

OK  
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TO NATURAL  
RESOURCE DEPT  
AND OIL-GAS  
ADMINISTRATION

**JICARILLA APACHE TRIBE**  
**ENVIRONMENTAL PROTECTION OFFICE**

P.O. BOX 507  
DULCE, NEW MEXICO 87528

**PIT REMEDIATION AND CLOSURE REPORT**

**RECEIVED**  
APR 29 1999  
**OIL CON. DIV.**  
**DIST. 3**

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

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

**Facility or Well Name:** Jicarilla K17

**Location:** Unit 1 Sec 12 T 25 N R 5 W County Rio Arriba

**Pit Type:** Separator ☐ Dehydrator ☐ Other Manual drip blowdown

**Land Type:** Jicarilla Apache

**Pit Location:** Pit dimensions: Length 20 ' Width 20 ' Depth 3 '

(Attach diagram) Reference: Wellhead ☒ Other \_\_\_\_\_

Footage from reference: 82'

Direction from reference: 62 degrees ☐ East or ☒ North  
☒ 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)	<u>0</u>

**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)	<u>0</u>

**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 100 feet	(0 points)	<u>0</u>

**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)	<u>0</u>

**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)	<u>0</u>

**RANKING SCORE (TOTAL POINTS):** 0

Date Remediation Started: 10/16/98

Date Completed: 1/4/99

Remediation Method: Excavation ☒

Approx. Cubic Yards 709 RAD

(Check all appropriate sections)

Landfarmed ☒

Amount Landfarmed (cubic yds) 709 RAD

Other 404 ~~604~~ yds. staged on site awaiting final disposition. Bladed into loc. #11

Remediation Location: Onsite ☒

Offsite 192 Clean Overberber

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

**General Description of Remedial Action:**

Removal of contaminated soil from all four sidewalls, and bottom as to get a below 100 ppm head space reading.

Final excavation dimensions: 20.5' x 50.5' x 23.5'

Ground Water Encountered: No ☒

Yes ☐

Depth           

**Final Pit Closure Sampling:**

Sample Location Composite of North, East, South, and West sidewalls and a three point composite of bottom.

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

Sample depth 23'

Sample date 10/20/98

Sample time 1545 1535

**Sample Results**

Soil: Benzene (ppm) ND

Water: Benzene (ppb)           

Total BTEX (ppm) ~~30.7~~ 0.0045

Toluene (ppb)           

Field headspace (ppm) 30.7

Ethylbenzene (ppb)           

TPH (ppm) ~~30~~ 30 Method 8015

Total Xylenes (ppb)           

Vertical Extent (ft) 23'

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: 11-20-98

PRINTED NAME Ray Haston

SIGNATURE Ray Haston

TITLE Environmental Tech. III

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

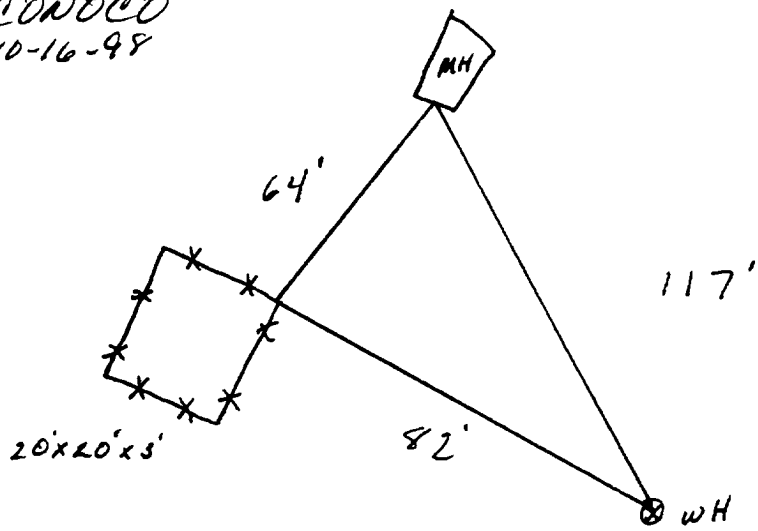
APPROVED: YES ☒ NO ☐ (REASON):           

