

DEPUTY OIL & GAS INSPECTOR

FEB 08 1999

**R JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE**

P.O. BOX 507  
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO  
NATURAL  
RESOURCE DEPT  
AND OIL -GAS  
ADMINISTRATION

# PIT REMEDIATION AND CLOSURE REPORT

**Operator:** PNM Gas Services ( *BROG* ) **Telephone:** 324-3764

**Address:** 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Jicarilla G-6

Location: Unit: L Sec. 2 T. 26 N R. 5 W County Rio Arriba

**Pit Type:**      Separator      Dehydrator      ☒      Other

**Land Type:** Jicarilla Apache

Pit Location: Pit dimensions: length 30' width 20' depth 3'

(Attach diagram)      Reference:      wellhead    ☒      other

Footage from reference: 81'

Direction from reference: Due Degrees      East of North X  
West of 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)

**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)

**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)

**Distance to Ephemeral Stream (dry wash):**

(Horizontal distance to all downgradient streams having a width of at least 10 feet)

Less than or equal to 100 feet	(10 points)
Greater than 100 feet	(0 points)

Distance to Nearest Lake, Playa, or Watering Pond:

(Horizontal distance to all downgradient lakes, playas, and livestock or wildlife water ponds)

Less than or equal to 100 feet	(10 points)
Greater than 100 feet	(0 points)

**RANKING SCORE (TOTAL POINTS) :**

Date Remediation Started: 5/5/98 Date Completed: 9/23/98

Remediation Method: Excavation X Approx. Cubic Yards 4133

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 4133

Other \_\_\_\_\_

Remediation Location: Onsite X Offsite \_\_\_\_\_

(i.e., landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action:

Removed contaminated soil from all four side walls and pit bottom AS to get a below 100 ppm head space reading.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit Closure Sampling:

Sample Location North, East, South, West side walls, and pit bottom.

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

Sample depth 31'

Sample date 5/7/98 Sample time 1531

Sample Results

Soil: Benzene (ppm) \_\_\_\_\_ Water: Benzene (ppb) \_\_\_\_\_

Total BTEX (ppm) \_\_\_\_\_ Toluene (ppb) \_\_\_\_\_

Field headspace (ppm) 520 (bottom) Ethylbenzene (ppb) \_\_\_\_\_

TPH N/D ppm Method 8015 Total Xylenes (ppb) \_\_\_\_\_

Ground Water Sample: Yes \_\_\_\_\_ No X (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 5/13/98

PRINTED NAME Roy Burnham

SIGNATURE Roy Burnham

AND TITLE Environmental Technician II

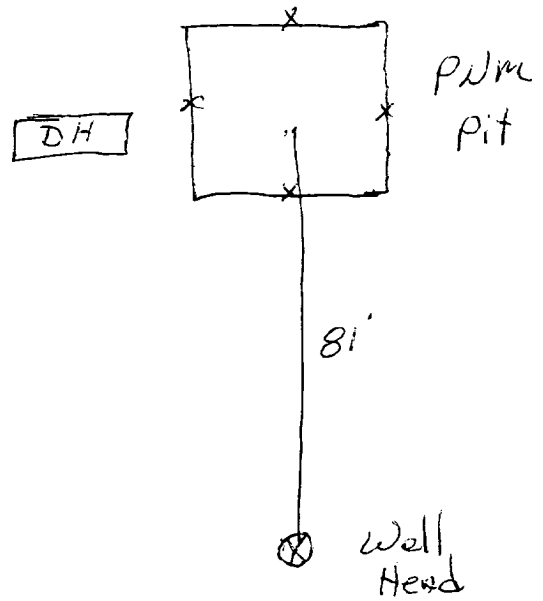
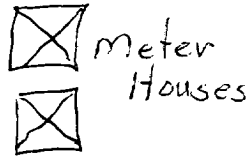
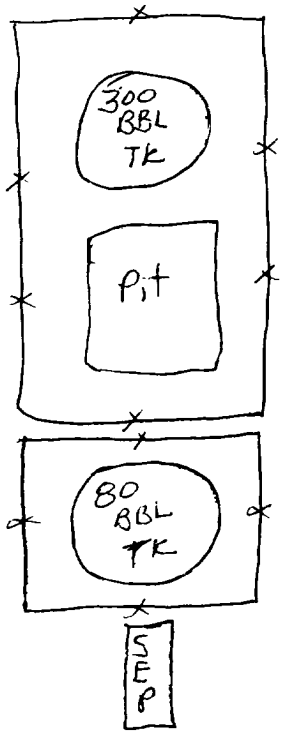
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO \_\_\_\_\_ (REASON): \_\_\_\_\_

