

Operator:		PNM Gas Services (Burlington)		Telephone:		324-3764		
Address:		603 W. Elm Street Farmington, NM 87401						
Facility or Well Name:		Grenier A #8						
Location:	Unit	F	Sec	35	T	30 N	R 10 W County San Jaun	
Pit Type:	Separator	<input type="checkbox"/>	Dehydrator	<input checked="" type="checkbox"/>	Other			
Land Type:	BLM	<input checked="" type="checkbox"/>	State	<input type="checkbox"/>	Fee	<input type="checkbox"/>	Other	
Pit Location:	Pit dimensions:		length	12 '	width	12 '	depth 2 '	
(Attach diagram)	Reference:	wellhead	<input checked="" type="checkbox"/>	other				
	Footage from reference:	147'						
	Direction from reference:	60	Degrees	<input checked="" type="checkbox"/>	East	North	<input type="checkbox"/>	
				<input type="checkbox"/>	West	South	<input checked="" type="checkbox"/>	
of								
Depth to Ground Water:			Less than 50 feet		(20 points)			
			50 feet to 99 feet		(10 points)			
(Vertical distance from contaminants to seasonal high water elevation of ground water)			Greater than 100 feet		(0 points)		0	
Wellhead Protection Area:			Yes		(20 points)			
(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)			No		(0 points)		0	
Distance to Surface Water:			Less than 200 feet		(20 points)			
			200 feet to 1,000 feet		(10 points)			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)			Greater than 1,000 feet		(0 points)		0	
RANKING SCORE (TOTAL POINTS) :							0	

Grenier A #8

Date Remediation Started: 07/07/1999

Date Completed: 07/07/1999

Remediation Method:

Excavation ☒

Approx. Cubic Yard 154

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 134

Other 20 cu yds overburden.

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 26' X 35.5' X 4.5' 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 4.5'. See attached risk analysis form.

Ground Water Encountered:

No

☒

Yes

☐

Depth

Final Pit Closure Sampling:

Sample Location

5 pt. composite - bottom.

(if multiple samples, attach sample result and diagram of sample locations and depths.)

Sample depth

4.5'

Sample date

07/07/1999

Sample time

10:45:00 AM

Sample Results

Benzene (ppm)

1.5

Total BTEX (ppm)

186.5 ***

Field headspace (ppm)

TPH (ppm)

