

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

JICARILLA APACHE TRIBE

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

FEB 08 1999

**P.O. BOX 507
DULCE, NEW MEXICO 87528**

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 K-12 DRIP

Location: Unit: 0 Sec. 2 T. 25 N R. 5 W County Rio Arriba

Pit Type: Separator Dehydrator Other Line Drip

Land Type: Jicarilla Apache

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

(Attach diagram) Reference: wellhead other Drip Riser

Footage from reference: 20'

Direction from reference: Straight Degrees East North

X 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)

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: 9/29/98 Date Completed: 12/20/98

Remediation Method: Excavation X Approx. Cubic Yards 838

(Check all appropriate sections)

Landfarmed _____ Amount Landfarmed (cubic yds): 838

Other _____

Remediation Location: Onsite _____ Offsite Jicarilla K-2 Location
(i.e., landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action:

Removed contamination from all four side walls
As to get A below 100 ppm head space reading
Hit sand stone on the bottom at 26'
Excavation size: 29' x 30' x 26'

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit Closure Sampling:

Sample Location North East, South, & West side walls 24'
Bottom 26'

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

Sample depth 26'

Sample date 10/1/98 Sample time 0804

Sample Results

Soil: Benzene (ppm) 4.300 Water: Benzene (ppb) _____

Total BTEX (ppm) 180.300 Toluene (ppb) _____

Field headspace (ppm) 925 Ethylbenzene (ppb) _____

TPH 460 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 10/25/98 PRINTED NAME Ronald A. Dedrick Roy Burnham
SIGNATURE Roy Burnham AND TITLE Environmental Technician II

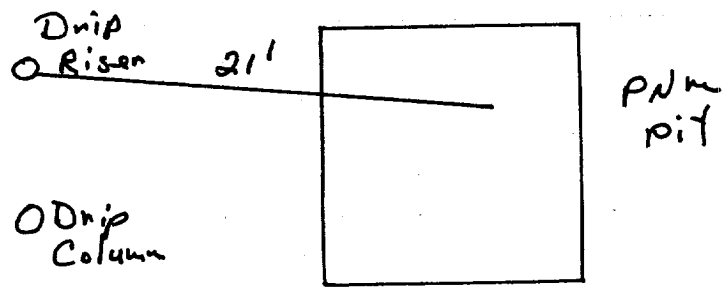
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON): R.A. Attached

