

Denny E. Faust
DEPUTY OIL & GAS INSPECTOR

JICARILLA APACHE TRIBE

ENVIRONMENTAL PROTECTION OFFICE

FEB 08 1999

P.O. BOX 507
DULCE, NEW MEXICO 87528

RISK
BTEX

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

Approved

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: *Jicarilla J12*

Location: Unit: *D* Sec. *35* T. *26 N* R. *5 W* County *Rio Arriba*

Pit Type: Separator ☒ Dehydrator ☒ Other _____

Land Type: *Jicarilla Apache*

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

(Attach diagram) Reference: wellhead ☒ other _____

Footage from reference: *114'*

Direction from reference: *50* Degrees ☒ East North ☒
_____ 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)	<i>0</i>

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)	<i>0</i>

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)	<i>0</i>

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)	<i>0</i>

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)	<i>0</i>

RANKING SCORE (TOTAL POINTS): *0*

Date Remediation Started: 9-3-98 Date Completed: 12/21/98 RAD

Remediation Method: Excavation X Approx. Cubic Yards ~~1157~~ 1157 RAD

(Check all appropriate sections) Landfarmed X Amount Landfarmed (cubic yds): ~~575~~ 1157 RAD

Other ~~575~~ "staged on site" (T12) M4

Remediation Location: Onsite 575 cu yds Offsite 582 cu yds
(i.e., landfarmed onsite, name and location of offsite facility) Contaminated material was landfarmed at TNT Hwy 537.

General Description of Remedial Action:

Removed contaminated soil from all four side walls, so as to obtain a
below 100 ppm head space reading. Bottom is rock
Final excavation dimensions were: 35.5'(W) x 44'(E-W) x 20'(D)

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit Closure Sampling: Sample Location All four side walls and 3 point bottom composite

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

Sample depth 78' 20'

Sample date 9-9-98

Sample time 1420

Sample Results

Soil: Benzene (ppm) 15.0

Water: Benzene (ppb) _____

Total BTEX (ppm) 548

Toluene (ppb) _____

Field headspace (ppm) 1698

Ethylbenzene (ppb) _____

TPH ~~1200~~ 1200 (K3) 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 10-8-98

PRINTED NAME Ray Haston

SIGNATURE Ray Haston

AND TITLE Environmental Technician

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): RA. Attached

SIGNED: Kent M... DATE: 12-15-98

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla J-12

Lab Order: 9809021

CASE NARRATIVE

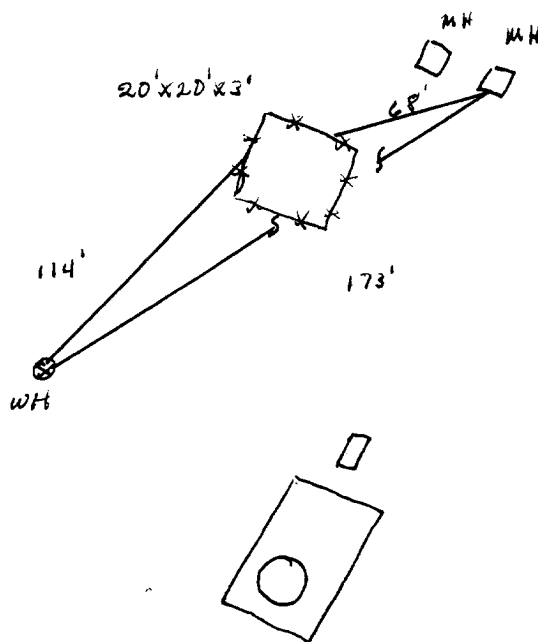
Samples were analyzed using the methods outlined in the following references:

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.

