

*Denny E. Frost*  
DEPUTY OIL & GAS INSPECTOR

JICARILLA APACHE TRIBE

ENVIRONMENTAL PROTECTION OFFICE

OCT 28 1997

P.O. BOX 507  
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO  
NATURAL  
RESOURCE DEPT  
AND OIL-GAS  
ADMINISTRATION

**PIT REMEDIATION AND CLOSURE REPORT**

*Approved*

Operator: PNM Gas Services (BROG) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Arizona Jicarilla B-2

Location: Unit: L Sec. 9 T. 26 N R. 5 W County Rio Arriba

Pit Type: Separator X Dehydrator      Other     

Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 14' width 12' depth 5'

(Attach diagram) Reference: wellhead X other     

Footage from reference: 60'

Direction from reference: Straight Degrees      East      North X

     West      of South     

**Depth to Ground Water:**

(Vertical distance from contaminants to seasonal high water elevation or 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, 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

**Distance to Ephemeral Stream (dry wash):**

(Horizontal distance to all downgradient streams having a width of at least 10 feet)

Less than or equal to 100 feet (10 points)  
Greater than 100 feet (0 points) 0

**Distance to Nearest Lake, Playa, or Watering Pond:**

(Horizontal distance to all downgradient lakes, playas, and livestock or wildlife water ponds)

Less than or equal to 100 feet (10 points)  
Greater than 100 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started:

5/28/97

Date Completed:

7/10/97

Remediation Method:

Excavation

X

Approx. Cubic Yards

31(Check all  
appropriate  
sections)

Landfarmed

X

Amount Landfarmed (cubic yds):

31

Other \_\_\_\_\_

Remediation Location:

Onsite

X

Offsite \_\_\_\_\_

(i.e., landfarmed onsite, name  
and location of offsite facility)

General Description of Remedial Action:

Removed contaminated soil from all four side walls  
As to get a below 100 ppm head space reading.  
Bottom of this pit was solid rock.

Ground Water Encountered:

No

X

Yes \_\_\_\_\_

Depth \_\_\_\_\_

Final Pit Closure  
Sampling:

Sample Location

North, East, South, and West  
side walls(if multiple samples, attach  
sample result and diagram of  
sample locations and  
depths.)

Sample depth

4'

Sample date

5/28/97

Sample time

0820

Sample Results

Soil: Benzene (ppm)

ND

Water: Benzene (ppb)

Total BTEX (ppm)

0.003

Toluene (ppb)

Field headspace (ppm)

10.4

Ethylbenzene (ppb)

TPH

ND

ppm

Method

8015

Total Xylenes (ppb)

Ground Water Sample:

Yes \_\_\_\_\_

No

X

(If yes, attach sample results)

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

DATE

6/6/97

PRINTED NAME

Ronald A. Dedrick

SIGNATURE

Ronald A. Dedrick

AND TITLE

Environmental Technician II

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE  
TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES

X

NO \_\_\_\_\_

(REASON):

Spring + close

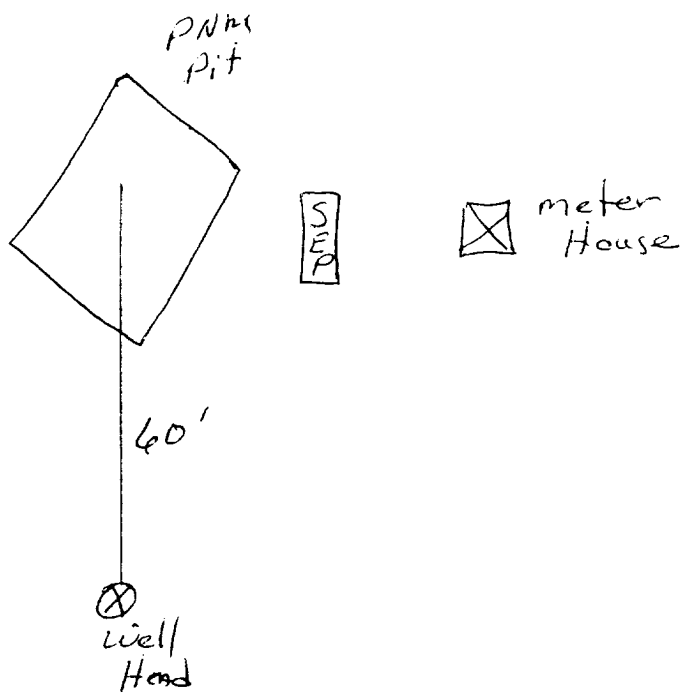
SIGNED:

Kes C. Mamm

DATE:

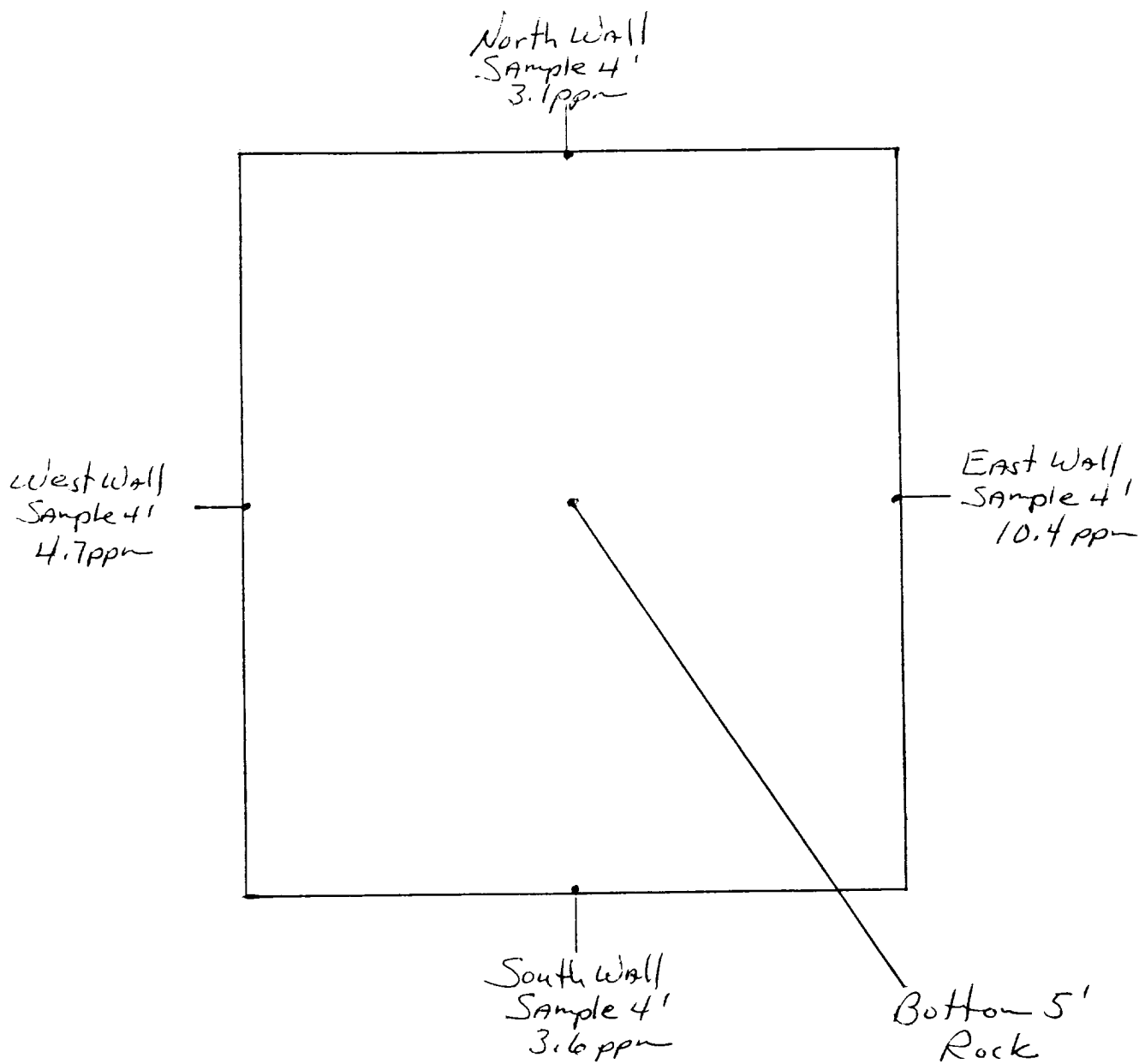
6-9-97

Arizona Jicarilla B-2  
Sec. 9 T26N R5W Unit L  
BROG



Arizona Jicarilla B-2  
Sec. 9 T.26N RSW Unit L  
BROG

14' x 12' x 5'



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: *4-Jun-97*  
COC No.: *5480*  
Sample No.: *14770*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Arizona Jicarilla B-2*

Project Location: *9705280820; 4pt. Composite*

Sampled by: *TE* Date: *28-May-97* Time: *8:20*

Analyzed by: *DC* Date: *3-Jun-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           | 5.0                   | mg/kg           |

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0519-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        | 192            | 4.3 | 15%       |

#### Matrix Spike

| Parameter                     | 1- Percent Recovered | 2 - Percent Recovered | Limit    | RPD | RPD Limit |
|-------------------------------|----------------------|-----------------------|----------|-----|-----------|
| <i>Diesel Range (C10-C28)</i> | 96                   | 102                   | (70-130) | 6   | 20%       |

