

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

RECEIVED
JUL 30 1996

OIL CON. DIV
DIST. 3

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

Kenny E. Frost
DEPUTY OIL & GAS INSPECTOR

OCT 19 1996

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (SRC) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Crandell #5
Location: Unit: M Sec. 19 T. 31 N R. 10 W County San Juan
Pit Type: Separator ☒ Dehydrator ☐ Other No
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: 47'
Direction from reference: 80 Degrees ☒ East North ☐
of ☐ West South ☒

Depth to Ground Water:

(Vertical distance from contaminants to
seasonal high water elevation of 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

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 4/11/96 Date Completed: 4/11/96

Remediation Method: Excavation X Approx. Cubic Yard 240

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 200

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 of 18'x20'x18' and landfarmed soil onsite within a bermed area at a depth of 6" to 12". Soil will be aerated by plowing/disking until soil meets regulatory levels.

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 18'

Sample date 4/11/96 Sample time 2:00:00 PM

Sample Results

Benzene (ppm) 0.0751

Total BTEX (ppm) 35.8438

Field headspace (ppm) _____

TPH 3000.00 Method 418.1

Vertical Extent (ft) _____ Risk Assessment form attached Yes _____ No ✓

Ground Water Sample: Yes _____ No ✓ (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

7-26-96

SIGNATURE

Denise Bearden

PRINTED NAME
AND TITLE

Crandell # 5

4-11-96

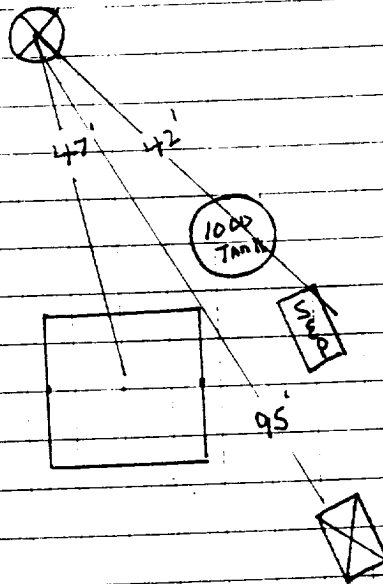
SRC

Sec. 19, T31N, R10W

1130 FSL & 1170' FWL

Run # 10-42

80° E of South



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: *14-Apr-96*
COC No.: *4603*
Sample No. *10629*
Job No. *2-1000*

Project Name: *PNM Gas Services - Crandell #5*
Project Location: *9604111400; 5pt. Composite, 4 Walls & Bottom, 18'*
Sampled by: *GC* Date: *11-Apr-96* Time: *14:00*
Analyzed by: *DC* Date: *14-Apr-96*
Type of Sample: *Soil*

Laboratory Analysis

Laboratory Identification	Sample Identification	Total Petroleum Hydrocarbons
<i>10629-4603</i>	<i>PNM Gas Services - Crandell #5</i> <i>9604111400; 5pt. Composite, 4 Walls & Bottom, 18'</i>	<i>3,000 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>913</i>	<i>828 - 1024</i>	<i>mg/kg</i>

Method - EPA Method 418.1 Total Petroleum Hydrocarbons

Approved by: *Day*
Date: *4/14/96*

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OFF (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

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

Date: *15-Apr-96*
COC No.: *4603*
Sample No. *10629*
Job No. *2-1000*

Project Name: *PNM Gas Services - Crandell #5*
Project Location: *9604111400; 5pt. Composite, 4 Walls & Bottom, 18'*
Sampled by: GC Date: *11-Apr-96* Time: *14:00*
Analyzed by: DC Date: *14-Apr-96*
Type of Sample: *Soil*

Aromatic Volatile Organics

Component	Result	Units of Measure	Detection Limit	Units of Measure
<i>Benzene</i>	75.1	ug/kg	0.2	ug/kg
<i>Toluene</i>	9326.9	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	2787.8	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	19051.9	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	4602.1	ug/kg	0.2	ug/kg
	TOTAL	35843.8	ug/kg	