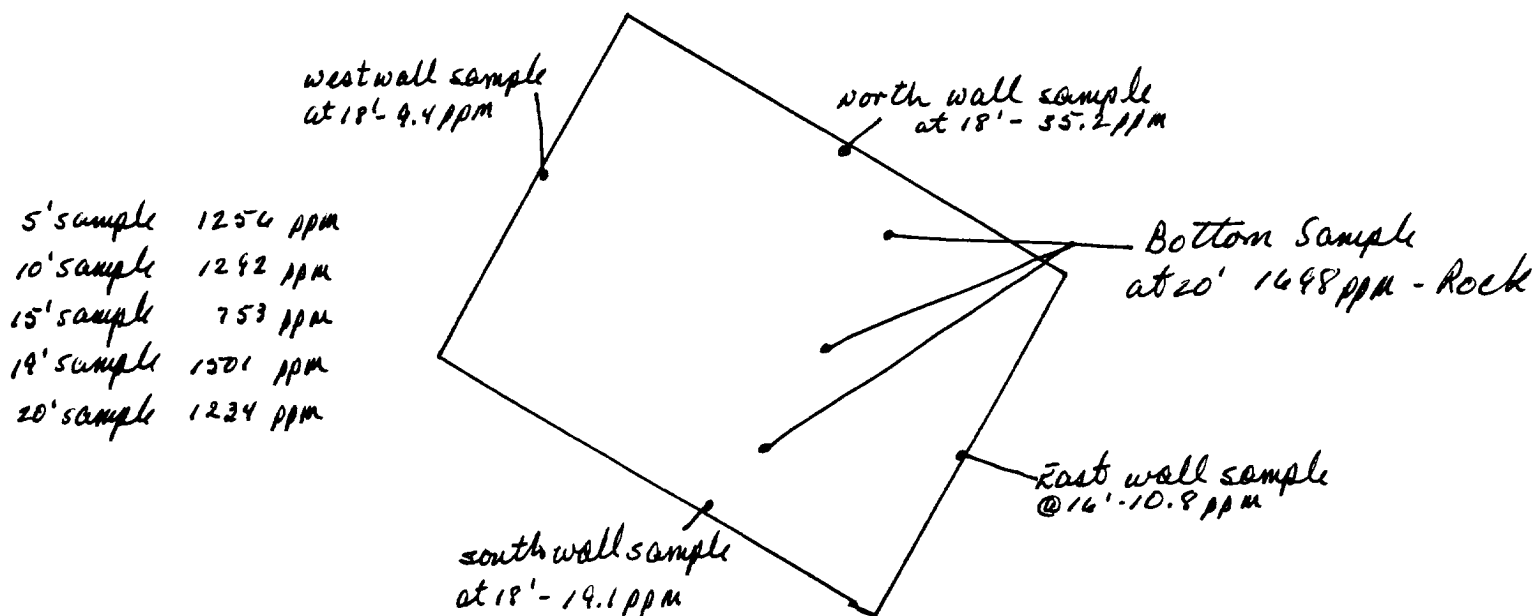
J. carika J-12
 (D) 35.26N-5W
 Burlington
 9-3-98

↑
N



Excavation Sampling

35.5' (N+S) x 44' (E+W) x 20' (D)



not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla J-12
Work Order:	9809021	Client Sample ID:	9809091415; 3pt. Bottom
Lab ID:	9809021-01A	Matrix:	SOIL
Project:	Jicarilla J-12	Collection Date:	9/9/98 2:15:00 PM
		COC Record:	5752

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: DC
T/R Hydrocarbons: C10-C28	1200	25		mg/Kg	1	9/22/98
BTEX		SW8020A				Analyst: HR
Benzene	15000	2500		µg/Kg	2500	9/17/98
Toluene	200000	5000		µg/Kg	2500	9/17/98
Ethylbenzene	30000	2500		µg/Kg	2500	9/17/98
m,p-Xylene	250000	5000		µg/Kg	2500	9/17/98
o-Xylene	53000	2500		µg/Kg	2500	9/17/98

548000
548.000 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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla J-12
Work Order:	9809021	Client Sample ID:	9809091420; 4 Wall Comp.
Lab ID:	9809021-02A	Matrix:	SOIL
Project:	Jicarilla J-12	Collection Date:	9/9/98 2:20:00 PM
		COC Record:	5752

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	9/11/98

Qualifiers:

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1 of 1

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Environmental Services

Well Name:	Jicarilla J #12
Well Legals:	Unit D, Sec 35, T26N, R5W
Pit Type:	Separator
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 J #12 well site using a limited risk analysis based on the following conditions:

1. Groundwater is estimated to be at a depth of 160 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 1157 cubic yards of soil from the former pit. Subsurface lateral contamination has been remediated (see attached analytical results). Source removal minimizes the possibility of surface water contamination.
4. Rock was encountered at 20 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 J #12 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

