

State of New Mexico  
Energy, Minerals and Natural Resources Department  
DEPUTY OIL & GAS INSPECTOR  
P.O. Drawer DD, Artesia, NM 88221

District III  
1000 Rio Brazos Blvd., Santa Fe, NM 87505  
DEC 17 1998

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

**PIT REMEDIATION AND CLOSURE REPORT**

RECEIVED  
JUL 31 1998  
OIL CON. DIV.  
DIST. 3

Operator: PNM Gas Services ( Cross Timbers ) Telephone: 324-3764  
Address: 603 W. Elm Street Farmington, NM 87401  
Facility or Well Name: Johnson Com B #1E  
Location: Unit I Sec 21 T 27 N R 10 W County San Juan  
Pit Type: Separator ☒ Dehydrator ☐ Other ☐  
Land Type: BLM ☒ State ☐ Fee ☐ Other ☐ No

Pit Location: Pit dimensions: length 25 ' width 25 ' depth 3 '  
(Attach diagram) Reference: wellhead ☒ other ☐  
Footage from reference: 110'  
Direction from reference: 10 Degrees ☒ East ☐ North ☐  
of ☐ West ☒ South

Depth to Ground Water: Less than 50 feet (20 points)  
50 feet to 99 feet (10 points)  
Greater than 100 feet ( 0 points) 20  
(Vertical distance from contaminants to seasonal high water elevation of ground water)

Wellhead Protection Area: Yes (20 points)  
No ( 0 points) 0  
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)

Distance to Surface Water: Less than 200 feet (20 points)  
200 feet to 1,000 feet (10 points)  
Greater than 1,000 feet ( 0 points) 10  
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)

RANKING SCORE (TOTAL POINTS): 30

Date Remediation Started: 5/5/98 Date Completed: 5/6/98Remediation Method: Excavation X Approx. Cubic Yard 94

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 94

Other \_\_\_\_\_

Remediation Location: Onsite X 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 22' X 23' X 5' 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 5'. See attached risk analysis and lab analysis form.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 5'Sample date 5/5/98 Sample time 11:15:00 AM

## Sample Results

Benzene (ppm) \*\*\* 17.0000Total BTEX (ppm) 309.0000

Field headspace (ppm) \_\_\_\_\_

TPH (ppm) 79.00 Method 8015Vertical 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 July 27, 1998

