

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

Risk
vertical
extent
drly

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: <u>PNM Gas Services (Williams)</u>		Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>			
Facility or Well Name: <u>Grenier B #6 Drip</u>			
Location:	Unit <u>K</u>	Sec <u>5</u>	T <u>29 N</u> R <u>10 W</u> County <u>San Juan</u>
Pit Type:	Separator <input type="checkbox"/>	Dehydrator <input type="checkbox"/>	Other <u>Drip</u>
Land Type:	BLM <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Fee <input type="checkbox"/> Other <u> </u>
Pit Location:	Pit dimensions: length <u>15'</u> width <u>15'</u> depth <u>3'</u>		
(Attach diagram)	Reference: wellhead <input type="checkbox"/> other <u>Drip riser</u>		
	Footage from reference: <u>15'</u>		
	Direction from reference: <u>10</u> Degrees <input checked="" type="checkbox"/> East <input type="checkbox"/> North <input type="checkbox"/> of <input type="checkbox"/> West <input checked="" type="checkbox"/> South		
Depth to Ground Water: <small>(Vertical distance from contaminants to seasonal high water elevation of ground water)</small>		Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points) <u>10</u>
Wellhead Protection Area: <small>(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)</small>		Yes No	(20 points) (0 points) <u>0</u>
Distance to Surface Water: <small>(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)</small>		Less than 200 feet 200 feet to 1,000 feet Greater than 1,000 feet	(20 points) (10 points) (0 points) <u>0</u>
RANKING SCORE (TOTAL POINTS):			<u>10</u>

RECEIVED
JAN 31 2000
OIL CON. DIV.
DIST. 3

Grenier B #6 Drip

Date Remediation Started: 06/16/1999

Date Completed: 06/16/1999

Remediation Method:

Excavation

X

Approx. Cubic Yard

290

(Check all appropriate sections)

Landfarmed

X

Amount Landfarmed (cubic yds)

290

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 14' X 20' 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 40'. Auger refusal at 40' due to sandstone. See attached risk analysis form and lab analysis. Heated headspace reading of 136 ppm taken in the field.

Ground Water Encountered:

No



Yes



Depth

Final Pit Closure Sampling:

Sample Location

3 pt. composite - bottom.

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

Sample depth

20'

Sample date

06/16/1999

Sample time

10:40:00 AM

Sample Results

Benzene (ppm)

5.8

Total BTEX (ppm)

157.7 ***

Field headspace (ppm)

TPH (ppm)

290.00

Method

8015B

Vertical Extent (ft)

40'

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 January 24, 2000

SIGNATURE

Maureen Gannon

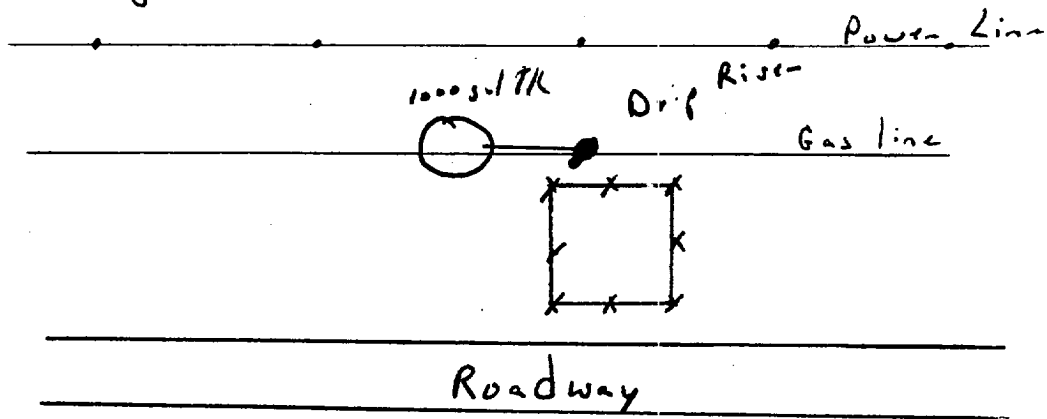
PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Grenier B#6 Drip
WFS
Sec. 5, 29N, 10W, J

