District PO Box 1289-MADEL & GAS INSPECTOR

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P.O Drawer DD Artesia. NM 88221 2 3 1998

District III 1000 Rio Brazos Rd. Aztec, NM 87410 State of New Mexico
Ebergy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco Street

SUBMIT : COPY TO APPRIATE DISTRICT OFFICE AND : COPY TO SANTA FE OFFICE

Santa Fe, New Mexico 87505

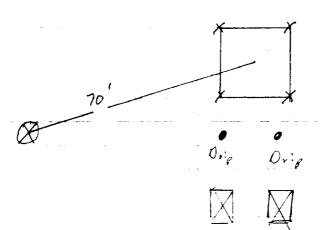
PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM G	as Services (Caulkins) Telephone:	324-3764	
Address: 603 W. Elm	Street Farmington, NM 8740)1		
Facility or Well Name: Si	tate A #62M			
Location: Unit	D Sec 2	2 T <u>26 N</u> F	6 W County	Rio Arriba
Pit Type: Separator	Dehydrator	Other	Drips	
Land Type: BLM 🗸	State	Fee Other		
Pit Location: Pit of	dimensions: length	20 width	20 depth	_3
(Attach diagram) Ref	erence: wellhead 🗸	other		
Foot	age from reference: 70	0'		
Dire	ction from reference: 80	Degrees <u>v</u>	East North	<u>¥</u>
		-	of West South	
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) 0
	DECELVE			
Wellhead Protection Area:	UN FEI - 1 1999	Yes No		(20 points) (0 points) 0
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)	OIL COM, EM			(0 points)
Distance to Surface Water:		Less than 200 feet 200 feet to 1,000 feet Greater than 1,000 feet		(20 points) (10 points) (10 points)
e i e i e i e i e i e i e i e i e i e i		RANKING SCORE	(TOTAL POINTS)	

State A #62M				
Date Remediation Started:	9/2	2/97	Date Completed:	9/23/97
Remediation Method:	Excavation	X	Approx. Cubic Yard	267
(Check all appropriate	Landfarmed	X	Amount Landfarmed (cubi	c yds) _267
sections)	Other			
Remediation Location: (i.e., landfarmed onsite, name and location of offsite facility)	Onsite	Х	Offsite	
Backfill Material Location:				
General Description of Ren	redial Action:			
Excavated contaminated soi 12" Soil was aerated by ploy			ned soil onsite within a bermed	area at a depth of 6" to
*** Bedrock encountered at 3			aboratory analysis	
		Tion direction to the direction	abolatory unarysis.	
Ground Water Encountered	d: No	_ ✓ Yes	Depti	1
Final Pit Closure Sampling:	Sample Locatio	n Bottom of excava	ation.	
(if multiple samples, attach sample result and diagram of sample locations and depths.)	Sample depth	18'		· · · · · · · · · · · · · · · · · · ·
sample tocations and depuis.)	Sample date	9/22/97	Sample time	2:30:00 PM
	Sample Results			
	Benzen	e (ppm)11.19	00	
	Total B	TEX (ppm) *** 19	94.2920	
	Field he	adspace (ppm)		
	TPH (ppm)	456.00	Method 8015	Α
Vertical Extent (ft) 30'		Risk Assess	ment form attached Yes	▼ No
Ground Water Sample:	Yes	No	(If yes, see attached Gr ——— Summary Report)	oundwater Site
I HEREBY CERTIFY THA KNOWLEDGE AND MY I		ATION ABOVE IS TR	UE AND COMPLETE TO TH	E BEST OF MY
January 27, 19 SIGNATURE	is Lucu <i>fg</i>	Gearle	PRING TAME Den AND HILL Adn	ver Bearden ninistrator III

State A# 62m Canlling Cil Sec. 2, 26N, 6W, D 9/22/97

start of excavation:



End of excavation:

	30			
				-
	1	••		
	18'			20 '
				1
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OFF. (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 30-Sep-97

Company: PNM Gas Services

COC No.:

5699

Address:

16283

603 W. Elm

Sample No.:

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #62M

Project Location: Sampled by:

9709221430; Bottom @ 18'

Date:

22-Sep-97 Time:

14:30

Analyzed by:

GC HR/DC

Date:

30-Sep-97

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Results as	Unit of	Limit of	Unit of	
	Received	Measure	Quantitation	Measure	
Diesel Range Organics (C10 - C28)	456	mg/kg	5	mg kg	

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

Continuing Calibration Verification

Continuing Cambradon Vennication						
	Method	Unit of	True	Analyzed		RPD
Parameter	Blank	Measure	Value	Value	RPD	Limit
Diesel Range (C10 - C28)	ND	ppm	200	205	2.4	15%

Matrix Snike

• •

	e				
	1- Percent	2 - Percent			RPD
Parameter	Recovered	Recovered	Limit	RPD	Limit
Diesel Range (C10-C28)	86	82	(70-130)	5	20%



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 29-Sep-97

Company: PNM Gas Services

COC No.:

5699

Address:

603 W. Elm

Sample No.:

15283

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #62M

Project Location:

9709221430; Bottom @ 18' Date:

22-Sep-97 Time:

14:30

Sampled by: Analyzed by: GC DC

Date:

26-Sep-97

Sample Matrix:

Soil

Laboratory Analysis

		Results as	Unit of	Limit of	Unit of
Parameter		Received	Measure	Quantitation	Measure
Benzene		11190	ug kg	1000	ug kg
Toluene		96512	ug/kg	1000	ug kg
Ethylbenzene		5409	ug kg	1000	ug kg
m,p-Xylene		67541	ug/kg	1000	ug kg
o-Xylene		13641	ug kg	1000	ug kg
	TOTAL	194292	ug/kg		

ND - Not Detected at Limit of Quantitation

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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden

Date:

30-Sep-97

Company: PNM Gas Services

COC No.:

5804

Address: 603 W. Elm

Sample No.:

16284

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #62M

Project Location:

9709231030; Walls @ 15'

.

