

District I
P O Box 100 Hobbs, NM

District II
P O Box 100 Hobbs, NM

District III
1000 Rio Brazos Rd. Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

JUL 18 1997

Approved **PIT REMEDIATION AND CLOSURE REPORT**

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: McDaniel C #1E

Location: Unit: E Sec. 19 T. 29 N R. 11 W County San Juan

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: 110'

Direction from reference: 30 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)	<u>10</u>

(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 ☐ No ☒ **RECEIVED** APR 24 1997 (20 points) (0 points) 0

**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)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 2/22/96 **Date Completed:** 2/22/96

Remediation Method: Excavation X **Approx. Cubic Yard** 300

(Check all appropriate sections) Landfarmed X **Amount Landfarmed (cubic yds)** 300

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 pit size 24'x21'x16' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil was aerated by plowing/disking until soil met regulatory levels.

*** Total BTEX above regulatory level; further excavation impossible due to bedrock.

Ground Water Encountered: No ✓ Yes _____ Depth _____

Final Pit Closure Sampling: Sample Location 5 pt. composite-4 side walls and center of pit bottom

(if multiple samples, attach sample result and diagram of sample locations and depths.) Sample depth 16'

Sample date 2/22/96 Sample time 2:00:00 PM

Sample Results

Benzene (ppm) 26.9444

Total BTEX (ppm) *** 419.9106

Field headspace (ppm) _____

TPH 4133.00 Method 8015A

Vertical Extent (ft) 30' 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 April 28, 1997

SIGNATURE

Denver Bearden

PRINTED NAME
AND TITLE

Denver Bearden
Administrator III



Well Name:	McDaniel C #1E
Well Legals:	Unit E, Sec 19, T29N, R11W
Pit Type:	Separator
Horizontal Distance to Surface Water:	Greater than 1,000 ft
Groundwater Depth:	50 ft to 99 ft

RISK ANALYSIS

PNM requests closure of the McDaniel C #1E using a limited risk analysis of the site conditions.

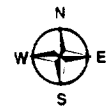
1. PNM estimated groundwater to be at a depth of 85 ft. based upon elevation of site to the San Juan River. (Reference: topographic map.)
2. This site is not located within 200 ft. of a domestic water well and is not within 1,000 ft. of any other water source.
3. Distance from the site to surface water is greater than 1,000 ft.
4. PNM excavated 300 cu. yds. from the former pit. Vertical extent was determined using a hollow stem drilling rig. Bedrock was encountered at 30 ft. below ground surface.

Based upon the information provided above, PNM believes the McDaniel C #1E poses minimal risk to the environment. Subsurface lateral migration is limited based upon PNM's past experience in excavating 400 pits. Source removal minimizes the possibility of surface water contamination. Bedrock provides an impermeable layer between remaining contamination and groundwater. Vertical migration through bedrock to groundwater is highly unlikely.

