

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

OK
Risk
Sandstone
SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

RECEIVED
APR 29 1999

PIT REMEDIATION AND CLOSURE REPORT

OIL CON. DIV.
DIST. 3

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: McCroden #3A

Location: Unit I Sec 4 T 25 N R 3 W County Rio Arriba

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: 80'

Direction from reference: 20 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

McCroden #3A

Date Remediation Started: 1/20/99 Date Completed: 1/20/99

Remediation Method: Excavation X Approx. Cubic Yard 285

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 285

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 28' X 25' X 11' 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 11'. See attached risk 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 11'

Sample date 1/20/99 Sample time 12:58:00 PM

Sample Results

Benzene (ppm) 9.8000

Total BTEX (ppm) 776.8000 ***

Field headspace (ppm) _____

TPH (ppm) 650.00 Method 8015A

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

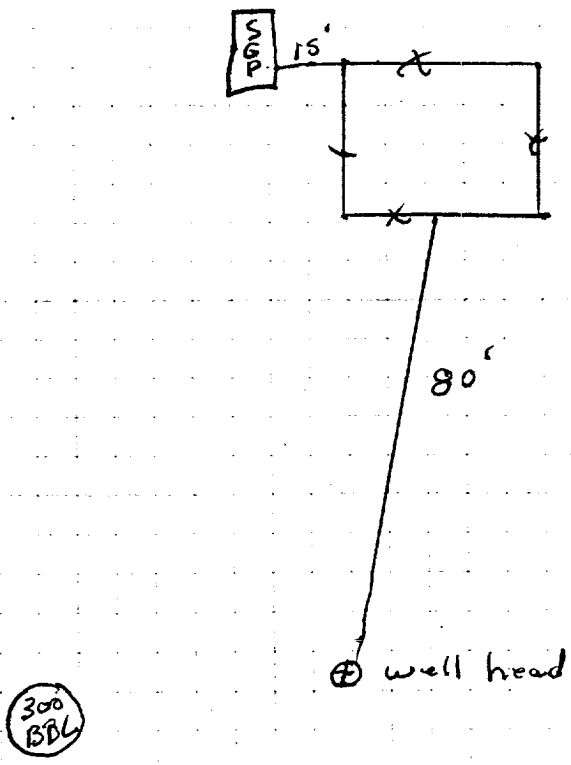
DATE April 27, 1999

SIGNATURE Maureen Gannon

PRINTED NAME **Maureen Gannon**
AND TITLE **Project Manager**

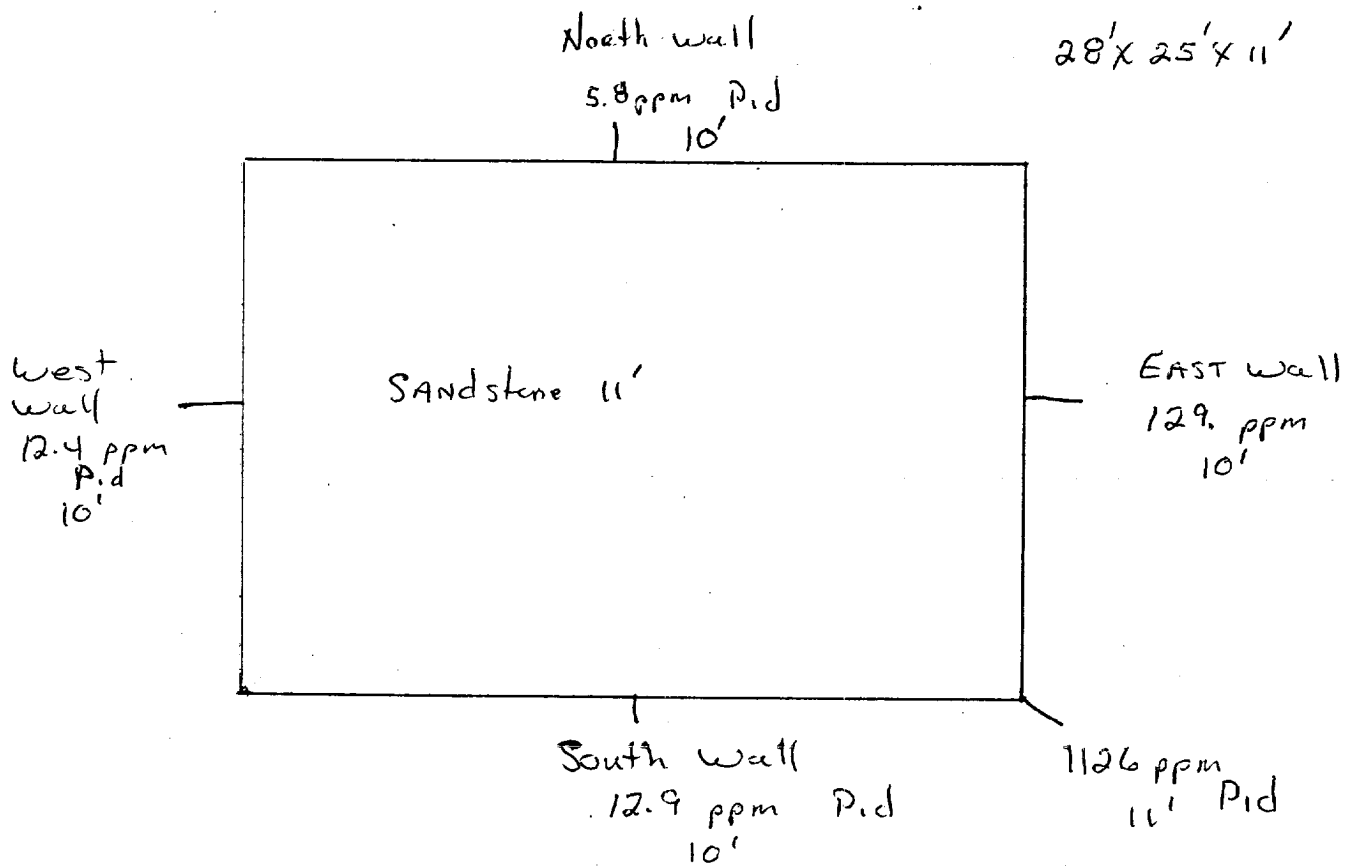
Mc Croden # 3A
SEC-4 T-25N R-34 44-I
ENERGEN