SIGNED: Kent M... DATE: 11-30-98

Carilla K-12 Drip
ec. 2 T25N R5W Unit 0
FS

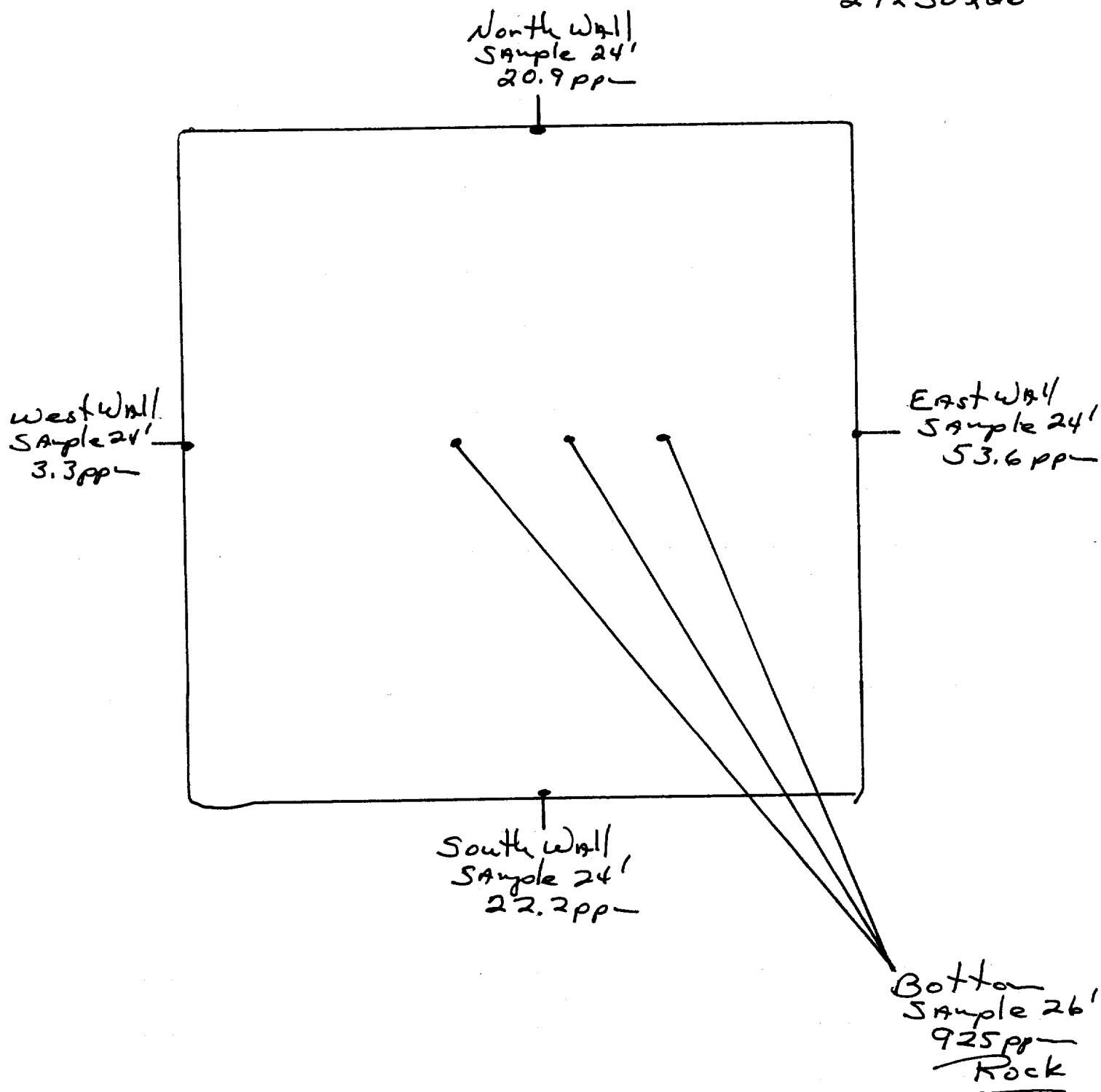
Site Drawing



Tecanilla K-12 Drip
ec. 2 T2SN R5W Unit 0
JFS

Excavation Drawing

29'x30'x26'



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Oct-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla K-12 Drip
Work Order:	9810003	Client Sample ID:	9810010804; 3pt. Comp. Bottom
Lab ID:	9810003-02A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	10/1/98 8:04:00 AM
		COC Record:	7507

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	460	25		mg/Kg	1	10/13/98
BTEX		SW8020A				Analyst: DC
Benzene	4300	2500		µg/Kg	2500	10/9/98
Toluene	63000	5000		µg/Kg	2500	10/9/98
Ethylbenzene	12000	2500		µg/Kg	2500	10/9/98
m,p-Xylene	81000	5000		µg/Kg	2500	10/9/98
o-Xylene	20000	2500		µg/Kg	2500	10/9/98

180300
180.300 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: 15-Oct-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla K-12 Drip
Work Order:	9810003	Client Sample ID:	9810010803; 4pt. Comp. Walls
Lab ID:	9810003-01A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	10/1/98 8:03:00 AM
		COC Record:	7507

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	10/6/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

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1 of 1

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Environmental Services

Well Name:	Jicarilla K #12 Drip
Well Legals:	Unit O, Sec 2, T25N, R5W
Pit Type:	Drip Riser
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 Jicarilla K #12 Drip well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 173 feet based upon the elevation of the site and the elevation of the nearest "listed" or "named" wash. (Reference: Lapis Point, NM series 7.5 minute topographic map.)
2. The site is located outside of the "vulnerable area" as defined under OCC Order No. R-7940-C.
3. PNM excavated 838 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.
4. Bedrock was encountered at 26 feet below ground surface. Bedrock/sandstone provides a barrier between remaining contamination and groundwater. Vertical migration through bedrock or sandstone to groundwater is unlikely.
5. PNM excavated and performed remediation to the maximum depth and horizontal extent practicable.

PNM believes their former pit on the Jicarilla K #12 Drip well site poses minimal threat to groundwater, human health and the environment based upon our past experience in excavating over 800 pits.