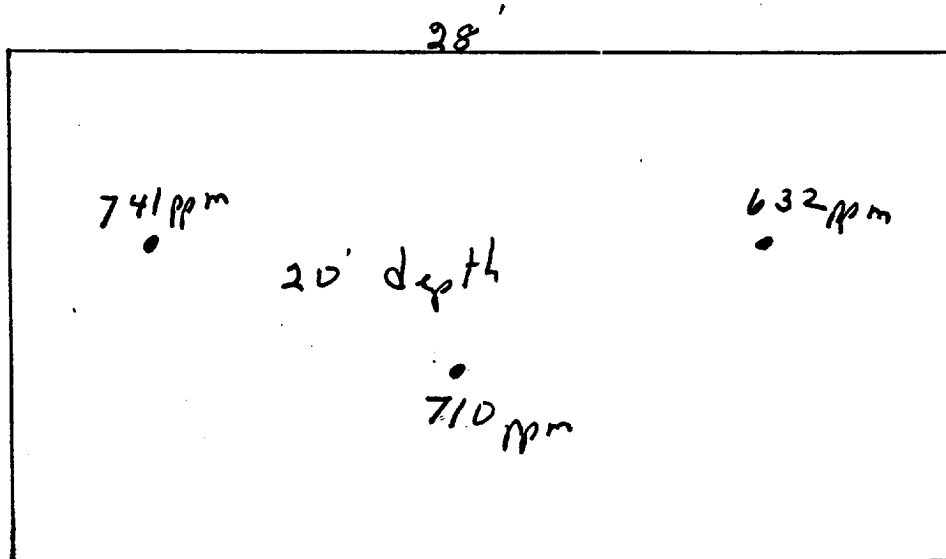
6-16-99

↑
N

Site diagram:



End of excavation:



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 30-Jun-99

CLIENT: PNM - Public Service Company of NM

Project: PNM Pit Remediation

Lab Order: 9906056

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

6e

ANALYTICAL REPORT

Date: 30-Jun-99

Client: PNM - Public Service Company of NM
Work Order: 9906056
Lab ID: 9906056-05A **Matrix:** SOIL
Project: PNM Pit Remediation

Client Sample Info: Grenier B#6 Drip
Client Sample ID: 9906161040 - *Spt. Composite - Bottom*
Collection Date: 6/16/99 10:40:00 AM
COC Record: 7609

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	290	50		mg/Kg	2	6/29/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DC
Benzene	5800	500		µg/Kg	500	6/24/99
Toluene	83000	1000		µg/Kg	500	6/24/99
Ethylbenzene	6900	500		µg/Kg	500	6/24/99
m,p-Xylene	49000	1000		µg/Kg	500	6/24/99
o-Xylene	13000	500		µg/Kg	500	6/24/99

157700
157.70 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

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P.O. BOX 2606 • FARMINGTON, NM 87499

- TESTED TO BE CLEANER THAN THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 30-Jun-99

Client: PNM - Public Service Company of NM
Work Order: 9906056
Lab ID: 9906056-06A **Matrix:** SOIL
Project: PNM Pit Remediation

Client Sample Info: Grenier B#6 Drip
Client Sample ID: 9906161045 *OWE WALLS*
Collection Date: 6/16/99 10:45:00 AM
COC Record: 7609

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	28	25		mg/Kg	1	6/29/99
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DC
Benzene	160	25		µg/Kg	25	6/24/99
Toluene	1300	50		µg/Kg	25	6/24/99
Ethylbenzene	89	25		µg/Kg	25	6/24/99
m,p-Xylene	1400	50		µg/Kg	25	6/24/99
o-Xylene	350	25		µg/Kg	25	6/24/99

3299
 3.29 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

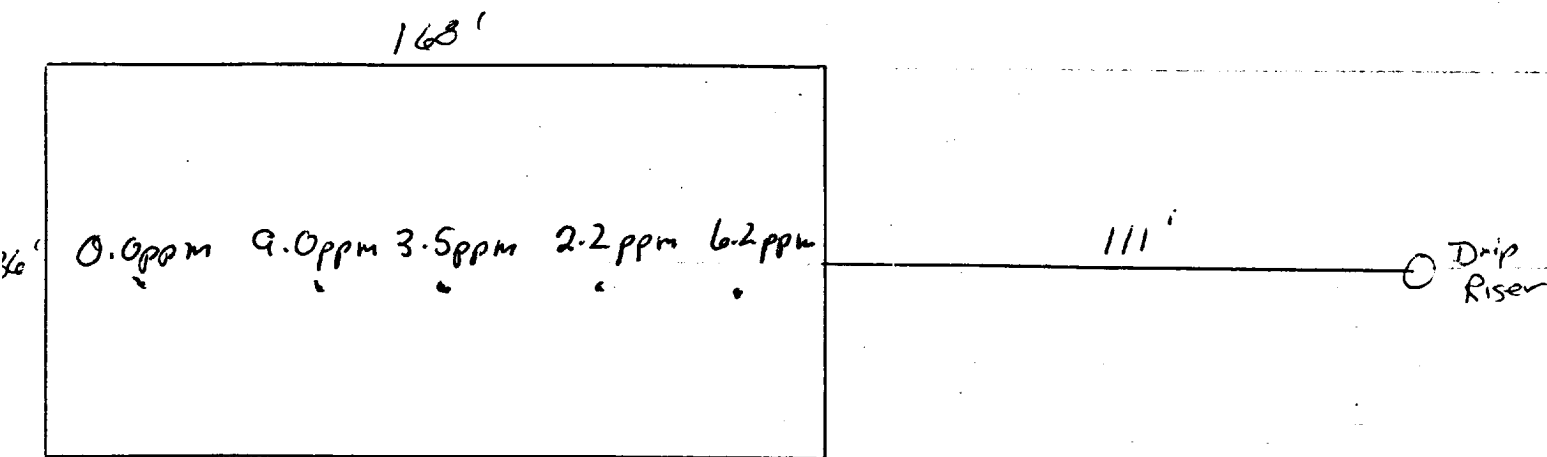
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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Land farm Drawing

App 290 cu yds



2" to 12" Depth
Headspace 9.1ppm
Sample # 9907191906

Not to scale



On Site Technologies, LTD.