SIGNATURE: Ken C Marshall

DATE: 11-30-98



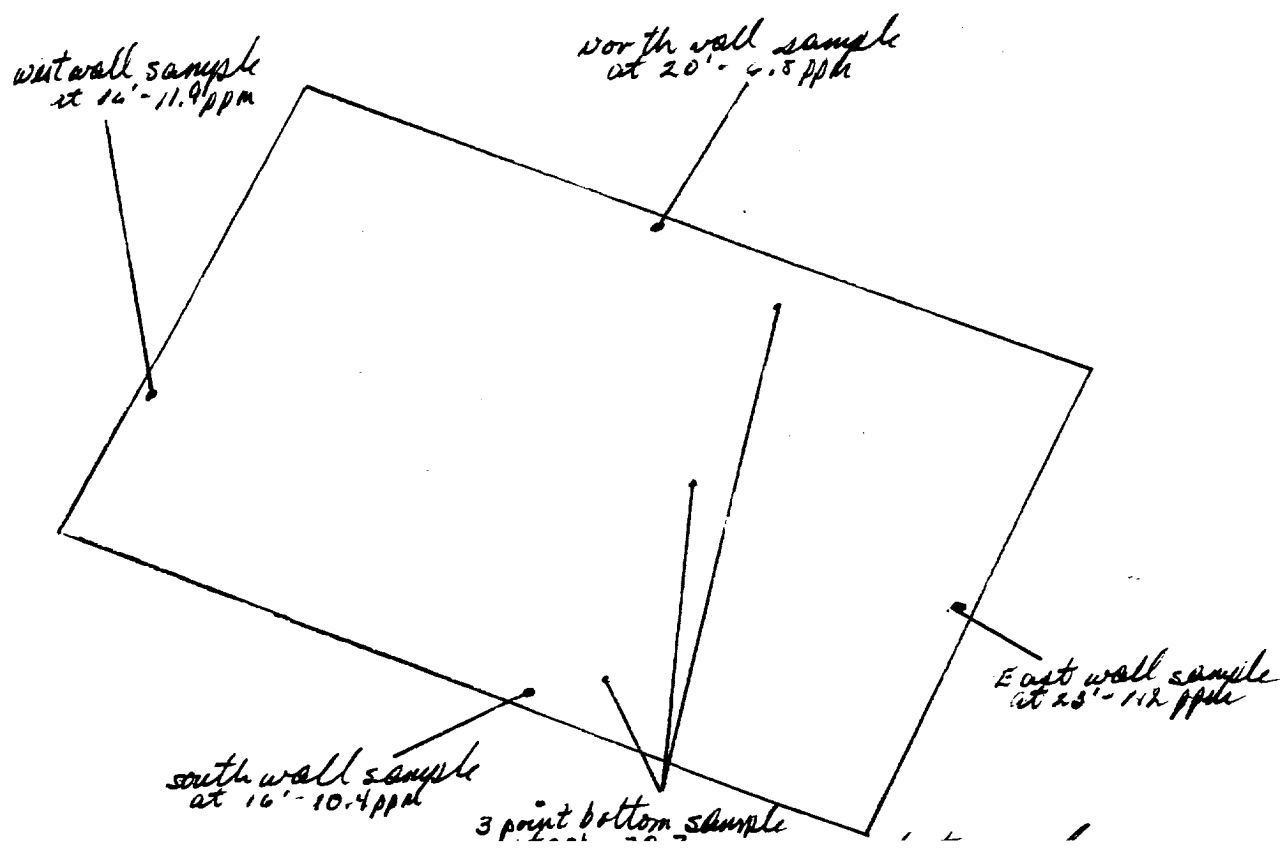
Jicarilla K17  
I) 12-25N-5W  
CONOCO  
10-16-98



Excavation Sampling

20.5' (N+S) x 50.5' (E+W) x 23.5' (D)

- 5' sample 403 ppm
- 10' sample 126 ppm
- 15' sample 539 ppm
- 20' sample 316 ppm
- 23' sample 24 ppm



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 04-Nov-98

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Jicarilla K-17  
**Lab Order:** 9810072

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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: 04-Nov-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla K-17
<b>Work Order:</b>	9810072	<b>Client Sample ID:</b>	9810201535; 3pt. Bottom
<b>Lab ID:</b>	9810072-01A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla K-17	<b>Collection Date:</b>	10/20/98 3:35:00 PM
		<b>COC Record:</b>	5766