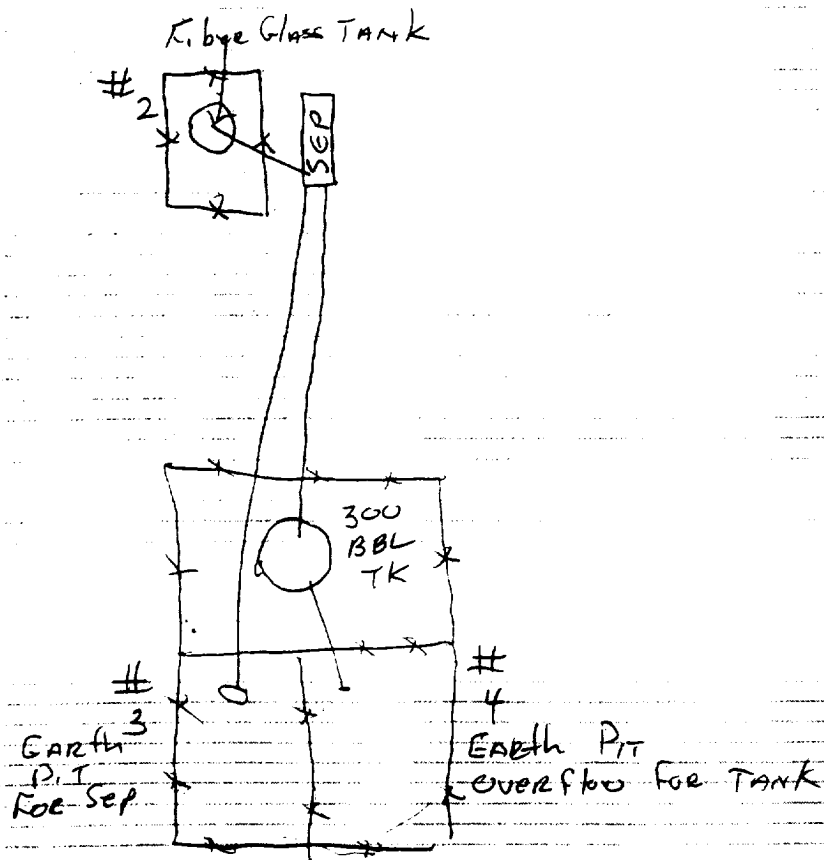
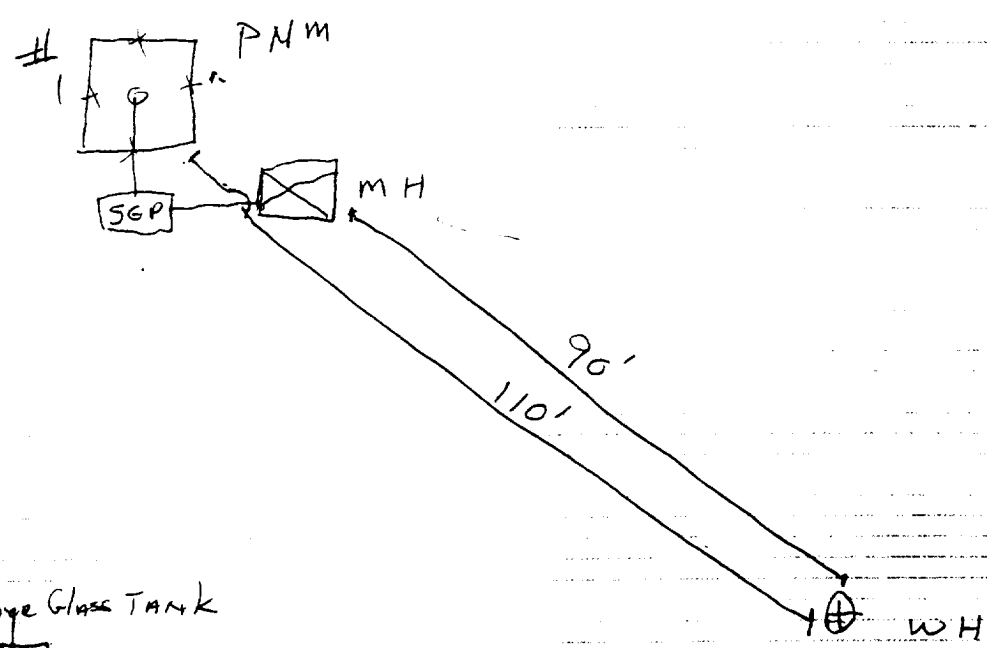
Well Name: McDaniel "C" #1E

Data Sheet #: 4082

Legal Description: Sec 19 Twn 29N Rng 11W



1550 FNL 870 FNL



OFF: (505) 325-8786



LAB: (505) 325-5667

TOTAL PETROLEUM HYDROCARBONS

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

Date: *23-Feb-96*
COC No.: *4581*
Sample No. *10321*
Job No. *2-1000*

Project Name: *PNM Gas Services - McDaniel #C1E*
Project Location: *9602221400; 4 Walls and Bottom Composite*
Sampled by: *RD* Date: *22-Feb-96* Time: *14:00*
Analyzed by: *HR* Date: *23-Dec-96*
Type of Sample: *Soil*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
<i>10321-4581</i>	<i>PNM Gas Services - McDaniel #C1E</i> <i>9602221400; 4 Walls and Bottom Composite</i>	<i>4,133 mg/kg</i>

Quality Assurance Report

Laboratory Identification	Analyzed Value	Acceptable Range	Units of Measure
<i>Laboratory Fortified Blank Soil - QCBS2</i>	<i>< 25</i>	<i>< 25</i>	<i>mg/kg</i>
<i>Laboratory Fortified Spike Soil - QCSS1</i>	<i>880</i>	<i>828 - 1024</i>	<i>mg/kg</i>

Method - *EPA Method 418.1 Total Petroleum Hydrocarbons*

Approved by: *[Signature]*
Date: *2/23/96*

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OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

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

Date: *23-Feb-96*
COC No.: *4581*
Sample No. *10321*
Job No. *2-1000*

Project Name: *PNM Gas Services - McDaniel #C1E*
Project Location: *9602221400; 4 Walls and Bottom Composite*
Sampled by: *RD* Date: *22-Feb-96* Time: *14:00*
Analyzed by: *DC* Date: *23-Feb-96*
Type of Sample: *Soil*