1990.00

Method

8015B

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 October 28, 1999

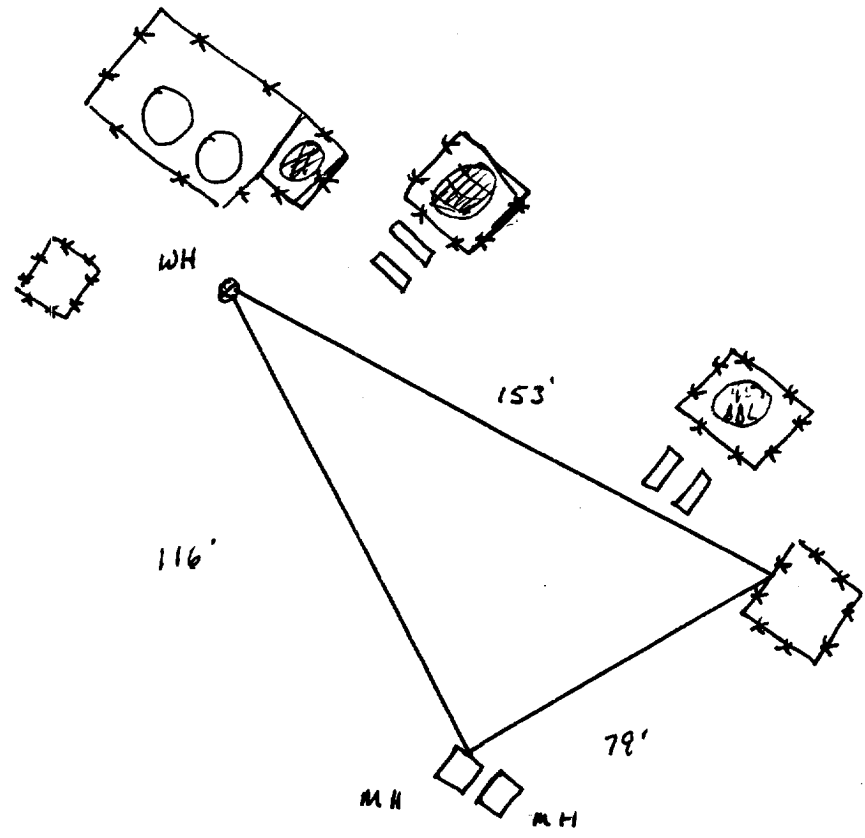
SIGNATURE

Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Grenier #A8
(F) 35-30NDW
Burlington
7-7-99@0725

N
↑



Excavation Sampling

24'(N+S) x 35.5'(E+W) x 4.5'(D)

PID Readings

- 4' - 1519 ppm
- 4.5' - 2190 ppm

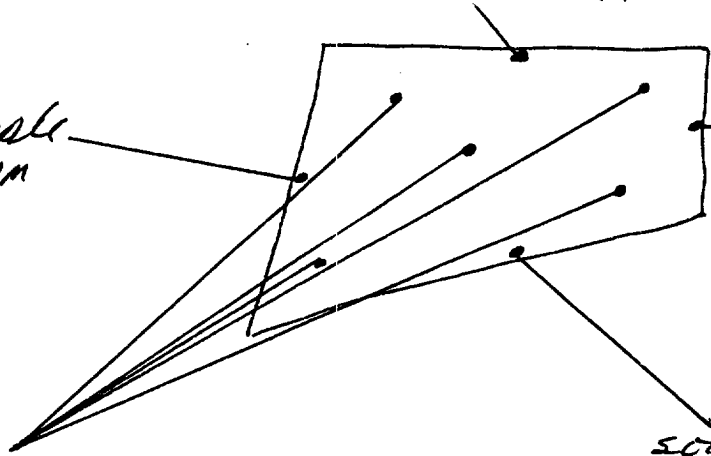
North wall sample
at 4.5' - 161 ppm

West wall sample
at 4.5' - 34 ppm

East wall sample
at 4.5' - 2149 ppm

South wall sample
at 4.5' - 2144 ppm

5 point bottom composite sample
at 4.5' - 1764 ppm



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Jul-99

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9907014

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: 22-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier A8
Work Order:	9907014	Client Sample ID:	9907071045; 5pt Bottom Comp
Lab ID:	9907014-03A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	7/7/99 10:45:00 AM
		COC Record:	7645

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	1990	25		mg/Kg	1	7/20/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DC
Benzene	1500	1000		µg/Kg	1000	7/12/99
Toluene	38000	2000		µg/Kg	1000	7/12/99
Ethylbenzene	12000	1000		µg/Kg	1000	7/12/99
m,p-Xylene	110000	2000		µg/Kg	1000	7/12/99
o-Xylene	25000	1000		µg/Kg	1000	7/12/99

186500
186.50 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

Surrogate - Surrogate

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier A8
Work Order:	9907014	Client Sample ID:	9907071050; 4 Wall Comp
Lab ID:	9907014-04A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	7/7/99 10:50:00 AM
		COC Record:	7645

