

SUBMIT 1 COPY TO  
NATURAL  
RESOURCE DEPT  
AND OIL GAS  
ADMINISTRATION

# PIT REMEDIATION AND CLOSURE REPORT

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

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

Facility or Well Name: Arizona Tigarilla A-5

**Location:** Unit: D Sec. 13 T. 25 N R. 4 W County Rio Arriba

Pit Type:	Separator	X	Dehydrator	Other
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**Land Type:** Jicarilla Apache

**Pit Location:** Pit dimensions: length 36' width 33' depth 14'

(Attach diagram)      Reference:      wellhead    ☒      other

Footage from reference: 66'

Direction from reference: Straight 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: **OIL CON. DIV.**  
(Horizontal distance to perennial)

(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) :** 10

Date Remediation Started: 10/7/97 Date Completed: 11/16/97

Remediation Method: Excavation X Approx. Cubic Yards 616

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds): 616

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 bottom of pit as to get a below 100 ppb 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 14'

Sample date 10/7/97 Sample time 1205

Sample Results

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

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

Field headspace (ppm) 56.7 Ethylbenzene (ppb) \_\_\_\_\_

TPH ND 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 10/10/97 PRINTED NAME Ronald A. Dedrick

SIGNATURE Ronald A Dedrick AND TITLE Environmental Technician II

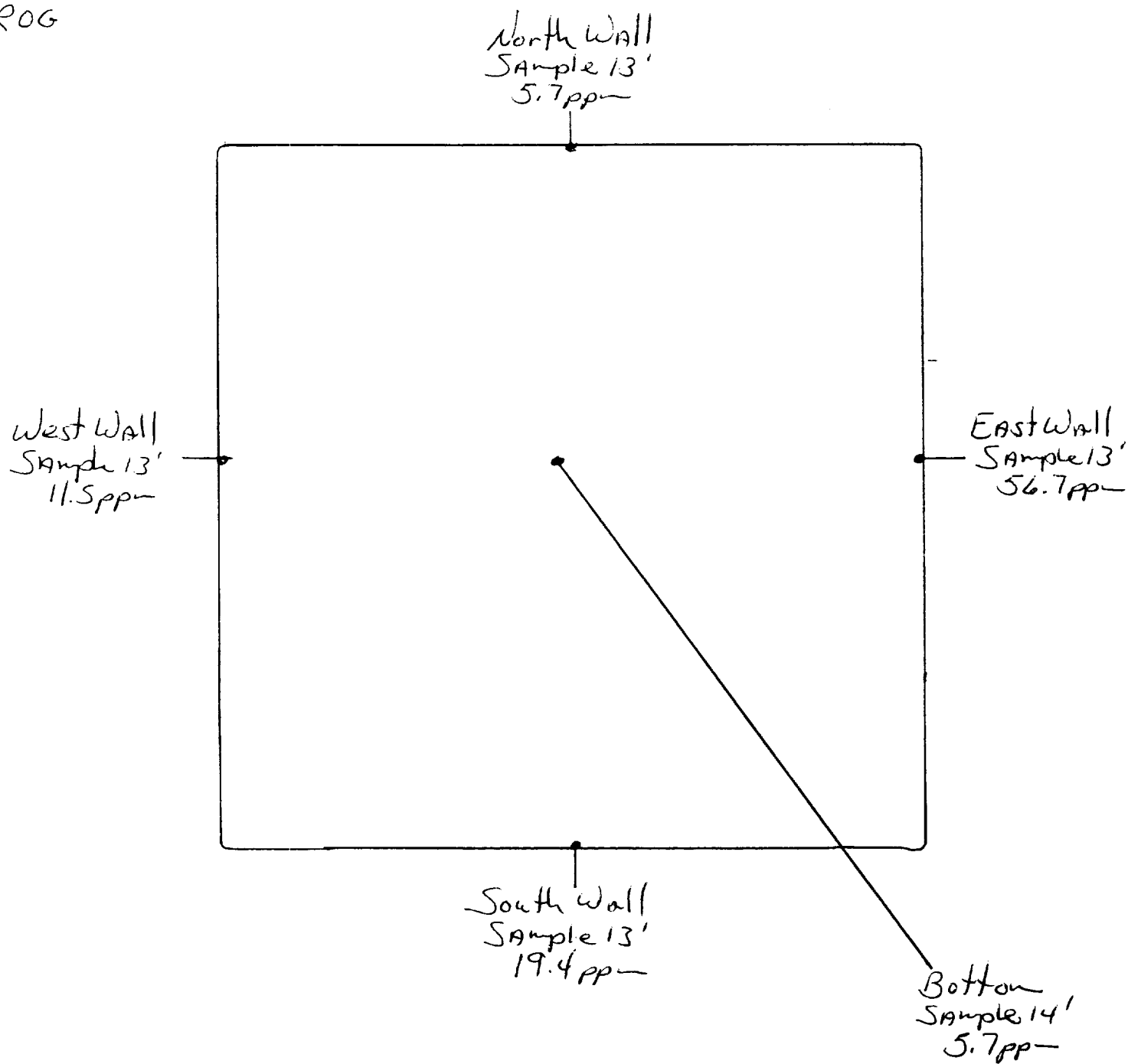
AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

