limit
						-
Diesel Range (C10 - C28)	ND	ppm	200	213	6.3	15%

Matrix Spike

moun opin	-					
	1- Percent	2 - Percent			RPD	
Parameter	Recovered	Recovered	Limit	RPD	Limit	
Diesel Range (C10-C28)	82	88	(70-130)	7	20%	

Method - Tillia Will to toke an old to end in Yorkang on our Tillia Bod Curkner hill as Tillian en en hi

Approved by

Date: F/15

P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 15-Aug-97

Company: PNM Gas Services

COC No.:

5930

Address:

15721

603 W. Elm

Sample No.:

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #295

Project Location: Sampled by:

9708071330; Walls @ 16' GC

Date:

7-Aug-97 Time:

13:30

Analyzed by: Sample Matrix: DC Soil

Date:

12-Aug-97

Laboratory Analysis

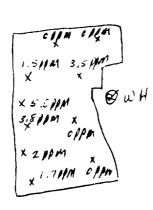
		Results	Unit of	Limit of	Unit of
Parameter		as Received	Measure	Quantitation	Measure
Benzene		ND	ug/kg	1	ug/kg
Toluene		ND	ug/kg	1	ug/kg
Ethylbenzene		ND	ug/kg	1	ug/kg
m,p-Xylene		ND	ug/kg	1	ug/kg
o-Xylene		ND	ug/kg	1	ug/kg
	TOTAL	ND	ug/kg		

ND - Not Detected at Limit of Quantitation

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

8-28-97 @ State A # 295 0915 Caulkins (J) 14-2426W Rio arriba Co. Sample # 9708280915 Field head Space of Landfarm - 4.8 ppm

2-12"



45

MM



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date:

4-Sep-97

Company: PNM Gas Services

COC No.:

5973

Address:

603 W. Elm

Sample No.:

15990

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #295 Landfarm

Project Location:

9708280915; Composite Sample

Sampled by:

RH

Date: Date:

28-Aug-97 Time:

9:15

Analyzed by: Sample Matrix: DC/HR Soil

3-Sep-97

Laboratory Analysis

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

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0548-STD

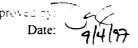
Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Diesel Range (C10 - C28)	ND	ppm	200	204	2.0	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Diesel Range (C10-C28)	71	74	(70-130)	3	20%

Method - St. S. 16 22 1 Make 4 80 51 mod - Vonhald zamated I daille Hydrogark in hy Car Chromatography





LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden

Company: PNM Gas Services

Address: 603 W. Elm

City, State: Farmington, NM 87401

2-Sep-97

COC No.:

Date:

5973 15990

Sample No.: Job No.:

2-1000

Project Name:

PNM Gas Services - State A #295 Landfarm

Project Location: Sampled by:

9708280915; Composite Sample

Date:

28-Aug-97 Time:

9:15

Analyzed by:

RH HR

Date:

1-Sep-97

Sample Matrix:

Soil

Laboratory Analysis

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

ND - Not Detected at Limit of Quantitation

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 24-Nov-97

Company: PNM Gas Services

COC No.:

5838

Address:

603 W. Elm

Sample No.:

16874

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #295

Project Location:

9711131115; 25' depth

GC

Date: Date: 13-Nov-97 Time:

18-Nov-97

11:15

Sampled by: Analyzed by:

DC/HR

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Results as	Unit of	Limit of	Unit of
	Received	Measure	Quantitation	Measure
Diesel Range Organics (C10 - C28)	11	mg kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

Continuing Calibration Verification

	Method	Unit of	True	Analyzed		RPD
Parameter	Blank	Measure	Value	Value	RPD	Limit
Diesel Range (C10 - C28)	ND	ppm	200	201	0.7	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Diesel Range (C10-C28)	110	113	(70-130)	2	20%

Method - Sew Africhia



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 24-Nov-97

Company: PNM Gas Services

COC No.:

5838

Address:

603 W. Elm

Sample No.:

16874

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #295

Project Location:

9711131115; 25' depth

13-Nov-97 Time:

Sampled by: Analyzed by: GC DC Date: Date:

18-Nov-97

11:15

Sample Matrix:

Soil

Laboratory Analysis

Parameter		Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene		ND	ug/kg	50	ug kg
Toluene		432	ug/kg	50	ug kg
Ethylbenzene		303	ug kg	50	ug kg
m,p-Xylene		2943	ug kg	50	ug kg
o-Xylene		674	ug kg	50	ug kg
	TOTAL	4352	ug kg		

ND - Not Detected at Limit of Quantitation

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





Well Name:

Well Legals: Pit Type:

Horizontal Distance to Surface Water:

Groundwater Depth:

State A #295 Unit J, Sec 16, T26N, R6W Drip Greater than 1,000 ft Greater than 100 ft

RISK ANALYSIS

PNM requests closure of the State A #295 using a limited risk analysis of the site conditions.

- 1. PNM estimated groundwater to be at a depth of 170 ft. based upon elevation of site to the Largo Wash. (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 266 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered @ 25 ft. below ground surface.

Based upon the information provided above, PNM believes the State A #295 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.