SIGNED: Kearney Mann DATE: 5-13-98

SECTION 2  
Sec. 2 T26N R5W Unit L  
BRDG

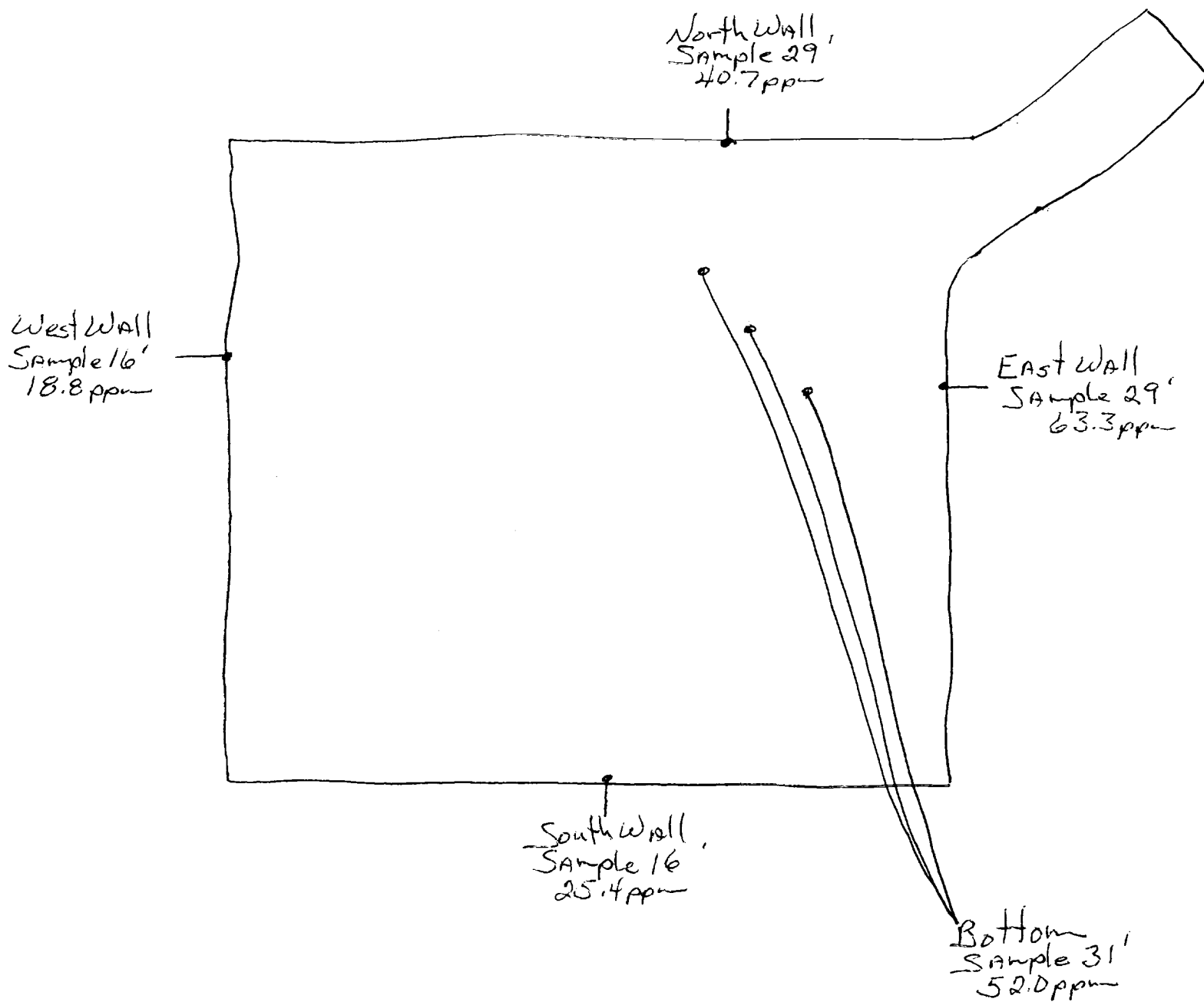
# Site Drawing



JICAR/11A G 6  
Sec 2 T26N R5W Unit L  
BROG

60x60x31'

