

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

Risk bedrock
SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

| | | | | | | | | | | | | |
|---|---|--|--|--------------------|-------------|--|------------------------|-------------|----------|-------------------------|-------------|-----------|
| Operator: <u>PNM Gas Services (Burlington)</u> | | Telephone: <u>324-3764</u> | | | | | | | | | | |
| Address: <u>603 W. Elm Street Farmington, NM 87401</u> | | | | | | | | | | | | |
| Facility or Well Name: <u>Grenier A #1A Dehy</u> | | | | | | | | | | | | |
| Location: | Unit <u>C</u> | Sec <u>26</u> | T <u>30 N</u> R <u>10 W</u> County <u>San Juan</u> | | | | | | | | | |
| Pit Type: | Separator <input type="checkbox"/> | Dehydrator <input checked="" type="checkbox"/> | Other _____ | | | | | | | | | |
| Land Type: | BLM <input checked="" type="checkbox"/> | State <input type="checkbox"/> | Fee <input type="checkbox"/> Other _____ | | | | | | | | | |
| Pit Location: Pit dimensions: length <u>12</u> ' width <u>12</u> ' depth <u>2</u> ' | | | | | | | | | | | | |
| (Attach diagram) | Reference: wellhead <input checked="" type="checkbox"/> other _____ | | | | | | | | | | | |
| Footage from reference: <u>114'</u> | | | | | | | | | | | | |
| Direction from reference: <u>45</u> Degrees <input checked="" type="checkbox"/> East <input type="checkbox"/> North <input type="checkbox"/> South <input checked="" type="checkbox"/> | | | | | | | | | | | | |
| of <input type="checkbox"/> West | | | | | | | | | | | | |
| Depth to Ground Water: <small>(Vertical distance from contaminants to seasonal high water elevation of ground water)</small> | | | | | | | | | | | | |
| <table style="width: 100%;"><tr><td>Less than 50 feet</td><td>(20 points)</td><td></td></tr><tr><td>50 feet to 99 feet</td><td>(10 points)</td><td></td></tr><tr><td>Greater than 100 feet</td><td>(0 points)</td><td style="text-align: right;"><u>10</u></td></tr></table> | | | | Less than 50 feet | (20 points) | | 50 feet to 99 feet | (10 points) | | Greater than 100 feet | (0 points) | <u>10</u> |
| Less than 50 feet | (20 points) | | | | | | | | | | | |
| 50 feet to 99 feet | (10 points) | | | | | | | | | | | |
| Greater than 100 feet | (0 points) | <u>10</u> | | | | | | | | | | |
| Wellhead Protection Area: <small>(Less than 200 feet from a private domestic water source, or; less than 1,000 feet from all other water sources)</small> | | | | | | | | | | | | |
| <table style="width: 100%;"><tr><td>Yes</td><td>(20 points)</td><td></td></tr><tr><td>No</td><td>(0 points)</td><td style="text-align: right;"><u>0</u></td></tr></table> | | | | Yes | (20 points) | | No | (0 points) | <u>0</u> | | | |
| Yes | (20 points) | | | | | | | | | | | |
| No | (0 points) | <u>0</u> | | | | | | | | | | |
| Distance to Surface Water: <small>(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)</small> | | | | | | | | | | | | |
| <table style="width: 100%;"><tr><td>Less than 200 feet</td><td>(20 points)</td><td></td></tr><tr><td>200 feet to 1,000 feet</td><td>(10 points)</td><td></td></tr><tr><td>Greater than 1,000 feet</td><td>(0 points)</td><td style="text-align: right;"><u>0</u></td></tr></table> | | | | Less than 200 feet | (20 points) | | 200 feet to 1,000 feet | (10 points) | | Greater than 1,000 feet | (0 points) | <u>0</u> |
| Less than 200 feet | (20 points) | | | | | | | | | | | |
| 200 feet to 1,000 feet | (10 points) | | | | | | | | | | | |
| Greater than 1,000 feet | (0 points) | <u>0</u> | | | | | | | | | | |
| RANKING SCORE (TOTAL POINTS) : | | | <u>10</u> | | | | | | | | | |

RECEIVED
JAN 31 2000
OIL CON. DIV.
DIST. 3

Grenier A #1A Dehy

Date Remediation Started: 07/07/1999

Date Completed: 07/07/1999

Remediation Method:

Excavation

☒

Approx. Cubic Yard

27

(Check all appropriate sections)

Landfarmed

☒

Amount Landfarmed (cubic yds)

27

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 15' X 12' X 4' 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.