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	33	25		mg/Kg	1	7/20/99

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

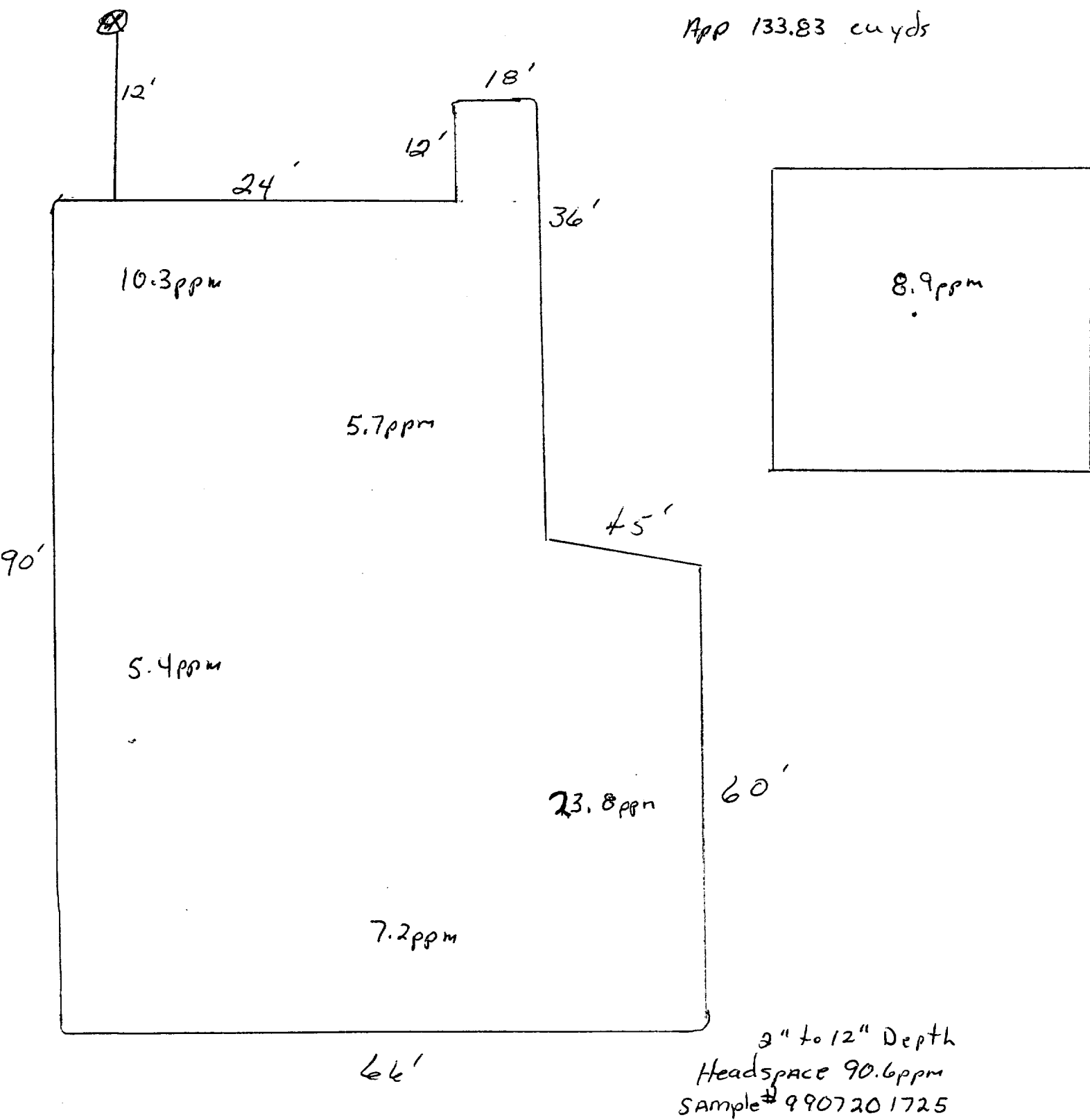
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P.O. BOX 2606 • FARMINGTON, NM 87499

Greiner H-0
Sec. 35 T30N R10W Unit D
Burlington

Landfarm drawing

App 133.83 cu yds



Not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 23-Jul-99

CLIENT: PNM - Public Service Company of NM
Project: Grenier A-8 & Hare 17 Landfarms
Lab Order: 9907050

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: 23-Jul-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier A-8 Landfarm
Work Order:	9907050	Client Sample ID:	9907201725; 6pt. Composite
Lab ID:	9907050-01A	Matrix:	SOIL
Project:	Grenier A-8 & Hare 17 Landfarms	Collection Date:	7/20/99 5:25:00 PM
		COC Record:	7494

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	700	25		mg/Kg	1	7/21/99

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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Environmental Services

Well Name:	Grenier A #8
Well Legals:	Sec 35, T30N, R10W, Unit F
Pit Type:	Dehydrator
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 Grenier A #8 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 232 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Turley, NM series 7.5 minute topographic map.)
2. PNM excavated 154 cubic yards of soil from the former pit. Source removal minimizes the possibility of surface water contamination.
3. Sandstone was encountered at 4.5 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 that their former pit on the Grenier A #8 well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 1,000 pits.