Site Drawing



Not to Scale

III Crocker 3H
Sec-4 T-25N R-3W UL-I
ENERGEN



Not to Scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 29-Jan-99

CLIENT: PNM - Public Service Company of NM

Project: McCroden #3A

Lab Order: 9901012

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.

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ANALYTICAL REPORT

Date: 29-Jan-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	McCroden #3A
Work Order:	9901012	Client Sample ID:	9901201259; Bottom Sample
Lab ID:	9901012-02A	Matrix:	SOIL
Project:	McCroden #3A	Collection Date:	1/20/99 12:59:00 PM
		COC Record:	7368

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	650	25		mg/Kg	1	1/28/99
BTEX		SW8021B				Analyst: HR
Benzene	9800	2500		µg/Kg	2500	1/25/99
Toluene	450000	5000		µg/Kg	2500	1/25/99
Ethylbenzene	27000	2500		µg/Kg	2500	1/25/99
m,p-Xylene	250000	5000		µg/Kg	2500	1/25/99
o-Xylene	40000	2500		µg/Kg	2500	1/25/99

776.800

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

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OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 29-Jan-99

Client: PNM - Public Service Company of NM
Work Order: 9901012
Lab ID: 9901012-01A **Matrix:** SOIL
Project: McCroden #3A

Client Sample Info: McCroden #3A
Client Sample ID: 9901201258; Wall Comp
Collection Date: 1/20/99 12:58:00 PM
COC Record: 7368

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	1/28/99
BTEX		SW8021B				Analyst: HR
Benzene	ND	1		µg/Kg	1	1/25/99
Toluene	ND	2		µg/Kg	1	1/25/99
Ethylbenzene	ND	1		µg/Kg	1	1/25/99
m,p-Xylene	ND	2		µg/Kg	1	1/25/99
o-Xylene	ND	1		µg/Kg	1	1/25/99

Qualifiers: PQL - Practical Quantitation Limit
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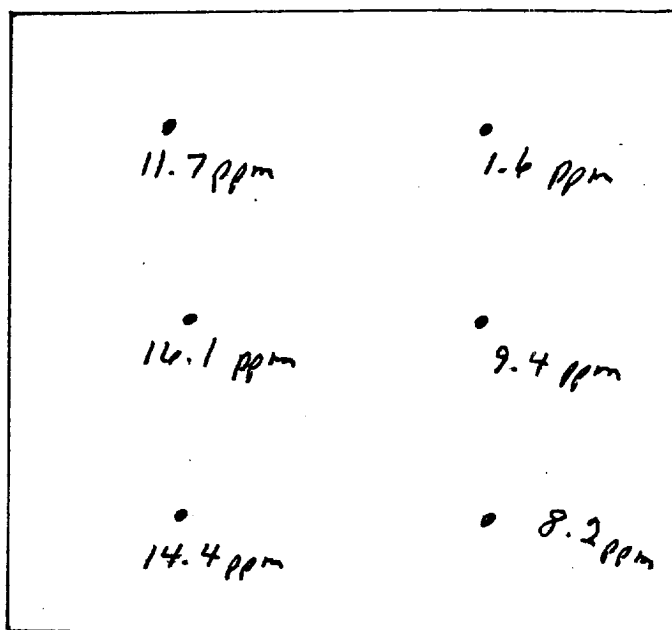
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McCroden #3A
Energen Resources
Sec. 4, 25N, 3W

3/24/99

↑
N

Land Farm: One location
approximately 285 yards



⊗ well head

2"-12" depth

Sample # 9903240955

soil vapor headspace reading = 47.6 ppm

not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 29-Mar-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	McCroden #3A
Work Order:	9903054	Client Sample ID:	9903240955
Lab ID:	9903054-05A	Matrix:	SOIL
Project:	Landfarms	Collection Date:	3/24/99 9:55:00 AM
		COC Record:	7552

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	29	25		mg/Kg	1	3/25/99

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

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1 of 1



Environmental Services

Well Name:	McCroden #3A
Well Legals:	Unit I, Sec 4, T25N, R3W
Pit Type:	Separator
Horizontal Distance to Surface Water:	Greater than 1,000 feet
Groundwater Depth:	Greater than 100 feet

RISK ANALYSIS

PNM requests closure of their former pit on the McCroden #3A well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 123 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Schmitz Ranch, NM series 7.5 minute topographic map.)
2. The site is located outside of the "vulnerable area" as defined under OCC Order No. R-7940-C.
3. PNM excavated 285 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached map and analytical results for the side wall profiles). Source removal minimizes the possibility of surface water contamination.
4. ~~Sandstone was encountered at 11 feet below ground surface. Bedrock/sandstone~~ provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
5. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the McCroden #3A well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.