*** Sandstone encountered at 4'. See attached risk analysis form.

Ground Water Encountered:

No

☒

Yes

☐

Depth

Final Pit Closure Sampling:

Sample Location

5 pt. composite - bottom.

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

Sample depth

4'

Sample date

07/07/1999

Sample time

2:25:00 PM

Sample Results

Benzene (ppm)

34 ***

Total BTEX (ppm)

525 ***

Field headspace (ppm)

TPH (ppm)

950.00

Method

8015B

Vertical Extent (ft)

Risk Analysis 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

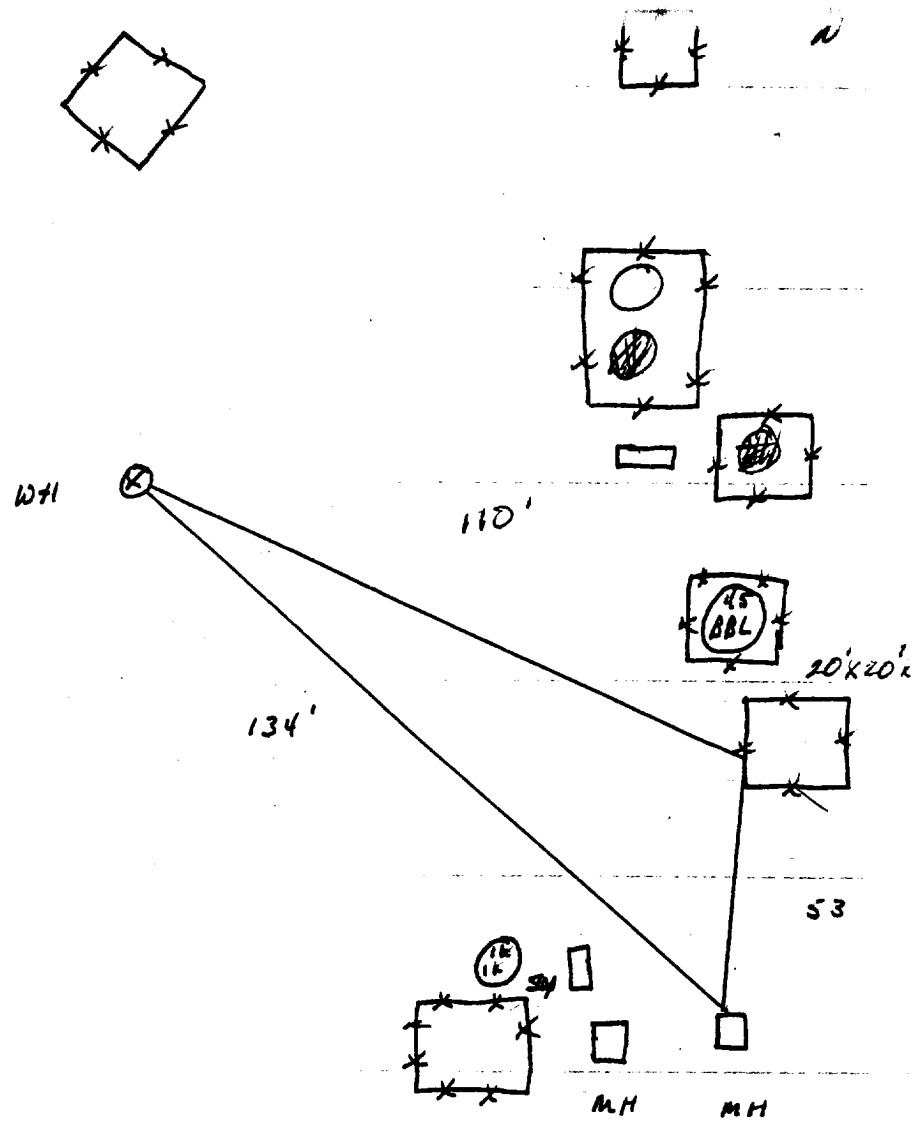
DATE January 24, 2000

SIGNATURE

Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Greiner A²1A DH plot
 (C) 24-30N-10W
 Burlington
 7-7-64 @ 1337