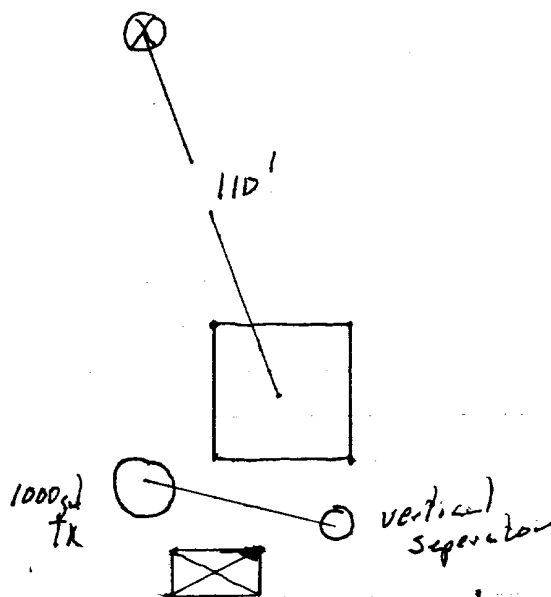
SIGNATURE

Mary CookPRINTED NAME Gary CookAND TITLE Environmental Technician III

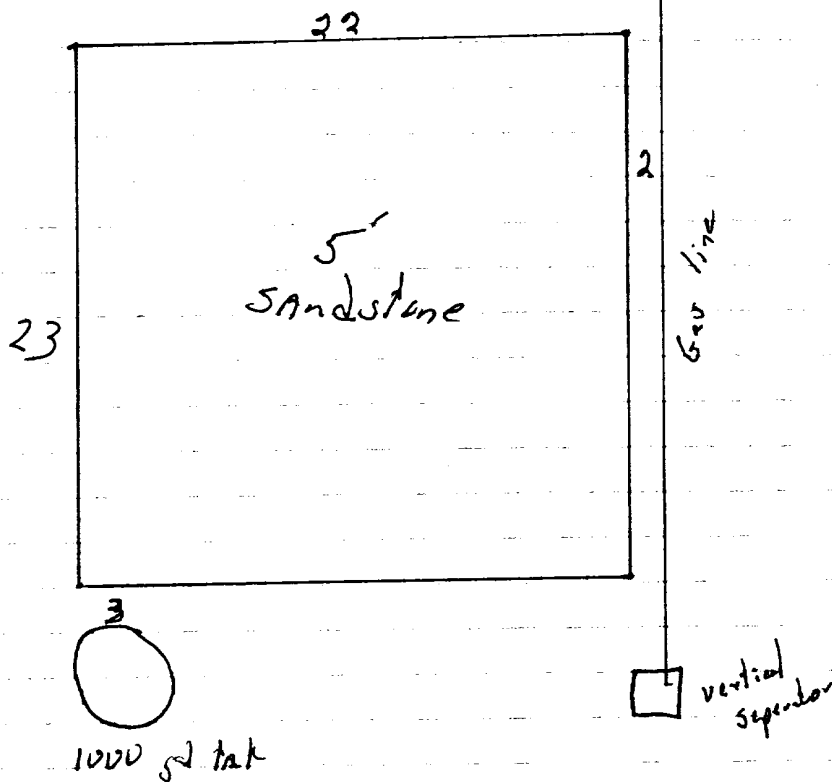
Johnson Corn B #1/E  
Cross Timbers  
Sec. 21, 27N, 10W, I

5/5/98

start:



End of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 15-May-98

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**CLIENT:** PNM - Public Service Company of NM

**Project:** Johnson Com B#1E

**Lab Order:** 9805014

**CASE NARRATIVE**

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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: 15-May-98

**Client:** PNM - Public Service Company of NM  
**Work Order:** 9805014  
**Lab ID:** 9805014-01A **Matrix:** SOIL  
**Project:** Johnson Com B#1E

**Client Sample Info:** Johnson Com B#1E  
**Client Sample ID:** 9805051115; Bottom @ 5ft.  
**Collection Date:** 5/5/98 11:15:00 AM  
**COC Record:** 7132

| Parameter                    | Result        | PQL            | Qual | Units | DF   | Date Analyzed |
|------------------------------|---------------|----------------|------|-------|------|---------------|
| <b>DIESEL RANGE ORGANICS</b> |               | <b>SW8015</b>  |      |       |      | Analyst: HR   |
| T/R Hydrocarbons: C10-C28    | 79            | 25             |      | mg/Kg | 1    | 5/13/98       |
| <b>BTEX</b>                  |               | <b>SW8020A</b> |      |       |      | Analyst: DC   |
| Benzene                      | 17000         | 1000           |      | µg/Kg | 1000 | 5/6/98        |
| Toluene                      | 140000        | 2000           |      | µg/Kg | 1000 | 5/6/98        |
| Ethylbenzene                 | 16000         | 1000           |      | µg/Kg | 1000 | 5/6/98        |
| m,p-Xylene                   | 110000        | 2000           |      | µg/Kg | 1000 | 5/6/98        |
| o-Xylene                     | 26000         | 1000           |      | µg/Kg | 1000 | 5/6/98        |
|                              | <u>309000</u> |                |      |       |      |               |
|                              | 309.0 ppm     |                |      |       |      |               |

**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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• We serve the Polluting Industry with the Environment in Mind •

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 15-May-98

**Client:** PNM - Public Service Company of NM  
**Work Order:** 9805014  
**Lab ID:** 9805014-02A     **Matrix:** SOIL  
**Project:** Johnson Com B#1E

**Client Sample Info:** Johnson Com B#1E  
**Client Sample ID:** 9805051120; Walls @ 3ft.  
**Collection Date:** 5/5/98 11:20:00 AM  
**COC Record:** 7132

| Parameter                    | Result | PQL            | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|----------------|------|-------|----|---------------|
| <b>DIESEL RANGE ORGANICS</b> |        | <b>SW8015</b>  |      |       |    | Analyst: HR   |
| T/R Hydrocarbons: C10-C28    | ND     | 25             |      | mg/Kg | 1  | 5/13/98       |
| <b>BTEX</b>                  |        | <b>SW8020A</b> |      |       |    | Analyst: DC   |
| Benzene                      | ND     | 1              |      | µg/Kg | 1  | 5/6/98        |
| Toluene                      | ND     | 2              |      | µg/Kg | 1  | 5/6/98        |
| Ethylbenzene                 | ND     | 1              |      | µg/Kg | 1  | 5/6/98        |
| m,p-Xylene                   | ND     | 2              |      | µg/Kg | 1  | 5/6/98        |
| o-Xylene                     | ND     | 1              |      | µg/Kg | 1  | 5/6/98        |