# Excavation Drawing



5' Sample - 1018 ppm  
10' Sample - 839 ppm  
15' Sample - 1044 ppm  
20' Sample - 938 ppm  
25' Sample - 440 ppm  
30' Sample - 100 ppm  
31' Sample - 52.0 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 12-May-98

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**CLIENT:** PNM - Public Service Company of NM

**Project:** PNM Pit Remediation

**Lab Order:** 9805019

## **CASE NARRATIVE**

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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: 12-May-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla G-6
<b>Work Order:</b>	9805019	<b>Client Sample ID:</b>	9805071530; 4pt. Comp. Walls
<b>Lab ID:</b>	9805019-03A	<b>Matrix:</b>	SOIL
<b>Project:</b>	PNM Pit Remediation	<b>Collection Date:</b>	5/7/98 3:30:00 PM
		<b>COC Record:</b>	7144

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/11/98

<b>Qualifiers:</b>	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

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 12-May-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla G-6
<b>Work Order:</b>	9805019	<b>Client Sample ID:</b>	9805071531; 3pt. Comp. Bottom
<b>Lab ID:</b>	9805019-04A	<b>Matrix:</b>	SOIL
<b>Project:</b>	PNM Pit Remediation	<b>Collection Date:</b>	5/7/98 3:31:00 PM
		<b>COC Record:</b>	7144

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	5/11/98

**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

1 of 1

JICARILLA APACHE TRIBE  
ENVIRONMENTAL  
PROTECTION OFFICE  
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DULCE, NEW MEXICO 87528