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	30	25		mg/Kg	1	11/2/98
<b>BTEX</b>		<b>SW8020A</b>				Analyst: DC
Benzene	ND	1		µg/Kg	1	10/28/98
Toluene	ND	2		µg/Kg	1	10/28/98
Ethylbenzene	ND	1		µg/Kg	1	10/28/98
m,p-Xylene	3	2		µg/Kg	1	10/28/98
o-Xylene	1.5	1		µg/Kg	1	10/28/98

4.5  
4.8  
0.00485 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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TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 04-Nov-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla K-17
<b>Work Order:</b>	9810072	<b>Client Sample ID:</b>	9810201545; 4pt. Comp. Walls
<b>Lab ID:</b>	9810072-02A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla K-17	<b>Collection Date:</b>	10/20/98 3:45:00 PM
		<b>COC Record:</b>	5766

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: HR
T/R Hydrocarbons: C10-C28	38	25		mg/Kg	1	11/2/98

**Qualifiers:**

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ADMINISTRATION

**ON-SITE SOIL REMEDIATION REPORT**

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Jicarilla K17 Land Farm ;

Location: Unit I Sec 12 T 25 N R 5 W County Rio Arriba

Land Type: Jicarilla Apache

Date Remediation Started: 10/16/98 Date Completed: 12/1/98

Remediation Method: Landfarmed ☒ Approx. cubic yards 300  
Composted ☐  
Other \_\_\_\_\_

Depth to Ground Water: (pts.) 0  
Distance to an Ephemeral Stream: (pts.) 0  
Distance to Nearest Lake, Playa, or  
Watering Pond: (pts.) 0  
Wellhead Protection Area: (pts.) 0  
Distance to Surface Water: (pts.) 0  
Ranking Score (Total Points): 0

**Final Closure Sampling:**

Sampling Date: 11/18/98 Time 1214

**Sampling Results:**

Field Headspace (ppm) 38.9  
TPH (ppm) 65 Method 8015  
Other \_\_\_\_\_

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF.

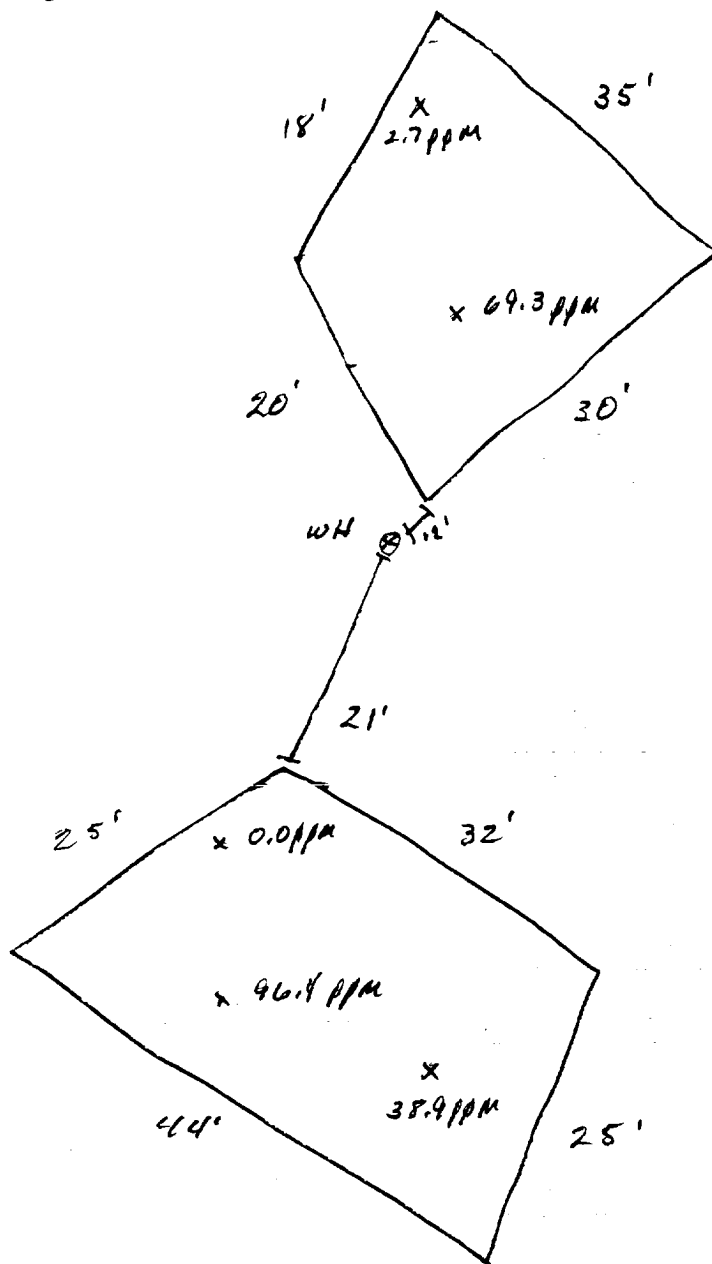
DATE: 12-4-98 PRINTED NAME Ray Haston  
SIGNATURE Ray Haston TITLE Environmental Tech. III

