

DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL
	GAS
OPERATOR	
PRORATION OFFICE	

NEW MEXICO OIL CONSERVATION COMMISSION
REQUEST FOR ALLOWABLE
AND
AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

I.

Operator Caulkins Oil Company	
Address P.O. Box 780 Farmington, New Mexico	
Reason(s) for filing (Check proper box)	
New Well <input checked="" type="checkbox"/>	Change in Transporter of:
Recompletion <input type="checkbox"/>	Oil <input type="checkbox"/> Dry Gas <input type="checkbox"/>
Change in Ownership <input type="checkbox"/>	Casinghead Gas <input type="checkbox"/> Condensate <input type="checkbox"/>

If change of ownership give name
and address of previous owner

II. DESCRIPTION OF WELL AND LEASE

Lease Name Breech "E"	Well No. 70	Pool Name, Including Formation South Blanco PC	Kind of Lease State, Federal or Fee	Lease No. Fed NM 03551
Location Unit Letter <u>H</u> ; <u>1450</u> Feet From The <u>North</u> Line and <u>1090</u> Feet From The <u>East</u>				
Line of Section <u>4</u> Township <u>26 N</u> Range <u>6 W</u> , NMPM, <u>Rio Arriba</u> County				

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil <input type="checkbox"/> or Condensate <input type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
Name of Authorized Transporter of Casinghead Gas <input type="checkbox"/> or Dry Gas <input checked="" type="checkbox"/>	Address (Give address to which approved copy of this form is to be sent)	
Gas Company of New Mexico	1508 Pacific Ave, Dallas, Texas	
If well produces oil or liquids, give location of tanks.	Unit	Sec.
	Twp.	Rge.
	Is gas actually connected? When	
	No	

If this production is commingled with that from any other lease or pool, give commingling order number:

IV. COMPLETION DATA

Designate Type of Completion - (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
		X	X					
Date Spudded 6-15-78	Date Compl. Ready to Prod. 7-5-78	Total Depth 3110	P.B.T.D. 3110					
Elevations (DF, RKB, RT, GR, etc.) 6473 Gr	Name of Producing Formation Pictured Cliffs	Top Oil/Gas Pay 2940	Tubing Depth 3087					
Perforations 2940 to 2998			Depth Casing Shoe 3110					
TUBING, CASING, AND CEMENTING RECORD								
HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT					
12 1/4"	8 5/8"	10 1/2'	100					
7 7/8"	4 1/2"	3110'	520					
	1"	3087'						

V. TEST DATA AND REQUEST FOR ALLOWABLE OIL WELL

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D 1218	Length of Test 3 hrs	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.) Back pressure	Tubing Pressure (Shut-in) 910	Casing Pressure (Shut-in) 910	Choke Size 3/4"

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Dr. J. E. Blum
(Signature)
Prod. Foreman
(Title)
7-28-78
(Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19____
BY Original Signer
TITLE INSPECTOR DIST. #3

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiple

District I
P.O. Box 1900 Hobbs, NM

District II
P.O. Box 1900 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

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

JUN 23 1998

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: Breach E #70

Location: Unit H Sec 4 T 26 N R 6 W County Rio Arriba

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: BLM ☒ State ☐ Fee ☐ Other ☐ No ☐

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

(Attach diagram) Reference: wellhead ☒ other ☐

Footage from reference: 50'

Direction from reference: 10 Degrees ☐ East ☒ North ☐ South ☐ West ☒

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:

(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

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

Distance to Surface Water:

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

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): 0

Breach E #70

Date Remediation Started: 7/21/97

Date Completed: 7/21/97

Remediation Method:

Excavation ☒

Approx. Cubic Yard 213

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 213

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 a pit size of 20' X 16' X 18' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by disking/plowing until soil met regulatory levels.

*** Bedrock encountered at 28'. See attached risk analysis form and laboratory analysis.

Ground Water Encountered:

No



Yes

Depth

Final Pit Closure Sampling:

Sample Location

Bottom of excavation.