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ADMINISTRATION

#1

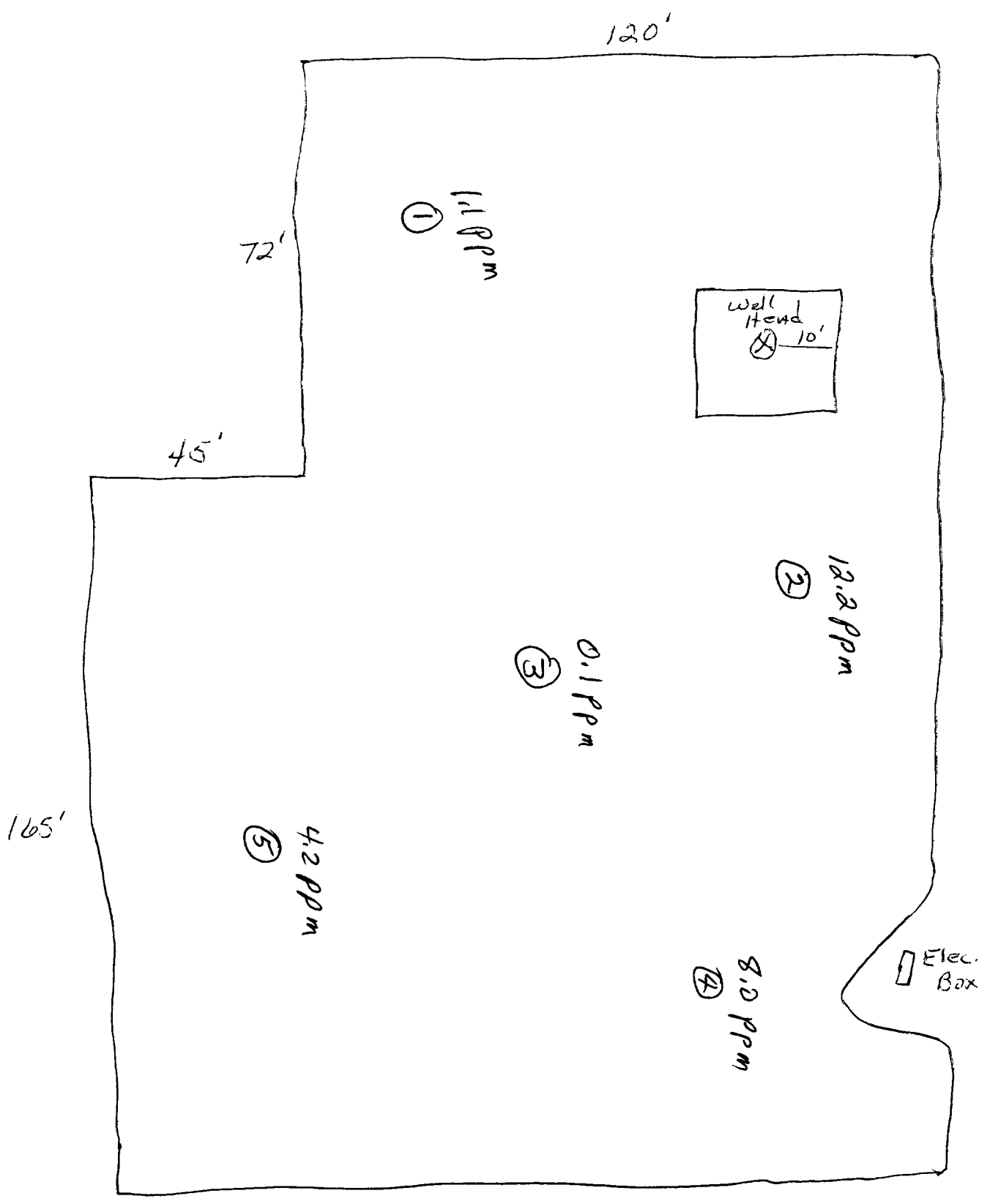
ON-SITE SOIL REMEDIATION REPORT

Operator: PNM Gas Services (BROG) Telephone: 324-3764	
Address: 603 W. Elm Street Farmington, NM 87401	
Facility or Well Name: Jicarilla G-6	
Location: Unit: <u>2 L</u> Sec. <u>2</u> T. <u>26 N</u> R. <u>5 W</u> County <u>Rio Arriba</u>	
Land Type: Jicarilla Apache	
Date Remediation Started: <u>5/5/98</u> Date Completed: <u>6/11/98</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>1378</u>	
Composted <u>—</u>	
Other <u>—</u>	
Depth to Ground Water: (pts.) <u>0</u>	Final Closure Sampling: Sampling Date: <u>4/9/98</u> Time <u>1122</u> Sampling Results: Field Headspace (ppm) <u>12.2</u> TPH (ppm) <u>92</u> Method <u>8015</u> Other <u>—</u>
Distance to an Ephemeral Stream: (pts.) <u>0</u>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <u>0</u>	
Wellhead Protection Area: (pts.) <u>0</u>	
Distance to Surface Water: (pts.) <u>0</u>	
Ranking Score (Total Points): <u>0</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>4/29/98</u> PRINTED NAME <u>Roy Burnham</u>	
SIGNATURE <u>Roy Burnham</u> AND TITLE <u>Environmental Technician II</u>	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
APPROVED: YES <u>X</u> NO <u>—</u> (REASON) <u>we as Backfill</u>	
SIGNED: <u>Kenneth M...</u> DATE: <u>6-29-98</u>	



JICARILLA U 6  
Sec. 2 T26N R5W Unit L  
BROG

# Land farm Drawing #1



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 16-Jun-98

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Jicarilla Landfarms  
**Lab Order:** 9806025

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## **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: 16-Jun-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla G-6 Landfarm #1 /
<b>Work Order:</b>	9806025	<b>Client Sample ID:</b>	9806091122; 5pt. Composite
<b>Lab ID:</b>	9806025-02A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla Landfarms	<b>Collection Date:</b>	6/9/98 11:22:00 AM
		<b>COC Record:</b>	7026

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	92	25		mg/Kg	1	6/11/98

**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

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- FARMINGTON, NEW MEXICO - IDENTIFY WITH THE ENVIRONMENT

JICARILLA APACHE TRIBE  
ENVIRONMENTAL  
PROTECTION OFFICE  
P.O. BOX 507  
DULCE, NEW MEXICO 87528

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AND OIL-GAS  
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#  
ON-SITE SOIL REMEDIATION REPORT 2