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

SIGNED: Kevin M. Marshall DATE: 10-14-97

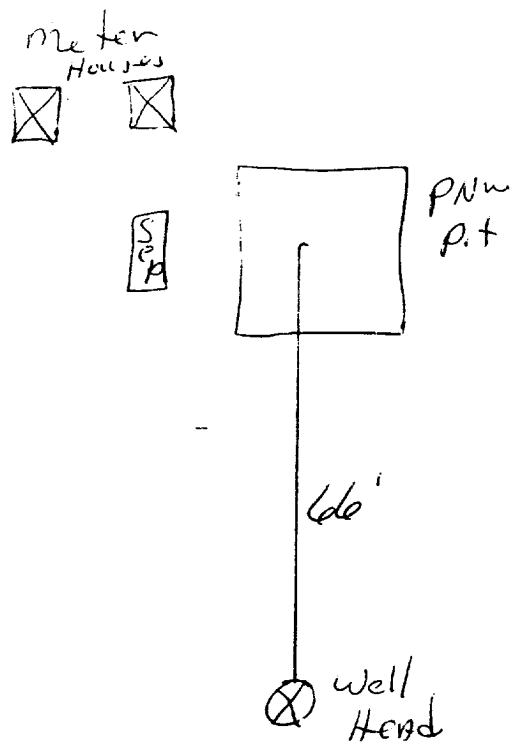
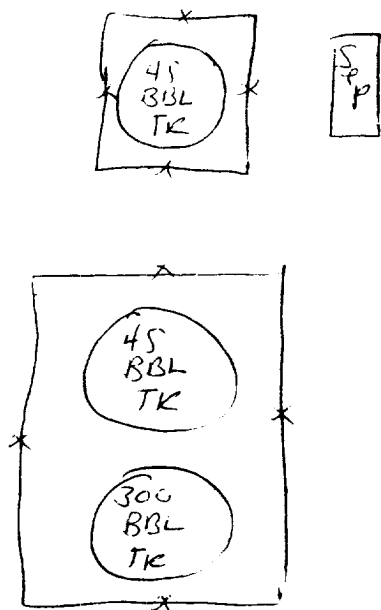
Arizona Jicarilla H-S  
Sec. 13 T25N R4W Unit D  
BROG

36'x33'x14'



5' Sample - 585 ppm  
10' Sample - 155 ppm

Arizona Jicarilla H-S  
Sec. 13 T25N R4W Unit D  
BROG



OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *10-Oct-97*  
COC No.: *5616*  
Sample No.: *16531*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Arizona Jicarilla A-5*

