

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

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

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APR 29 1999

OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Richardson #1 SRC

Location: Unit P Sec 10 T 31N R 12W 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: 145'

Direction from reference: 20 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) 0

(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) 0

(Horizontal distance to perennial lakes,
ponds, rivers, streams, creeks, irrigation
canals and ditches)

RANKING SCORE (TOTAL POINTS): 0

Richardson #1

Date Remediation Started: 5/20/98

Date Completed: 5/20/98

Remediation Method:

Excavation ☒

Approx. Cubic Yard 320

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 320

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 27' X 20' X 16' 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.

Vertical extent drilling conducted to 41'. Bottom hole results below OCD guidelines as indicated on attached lab analysis.

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

17'

Sample date

5/20/98

Sample time

8:40:00 AM

Sample Results

Benzene (ppm)

4.7000

Total BTEX (ppm)

155.3000

Field headspace (ppm)

TPH (ppm)

150.00

Method

8015A

Vertical Extent (ft) 41'

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

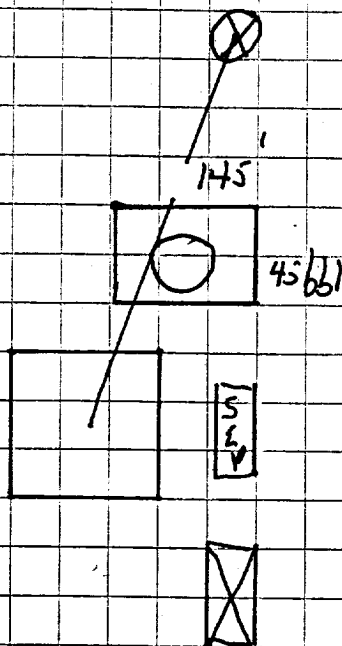
Richardson #1

5/20/98

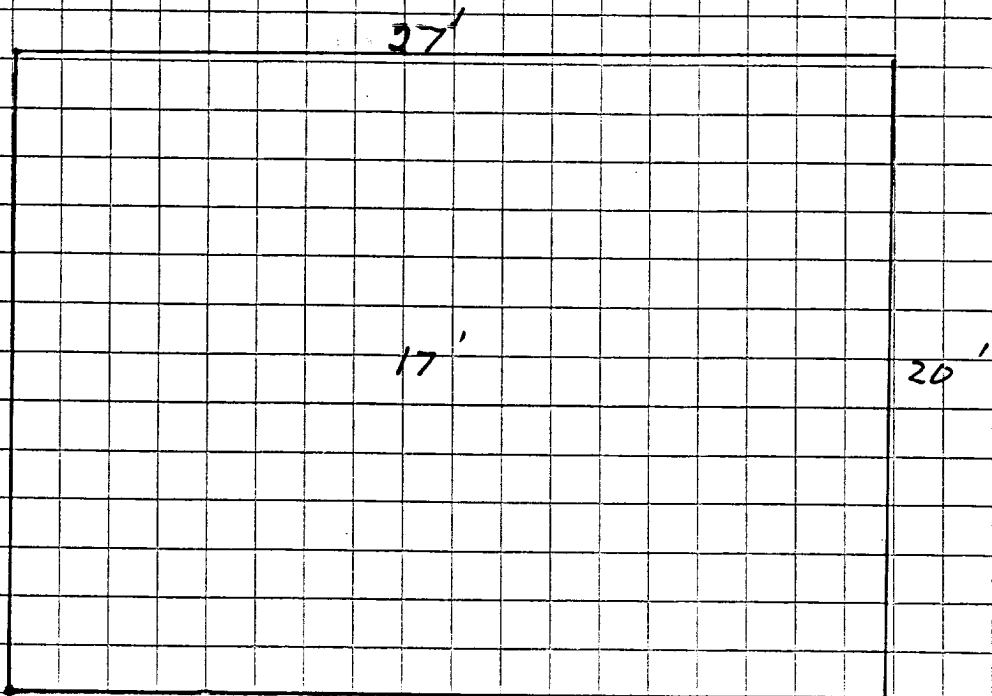
BR

Sec. 10, 31N, 12W, P

stake:



End of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 28-May-98

CLIENT: PNM - Public Service Company of NM

Project: Richardson #1

Lab Order: 9805066

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: 28-May-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Richardson #1
Work Order:	9805066	Client Sample ID:	9805200840; Bottom @ 17ft.
Lab ID:	9805066-01A	Matrix:	SOIL
Project:	Richardson #1	Collection Date:	5/20/98 8:40:00 AM
		COC Record:	7226

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS						
T/R Hydrocarbons: C10-C28	150	25		mg/Kg	1	Analyst: DC 5/27/98
BTEX						
		SW8020A				Analyst: DC
Benzene	4700	1000		µg/Kg	1000	5/23/98
Toluene	60000	2000		µg/Kg	1000	5/23/98
Ethylbenzene	9600	1000		µg/Kg	1000	5/23/98
m,p-Xylene	67000	2000		µg/Kg	1000	5/23/98
o-Xylene	14000	1000		µg/Kg	1000	5/23/98

155,300
155.30 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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-May-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Richardson #1
Work Order:	9805066	Client Sample ID:	9805200930; Walls @ 14ft.
Lab ID:	9805066-02A	Matrix:	SOIL
Project:	Richardson #1	Collection Date:	5/20/98 9:30:00 AM
		COC Record:	7226

