Denny E. Foust
DEPUTY OIL & GAS INSPECTOR
JUN 23 1998

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

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

Approved

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: State A #562

Location: Unit H Sec 2 T 26N R 6W County Rio Arriba

Pit Type: Separator ✓ Dehydrator ___ Other ___

Land Type: BLM ✓ State ___ Fee ___ Other ___

Pit Location: Pit dimensions: length 20 width 20 depth 3

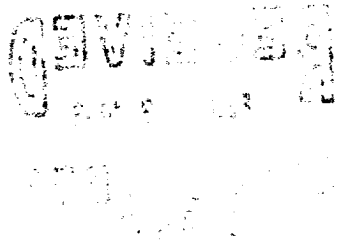
(Attach diagram) Reference: wellhead ✓ other ___

Footage from reference: 60'

Direction from reference: 40 Degrees ___ East North ___ of ✓ 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)	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	(20 points)	
	No	(0 points)	0
Distance to Surface Water: (Horizontal distance to perennial lakes	Less than 200 feet	(20 points)	
	200 feet to 1,000 feet	(10 points)	
	Greater than 1,000 feet	(0 points)	0
	RANKING SCORE (TOTAL POINTS):		

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



State A #562

Date Remediation Started: 9/24/97 **Date Completed:** 9/24/97

Remediation Method: (Check all appropriate sections)
Excavation X Approx. Cubic Yard 216
Landfarmed X Amount Landfarmed (cubic yds) 216
Other

Remediation Location: (i.e., landfarmed onsite, name and location of offsite facility)
Onsite X Offsite

Backfill Material Location:

General Description of Remedial Action:

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

*** Bedrock encountered at 35'. See attached risk analysis form and laboratory analysis.

Ground Water Encountered: No ✓ Yes — Depth

Final Pit Closure Sampling: (if multiple samples, attach sample result and diagram of sample locations and depths.)
Sample Location Bottom of excavation.
Sample depth 18'
Sample date 9/24/97 Sample time 9:30:00 AM

Sample Results

Benzene (ppm) < 1.0000
Total BTEX (ppm) *** 85.4300
Field headspace (ppm)
TPH (ppm) 126.00 Method 8015A

Vertical Extent (ft) 35' Risk Assessment form attached Yes ✓ No —

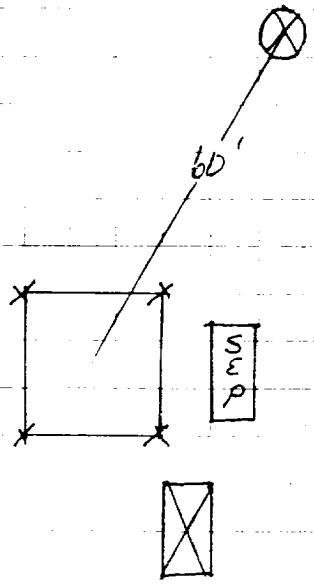
Ground Water Sample: Yes — No ✓ (If yes, see attached Groundwater Site Summary Report)

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

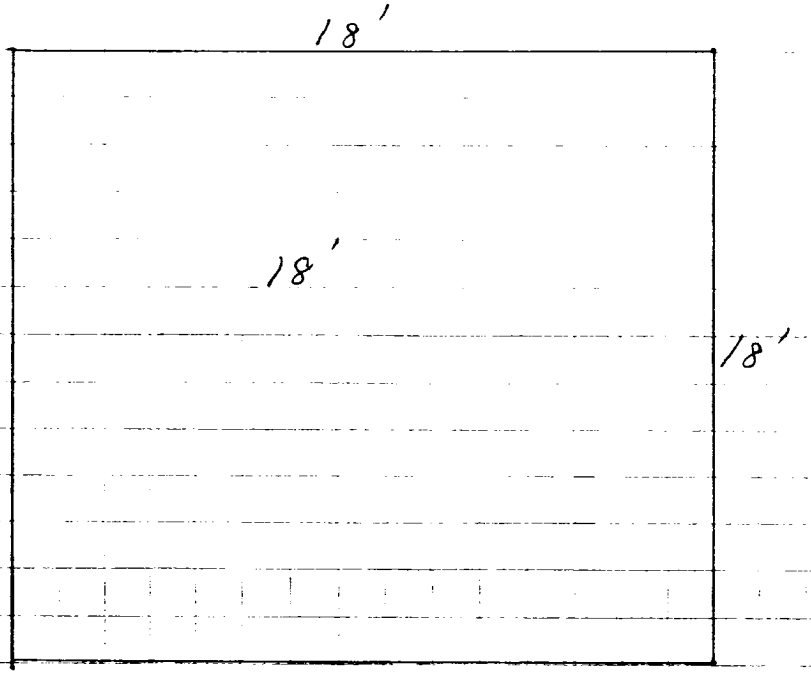
DATE January 27, 1998
SIGNATURE Denver Bearden
PRINTED NAME AND TITLE Denver Bearden **Administrator III**

State A # 562 9-24-97
Canfkins O:1
Sec. 2, 26N, 6W, M

start of excavation :



End of excavation :



OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	30-Sep-97
Company:	*PNM Gas Services*	COC No.:	*5806*
Address:	*603 W. Elm*	Sample No.:	*16318*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562***				
Project Location:	***9709240930; Bottom @ 18'***				
Sampled by:	GC	Date:	24-Sep-97	Time:	9:30
Analyzed by:	HR/DC	Date:	30-Sep-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Diesel Range Organics (C10 - C28)	126	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	205	2.4	15%