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

Approved by: *[Signature]*

Date: *6/4/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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: *3-Jun-97*  
COC No.: *5480*  
Sample No.: *14770*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Arizona Jicarilla B-2*

Project Location: *9705280820; 4pt. Composite*

Sampled by: *TE* Date: *28-May-97* Time: *8:20*

Analyzed by: *DC* Date: *30-May-97*

Sample Matrix: *Soil*

#### Laboratory Analysis

| Parameter           | Results<br>as Received | Unit of<br>Measure | Limit of<br>Quantitation | Unit of<br>Measure |
|---------------------|------------------------|--------------------|--------------------------|--------------------|
| <i>Benzene</i>      | ND                     | ug/kg              | 1                        | ug/kg              |
| <i>Toluene</i>      | ND                     | ug/kg              | 1                        | ug/kg              |
| <i>Ethylbenzene</i> | ND                     | ug/kg              | 1                        | ug/kg              |
| <i>m,p-Xylene</i>   | 1                      | ug/kg              | 1                        | ug/kg              |
| <i>o-Xylene</i>     | 2                      | ug/kg              | 1                        | ug/kg              |
|                     | <i>TOTAL</i>           | 3                  |                          | 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: *5/3/97*

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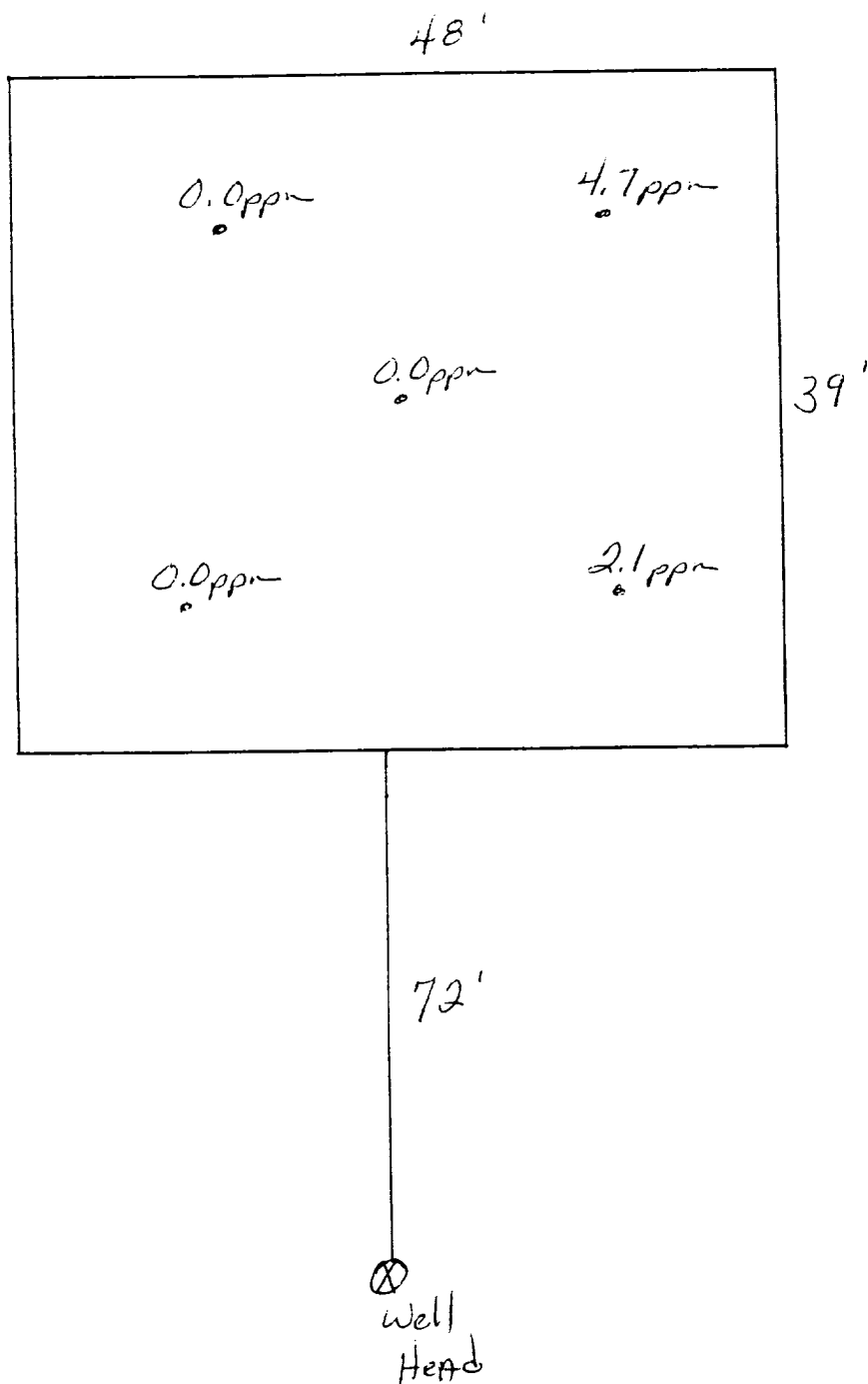
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NATURAL  
RESOURCE DEPT  
AND OIL GAS  
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