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE  
JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE:

APPROVED: YES X NO \_\_\_\_\_ (REASON): use as Backfill

SIGNATURE: Ken C. M... DATE: 12-15-98

Jicarilla K17 LF #1  
 (I) 12-25N-5W  
 CONOCO  
 300 yds



2" - 12"  
~~Heat spot~~  
 38.9 ppm

2



OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

Date: 03-Dec-98

---

**CLIENT:** PNM - Public Service Company of NM  
**Project:** Jicarilla Pit Remediation Landfarms  
**Lab Order:** 9811062

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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: 03-Dec-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla K-17 LF
<b>Work Order:</b>	9811062	<b>Client Sample ID:</b>	9811181214; 6pt. Comp.
<b>Lab ID:</b>	9811062-01A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla Pit Remediation Landfills	<b>Collection Date:</b>	11/18/98 12:14:00 PM
		<b>COC Record:</b>	7404

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				<b>Analyst: HR</b>
T/R Hydrocarbons: C10-C28	65	25		mg/Kg	1	12/1/98

## Qualifiers:

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R - RPD outside accepted recovery limits  
E - Value above quantitation range  
Surr - Surrogate

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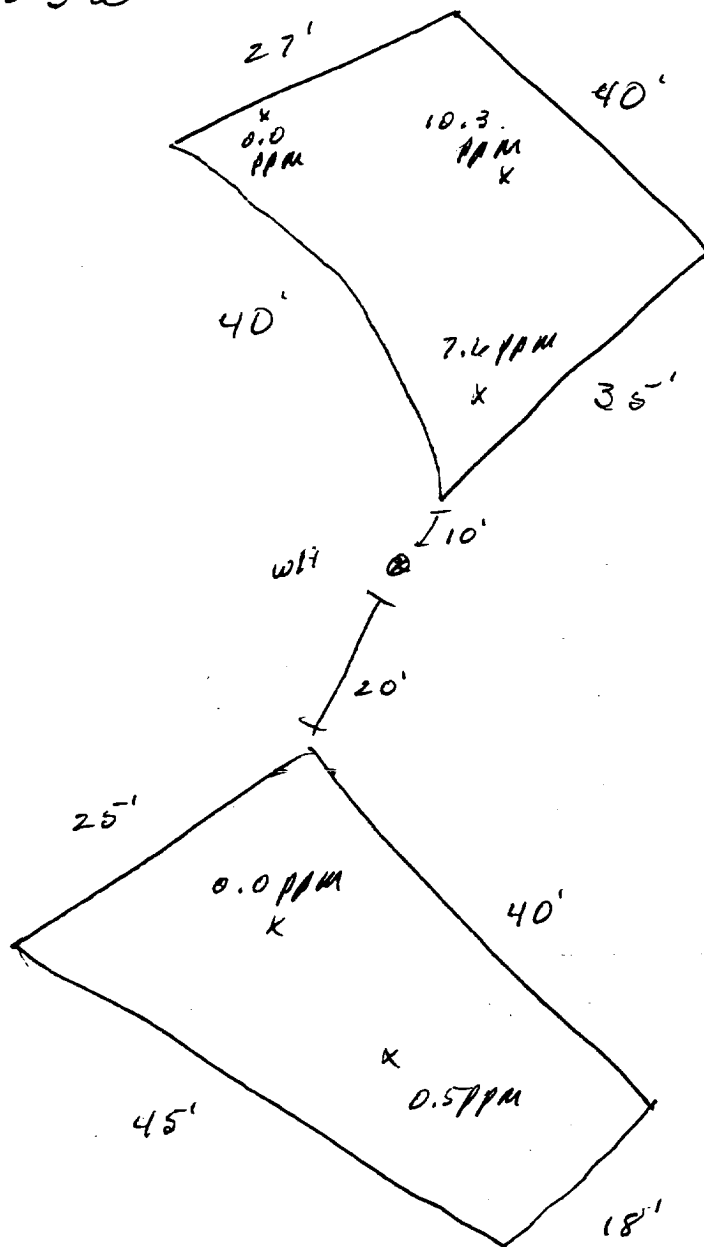
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**ON-SITE SOIL REMEDIATION REPORT**