Operator: PNM Gas Services ( BRGG ) Telephone: 324-3764	
Address: 603 W. Elm Street Farmington, NM 87401	
Facility or Well Name: JICARILLA G-6	
Location: Unit or Qtr/Qtr Sec: L Sec. 2 T. 26 N R. 5 W County Rio Arriba	
Land Type: JICARILLA Apache	
Date Remediation Started: 5/5/98 Date Completed: 7/14/98	
Remediation Method: Landfarmed X Composted Other	
Approx. cubic yards 1378	
Depth to Ground Water: (pts.) 4	Final Closure Sampling: Sampling Date: 7/7/98 Time 0719 Sampling Results: Field Headspace (ppm) 54.2 TPH (ppm) 37 Method 8015 Other
Distance to an Ephemeral Stream: (pts.) 4	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) 4	
Wellhead Protection Area: (pts.) 4	
Distance to Surface Water: (pts.) 4	
Ranking Score (Total Points): 4	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE 7/14/98 PRINTED NAME Roy Burnham	
SIGNATURE Roy Burnham AND TITLE Environmental Technician II	
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
APPROVED: YES X NO (REASON) use as Backfill	
SIGNED: [Signature] DATE: 7-28-98	

7

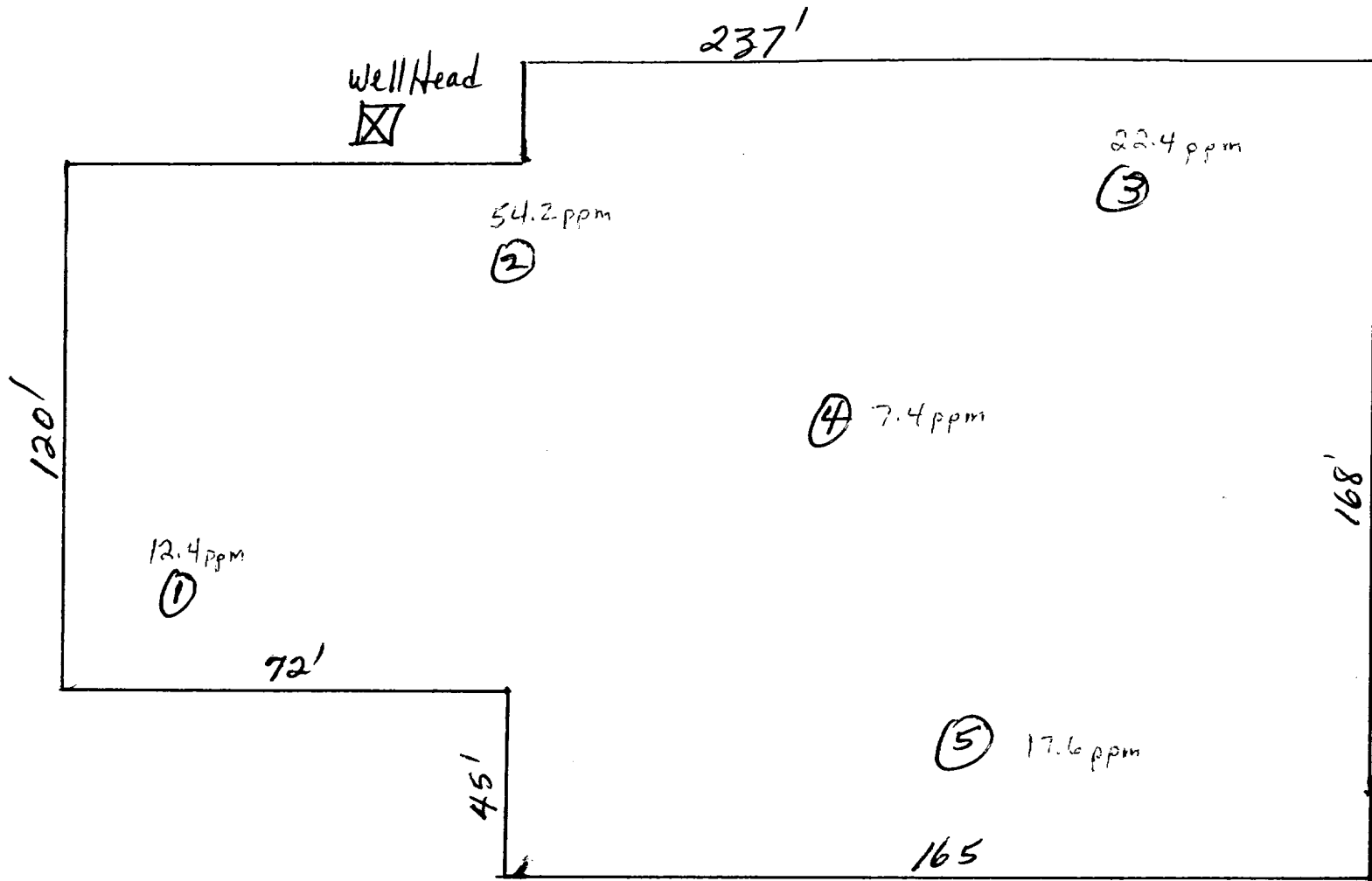
JICARILLA G-6

BURLINGTON

UNIT L Sec 2 T26N R5W

LANDFARM #2

↑  
N