|                                                                                                                                                  |                                        |              |                                  |                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------|----------------------------------|------------------------------------|
| Operator:                                                                                                                                        | PNM Gas Services                       | (BROG)       | Telephone:                       | 324-3764                           |
| Address:                                                                                                                                         | 603 W. Elm Street Farmington, NM 87401 |              |                                  |                                    |
| Facility or Well Name:                                                                                                                           | Arizona Jicarilla B-2                  |              |                                  |                                    |
| Location:                                                                                                                                        | Unit:                                  | L            | Sec.                             | 9 T. 26 N R. 5 W County Rio Arriba |
| Land Type:                                                                                                                                       | Jicarilla Apache                       |              |                                  |                                    |
| Date Remediation Started:                                                                                                                        | 5/28/97                                |              | Date Completed:                  | 6/13/97                            |
| Remediation Method:                                                                                                                              | Landfilled                             | X            | Approx. cubic yards              | 31                                 |
|                                                                                                                                                  | Composted                              |              |                                  |                                    |
|                                                                                                                                                  | Other                                  |              |                                  |                                    |
| Depth to Ground Water:                                                                                                                           | (ft.)                                  | 0            | Final Closure Sampling:          |                                    |
| Distance to an Ephemeral Stream:                                                                                                                 | (ft.)                                  | 0            | Sampling Date: 6/11/97 Time 1539 |                                    |
| Distance to Nearest Lake, Playa, or Watering Pond:                                                                                               | (ft.)                                  | 0            | Sampling Results:                |                                    |
| Wellhead Protection Area:                                                                                                                        | (ft.)                                  | 0            | Field Measurements (ppm) 4.7     |                                    |
| Distance to Surface Water:                                                                                                                       | (ft.)                                  | 0            | TPH (ppm) ND Method GC/MS        |                                    |
| Ranking Score (Total Points):                                                                                                                    | (ft.)                                  | 0            | Other                            |                                    |
| I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF                                          |                                        |              |                                  |                                    |
| DATE                                                                                                                                             | 6/20/97                                | PRINTED NAME | Ronald A. Dedrick                |                                    |
| SIGNATURE                                                                                                                                        | Ronald A. Dedrick                      | AND TITLE    | Environmental Technician II      |                                    |
| AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE |                                        |              |                                  |                                    |
| APPROVED:                                                                                                                                        | YES X                                  | NO           | (REASON)                         |                                    |
| SIGNED:                                                                                                                                          | Kurt M. M...                           | DATE:        | 6-23-97                          |                                    |

Arizona Jicarilla B-2  
Sec. 9 T26N R5W Unit L  
BROG

Land farm





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: **17-Jun-97**  
COC No.: **5491**  
Sample No.: **14935**  
Job No.: **2-1000**

Project Name: **PNM Gas Services - Arizona Jicarilla B-2 Landfarm**

Project Location: **9706111539; 5pt. Composite**

Sampled by: **RD** Date: **11-Jun-97** Time: **15:39**

Analyzed by: **DC/HR** Date: **13-Jun-97**

Sample Matrix: **Soil**

### Laboratory Analysis

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

ND - Not Detected at Limit of Quantitation

### Quality Assurance Report

DRO QC No.: 0548-STD

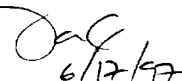
### Continuing Calibration Verification

| Parameter                       | Method Blank | Unit of Measure | True Value | Analyzed Value | RPD | RPD Limit |
|---------------------------------|--------------|-----------------|------------|----------------|-----|-----------|
| <b>Diesel Range (C10 - C28)</b> | ND           | ppm             | 200        | 209            | 4.4 | 15%       |

### Matrix Spike

| Parameter                     | 1- Percent Recovered | 2 - Percent Recovered | Limit    | RPD | RPD Limit |
|-------------------------------|----------------------|-----------------------|----------|-----|-----------|
| <b>Diesel Range (C10-C28)</b> | 90                   | 93                    | (70-130) | 3   | 20%       |

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

Approved by:   
Date: **6/17/97**

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