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

SUBMIT 1 COPY TO
NATURAL
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AND OIL-GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: PNM Gas Services (WFS) Telephone: 324-3764
Address: 603 W. Elm Street Farmington, NM 87401
Facility or Well Name: Jicarilla K-12 Drip
Location: Unit: 0 Sec. 2 T. 25 N. 5 W. County Rio Arriba
Land Type: Jicarilla Apache

Date Remediation Started: 9/29/98 Date Completed: 12/18/98
Remediation Method: Landfilled X Approx. cubic yards 838
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: 12/14/98 Time 0745
Sampling Results:
Field Headspace (ppm) 86.3
TPH (ppm) 550 Method 8015
Other —

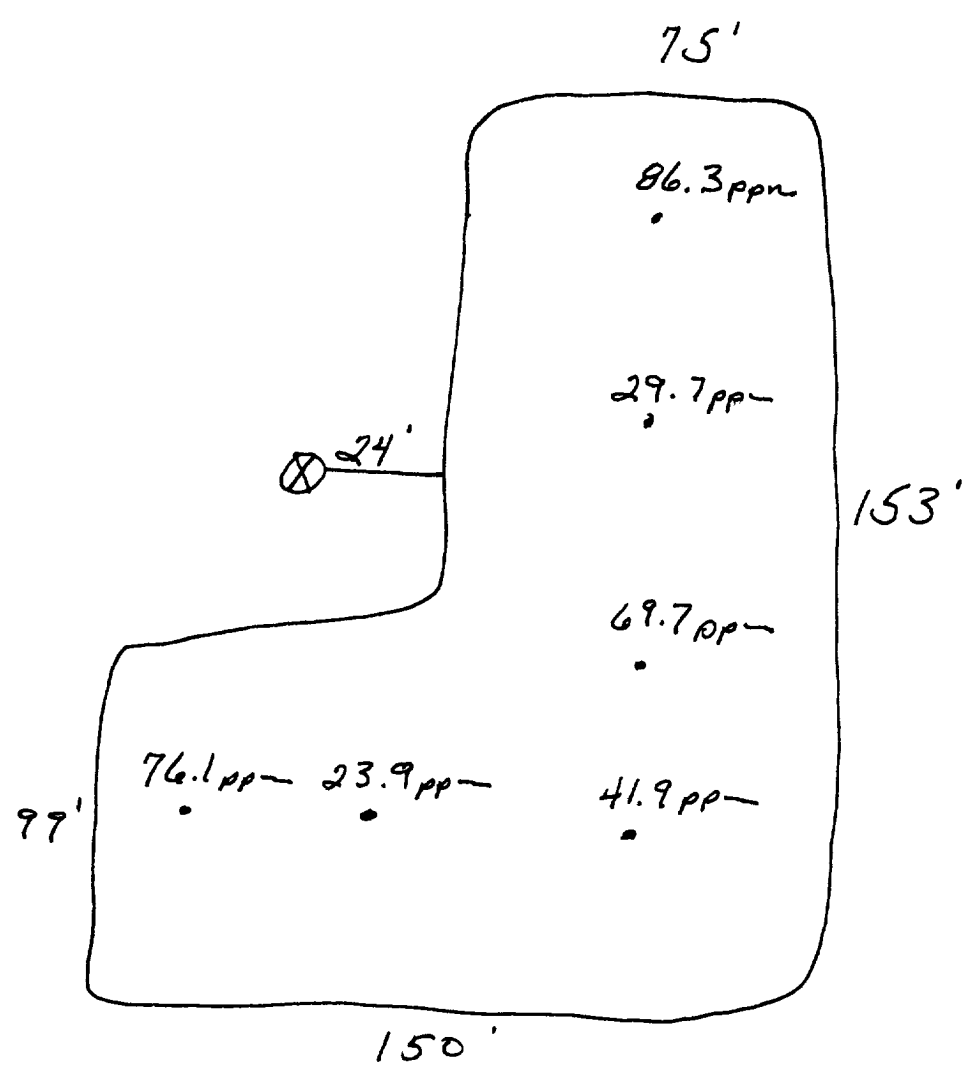
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 12/28/98 PRINTED NAME Ronald A. Dedrick
SIGNATURE Ronald A. Dedrick 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) —

SIGNED: Kenn C. Merrill DATE: 12-28-98



OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 21-Dec-98

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

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.

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ANALYTICAL REPORT

Date: 21-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla K-12 Drip LF
Work Order:	9812030	Client Sample ID:	9812140745 6pt Composite
Lab ID:	9812030-02A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	12/14/98 7:45:00 AM
		COC Record:	7452

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	550	25		mg/Kg	1	12/18/98

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
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