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 14-Jul-98

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**CLIENT:** PNM - Public Service Company of NM

**Project:** Landfarms

**Lab Order:** 9807018

## **CASE NARRATIVE**

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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.



**ON SITE**  
**TECHNOLOGIES, LTD.**

## ANALYTICAL REPORT

**Date:** 14-Jul-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla G-6 #2 LF
<b>Work Order:</b>	9807018	<b>Client Sample ID:</b>	9807070719; 5pt. Comp
<b>Lab ID:</b>	9807018-01A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Landfarms	<b>Collection Date:</b>	7/7/98 7:19:00 AM
		<b>COC Record:</b>	7261

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	37	25		mg/Kg	1	7/14/98

<b>Qualifiers:</b>	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

1 of 1

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## 5. BLENDING INDUSTRY WITH THE ENVIRONMENT

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DULCE, NEW MEXICO 87528

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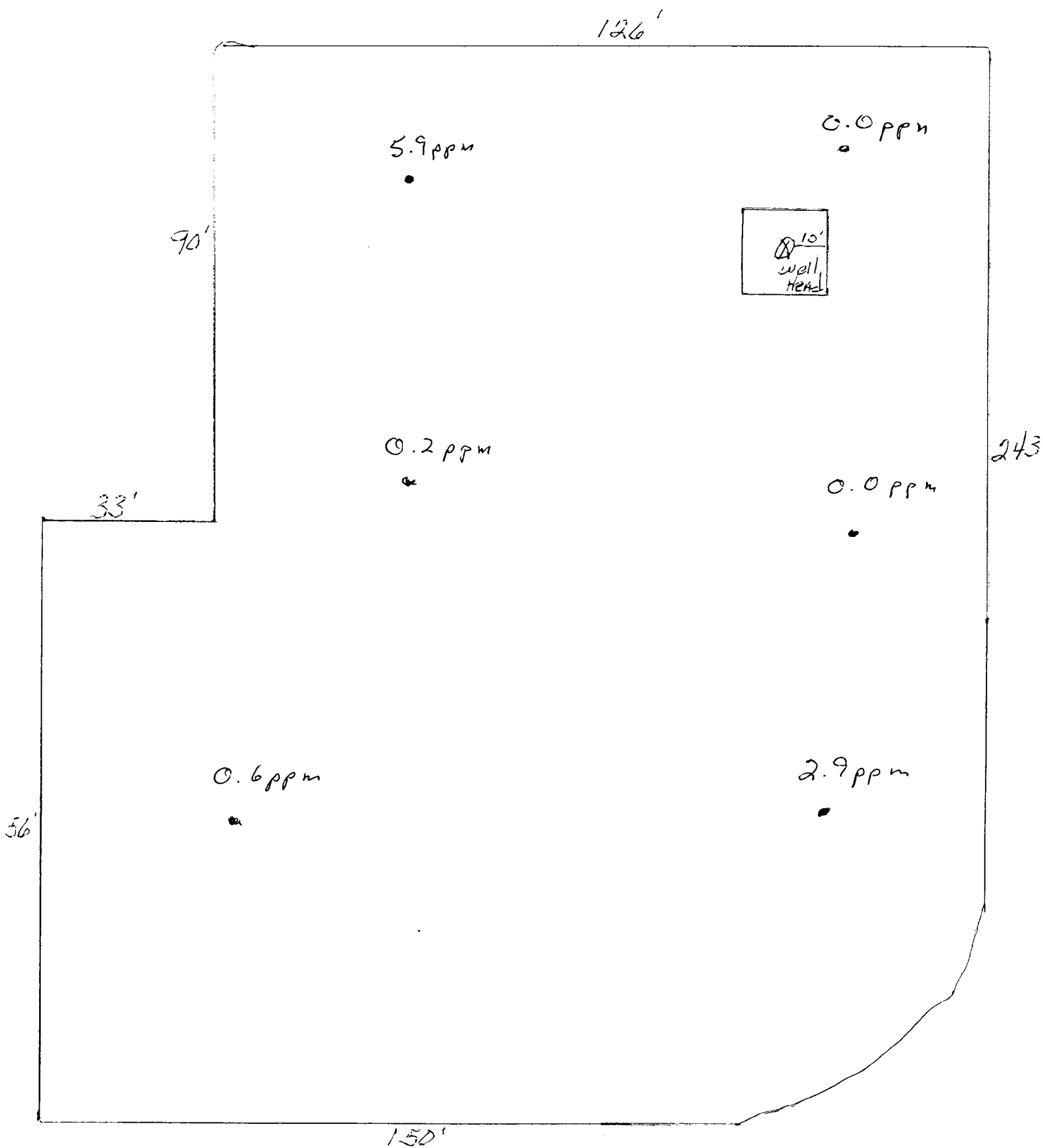
ON-SITE SOIL REMEDIATION REPORT #3