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

Approved by: *JG*

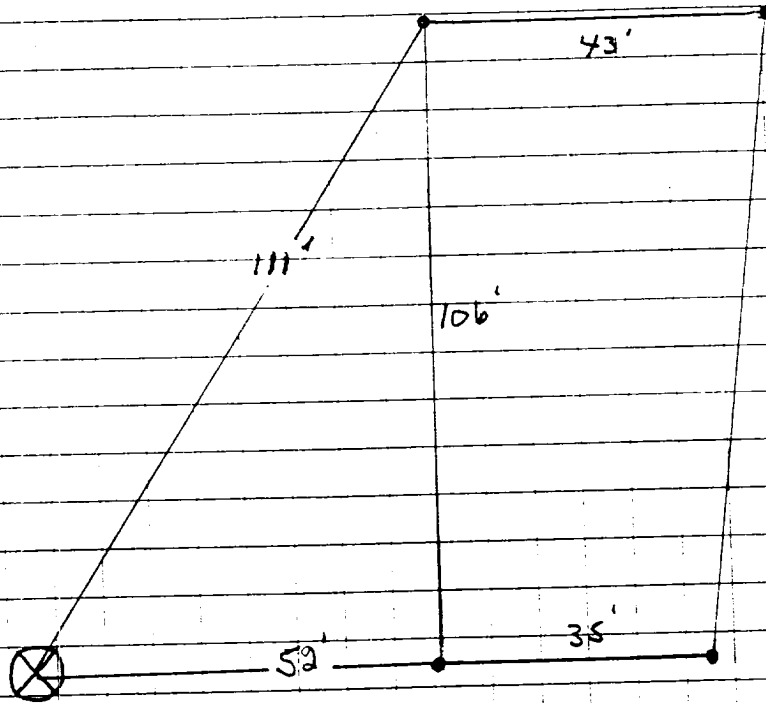
Date: *4/15/96*

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Crendell # 5

Land Farming on Location



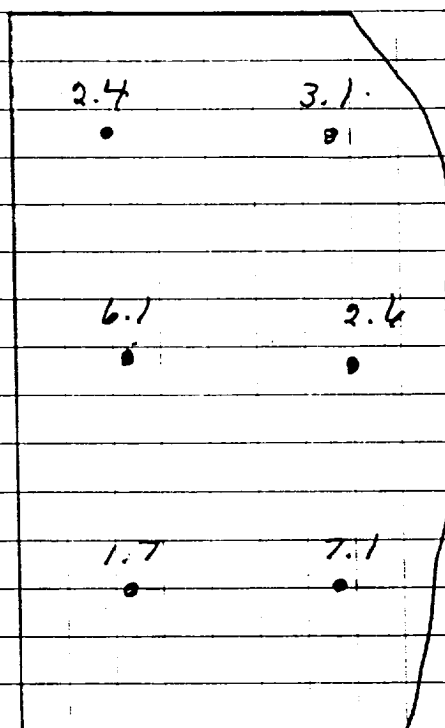
Crandell #5
Meridian 0:1
Sec. 19, T31, N, R10W
Run # 10-41

5-14-96

Land Farmed On-Location 200 yards

Composite Sample # 9605140815

Soil Vapor Head-Space Reading = 77.1 ppm



Sample depth 2'-10" deep

OFF: (505) 325-8786

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-5667

Diesel Range Organics

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

Date: *16-May-96*
 COC No.: *4642*
 Sample No. *10884*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Crandell #5 Land Farm*
 Project Location: *9605140815; 6pt. Composite, 2"-12" deep*
 Sampled by: GC Date: *14-May-96* Time: *8:15*
 Analyzed by: HR Date: *15-May-96*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Diesel Range Organics (C10 - C28)	230.8	mg/kg	5.0	mg/kg

Quality Assurance Report

DRO QC No.: *0475-QC*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Diesel Range (C10 - C28)	<5.0	ppm	2,000	1,816	9.2	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Diesel Range (C10-C28)	88	96	(70-130)	6	20%

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

Approved by: *[Signature]*Date: *5/16/96*

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