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

Sample depth

18'

Sample date

7/21/97

Sample time

2:00:00 PM

Sample Results

Benzene (ppm) < 2.5000

Total BTEX (ppm) *** 340.5760

Field headspace (ppm)

TPH (ppm)

2017.00

Method

8015A

Vertical Extent (ft) 28'

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



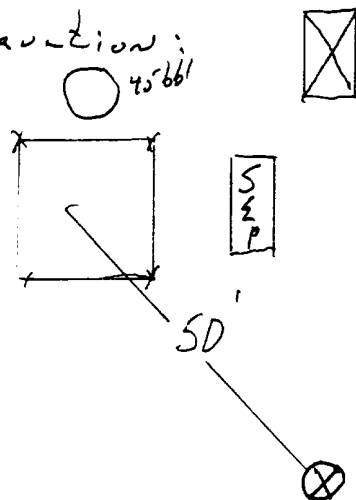
PRINTED NAME
AND TITLE

Denver Bearden
Administrator III

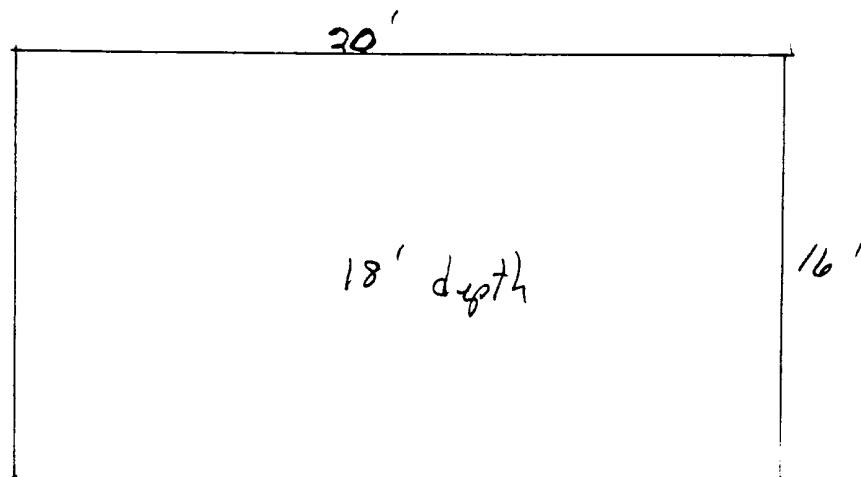
Breach E #70
Caulking Oil
Sec. 4, 26N, 6W, H

7/21/97

start of excavation:



End of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *24-Jul-97*
COC No.: *5927*
Sample No.: *15423*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Breech E #70*
Project Location: *9707211400; Bottom @ 18'*
Sampled by: *GC* Date: *21-Jul-97* Time: *14:00*
Analyzed by: *DC* Date: *23-Jul-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>2017</i>	<i>mg/kg</i>	<i>10</i>	<i>mg/kg</i>

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
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>197</i>	<i>1.6</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>89</i>	<i>87</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>

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

Approved by: *[Signature]*
Date: *7/24/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *25-Jul-97*
COC No.: *5927*
Sample No.: *15423*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Breech E #70*
Project Location: *9707211400; Bottom @ 18'*
Sampled by: *GC* Date: *21-Jul-97* Time: *14:00*
Analyzed by: *DC* Date: *23-Jul-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	2500	ug/kg
<i>Toluene</i>	12945	ug/kg	2500	ug/kg
<i>Ethylbenzene</i>	15588	ug/kg	2500	ug/kg
<i>m,p-Xylene</i>	210703	ug/kg	2500	ug/kg
<i>o-Xylene</i>	101340	ug/kg	2500	ug/kg
	<i>TOTAL</i>	340576	ug/kg	

ND - Not Detected at Limit of Quantitation

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

Approved by: *[Signature]*
Date: *7/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *24-Jul-97*
COC No.: *5921*
Sample No.: *15422*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Breech E #70*
Project Location: *9707211430; 4 Walls @ 16'*
Sampled by: *GC* Date: *21-Jul-97* Time: *14:30*
Analyzed by: *DC* Date: *23-Jul-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>111</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

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
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>197</i>	<i>1.6</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>89</i>	<i>87</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>

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

Approved by: *[Signature]*
Date: *7/24/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

TEL: (505) 325-5667 FAX: (505) 325-1556

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: 28-Jul-97
COC No.: 5921
Sample No.: 15422
Job No.: 2-1000

Project Name: *PNM Gas Services - Breech E #70*
Project Location: *9707211430; 4 Walls @ 16'*
Sampled by: GC Date: 21-Jul-97 Time: 14:30
Analyzed by: DC Date: 23-Jul-97
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	100	ug/kg
<i>Toluene</i>	514	ug/kg	100	ug/kg
<i>Ethylbenzene</i>	1813	ug/kg	100	ug/kg
<i>m,p-Xylene</i>	13415	ug/kg	100	ug/kg
<i>o-Xylene</i>	2700	ug/kg	100	ug/kg
	<i>TOTAL</i>	18442	ug/kg	

ND - Not Detected at Limit of Quantitation

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

Approved by: *[Signature]*
Date: *7/28/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

