

*George S. Frost*  
DEPUTY OIL & GAS INSPECTOR

FEB 08 1999

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

*H. H. H. H.*  
PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (WFS) Telephone: 324-3764  
Address: 603 W. Elm Street Farmington, NM 87401  
Facility or Well Name: Jicarilla Apache Tribal 151-7E DRIP #1  
Location: Unit: D Sec. 4 T. 26 N R. 5 W County Rio Arriba  
Pit Type: Separator      Dehydrator      Other LINE DRIP  
Land Type: Jicarilla Apache

Pit Location: Pit dimensions: length 15' width 15' depth 3'  
(Attach diagram) Reference: wellhead      other DRIP RISER  
Footage from reference: 15'  
Direction from reference: DUE Degrees      East 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) Ø

**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) Ø

**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) Ø

**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) Ø

**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) Ø

RANKING SCORE (TOTAL POINTS): Ø

Date Remediation Started:

6/9/98

Date Completed:

7/28/98

Remediation Method:

Excavation

X

Approx. Cubic Yards

120

(Check all appropriate sections)

Landfarmed

X

Amount Landfarmed (cubic yds):

120

Other \_\_\_\_\_

Remediation Location:

Onsite \_\_\_\_\_

Offsite

ARIZONA JICARILLA B-7

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

## General Description of Remedial Action:

Removed contaminated Soil from all four side walls AS  
to get a below 100 ppm head space reading. Bottom was  
solid sandstone rock. 3 point composite sample of P.T  
Bottom. EXCAVATION Size 21'X 22'X 7'

Ground Water Encountered:

No

X

Yes \_\_\_\_\_

Depth \_\_\_\_\_

Final Pit Closure  
Sampling:

Sample Location

North, East, South, west side walls  
and pit bottom

Sample depth

7'

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

Sample date

6/9/98

Sample time

1029

## Sample Results

Soil: Benzene (ppm)

26.000

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

Total BTEX (ppm)

333.100

Toluene (ppb) \_\_\_\_\_

Field headspace (ppm)

1636

Ethylbenzene (ppb) \_\_\_\_\_

TPH <sup>48</sup>  
~~48~~ <sup>48</sup> ppmMethod 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

7/14/98

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):

R.A. Attached

SIGNED:

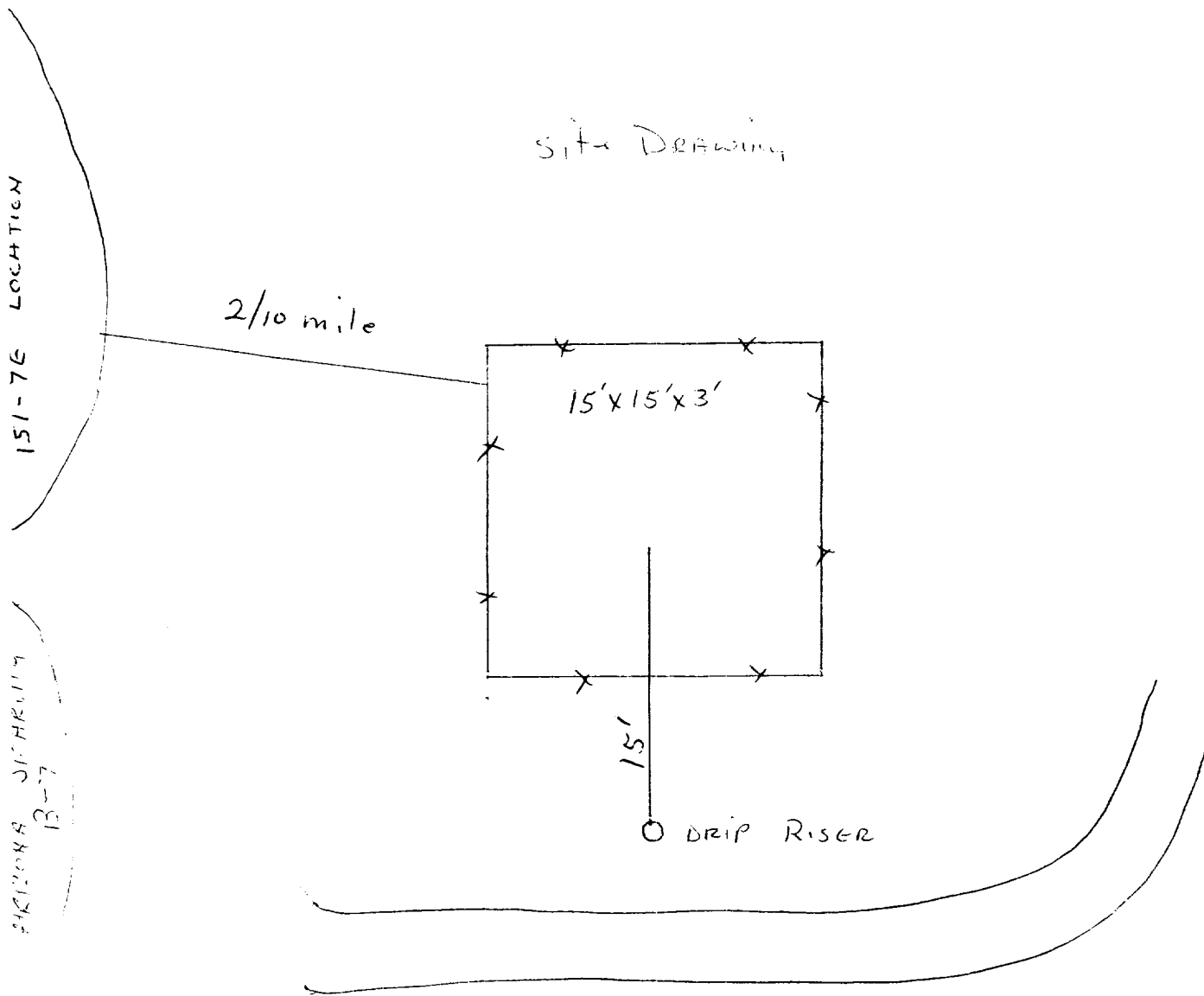
Ken C. M...ll

DATE:

7-28-98

Jicarilla Apache Tribal 151-1E DRIP #1  
Sec. 4 T26N R5W UNIT D  
WFS

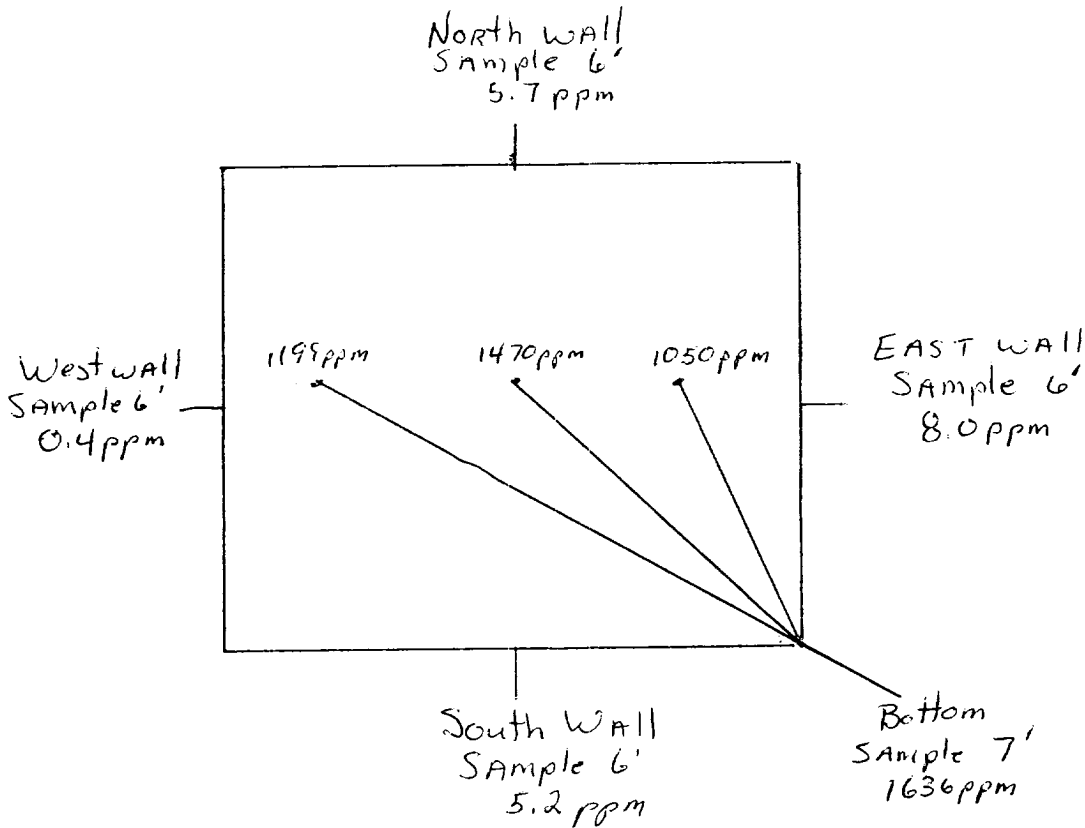
Site Drawing



Jicarilla Apache Tribal 151-7E DRIP #1  
SEC-4 T26N R5W UNIT D  
WFS

22'x21'x7'

EXCAVATION DRAWING



5' sample 1236 ppm  
Bottom 7' Sample 1199/1470/1050 ppm

OFF: (505) 325-5667

# ON SITE

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

**On Site Technologies, LTD.**

**Date:** 17-Jun-98

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

**Project:** Jicarilla Pit Remediation

**Lab Order:** 9806037

## 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: 17-Jun-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jic. Apache Tribal 151-7E Drip #1
<b>Work Order:</b>	9806037	<b>Client Sample ID:</b>	9806091029; 3pt. Comp. Bottom
<b>Lab ID:</b>	9806037-06A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla Pit Remediation	<b>Collection Date:</b>	6/9/98 10:29:00 AM
		<b>COC Record:</b>	7161

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: <b>HR</b>
T/R Hydrocarbons: C10-C28	48	25		mg/Kg	1	6/16/98
<b>BTEX</b>		<b>SW8020A</b>				Analyst: <b>DC</b>
Benzene	26000	1000		µg/Kg	1000	6/13/98
Toluene	180000	2000		µg/Kg	1000	6/13/98
Ethylbenzene	9100	1000		µg/Kg	1000	6/13/98
m,p-Xylene	100000	2000		µg/Kg	1000	6/13/98
o-Xylene	18000	1000		µg/Kg	1000	6/13/98

333,100  
333.1 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

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

## ANALYTICAL REPORT

Date: 17-Jun-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jic. Apache Tribal 151-7E Drip #1
<b>Work Order:</b>	9806037	<b>Client Sample ID:</b>	9806091028; 4pt. Comp. Walls
<b>Lab ID:</b>	9806037-05A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Jicarilla Pit Remediation	<b>Collection Date:</b>	6/9/98 10:28:00 AM
		<b>COC Record:</b>	7161

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	6/11/98

**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

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499



Well Name:	Jicarilla Apache Tribal 151-7E Drip #1
Well Legals:	Unit D, Sec 4, T26N, R5W
Pit Type:	Drip
Horizontal Distance to Surface Water:	Greater than 1,000 ft
Groundwater Depth:	Greater than 100 ft

## **RISK ANALYSIS**

PNM requests closure of their former pit on the Jicarilla Apache Tribal 151-7E drip site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 114 feet based upon the elevation of the site and the elevation of the nearest "named" wash (Cereza Canyon).  
(Reference: Vigas Canyon series 7.5 minute topographic map.)
2. The site is located outside of the "vulnerable area" as defined under OGD Order No. R-7940-C.
3. The site is not located within 200 feet of a domestic water well and is not within 1,000 feet of any other water source.
4. PNM excavated 120 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached map and analytical results for the side wall profiles). Source removal minimizes the possibility of surface water contamination.
5. Bedrock was encountered at 7 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
6. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the Jicarilla Apache Tribal 151-7E drip site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.