Matrix Spike

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

Method -

Approved by:
Date: 9/30/97

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	30-Sep-97
Company:	*PNM Gas Services*	COC No.:	*5806*
Address:	*603 W. Elm*	Sample No.:	*16318*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562***			
Project Location:	***9709240930; Bottom @ 18'***			
Sampled by:	GC	Date:	24-Sep-97 Time:	9:30
Analyzed by:	DC	Date:	28-Sep-97	
Sample Matrix:	*Soil*			

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	ND	ug/kg	1000	ug/kg
Toluene	5605	ug/kg	1000	ug/kg
Ethylbenzene	9081	ug/kg	1000	ug/kg
m,p-Xylene	54965	ug/kg	1000	ug/kg
o-Xylene	15778	ug/kg	1000	ug/kg
TOTAL	85430	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

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	30-Sep-97
Company:	*PNM Gas Services*	COC No.:	*5806*
Address:	*603 W. Elm*	Sample No.:	*16319*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562***				
Project Location:	***9709241000; Walls @ 15'***				
Sampled by:	GC	Date:	24-Sep-97	Time:	10:00
Analyzed by:	HR/DC	Date:	30-Sep-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of 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.: 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	205	2.4	15%

Matrix Spike

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

Method -

Approved by:

Date: 9/30/97

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	29-Sep-97
Company:	*PNM Gas Services*	COC No.:	*5806*
Address:	*603 W. Elm*	Sample No.:	*16319*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562***				
Project Location:	***9709241000; Walls @ 15'***				
Sampled by:	GC	Date:	24-Sep-97	Time:	10:00
Analyzed by:	DC	Date:	26-Sep-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

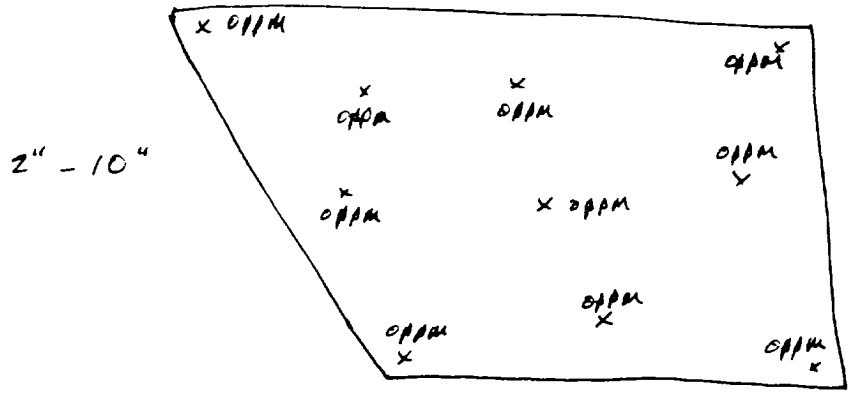
Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	ND	ug/kg	2	ug/kg
Toluene	6	ug/kg	2	ug/kg
Ethylbenzene	37	ug/kg	2	ug/kg
m,p-Xylene	181	ug/kg	2	ug/kg
o-Xylene	114	ug/kg	2	ug/kg
TOTAL	338	ug/kg		

ND - Not Detected at Limit of Quantitation

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

10-6-97 @ 1140
State A# 502
Caulkins
(A) 2-26N-6W
Rio Arriba
Sample # 9710061140
Landfarm field head space: 0.8 PPM

↑
N



2" - 10"

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	8-Oct-97
Company:	*PNM Gas Services*	COC No.:	*5663*
Address:	*603 W. Elm*	Sample No.:	*16520*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562 Landfarm***				
Project Location:	***9710061140; Composite***				
Sampled by:	RH	Date:	6-Oct-97	Time:	11:40
Analyzed by:	DC/HR	Date:	7-Oct-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of 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.: 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	214	6.7	15%

Matrix Spike

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

Method [illegible]

Approved by:
Date: 10/8/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	26-Nov-97
Company:	*PNM Gas Services*	COC No.:	*7097*
Address:	*603 W. Elm*	Sample No.:	*16948*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562***				
Project Location:	***9711241100; 35' depth***				
Sampled by:	GC	Date:	24-Nov-97	Time:	11:00
Analyzed by:	DC/HR	Date:	25-Nov-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Diesel Range Organics (C10 - C28)	28	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

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

"Method

Approved by:

Date: 11/26/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Denver Bearden*	Date:	1-Dec-97
Company:	*PNM Gas Services*	COC No.:	*7097*
Address:	*603 W. Elm*	Sample No.:	*16948*
City, State:	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***PNM Gas Services - State A #562***				
Project Location:	***9711241100; 35' depth***				
Sampled by:	GC	Date:	24-Nov-97	Time:	11:00
Analyzed by:	DC	Date:	26-Nov-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	122	ug kg	25	ug kg
Toluene	373	ug kg	25	ug kg
Ethylbenzene	205	ug kg	25	ug kg
m,p-Xylene	1454	ug kg	25	ug kg
o-Xylene	347	ug kg	25	ug kg
TOTAL	2502	ug kg		

ND - Not Detected at Limit of Quantitation

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

PNM Gas Services

Well Name:	State A #562
Well Legals:	Unit H, Sec 2, T26N, R6W
Pit Type:	Separator
Horizontal Distance to Surface Water:	Greater than 1,000 ft
Groundwater Depth:	Greater than 100 ft

RISK ANALYSIS

PNM requests closure of the State A #562 using a limited risk analysis of the site conditions.

1. PNM estimated groundwater to be at a depth of 230 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 216 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered @ 35 ft. below ground surface.

Based upon the information provided above, PNM believes the State A #562 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.