<b>Operator:</b> <u>PNM Gas Services</u> ( <u>CONOCO</u> ) <b>Telephone:</b> <u>324-3764</u>																			
<b>Address:</b> <u>603 W. Elm Street</u> <u>Farmington, NM 87401</u>																			
<b>Facility or Well Name:</b> <u>Jicarilla K17 Land Farm #2</u>																			
<b>Location:</b> Unit <u>I</u> Sec <u>12</u> T <u>25 N</u> R <u>5 W</u> County <u>Rio Arriba</u>																			
<b>Land Type:</b> <u>Jicarilla Apache</u>																			
<b>Date Remediation Started:</b> <u>10/16/98</u> <b>Date Completed:</b> <u>12/21/98</u>																			
<b>Remediation Method:</b> Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>409</u> Composted <input type="checkbox"/> Other <u>Excavation backfilled from borrow pit. Landfarm bladed into/onto location.</u>																			
<table><tr><td>Depth to Ground Water:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Distance to an Ephemeral Stream:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Distance to Nearest Lake, Playa, or Watering Pond:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Wellhead Protection Area:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td>Distance to Surface Water:</td><td>(pts.)</td><td><u>0</u></td></tr><tr><td><b>Ranking Score (Total Points):</b></td><td></td><td><u>0</u></td></tr></table>	Depth to Ground Water:	(pts.)	<u>0</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>	<b>Ranking Score (Total Points):</b>		<u>0</u>	<b>Final Closure Sampling:</b> <b>Sampling Date:</b> <u>12/14/98</u> <b>Time</b> <u>1055</u>  <b>Sampling Results:</b> Field Headspace (ppm) <u>16</u> TPH (ppm) <u>ND</u> <b>Method</b> <u>8015</u> Other _____
Depth to Ground Water:	(pts.)	<u>0</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>																	
<b>Ranking Score (Total Points):</b>		<u>0</u>																	
<b>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF.</b>																			
<b>DATE:</b> <u>12-27-98</u> <b>PRINTED NAME</b> <u>Ray Haston</u>																			
<b>SIGNATURE</b> <u>Ray Haston</u> <b>TITLE</b> <u>Environmental Tech. III</u>																			
<b>AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE:</b>																			
<b>APPROVED:</b> YES <u>X</u> NO _____ <b>(REASON):</b> _____																			
<b>SIGNATURE:</b> <u>Ken C. M... ..</u> <b>DATE:</b> <u>12-28-98</u>																			

Jicarilla K17 LF #2  
 (I) 12-25N-5W  
 CONOCO  
 ~409 yds.



Z<sup>4</sup>-12<sup>4</sup>  
 Hard space-16 ppm

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 21-Dec-98

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**CLIENT:** PNM - Public Service Company of NM  
**Project:** Jicarilla Pit Remediation  
**Lab Order:** 9812030

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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: 21-Dec-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jicarilla K-17 LF #2
<b>Work Order:</b>	9812030	<b>Client Sample ID:</b>	9812141055 6pt Composite
<b>Lab ID:</b>	9812030-07A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla Pit Remediation	<b>Collection Date:</b>	12/14/98 10:55:00 AM
		<b>COC Record:</b>	7452

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				<b>Analyst: HR</b>
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	12/21/98,

**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