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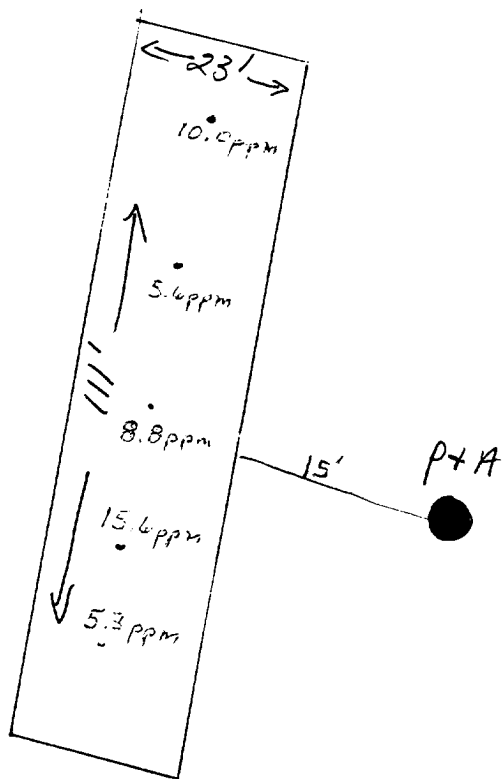
SUBMIT 1 COPY TO  
NATURAL  
RESOURCE DEPT  
AND OIL-GAS  
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: PNM Gas Services ( WIFS ) Telephone: 324-3764	
Address: 603 W. Elm Street Farmington, NM 87401	
Facility or Well Name: Jicarilla Apache Tribal 131-76 DRIP # 1	
Location: Unit or Qtr/Qtr Sec: D Sec. 4 T. 26 N R. 5 W County	
Land Type:	
Date Remediation Started: 6/9/98 Date Completed: 7/14/98	
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards 120	
Composted <input type="checkbox"/>	
Other <input type="checkbox"/>	
Depth to Ground Water: (pts.) <input checked="" type="checkbox"/>	Final Closure Sampling: Sampling Date: 7/14/98 Time 1005 Sampling Results: Field Headspace (ppm) 15.6 TPH (ppm) N.D. Method 8015 Other
Distance to an Ephemeral Stream: (pts.) <input checked="" type="checkbox"/>	
Distance to Nearest Lake, Playa, or Watering Pond: (pts.) <input checked="" type="checkbox"/>	
Wellhead Protection Area: (pts.) <input checked="" type="checkbox"/>	
Distance to Surface Water: (pts.) <input checked="" type="checkbox"/>	
Ranking Score (Total Points): <input checked="" type="checkbox"/>	
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 <input checked="" type="checkbox"/> NO <input type="checkbox"/> (REASON) use as Backfill	
SIGNED: Keith C McNeill	DATE: 7-28-98

17

JICARILLA APACHE TRIBAL L51-7E DRIP #1  
WILLIAMS FIELD SERVICES  
UNIT D SEC 4 T26N R5W  
LAND FARM DRAWING



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:** 9807019

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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: 14-Jul-98

<b>Client:</b>	PNM - Public Service Company of NM	<b>Client Sample Info:</b>	Jic. Apache Tribal 151-7E Drip #1
<b>Work Order:</b>	9807019	<b>Client Sample ID:</b>	9807071005; 5pt. Comp
<b>Lab ID:</b>	9807019-02A	<b>Matrix:</b>	SOIL
<b>Project:</b>	Landfarms	<b>Collection Date:</b>	7/7/98 10:05:00 AM
		<b>COC Record:</b>	7262

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

<b>Qualifiers:</b>	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
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