Aromatic Volatile Organics

Component	Result	Units of Measure	Detection Limit	Units of Measure
<i>Benzene</i>	<i>26944.4</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>153918.0</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>19556.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>184132.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>35359.7</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>419910.6</i>		<i>ug/kg</i>

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

Approved by: *Ja4*
Date: *2/23/96*

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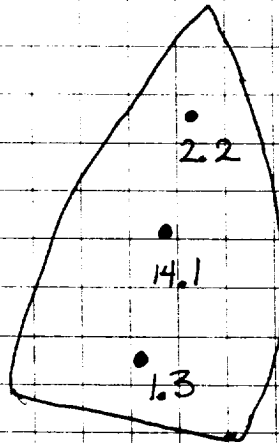
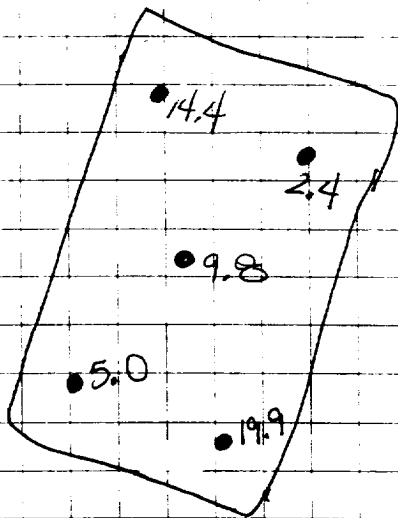
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McDaniel CLE
Landfarm on location

7/2/96

Composite Sample

Soil Vapor Reading 48.6



Sample Depth between 2' - 12"

OFF: (505) 325-5667



LAB: (505) 325-1556

Diesel Range Organics

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

Date: *8-Jul-96*
COC No.: *4701*
Sample No. *11389*
Job No. *2-1000*

Project Name: *PNM Gas Services - McDaniel C1E Landfarm*
Project Location: *9607020930; 8pt. Composite, 2"-12" deep*
Sampled by: *GC* Date: *2-Jul-96* Time: *9:30*
Analyzed by: *DC* Date: *3-Jul-96*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>40.3</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>

Quality Assurance Report

DRO QC No.: 0475-QC

Calibration Check

<i>Parameter</i>	<i>Method Blank</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>2,000</i>	<i>1,915</i>	<i>4.3</i>	<i>15%</i>

Matrix Spike

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Diesel Range (C10-C28)</i>	<i>117</i>	<i>112</i>	<i>(70-130)</i>	<i>3</i>	<i>20%</i>

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

Approved by: *[Signature]*

Date: *7/8/96*

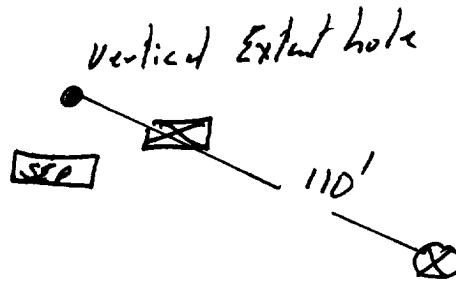
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Vertical Extent

McDaniel C #1E
Burlington Resources
Sec. 19, 29N, 11W, E

4-3-97



24' sandstone

30' hard sandstone
split spoon sample
50 blows - 5"
140 psi per blow

sample # 9704030840

* Depth to ground water = San Juan River 85'

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-Apr-97*
COC No.: *5866*
Sample No.: *14081*
Job No.: *2-1000*

Project Name: *PNM Gas Services - McDaniel C #1E*
Project Location: *9704030840; Vertical Extent*
Sampled by: *GC* Date: *3-Apr-97* Time: *8:40*
Analyzed by: *DC* Date: *4-Apr-97*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>316.4</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>

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>	<i>< 5.0</i>	<i>ppm</i>	<i>100</i>	<i>107</i>	<i>6.3</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>94</i>	<i>97</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: 

Date: *4/7/97*

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- 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: *4-Apr-97*
COC No.: *5866*
Sample No.: *14081*
Job No.: *2-1000*

Project Name: *PNM Gas Services - McDaniel C #1E*
Project Location: *9704030840; Vertical Extent*
Sampled by: *GC* Date: *3-Apr-97* Time: *8:40*
Analyzed by: *DC* Date: *4-Apr-97*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	10145	ug/kg	0.2	ug/kg
<i>Toluene</i>	81487	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	11210	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	89736	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	16277	ug/kg	0.2	ug/kg
	<i>TOTAL</i>	208855	ug/kg	

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

Approved by: 
Date: *4/7/97*

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