Date: 04-Aug-99

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation Landfarms
Lab Order: 9907047

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: 04-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier B-6 Drip LF
Work Order:	9907047	Client Sample ID:	9907191906; 5pt Composite
Lab ID:	9907047-06A	Matrix:	SOIL
Project:	PNM Pit Remediation Landfarms	Collection Date:	7/19/99 7:06:00 PM
		COC Record:	7493

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DC
T/R Hydrocarbons: C10-C28	220	25		mg/Kg	1	7/30/99

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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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Sep-99

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9909014

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-Sep-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Grenier B6 Drip @ 40ft.
Work Order:	9909014	Client Sample ID:	9909071400; Vertical Extent
Lab ID:	9909014-04A	Matrix:	SOIL
Project:	PNM Pit Remediation	Collection Date:	9/7/99 2:00:00 PM
		COC Record:	7656

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015B				Analyst: DM
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	9/10/99

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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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp.

4000 Monroe Road

Farmington, New Mexico 87401

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

Borehole #

Well #

Page

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Project Name

Project Number

Project Location

PNM VERTICAL EXTENT

62800044 Phase 6001

GRANITE B-6 DRIP WFS

Elevation

Borehole Location T29N R10W S6 J

GWL Depth

Logged By

Drilled By

Date/Time Started

Date/Time Completed

C. CULLICOTT

R. PADILLA & D. PADILLA

9/7/99 12:15 PM

9/7/99 2:25 PM

Well Logged By

Personnel On-Site

Contractors On-Site

Client Personnel On-Site

C. CULLICOTT

R. PADILLA & D. PADILLA

RAY HASTON

Drilling Method

Air Monitoring Method

AUGER

PID

Depth (Feet)	Sample Interval	Sample Type & Recovery (Inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ BH S			Drilling Conditions & Blow Counts
0			① GRAB SAMPLE OF CUTTINGS ~5' DARK GRAY STAINED SILTY CLAY W/ SAND. HC ODOR. SIMILAR TO 10' (NOT MANY CUTTINGS CAME JA 5-10')						① HEAD SPACE 36 ppm
5	①								
10									
15	②	15-16 1/2	② ~3" RECOVERY. PERVASIVELY BLACK STAINED SILTY CLAY W/ STRONG HC ODOR.						② 2 BLOWS SS 125 ppm HS 274 ppm
20	③	20-22 1/2	③ FULL RECOVERY STIFF, PLASTIC, BROWN SILTY CLAY WITH PATCHY TO PERVASIVE BLACK STAIN						③ 24 BLOWS SS 1136 ppm HS 955
25	④	25-26 1/2	④ ~6" RECOVERY First few inches stiff plastic brown clay w/ PATCHY TO PERVASIVE BLACK STAIN + STRONG ODOR. BELOW, STIFF BROWN SILTY CLAY W/ CALICHE. SOME STAIN & ODOR						④ 33 BLOWS SS 974 ppm HS 118
30	⑤	30-32							⑤ 50+ BLOWS SS 879 HS 96
35	⑥	35-36 1/2							⑥ 50+ BLOWS SS 118 HS 20
40	⑦	40-41 1/2	TD 40' AUGER REFUSAL ON SANDSTONE OVER						

Comments:

SUNNY, CLEAR, WARM

RAY RECALIBRATED PID BEFORE THIS HOLE

HOLE BACKFILLED W/ CUTTINGS

Geologist Signature

Cathy Cullcott

Vertical Extent

⑤ 30' V. POOR RECOVERY - few inches.
STIFF GRAY SILT w/ SCATTERED FINE SAND
HC ODOR, NO OBVIOUS STAIN

⑥ 35' 50+ BLOWS ss 118 ppm
~~POOR~~ POOR RECOVERY - few inches
STIFF FINE TO MEDIUM GRAINED SAND w/ FINE S
NO OBVIOUS STAIN OR ODOR

⑦ 40' 50+ BLOWS ss 136 ppm
AUGER REFUSAL ON SANDSTONE @ 40'
LAB SAMPLE 1400 TAKEN FOR TPH ANALYSIS
SAMPLE IS CRUSHED SANDSTONE,
FINE TO MEDIUM SAND w/ A WHITE MATRIX
FRESH ROCK IN SS END IS OVERALL BLACK/GRAY