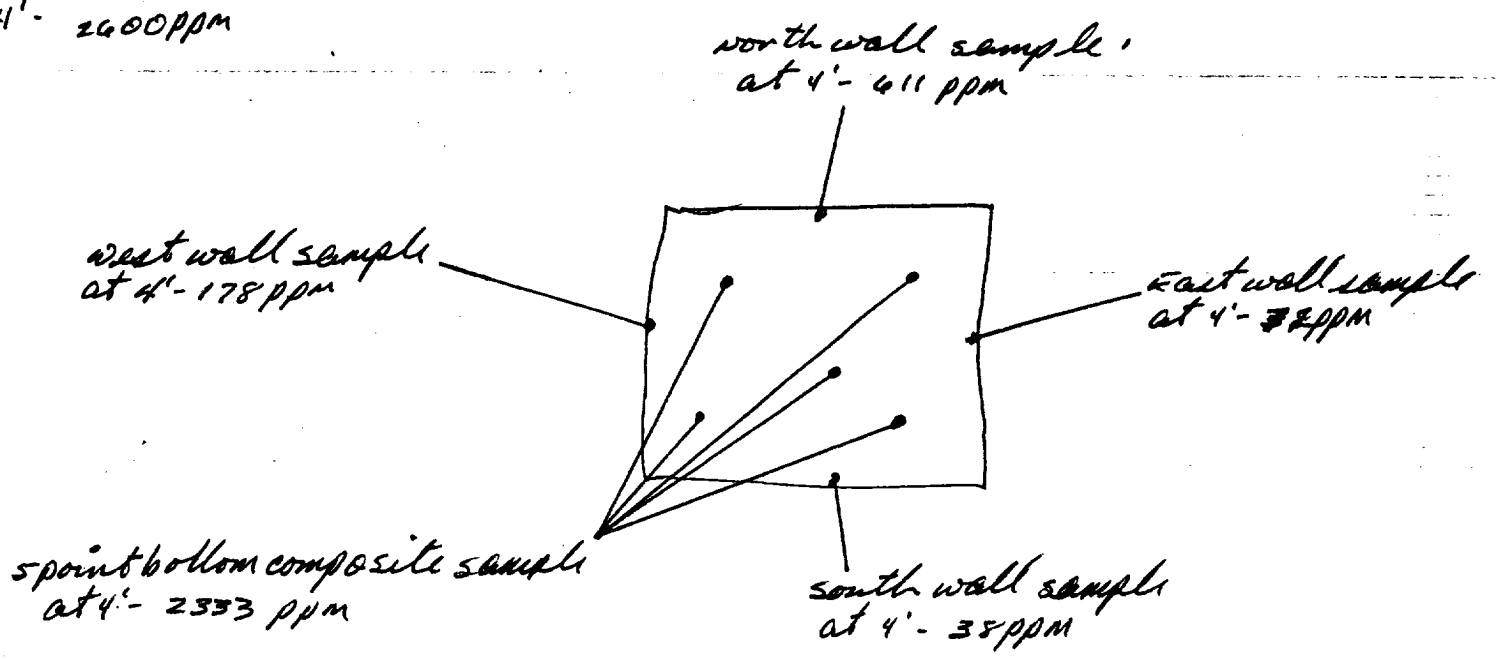


Excavation Sampling

PID Readings

3' - 1344 ppm
 4' - 2600 ppm

15'(N+S) x 12'(E+W) x 4' @



not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Jul-99

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9907014

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



Ray

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jul-99

| | | | |
|--------------------|------------------------------------|----------------------------|-----------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Grenier A1A DH |
| Work Order: | 9907014 | Client Sample ID: | 9907071425; 5pt bottom Comp |
| Lab ID: | 9907014-07A | Matrix: | SOIL |
| Project: | PNM Pit Remediation | Collection Date: | 7/7/99 2:25:00 PM |
| | | COC Record: | 7645 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|-------------------------------------|--------|----------------|------|-------|------|---------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DC |
| T/R Hydrocarbons: C10-C28 | 950 | 25 | | mg/Kg | 1 | 7/20/99 |
| AROMATIC VOLATILES BY GC/PID | | SW8021B | | | | Analyst: DC |
| Benzene | 34000 | 2500 | | µg/Kg | 2500 | 7/9/99 |
| Toluene | 250000 | 5000 | | µg/Kg | 2500 | 7/9/99 |
| Ethylbenzene | 23000 | 2500 | | µg/Kg | 2500 | 7/9/99 |
| m,p-Xylene | 180000 | 5000 | | µg/Kg | 2500 | 7/9/99 |
| o-Xylene | 38000 | 2500 | | µg/Kg | 2500 | 7/9/99 |

525000
525.00 ppm

| | | |
|--------------------|---|---|
| Qualifiers: | PQL - Practical Quantitation Limit | S - Spike Recovery outside accepted recovery limits |
| | ND - Not Detected at Practical Quantitation Limit | R - RPD outside accepted recovery limits |
| | J - Analyte detected below Practical Quantitation Limit | E - Value above quantitation range |
| | B - Analyte detected in the associated Method Blank | Surr: - Surrogate |

1 of 1

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- This report is valid only when used with the associated equipment -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jul-99

| | | | |
|--------------------|------------------------------------|----------------------------|-------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Grenier A1A DH |
| Work Order: | 9907014 | Client Sample ID: | 9907071430; 4 Wall Comp |
| Lab ID: | 9907014-08A | Matrix: | SOIL |
| Project: | PNM Pit Remediation | Collection Date: | 7/7/99 2:30:00 PM |
| | | COC Record: | 7645 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|----------------|------|-------|----|---------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DC |
| T/R Hydrocarbons: C10-C28 | ND | 25 | | mg/Kg | 1 | 7/20/99 |

Qualifiers:

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- Surr: - Surrogate

1 of 1

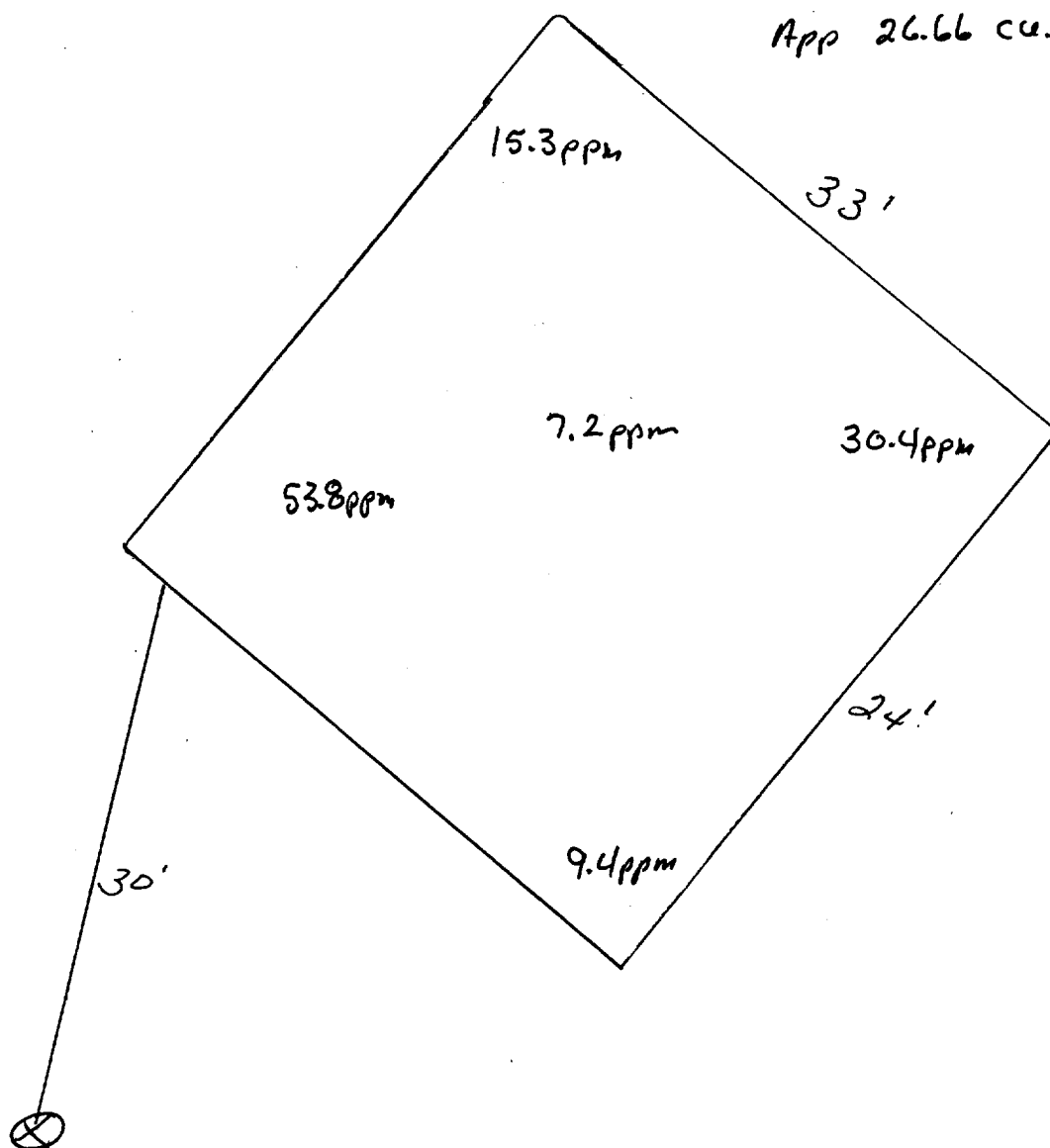
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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Section 1, 11, 21
Sec. 26 T30N R10W Unit C
Burlington

Landfarm Drawing

App 26.66 cu. yds



2" to 12" Depth
Headspace 62.7 ppm
Sample # 9907141445

Not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 30-Jul-99

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation Landfarms
Lab Order: 9907036

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Jul-99

| | | | |
|--------------------|------------------------------------|----------------------------|----------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Grenier A-1A DH LF |
| Work Order: | 9907036 | Client Sample ID: | 9907141445; 5pt Comp |
| Lab ID: | 9907036-07A | Matrix: | SOIL |
| Project: | PNM Pit Remediation Landfarms | Collection Date: | 7/14/99 2:45:00 PM |
| | | COC Record: | 7491 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|----------------|------|-------|----|---------------|
| DIESEL RANGE ORGANICS | | SW8015B | | | | Analyst: DC |
| T/R Hydrocarbons: C10-C28 | 460 | 25 | | mg/Kg | 1 | 7/29/99 |

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNICAL BLENDING INTEGRATED WITH THE ENVIRONMENT -



Environmental Services

| | |
|---------------------------------------|----------------------------|
| Well Name: | Grenier A #1A DH |
| Well Legals: | Sec 26, T30N, R10W, Unit C |
| Pit Type: | Dehydrator |
| Horizontal Distance to Surface Water: | Greater than 1,000 feet |
| Groundwater Depth: | 50 feet to 100 feet |

RISK ANALYSIS

PNM requests closure of their former pit on the Grenier A #1A DH well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 71 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Turley, NM series 7.5 minute topographic map.)
2. PNM excavated 27 cubic yards of soil from the former pit. Source removal minimizes the possibility of surface water contamination.
3. Sandstone was encountered at 4 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
4. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes that their former pit on the Grenier A #1A DH well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.