Project Location: *9710071205; 5pt. Composite*

Sampled by: *SA* Date: *7-Oct-97* Time: *12:05*

Analyzed by: *DC/HR* Date: *9-Oct-97*

Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0555-STD

#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	ND	ppm	200	202	1.0	15%

#### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	103	104	(70-130)	1	20%

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*

Date: *10/10/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

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

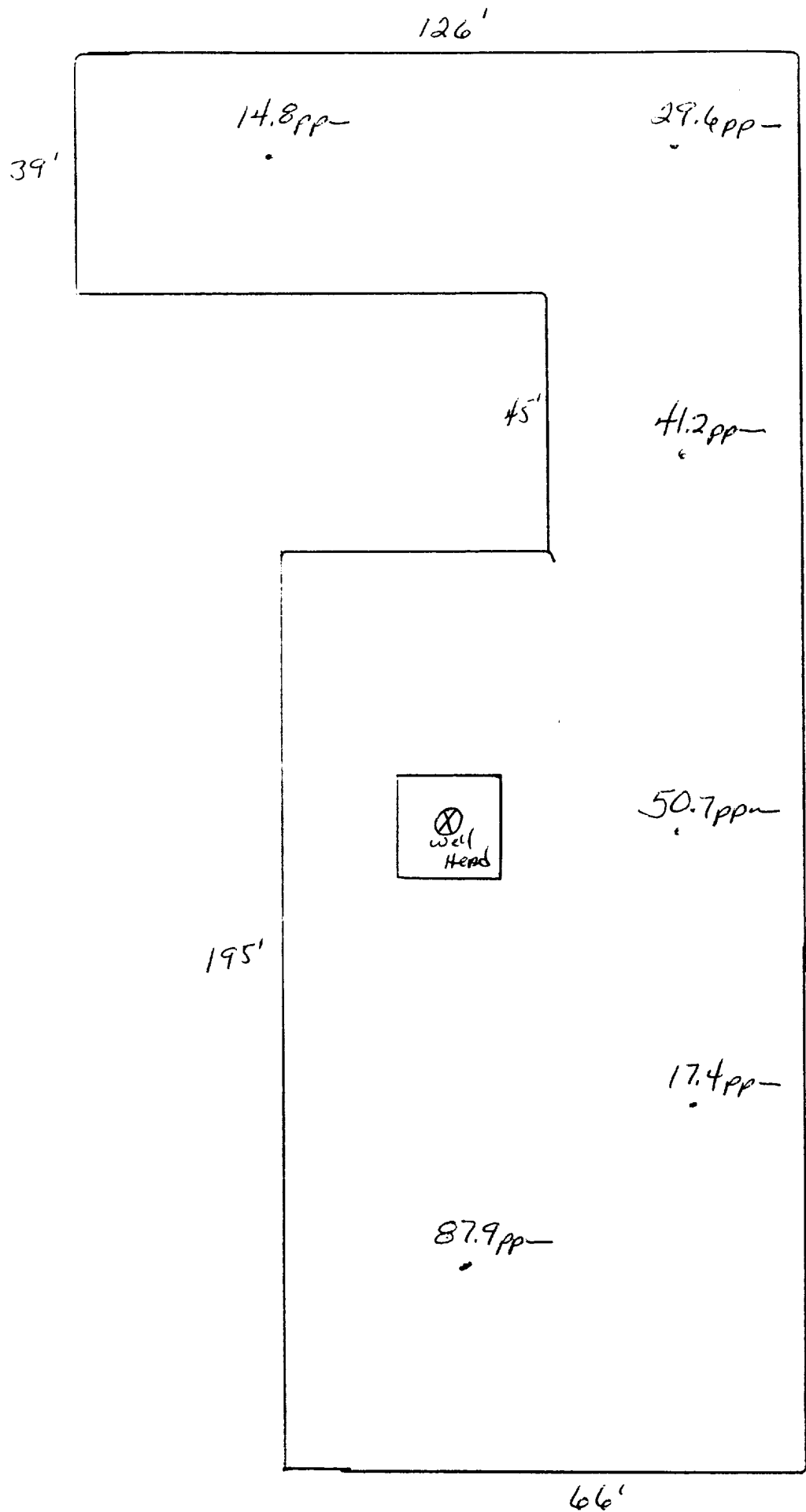
SUBMIT 1 COPY TO  
NATURAL  
RESOURCE DEPT  
AND OIL GAS  
ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