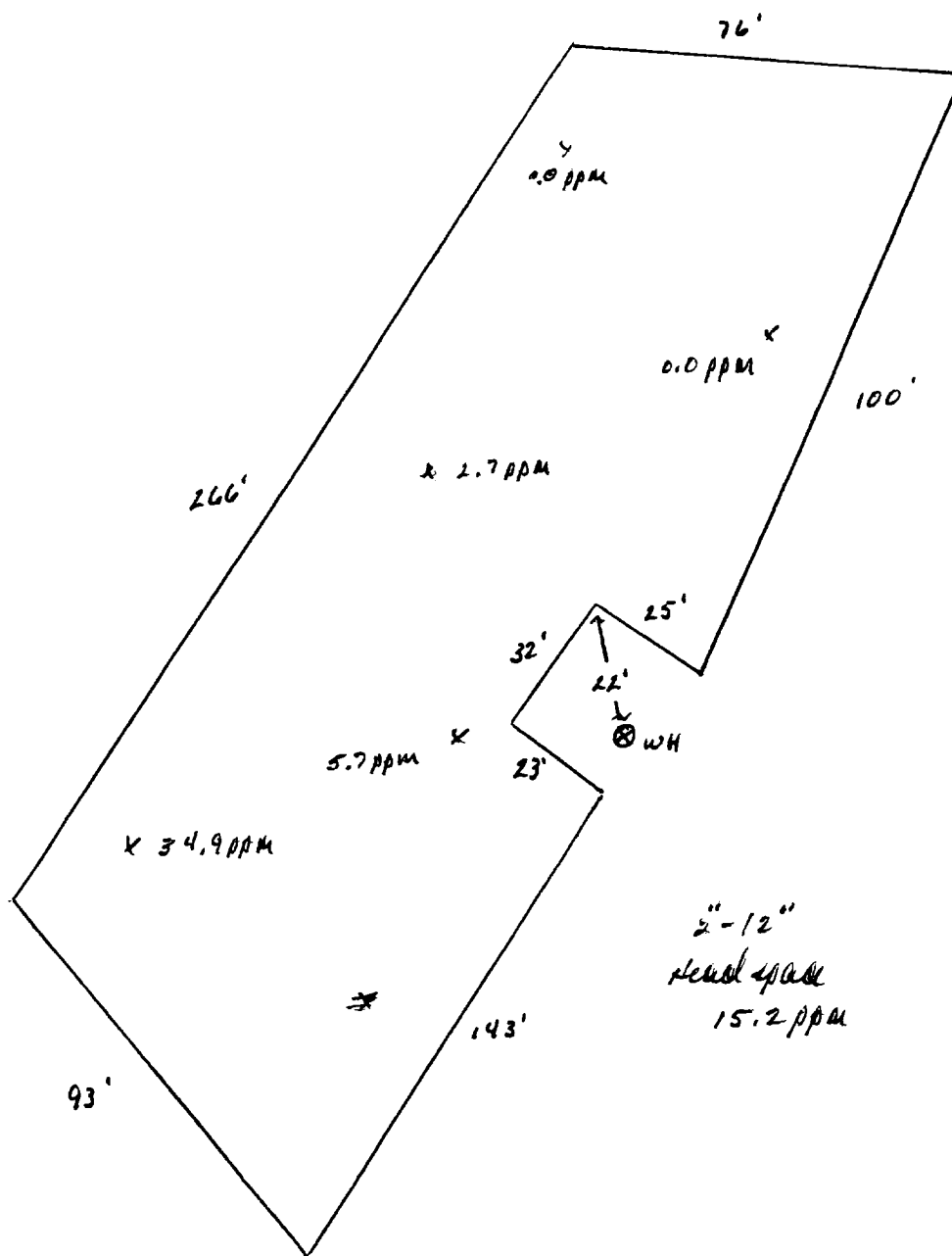
SUBMIT 1 COPY TO
NATURAL
RESOURCE DEPT
AND OIL-GAS
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: PNM Gas Services (<u>Burlington</u>) Telephone: <u>324-3764</u>	
Address: <u>603 W. Elm Street Farmington, NM 87401</u>	
Facility or Well Name: <u>Jicarilla J12</u>	
Location:	Unit: <u>D</u> Sec. <u>35</u> T. <u>26</u> N R. <u>5</u> W County <u>Rio Arriba</u>
Land Type: <u>Jicarilla Apache</u>	
Date Remediation Started: <u>9-3-98</u> Date Completed: <u>12-7-98</u>	
Remediation Method: Landfarmed <u>X</u> Approx. cubic yards <u>578</u> Composted _____ 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> Ranking Score (Total Points): <u>0</u>	Final Closure Sampling: Sampling Date: <u>11-23-98</u> Time <u>1327</u> Sampling Results: Field Headspace (ppm) <u>15.2</u> TPH (ppm) <u>64</u> Method <u>8015</u> Other _____
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>12-16-98</u> PRINTED NAME <u>Ray Haston</u>	
SIGNATURE <u>Ray Haston</u> AND TITLE <u>Environmental Technician</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 _____ (REASON) <u>use as Backup</u>	
SIGNED: <u>K. C. M...</u> DATE: <u>12-21-98</u>	

Jicarilla T12
(D) 35-26N-5W
Burlington
578 yds. farmed
574 yds. Staged

↑
N



not to scale

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 08-Dec-98

CLIENT: PNM - Public Service Company of NM

Project: Jicarilla Pit Remediation

Lab Order: 9811076

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: 08-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Jicarilla J-12 LF
Work Order:	9811076	Client Sample ID:	9811231327; 6pt Composite
Lab ID:	9811076-03A	Matrix:	SOIL
Project:	Jicarilla Pit Remediation	Collection Date:	11/23/98 1:27:00 PM
		COC Record:	7406

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	64	25		mg/Kg	1	12/7/98

Qualifiers:

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