Date:

23-Sep-97 Time:

10:30

Sampled by: Analyzed by: GC HR/DC

Date:

30-Sep-97

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Results as Received		Limit of Quantitation	Unit of Measure	
Diesel Range Organics (C10 - C28)	100	mg/kg	5	mg kg	

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

DRO QC No.: 0555-STD

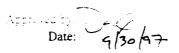
Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
rarameter	Biank	Measure	V alue	Value	NFD	Limit
Diesel Range (C10 - C28)	ND	ppm	200	205	2.4	15%

Matrix Spike

Marchael Latter grant and a second

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Diesel Range (C10-C28)	86	82	(70-130)	5	20%



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden

Company: PNM Gas Services

COC No.:

Date: 29-Sep-97

5804

Address: 603 W. Elm Sample No.:

,6284

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #62M

Project Location: Sampled by:

9709231030; Walls @ 15' GC

Date:

23-Sep-97 Time:

10:30

Analyzed by: Sample Matrix:

DC Soil Date: 26-Sep-97

Laboratory Analysis

		Results as	Unit of	Limit of	Unit of
Parameter		Received		Quantitation	Measure
Benzene		285	ug kg	50	ng kg
Tolu e ne		1249	ug kg	50	ug kg
Ethylbenzene		230	ug kg	50	ug kg
m,p-Xylene		2999	ug kg	50	ug kg
o-Xylene		782	ug kg	50	ug kg
	TOTAL	5545	ug kg		

ND - Not Detected at Limit of Quantitation

Method - SW-846 EPA Method 8020.4 Aromatic Volatile Organics by Gas Chromatography



10-6-97 @ 1100 State A # 62M Coulkins (D) 2-26N-6W R:0 arriba Sample # 9710061100 Landfarm fild head space: 7.5 pm

2"-12" PAM

2.9 MM

E.0 PAM

A.0 PAM

A

OFF. (505) 325-5667



LAB: 505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden Date:

8-Oct-97

Company: PNM Gas Services

COC No.:

5663

603 W. Elm Address:

Sample No.:

16518

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #62M Landfarm

Project Location:

9710061100; Composite

Sampled by:

RH

Date: Date: 6-Oct-97 Time:

11:00

Analyzed by:

DC/HR

7-Oct-97

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Results as	Unit of	Limit of	Unit of	
	Received	Measure	Quantitation	Measure	
Diesel Range Organics (C10 - C28)	72	mg kg	5	mg kg	

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

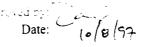
DRO QC No.: 0555-STD

Continuing Calibration Verification

	Method	Unit of	True	Analyzed		RPD
Parameter	Blank	Measure	Value	Value	RPD	Limit
Diesel Range (C10 - C28)	ND	ppm	200	214	6.7	15%

Matrix Spike

	1- Percent	2 - Percent			RPD
Parameter	Recovered	Recovered	Limit	RPD	Limit
Die sel Range (C10-C28)	94	86	(70-130)	9	20%





OFF (505) 325-5667

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Denver Bearden

Date: 26-Nov-97

Company: PNM Gas Services

COC No.:

7094

Address:

Sample No.:

603 W. Elm

16892

Job No.:

2-1000

City, State: Farmington, NM 87401

PNM Gas Services - State A #62M

Project Name: Project Location:

9711181030; 30' depth

Date:

18-Nov-97 Time:

10:30

Sampled by: Analyzed by: GC DC/HR

Date:

25-Nov-97

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Results as	Unit of	Limit of	Unit of
	Received	Measure	Quantitation	Measure
Diesel Range Organics (C10 - C28)	16	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
Diesel Range (C10 - C28)	ND	ppm	200	194	2.8	15%

Matrix Spike	e					
Parameter	1- Percent	2 - Percent			RPD	
	Recovered	Recovered	Limit	RPD	Limit	
Diesel Range (C10-C28)	89	92	(70 -130)	3	20%	

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Denver Bearden

Date: 26-Nov-97

Company: PNM Gas Services

COC No.:

7094

Address: 603 W. Elm

Sample No.:

16892

City, State: Farmington, NM 87401

Job No.:

2-1000

Project Name:

PNM Gas Services - State A #62M

Project Location:

9711181030; 30' depth GC

Date:

Date:

18-Nov-97 Time:

10:30

Sampled by: Analyzed by:

DC

23-Nov-97

Sample Matrix:

Soil

Laboratory Analysis

Parameter		Results	Unit of	Limit of	Unit of
raiameter		as Received	Measure	Quantitation	Measure
Benzene		ND	ug kg	2	ug kg
Toluene		14	ug kg	2	ug/kg
Ethylbenzene		17	ug kg	2	ug kg
m,p-Xylene		143	ug kg	2	ug kg
o-Xylene		74	ug kg	2	ug kg
	TOTAL	247	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 #62M Unit D, Sec 2, T26N, R6W Drip Greater than 1,000 ft Greater than 100 ft

RISK ANALYSIS

PNM requests closure of the State A #62M using a limited risk analysis of the site conditions.

- 1. PNM estimated groundwater to be at a depth of 235 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 267 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 State A #62M 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.