**Qualifiers:** PQL - Practical Quantitation Limit  
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B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits  
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1 of 1

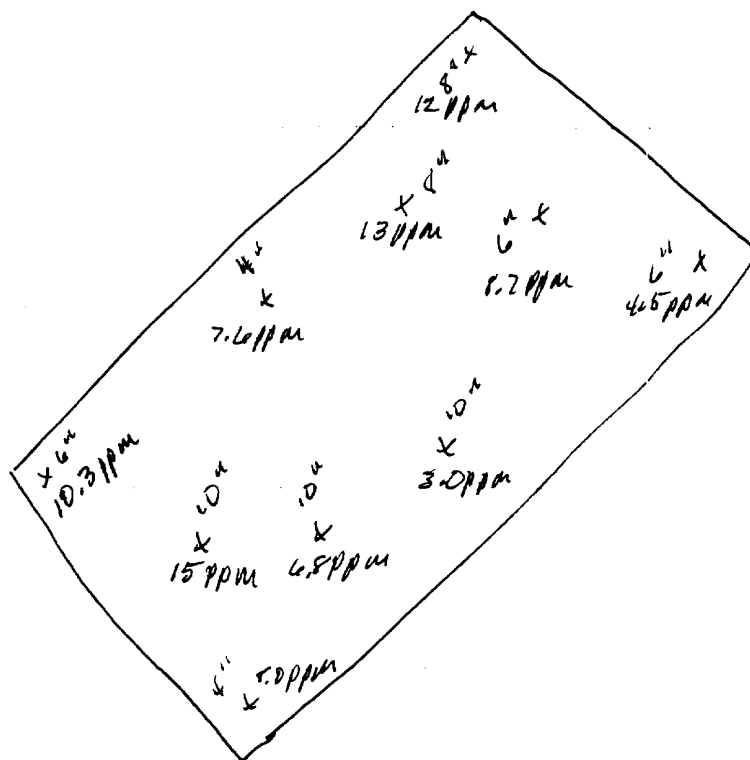
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- TECHNICAL BLENDING INDUSTRIES WITH THE ENVIRONMENT -

Johnson Gas Com B#1E  
(I) 21-27N-10W  
Cross Timbers  
San Juan County  
Lab Sample # 980528084D  
Field head space 11.5 ppm



W#  
⊗



OFF: (505) 325-5667



# ON SITE

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

**On Site Technologies, LTD.**

**Date:** 03-Jun-98

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**CLIENT:** PNM - Public Service Company of NM

**Project:** Landfarm Compositess

**Lab Order:** 9805082

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## 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: 03-Jun-98

|                    |                                    |                            |                      |
|--------------------|------------------------------------|----------------------------|----------------------|
| <b>Client:</b>     | PNM - Public Service Company of NM | <b>Client Sample Info:</b> | Johnson Gas Com B#1E |
| <b>Work Order:</b> | 9805082                            | <b>Client Sample ID:</b>   | 9805280840; Landfarm |
| <b>Lab ID:</b>     | 9805082-04A                        | <b>Matrix:</b>             | SOIL                 |
| <b>Project:</b>    | Landfarm Compositess               | <b>Collection Date:</b>    | 5/28/98 8:40:00 AM   |
|                    |                                    | <b>COC Record:</b>         | 5223                 |

| Parameter                    | Result | PQL           | Qual | Units | DF | Date Analyzed |
|------------------------------|--------|---------------|------|-------|----|---------------|
| <b>DIESEL RANGE ORGANICS</b> |        | <b>SW8015</b> |      |       |    | Analyst: HR   |
| T/R Hydrocarbons: C10-C28    | ND     | 25            |      | mg/Kg | 1  | 6/1/98        |

### 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

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|                                       |                            |
|---------------------------------------|----------------------------|
| Well Name:                            | Johnson Com B #1E          |
| Well Legals:                          | Unit I, Sec 21, T27N, R10W |
| Pit Type:                             | Separator                  |
| Horizontal Distance to Surface Water: | Less than 200 feet         |
| Groundwater Depth:                    | Greater than 100 feet      |

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## **RISK ANALYSIS**

PNM requests closure of their former pit on the Johnson Com B #1E well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 240 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash (East Fork Canyon). (Reference: topographic map.)
2. PNM excavated 94 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached analytical results). Source removal minimizes the possibility of surface water contamination.
3. Sandstone was encountered at 5 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 their former pit on the Johnson Com B #1E well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.

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