<b>Operator:</b> PNM Gas Services ( <u>BROG</u> ) <b>Telephone:</b> <u>324-3764</u>	
<b>Address:</b> <u>603 W. Elm Street Farmington, NM 87401</u>	
<b>Facility or Well Name:</b> <u>Arizona Jicarilla A-5</u>	
<b>Location:</b> Unit: <u>D</u> Sec. <u>13</u> T. <u>25</u> N R. <u>4</u> W County <u>Rio Arriba</u>	
<b>Land Type:</b> <u>Jicarilla Apache</u>	
<b>Date Remediation Started:</b> <u>10/6/97</u> <b>Date Completed:</b> <u>11/6/97</u>	
<b>Remediation Method:</b> Landfarmed <u>X</u> <b>Approx. cubic yards</b> <u>616</u>	
Composted <u>    </u>	
Other <u>    </u>	
<b>Depth to Ground Water:</b> (pts.) <u>6</u> <b>Distance to an Ephemeral Stream:</b> (pts.) <u>10</u> <b>Distance to Nearest Lake, Playa, or Watering Pond:</b> (pts.) <u>6</u> <b>Wellhead Protection Area:</b> (pts.) <u>6</u> <b>Distance to Surface Water:</b> (pts.) <u>6</u> <b>Ranking Score (Total Points):</b> <u>10</u>	<b>Final Closure Sampling:</b> <b>Sampling Date:</b> <u>11/4/97</u> <b>Time</b> <u>1231</u> <b>Sampling Results:</b> <b>Field Headspace (ppm)</b> <u>87.9</u> <b>TPH (ppm)</b> <u>72</u> <b>Method</b> <u>8015</u> <b>Other</b> <u>    </u>
<b>I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF</b>	
<b>DATE</b> <u>11/10/97</u> <b>PRINTED NAME</b> <u>Ronald A. Dedrick</u>	
<b>SIGNATURE</b> <u>Ronald A. Dedrick</u> <b>AND TITLE</b> <u>Environmental Technician II</u>	
<b>AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE</b>	
<b>APPROVED:</b> YES <u>X</u> NO <u>    </u> <b>(REASON)</b> <u>    </u>	
<b>SIGNED:</b> <u>Steve C. Marshall</u> <b>DATE:</b> <u>11-18-97</u>	

Arizona Jicarilla H-S  
Sec. 13 T25N R4W Unit D  
BROG

Land farm



OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Attn: *Denver Bearden*  
Company: *PNM Gas Services*  
Address: *603 W. Elm*  
City, State: *Farmington, NM 87401*

Date: *7-Nov-97*  
COC No.: *5630*  
Sample No.: *16765*  
Job No.: *2-1000*

Project Name: *PNM Gas Services - Arizona Jicarilla A-5 Landfarm*

Project Location: *9711041231; 6pt. Composite*

Sampled by: *RB* Date: *4-Nov-97* Time: *12:31*

Analyzed by: *DC/HR* Date: *6-Nov-97*

Sample Matrix: *Soil*

#### Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Diesel Range Organics (C10 - C28)</i>	<i>72</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

#### Quality Assurance Report

DRO QC No.: 0555-STD

#### Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>181</i>	<i>9.7</i>	<i>15%</i>

#### Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Diesel Range (C10-C28)</i>	<i>72</i>	<i>72</i>	<i>(70-130)</i>	<i>1</i>	<i>20%</i>

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *JAC*  
Date: *11/7/97*

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