↑
N

8-14-97 - @ 1300

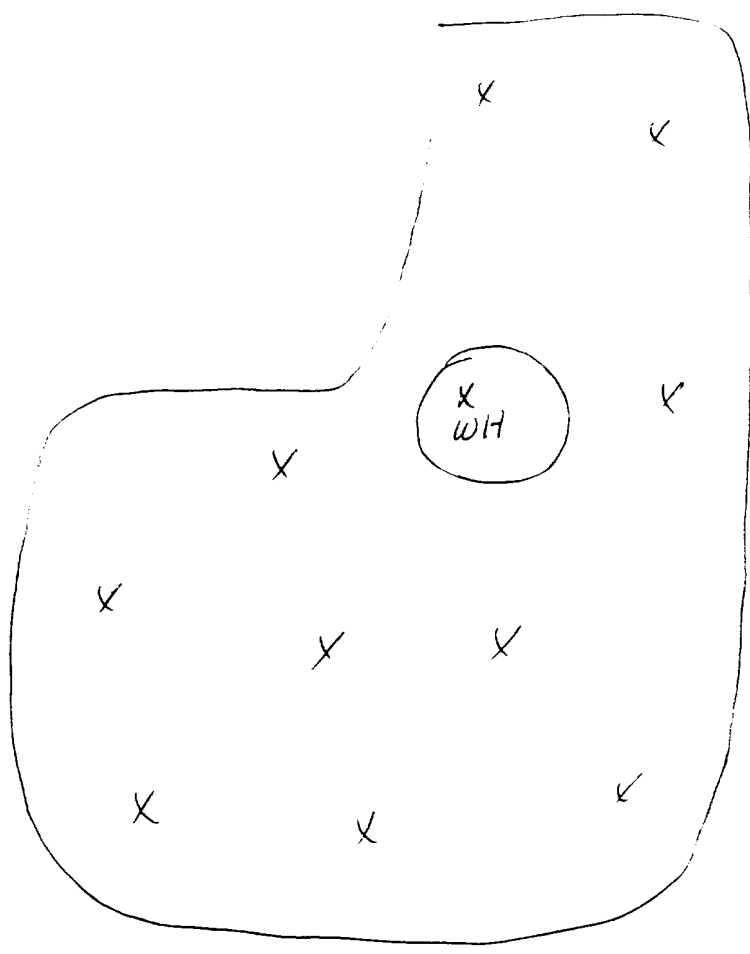
Breech # 70

Caulkins

(H) 4-26W-6W

Leavel Farm field head space - 3.21 PM

Sample # 9708141300



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *19-Aug-97*
COC No.: *5204*
Sample No.: *15804*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Breech #70 Landfarm*
Project Location: *9708141300; Composite Sample*

Sampled by: *RH* Date: *14-Aug-97* Time: *13:00*
Analyzed by: *HR/DC* Date: *18-Aug-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	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
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	183	8.9	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	83	82	(70-130)	1	20%

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

Approved by: *[Signature]*
Date: *8/19/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *24-Nov-97*
COC No.: *5832*
Sample No.: *16828*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Breech E #70*
Project Location: *9711111440; 28' depth*
Sampled by: *GC* Date: *11-Nov-97* Time: *14:40*
Analyzed by: *DC/HR* Date: *18-Nov-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	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
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	201	0.7	15%

Matrix Spike

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

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

Approved by: *[Signature]*
Date: *11/24/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *24-Nov-97*
COC No.: *5832*
Sample No.: *16828*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Breech E #70*
Project Location: *9711111440; 28' depth*
Sampled by: *GC* Date: *11-Nov-97* Time: *14:40*
Analyzed by: *DC* Date: *17-Nov-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	1	ug/kg
<i>Toluene</i>	1	ug/kg	1	ug/kg
<i>Ethylbenzene</i>	ND	ug/kg	1	ug/kg
<i>m,p-Xylene</i>	4	ug/kg	1	ug/kg
<i>o-Xylene</i>	2	ug/kg	1	ug/kg
	<i>TOTAL</i>	7		ug/kg

ND - Not Detected at Limit of Quantitation

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

Approved by: *[Signature]*
Date: *11/24/97*

P.O. BOX 2606 • FARMINGTON, NM 87499



Well Name:	Breech E #70
Well Legals:	Unit H, Sec 4, 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 Breech E #70 using a limited risk analysis of the site conditions.

1. PNM estimated groundwater to be at a depth of 180 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 213 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered @ 28 ft. below ground surface.

Based upon the information provided above, PNM believes the Breech E #70 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.