<b>Operator:</b> PNM Gas Services (BROG) <b>Telephone:</b> 324-3764	
<b>Address:</b> 603 W. Elm Street Farmington, NM 87401	
<b>Facility or Well Name:</b> JICARILLA G-6	
<b>Location:</b>	<b>Unit:</b> L <b>Sec.</b> 2 <b>T.</b> 26 N <b>R.</b> 5 W <b>County</b> Rio Arriba
<b>Land Type:</b> Jicarilla Apache	
<b>Date Remediation Started:</b> 5/5/98	<b>Date Completed:</b> 9/3/98
<b>Remediation Method:</b> Landfarmed <input checked="" type="checkbox"/> Composted <input type="checkbox"/> Other <input type="checkbox"/>	<b>Approx. cubic yards:</b> 1377
<b>Depth to Ground Water:</b> (pts.) 0	<b>Final Closure Sampling:</b> <b>Sampling Date:</b> 8-31-98 <b>Time:</b> 0829 <b>Sampling Results:</b> <b>Field Headspace (ppm):</b> 5.9 <b>TPH (ppm):</b> ND <b>Method:</b> 8015 <b>Other:</b>
<b>Distance to an Ephemeral Stream:</b> (pts.) 0	
<b>Distance to Nearest Lake, Playa, or Watering Pond:</b> (pts.) 0	
<b>Wellhead Protection Area:</b> (pts.) 0	
<b>Distance to Surface Water:</b> (pts.) 0	
<b>Ranking Score (Total Points):</b> 0	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
<b>DATE:</b> 9/14/98	<b>PRINTED NAME:</b> Roy Burnham
<b>SIGNATURE:</b> Roy Burnham	<b>AND TITLE:</b> Environmental Technician II
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE	
<b>APPROVED:</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) Use as Backfill	
<b>SIGNED:</b> Keith M. M...	<b>DATE:</b> 9-23-98



Jicarilla G-6  
Sec. 2 T26N R5W Unit L  
GROG

Land farm #3 Final



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 10-Sep-98

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**CLIENT:** PNM - Public Service Company of NM

**Project:** Jicarilla Landfarms

**Lab Order:** 9808064

## **CASE NARRATIVE**

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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: 10-Sep-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla G-6 #3 LF
<b>Work Order:</b>	9808064	<b>Client Sample ID:</b>	9808310829; 6pt. Comp
<b>Lab ID:</b>	9808064-05A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla Landfarms	<b>Collection Date:</b>	8/31/98 8:29:00 AM
		<b>COC Record:</b>	7435

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	9/3/98

**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

1 of 1

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