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	Analyst: DC 5/27/98
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/Kg	1	5/23/98
Toluene	ND	2		µg/Kg	1	5/23/98
Ethylbenzene	ND	1		µg/Kg	1	5/23/98
m,p-Xylene	ND	2		µg/Kg	1	5/23/98
o-Xylene	ND	1		µg/Kg	1	5/23/98

Qualifiers:

PQL - Practical Quantitation Limit

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R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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Richardson #1

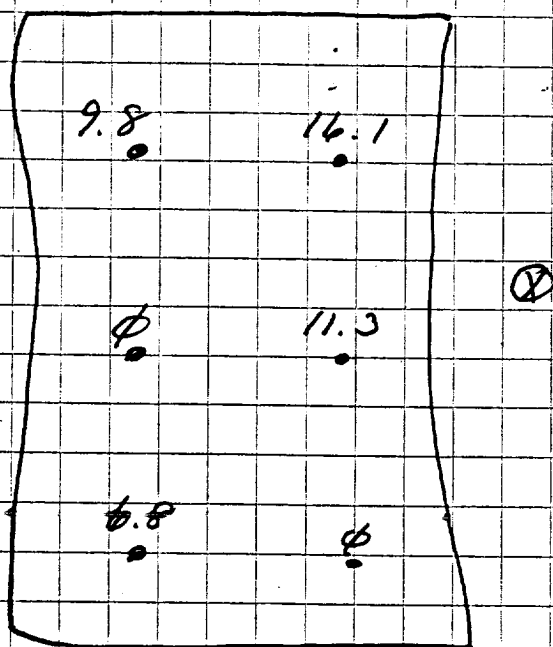
6/30/98

BR

Sec. 10, 31N, 12W, P

Landfarm:

320 yards



9806301130
2'-12" depth

soil vapor head space = 56.9 ppm

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 07-Jul-98

CLIENT: PNM - Public Service Company of NM
Project: Landfarms
Lab Order: 9806116

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

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 07-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info: Richardson #1 LF
Work Order:	9806116	Client Sample ID: 9806301130; 6pt. Comp. 2-12in.
Lab ID:	9806116-08A	Matrix: SOIL
Project:	Landfarms	Collection Date: 6/30/98 11:30:00 AM
		COC Record: 7307

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	62	25		mg/Kg	1	7/2/98

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

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 25-Feb-99

CLIENT: PNM - Public Service Company of NM
Project: Vertical Extent Drilling
Lab Order: 9902038

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: 25-Feb-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Richardson #1
Work Order:	9902038	Client Sample ID:	9902081140; Vert. Extent @ 41ft.
Lab ID:	9902038-02A	Matrix:	SOIL
Project:	Vertical Extent Drilling	Collection Date:	2/8/99 11:40:00 AM
		COC Record:	7468

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS						
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	2/24/99
BTEX						
Benzene	350	25		µg/Kg	25	2/11/99
Toluene	850	50		µg/Kg	25	2/11/99
Ethylbenzene	150	25		µg/Kg	25	2/11/99
m,p-Xylene	1300	50		µg/Kg	25	2/11/99
o-Xylene	250	25		µg/Kg	25	2/11/99

2900
2.900 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

P.O. BOX 2606 • FARMINGTON, NM 87499

RECORD OF SUBSURFACE EXPLORATION

PHILIP SERVICES CORP.

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 01

Well #

Page 1 of 2

Project Number 20731 Phase U001

Project Name PUM VERTICAL EXTENT

Project Location Richardson #1

Elevation

Borehole Location LTR: P S: 10 T: 31 N: 12W

GWL Depth

Drilled By K. PADILLA

Well Logged By Don Fernald

Date Started 2/8/99

Date Completed 2/8/99

Drilling Method 4 1/4 ID HSA

Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM BZ BH S/HS	Drilling Conditions & Blow Counts
0				Instructed by PUM- Sorry had to drill to 20'. Drilled boring on the SE portion of former pit.				BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
5								
10								
15								
20	01	2'	18"	Dark grey, strong HC odors, silty clay w/very few fine sand grains		1342	1947	
25	02	2'	15"	DK brown silty clay to lt grey strong HC odors more fine sand near 27'		401	1248	50 blows
30	03	2'	12"	DK brown to olive silty/fine sand. HC odors not as strong		635	543	50 blows
35	04	2'	12"	Med brown w/grey streaks, fine silty sand HC odors		1325	1701	50 blows
40								

Comments:

Geologist Signature

Don Fernald

RECORD OF SUBSURFACE EXPL ATION

PHILIP SERVICES CORP.
4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

Borehole # BH- 01
Well #
Page 2 of 2

Project Number 20731 Phase 6001
Project Name PNM VERTICAL EXTENT
Project Location RICHARDSON #1

Elevation
Borehole Location LTR-P S: 10 T: 31N R: 12W
GWL Depth
Drilled By K. PADILLA
Well Logged By J Farnold
Date Started 2/8/99
Date Completed 2/8/99

Drilling Method 4 1/4 ID HSA
Air Monitoring Method PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S/HS	
40		2'	4"	off-white to some light brown sand. - Med. Fine grained S.S. Strong HC odors Boring terminated at 42' due to S.S. Sample at 40-42' given to Gary Cook PNM			2000	X		BZ=Breathing Zone BH=Borehole S/HS=Sample/Headspace
45										50
50										
55										
60										
65										
70										
75										
80										
85										
90										
95										
100										

Comments:

Geologist Signature

[Signature]